REVIEW OF 2021 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

CYER calendar year exploitation rate

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 Fishery Regulation Assessment Model

IGN Indian gill net

ISBM individual stock-based management

KMZ Klamath management zone (ocean zone between Humbug Mountain and latitude

40°10'N, near Cape Mendocino, California, 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

LIST OF ACRONYMS AND ABBREVIATIONS (continued)

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 SCH)

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 (Chinook)

SRWC Sacramento River winter Chinook STEP Salmon Trout Enhancement Program

STT Salmon Technical Team (formerly the Salmon Plan Development Team)

SUS Southern United States
TAC total allowable catch

URB Upriver Bright (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

COMMON TABLE CONVENTIONS

All 2021 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.

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 2021 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. 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.

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 2022 ocean salmon management measures. Preseason Report I will constitute the first part of the EA for 2022 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 2022 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 provides 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 provides detailed 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.

Status determination criteria (SDC) for overfishing, approaching an overfished condition, overfished, not overfished/rebuilding, and rebuilt were included in the Salmon Fishery Management Plan (FMP) under Amendment 16 (December 2011).

All SDC rely on the most recent estimates available, which in some cases may be a year or more in the past due to incomplete broods or data availability. The 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. Pertinent stocks are evaluated relative to these SDC as required by the FMP. Stock specific reference points, and recent year estimates for relevant stocks, are presented in Table II-6 and Table III-7.

Status determinations 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 III. 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.

CHAPTER I – COASTWIDE 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 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 summarizes management information and harvests under the authority of the Pacific Salmon Commission (PSC).

1.1 Coastwide Effects of the COVID-19 Pandemic

Aspects of ocean salmon fisheries, and the monitoring of these fisheries, were affected by the COVID-19 pandemic. An overview of these effects, by state, are summarized below.

In Washington, due to concerns over the spread of COVID-19 the Makah Indian reservation, which includes the Washington ocean access port of Neah Bay, was closed to public access for the entirety of the 2021 ocean salmon fisheries, and the Quileute Indian reservation, which includes the Washington ocean access port of La Push, was closed to public access until July 12. Limited local commercial troll landings continued, but no recreational fishing occurred from either port during the closures. The central and southern Washington coast ports of Westport and Ilwaco remained open to public access throughout the salmon fisheries. Consistent with 2020, to provide landing access to the commercial fleet on the northern Washington coast, the area between the Sekiu River and Port Angeles remained open to troll landing and delivery; this area includes the ports of Sekiu and Port Angeles. The majority of recreational salmon fishing access to the Neah Bay subarea originated from the port of Sekiu. There were no recreational salmon trips recorded in the La Push subarea until the port of La Push reopened on July 12.

In 2021, the COVID-19 pandemic had little overall impact on fishery sampling. Safety protocols such as mandatory masks, hand and equipment sanitizing, and physical distancing were implemented to protect field staff and the public. Sampling commercial and recreational fisheries for effort and catch data and coded wire tags proceeded as usual in all major Washington ports open to landings with only a slight reduction in sampling rates compared with 2019 and consistent with 2020 sampling rates. Onboard observation trips (used to supplement on-water voluntary trip reports and dockside release reports in calculating total encounters in mark-selective fisheries) were halted for the second straight year in 2021. Biological data collection such as Chinook scales and lengths was reduced, and collection of DNA samples was halted. In-season catch estimates and fishery management were unaffected, as was post-season data expansion.

For Oregon, the COVID-19 pandemic did not result in any significant limitations on the ability to effectively sample and manage salmon fisheries.

There were no significant impacts on sampling California's fisheries in 2021 resulting from the COVID-19 pandemic. COVID-19 related field sampling protocols were developed and authorized by the California Department of Fish and Wildlife (CDFW), and adequate personal protective equipment was obtained prior to the start of the 2021 season.

1.2 Council-Area Regulations and Landings

Summaries of the 2021 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 2021 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.

1.3 Regulatory Objectives by Management Area

The following sections provide a brief outline of the regulatory objectives that shaped the 2021 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.

1.3.1 Latitude 40°10' N. 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 2021 Chinook salmon fisheries south of latitude 40°10'N. (near Cape Mendocino, 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 31,574 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 20.0 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, except for 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 55.0 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 15.0 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.

Objective 1 was the constraining factor for 2021 Chinook fisheries management in this area. The adopted regulations (Table I-1 and I-3) resulted in the following projections: a KRFC spawning escapement of 31,574 natural area adults, a SRWC age-3 impact rate of 14.7 percent for the area south of Point Arena, a SRFC spawner escapement of 133,913 hatchery and natural area adults, and a coastwide ocean fishery harvest rate of 10.5 percent on age-4 KRFC.

Coho Fisheries

Coho fishery management for 2021 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 OCN and RK coho were 0.4 and 0.8 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 2021 fisheries are presented more fully in the Cape Falcon to Humbug Mountain section.

1.3.2 Humbug Mountain to Latitude 40°10' N.

Chinook Fisheries

The area between Humbug Mountain (near Port Orford, Oregon) and latitude 40°10' N. is referred to as the Klamath Management Zone (KMZ). In 2021 the southern border of the KMZ was shifted from Horse Mountain five nautical miles north to latitude 40°10' N. 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, Lower Columbia Natural (LCN) coho, OCN coho, and SONCC coho. The Council structured 2021 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 31,574 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 55.0 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 a 30.0 percent exploitation rate (marine and mainstem Columbia River combined).
- 5. The OCN coho allowable exploitation rate (marine and freshwater combined) of no greater than 15.0 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 2021 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 31,574 natural area adults, a SRFC spawner escapement of 133,913 hatchery and natural area adults, and a coastwide ocean fishery harvest rate of 10.5 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 were 0.0, 0.3, and 0.8 percent, respectively, in this area. Coho are managed as a unit south of Cape Falcon, and details of the Council's management objectives shaping the 2021 fisheries are presented more fully in the Cape Falcon to Humbug Mountain section.

1.3.3 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, and Snake River wild (SRW) Chinook. The Council structured 2021 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 31,574 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. NMFS consultation standards and annual guidance for ESA-listed LCR natural tule Chinook, which required a total exploitation rate not to exceed 38.0 percent in marine and freshwater fisheries combined.
- 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 55.0 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.

Objectives 1 and 2 were the constraining factors for 2021 Chinook fisheries management in this area. The adopted regulations (Table I-1 and I-3) resulted in the following projections: a KRFC spawning escapement of 31,574 natural area adults, a LCR natural tule Chinook total exploitation rate of 38.0 percent, a SRFC spawner escapement of 133,913 hatchery and natural area adults, and a coastwide ocean fishery harvest rate of 10.5 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 2021 coho salmon fisheries in this area to meet the following objectives:

- 1. The LCN coho ESA consultation standard requirement of no greater than a 30.0 percent exploitation rate (marine and mainstem Columbia River combined).
- 2. The OCN coho allowable exploitation rate (marine and freshwater combined) of no greater than 15.0 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 2 was the most constraining factor in 2021 coho fisheries management in this area. The Council adopted seasons in this area with projected impacts of 3.5, 7.0, and 0.5 percent on LCN

natural coho, OCN coho, and RK coho, respectively. In all relevant fisheries, projected exploitation rates were 10.1, 12.8, and 2.7 percent, respectively.

1.3.4 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 fall Chinook, 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 broodstock 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 38.0 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 relevant Chinook stocks, adhere to the Individual Stock Based Management (ISBM) limits set forth in Attachment I of Chapter 3 of the 2019 Pacific Salmon Treaty.

Objective 1 above was the primary constraint for 2021 ocean fisheries in this area. Under the adopted regulations (Tables I-1, I-2, and I-3), fisheries were projected to have a 38.0 percent total AEQ exploitation rate on LCR natural tules (11.4 percent in Council-area fisheries) and be 50.3 percent of the 1988 to 1993 base period AEQ exploitation rate for SRW (a 50 percent reduction). Additionally, the 2021 ocean fisheries were shaped to limit impacts on ESA-listed Puget Sound natural Chinook stocks.

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 30.0 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 allowable exploitation rate (marine and freshwater combined) of no greater than 15.0 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.
- 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 meeting objectives for Washington Coastal 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 2021 ocean fisheries in this area. The adopted regulations (Tables I-1, I-2, and I-3) were projected to have a total exploitation rate on LCN coho of 10.1 percent (6.1 percent in Council-area fisheries), an exploitation rate in SUS fisheries of 5.9 percent on Interior Fraser (Thompson River) coho (2.4 percent in Council-area fisheries), and a total exploitation rate of 12.8 percent on OCN coho (8.2 percent in Council-area fisheries). The adopted regulations were projected to meet all FMP objectives or objectives agreed to by Tribal and WDFW comanagers per the PST Southern Coho Management Plan for Grays Harbor, Queets, Hoh, and Quillayute natural coho when combined with scheduled in-river fisheries.

1.4 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 hook-and-release mortality rates 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 a hook-and-release mortality rate of 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.

1.4.1 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 2021. 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. Area 5 was open to mark-selective retention from July 1 through July 19th and Area 6 was open from July 1 through August 2, 2021 (Figure I-1). Both Area 5 and Area 6 mark-selective fisheries were managed to a threshold of total legal-sized encounters for the fishery. The quota for Area 5 was 7,565 and the quota for Area 6 was 6,843. After July 19, the fishery in Area 5 closed to Chinook retention; Area 6 closed to Chinook retention after August 2. Catch and release estimates, derived from creel census programs conducted during the mark-selective fishery for Chinook in Area 5 from July 1 through July 19, and Area 6 from July 1 through August 2 are presented in Table I-8. The observed Chinook mark rates were slightly higher than predicted preseason. Observed non-retention

mortality was lower than anticipated, and the catch was higher than expected for Chinook, with both Area 5 and 6 having to close early due to reaching quota (Table I-8).

Mark-selective Chinook fisheries were also held in Puget Sound Area 7 from July 1 through 8, in Area 9 from July 16 through August 4, in Area 10 from July 16 through August 21, in Area 11 from June 16 through August 24, in Area 12 from July 1 through September 30, and in Area 13 May 19 through September 30 (Figure I-1).

A winter mark-selective fishery was held in Area 11 from November 1 through November 20. The Area 11 mark-selective fishery was managed to a threshold of 1,001 total Chinook encounters, 637 sublegal encounters, and 239 unmarked encounters. Winter mark-selective fisheries are scheduled in Area 5 from March 1 through April 30, 2022, in Area 10 from January 1 through March 31, 2022. The preseason prediction of total Chinook salmon encounters in Area 10 is 8,475. WDFW will also manage to 1,105 total unmarked encounters and 7,319 total sublegal encounters. Area 13 is open for mark-selective Chinook from October 1, 2021, until April 30, 2022. Marine Areas 6, 7, 8-1, 8-2, 9, and 12 are not scheduled for winter mark-selective fisheries on Chinook in 2021-2022.

1.4.2 Selective Coho Fisheries

Commercial troll fisheries selective for marked coho were planned for the area between the U.S./Canada border and Humbug Mountain, Oregon. Recreational fisheries selective for marked coho were planned for the area between the U.S./Canada border and the Oregon/California border, 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 voluntary trip reports and dockside interviews. Onboard observers were not utilized in 2021 due to safety concerns related to COVID-19. The observed mark rates in ocean fisheries were lower than what was predicted preseason. Observed total non-retention mortality was higher than expected in north of Cape Falcon Council-area mark-selective coho recreational fisheries and lower than expected in north of Cape Falcon Council-area mark-selective coho commercial troll fisheries. Observed non-retention mortality was lower than expected in all south of Cape Falcon Council-area mark-selective coho fisheries.

1.5 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 not include incidental mortality associated with regulation of these fisheries, except as noted.

1.5.1 Chinook Fisheries

Northern British Columbia (B.C.) and Southeast Alaska (SEAK) fisheries impact 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 recreational fisheries, in addition to recreational fisheries in the Strait of Georgia and the Strait of Juan de Fuca, impact far-north migrating stocks (including LRW) to a lesser degree but can 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 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 (AI) 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.

With the expiration of the 1999 agreement in 2008, another 10-year agreement was negotiated and implemented from 2009 through 2018 that included reductions to catch ceilings in SEAK and WCVI AABM fisheries of 15 percent and 30 percent, respectively, from those in the 1999 agreement. As this 2009 agreement expired at the end of 2018, a new 10-year agreement has been negotiated and went into effect beginning with the 2019 season. This new agreement includes further reductions to SEAK and WCVI AABM fisheries relative to the 2009 agreement. For SEAK, the reductions range from 1.5 percent in years of high abundance to 7.5 percent in years of low abundance. For WCVI, the reductions range from 2.4 percent in years of high abundance to 12.5 percent in years of low abundance. Additionally, beginning with the 2019 Agreement, the allowable catches for SEAK fisheries will no longer be determined using the AI produced by the PSC Chinook Model, rather, they will be set using a catch-per-unit-effort (CPUE) estimate from the early winter power troll fishery (see Tables 1 and 2 in Chapter 3 of the 2019 PST Agreement for specifics).

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 postseason basis only. Under the terms of the 2019 PST Agreement, these fisheries are subject to a new set of ISBM fishery limits. These provisions require the calendar year exploitation rate (CYER) by all U.S. fisheries south of the U.S./Canada border on specific indicator stocks to be below some level of the average 2009 – 2015 CYER if they do not achieve their management objectives (see Attachment I in Chapter 3 of the 2019 PST Agreement for specifics). Similar to the previous ISBM obligations, these limits are taken into

account during preseason planning processes, however, relative to meeting the provisions of the PST, the CYER limits are evaluated on a postseason basis only.

Beginning in 2019, AABM fisheries were conducted in accordance with the obligations set forth in the 2019 PST Agreement. The PSC reached agreement in 2021 on a calibration of the PSC Chinook Model that produces AIs for the three AABM fisheries. The AI corresponds to an annual catch limit 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 AIs produced by the 2021 calibration of the PSC Chinook Model were used to set the treaty catch limits for the Northern B.C. and WCVI AABM fisheries, however, the treaty catch limit for the SEAK AABM fishery was determined by the CPUE from the early winter power troll.

The SEAK early winter troll CPUE used to set 2021 catch limits was 3.85, which corresponds to a catch ceiling of 205,165 Treaty Chinook. The preliminary estimate of total Chinook catch by SEAK fisheries in 2021 is 236,200, of which 202,100 were Treaty Chinook (Table I-10). These catches were similar to the total catch of 234,800 Chinook in 2020, of which 204,600 were Treaty fish.

The 2021 AI for Northern B.C. was 1.27, corresponding to an annual catch limit of 153,800 Chinook. The preliminary estimated catch in the Northern B.C. AABM fisheries (Northern B.C. troll plus Haida Gwaii [Queen Charlotte Islands] recreational) in 2021 was 91,000 Chinook (64,500 troll; 26,500 recreational; Table I-11). This was well below the preseason catch ceiling but higher than the previous year's total catch of 36,900, which was limited as a result of reduced access and fishing restrictions due to the COVID-19 pandemic. The Northern B.C. troll fishery in 2021 was conducted under a system of individual transferable quotas that was fully implemented beginning in 2008.

The 2021 AI for WCVI was 0.76, corresponding to an annual catch limit of 88,000 Chinook. In addition to the overall catch ceiling determined by the PST, Canada's principal management objectives for the 2021 WCVI Chinook fisheries were to meet domestic allocation objectives as well as address concerns for Lower Strait of Georgia Chinook, WCVI Chinook stocks, and Fraser River Chinook, in addition to Interior Fraser (Upper Fraser and Thompson) coho and steelhead populations. The preliminary estimated 2021 catch in WCVI AABM fisheries was 65,000 Chinook (16,800 First Nations, 25,200 troll, and 23,000 recreational; Table I-11). This was below the preseason catch ceiling but higher than the previous year's total catch of 43,600, which was limited as a result of reduced access and fishing restrictions due to the COVID-19 pandemic.

Since 1999, the WCVI Area G 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. Beginning with the 2019 fishing year (October 2018 through September 2019), additional conservation measures were put in place to protect Fraser River Chinook by implementing a troll fishery closure through July 31. Troll catch since the 2019 fishing year has occurred between August 1 and September 15. Preliminary

estimates indicate that the fishery harvested 25,200 fish, which is more than the 11,300 caught in 2020 (Table I-12).

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. In addition to existing domestic management measures to protect local WCVI Chinook, new actions have been in place since 2019 to further protect Fraser River Chinook populations. These included Chinook non-retention from April 1 through July 14 in waters beyond 1 mile of shore and a maximum size limit of 80 cm (31.5 inches) from July 15 – 31 in these same areas. Preliminary estimates indicate that the fishery harvested 23,000 Chinook in 2021, up from 19,400 caught in 2020.

The reported Canadian ISBM Chinook catch for Northern B.C. in 2021 was approximately 25,800 (14,200 First Nations, 1,900 commercial gillnet, 9,700 recreational). Southern B.C. ISBM fisheries in 2021 harvested approximately 221,800 Chinook (72,400 First Nations, 31,600 commercial, 117,800 recreational). Note, however, that these ISBM catch estimates for both Northern and Southern B.C. are preliminary and incomplete, as catch estimates in some areas are not yet available.

No direct management measures for Chinook salmon within the Council management area were specified under the 2019 PST agreement, except for the ISBM commitment. The Council's 2021 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 complied with the terms of the PST agreement. Information necessary to evaluate the postseason impacts of 2021 Council-area fisheries was not available.

1.5.2 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. A new 10-year agreement has been negotiated and went into effect beginning in 2019. Under the new plan the Strait of Georgia Mainland and Strait of Georgia Vancouver Island management units were combined into a single Strait of Georgia management unit. The status of the Interior Fraser management unit shall be managed at a low status until Canada establishes status determination methods that would provide the basis for a change.

The forecast of 2021 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 2021, Canadian fisheries were managed for an exploitation rate of 3-5 percent on interior Fraser River coho, less than the 10 percent ceiling allowed under the PSC coho management plan. 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 2021, approximately 67,400 coho were retained in troll fisheries in Northern and Central B.C. Catches in Southern B.C. commercial fisheries were very 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 2021 was 47,700. 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 29,700 coho.

TABLE I-1. Summary of actual ocean non-Indian commercial troll salmon fishing regulations for 2021. (Page 1 of 2)

	Salmon	Actual Q	uota	
Area and Season	Species	Chinook	Coho	Special Restrictions ^{a/}
U.S./Canada Border to Cape Falcon, OR May 1-June 29	All except coho	15,375 b/ w ith sub- allocation by area	-	Chinook minimum size limit of 27 inches total length. Weekly landing and possession limits in place for specific subareas. 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 2021 ocean salmon regulations for detailed landing and notification requirements.
July 1-Sept. 30	All salmon	16,931 ^{c/}	5,000 ^{d/}	Chinook minimum size limit of 27 inches total length. Coho minimum size limit of 16 inches total length. All coho must be marked w ith a healed adipose fin clip. Weekly landing and possession limits for coho in place. No chum retention north of Cape Alava in Aug. and Sept. Chinook quota w as adjusted inseason. Mandatory Yellow eye Rockfish Conservation Area, Cape Flattery and Columbia Control Zones, and beginning Aug. 9, Grays Harbor Control Zone closed. Vessels must land and deliver their fish w ithin 24 hours of any closure of this fishery and landings were generally restricted to area of catch. Refer to complete 2021 ocean salmon regulations for detailed landing and notification requirements.
Cape Falcon to Heceta Bank line, OR Mar. 20-Apr. 30	All except coho	None		Chinook minimum size limit of 28 inches total length. All vessels fishing in the area must land their fish in the State of Oregon.
Cape Falcon to Humbug Mt., OR May 1-5, 10-21, 26-31; June 5-7, 12-14, 19-21, 26-28; Sept. 1-Oct. 31	All except coho	None	-	Chinook minimum size limit of 28 inches total length. All vessels fishing in the area must land their fish in the State of Oregon. Beginning September 1 no more than 75 Chinook per vessel per landing w eek (ThursWed.).
Cape Falcon to Humbug Mt., OR July 5-7, 12-14, 19-21, 26-28; August 1-4, 8-10, 15-17	All Salmon	None	10,000	Chinook minimum size limit of 28 inches total length. Coho minimum size limit of 16 inches total length. All retained coho must be marked with a healed adipose fin clip. If the coho quota for the combined area from Cape Falcon to Humbug Mt. of 10,000 marked coho is met, then the season continues for all salmon except coho on the remaining open days. Salmon trollers may take and retain or possess on board a fishing vessel no more than 20 coho per vessel per w eek (ThursWed.). All coho retained, possessed on a vessel, and landed must not exceed a 1:1 ratio with Chinook salmon that are retained and landed at the same time.
Humbug Mt. to OR/CA Border (Oregon KMZ) Apr. 20-30 May 5, 10-15; June 1-16 July 1-31	All except coho	None none 300 216 e/	-	Chinook minimum size limit of 28 inches total length. Landing limits and quotas in effect begining in June. Landing and possession limit per vessel per w eek (ThursWed.): 20 Chinook. All vessels fishing in this area during June and July, must land and deliver all salmon w ithin this area or into Port Orford w ithin 24 hours of any closure of this fishery and prior to fishing outside of this area. Prior to June 1, all salmon caught in this area must be landed and delivered in the State of Oregon. Refer to complete 2021 ocean salmon regulations for detailed landing and notification requirements.

TABLE I-1. Summary of actual ocean non-Indian commercial troll salmon fishing regulations for 2021. (Page 2 of 2)

	Salmon	Actual Quota		
Area and Season	Species	Chinook Coh		Special Restrictions ^{a/}
OR/CA Border to Humboldt South Jetty (California KMZ)				
Closed	-	-	-	
Humboldt South Jetty to 40°10' line Closed	-	-	-	
40°10′ line to Pt. Arena (Ft. Bragg Area) Aug. 1-17, Sept. 1-30	All except coho	None	-	Chinook minimum size limit of 27 inches total length. All fish must be landed in California, and north of Point Arena.
Pt. Arena to Pigeon Pt. (San Francisco Area) June 16-30, July 17-22; Aug. 1-17, Sept. 1-30	All except coho	None	-	Chinook minimum size limit of 27 inches total length through August, then 26 inches thereafter. All salmon must be landed in California. During Sept., all salmon must be landed south of Point Arena.
Fall Area Target Zone Pt. Reyes to Pt. San Pedro Oct. 1, 4-8, 11-15	All except coho	None	-	Chinook minimum size limit of 26 inches total length. All salmon caught in this area must be landed between Point Arena and Pigeon Point.
Pigeon Pt. to U.S./Mexico Border (Monterey Area) May 1-12, 20-27, June 16-30; July 17-22, Aug. 1-17	All except coho	None	-	Chinook minimum size limit of 27 inches total length. All salmon must be landed in California.

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. From May 1- Dec. 31, 2021 and begining Apr. 1, 2022 unless modified: license holders may land or possess no more than one Pacific halibut per each two Chinook, except one Pacific halibut may be possessed or landed without meeting the ratio, and no more than 35 halibut may be possessed or landed per trip, unless modified by inseason action (see Appendix table C-9 for inseason action on halibut retention limits). See Appendix Tables C.1, C.3, C.5, and C.9 for additional details and inseason adjustments.

b/ No more than 5,680 from U.S./Canada border to Queets R. and 4,195 between Leadbetter Pt. and Cape Falcon.

c/ Increased from 15,375 after impact-neutral roll over from spring quota.

d/ No inseason changes.

e/ Preseason quota for July increased from 200 after impact-neutral roll-over from June quota.

TABLE I-2. Summary of actual treaty Indian commercial ocean and Area 4B troll salmon seasons for 2021.

		Seasons ^{a/}		Minimur	n Size	
	Salmon			Limit (Inches)		
Tribe and Area	Species	Dates	Days	Chinook	Coho	Special Restrictions
Quinault						
Areas 2-3	All except coho	May 1-June 30	61	24	-	
	All	July 1-Sept. 16	77	24	16	Quinault closed their treaty troll fishery on September 13
Hoh						
Areas 2-3	All except coho	May 1-June 30	61	24	-	
	All	July 1- Sept. 15	77	24	16	
Quileute						
Area 3	All except coho	May 1-June 30	61	24	-	
	All	July 1-Sept.15	77	24	16	
Makah						
Areas 3, 4 and 4A	All except coho	May 1-June 30	61	24	-	
	All ^{b/}	July 1- August 13	44	24	16	
	All ^{b/}	August 16 - 19	4	24	16	250 coho per vessel per open period
	All ^{b/}	August 21 - 26	6	24	16	300 coho per vessel per open period
	All ^{b/}	August 28 - Sept 3	6	24	16	350 coho per vessel per open period
	$AII^b/$	September 4 - 9	6	24	16	50 coho per vessel per open period
	All ^{b/}	September 11 - 15	5	24	16	30 coho per vessel per open period
Area 4B	All ^{b/}	Jan. 1-Apr. 15	105	22	16	
	All except coho	May 1-June 30	61	24	_	Fishery closed due to Makah's COVID-19 safety regulations
	All ^{b/}	July 1- August 13	44	24	16	,
	All ^{b/}	August 16 - 19	4	24	16	250 coho per vessel per open period
	All ^{b/}	August 21 - 26	6	24	16	300 coho per vessel per open period
	All ^{b/}	August 28 - Sept 3	6	24	16	350 coho per vessel per open period
	All ^{b/}	September 4 - 9	6	24	16	50 coho per vessel per open period
	All ^{b/}	September 11 - 15	5	24	16	30 coho per vessel per open period
S'Klallam						
Area 4B	All ^{b/}	Jan. 1-Apr. 15	105	22	16	
	All except coho	May 1-June 30	61	24	-	
	All ^{b/}	July 1- Sept. 15	77	24	16	
	All ^{b/}	Nov. 1-Dec. 31	61	22	16	

a/ The overall quotas for these fisheries during the May 1-Sept. 15 ocean salmon management period were 40,000 Chinook and 26,500 coho. These quotas include troll catches by the S'Klallam and Makah tribes in Washington State Statistical Area 4B from May 1-Sept. 15. The overall Chinook quota was divided preseason to provide 20,000 Chinook for the May 1-June 30 Chinook-directed season and 20,000 Chinook for the July 1-Sept. 15 all-salmon season. The Quileute C&S fishery (September-October) did not operate in 2021. Single point, single shank barbless hooks were required in all ocean fisheries.

b/ Retention of steelhead prohibited; retention of chum prohibited beginning August 1.

TABLE I-3. Summary of actual ocean recreational salmon fishing regulations for 2021. (Page 1 of 2)

		Actual C		
Area and Season	Salmon Species	Chinook	Coho ^{a/}	Daily Limit and Special Restrictions ^{b/}
U.S./Canada Border to Cape Falcon, OR				
U.S./Canada Border to Cape Alava, WA (Neah Bay subarea) June 19-Sept. 15	All salmon	5,825 ^{c/}	5,730 ^{d/}	Daily limit through July 3 includes only one salmon and no coho. Daily limit beginning July 24 includes two salmon per day and only one Chinook. no chum beginning August 1. Beginning August 1, Chinook non-retention east of the Bonilla-Tatoosh line during Counci managed ocean fishery.
Cape Alava to Queets R., WA (La Push subarea) June 19-Sept. 3	All salmon	1,300 ^{c/}	1,430 ^{d/}	Daily limit through July 3 includes two salmon and no coho; All salmon, except no chum beginning August 1; two salmon per day. In season action for early closure.
Queets R. to Leadbetter Pt., WA (Westport subarea) June 19-Sept. 7	All salmon	12,925 ^{c/}	20,440	Daily limit through June 26 includes only one salmon and no coho. Daily limit beginning June 27 includes two salmon per day; only one Chinook through Aug. 20. Closed Fridays and Saturdays through Aug. 5. Grays Harbor Control Zone closed beginning Aug. 9. Chinook min. size limit of 22 inches total length. In season actions for season modification and early closure.
Leadbetter Pt., WA to Cape Falcon, OR (Columbia River subarea) June 19-Aug 29	All salmon	7,200 ^{c/}	42,400	Daily limit through June 26 includes only one salmon and no coho. Daily limit beginning June 27 includes two salmon per day and only one Chinook Columbia River Control Zone closed. Chinook min. size limit of 22 inches total length. In season action for early closure
Cape Falcon to Humbug Mt.				
Mar. 15-June 11, Aug. 29-31, Sept. 1-9, Sept. 13-16, Oct. 1-31	All except coho	-	-	Two salmon daily.
Sept. 10-12, 17-30	All salmon		20,230 ^{d/}	Two salmon daily. Non-mark selective for coho.
Cape Falcon to Humbug Mt.				
June 12-Aug. 28	All salmon	-	120,000 for Cape Falcon to OR/CA	Two salmon daily. Coho retention closes if the marked coho quota is attained prior to the scheduled closing date. Fishing in the Stonew all 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) June 12-18, Aug. 16-28 June 19-Aug. 15	All except Chinook All salmon	-	border -	Two salmon daily. Coho retention closes if the marked coho quota is attained prior to the scheduled closing date.

TABLE I-3. Summary of actual ocean recreational salmon fishing regulations for 2021. (Page 2 of 2)

		Actual	Quota	
Area and Season	Salmon Species	Chinook	Coho ^{a/}	Daily Limit and Special Restrictions ^{b/}
OR/CA Border to 40°10′ line. (California KMZ)				
June 29-Aug. 1	All except coho	None	-	Two salmon daily. Chinook min. size limit of 20 inches total length. Klamath Control Zone closed in August.
40°10′ line to Pt. Arena (Fort Bragg)				
June 29-Oct. 31	All except coho	None	-	Two salmon daily. Chinook min. size limit of 20 inches total length.
Pt. Arena to Pigeon Pt. (San Francisco)				
June 26-Oct. 31	All except coho	None	-	Two salmon daily. Chinook min. size limit of 20 inches total length.
Pigeon Pt. to U.S./Mexico Border (Monterey)				
Apr.3-Sept. 30	All except coho	None	-	Two salmon daily. Chinook min. size limit of 24 inches total length through May 15, 20-inches thereafter.

a/ All coho fisheries and quotas are mark-selective for coho with a healed adipose fin clip unless otherwise noted. Total coho quota for the North of Falcon area is 26,500 marked fish.

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 preseason recreational Chinook quota for the North of Falcon area is 27,250 fish. Numbers presented for recreational Chinook are subarea guidelines (not quotas). d/ Preseason coho quotas were 5,730 for Neah Bay and 1,430 for LaPush. Preseason coho quota for South of Cape Falcon for the non-mark selective fishery was 14,000.

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)

	COMMERCIAL TROLL								RECREATIONAL						
Year or	Effort (boat days	Nur	mbers of Fis	Ca [·]	Thous	Thousands of Pounds (Dressed Weight)			Catch (numbers of fish)				Salmon Per – Angler		
Average	fished)	Chinook	Coho	Pink	Chinook	Coho	Pink	angler - trips)	Chinook	Coho	Pink	Total	Trip		
						WASHING		• /							
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	397,637	114,092	511,827	23,544	649,463	1.6		
1981-85 ^{b/}	12,782	71,326	217,754	149,974	944	744	358	163,344	54,662	172,399	5,915	232,976	1.4		
1986-90	6,078	71,534	137,942	33,565	847	259	117	119,412	25,590	165,058	1,919	193,051	1.6		
1991-95	4,156	42,477	76,334	32,072	453	111	112	104,949	11,156	131,364	2,484	145,003	1.4		
1996-00	660	25,267	28,492	1,682	286	24	9	38,459	4,940	41,445	1,799	48,184	1.3		
2001-05	1,721	79,452	41,007	1,122	1,123	41	4	114,785	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	1	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	0	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	1	73,596	29,203	39,582	10,828	79,613	1.1		
2012	3,020	91,644	40,798	0	1,100	220	0	77,659	33,729	31,434	0	65,163	8.0		
2013	3,904	91,250	54,309	350	1,049	280	0	80,014	28,918	46,140	7,668	82,726	1.0		
2014	3,549	100,468	71,442	0	1,245	406	0	119,617	40,025	123,057	0	163,082	1.4		
2015	4,103	114,252	6,882	190	1,328	37	0	97,114	39,431	74,737	8,631	122,799	1.3		
2016	2,298	40,445	44	0	474	0	0	51,437	16,907	16,059	0	32,966	0.6		
2017	3,336	57,347	14,718	208	596	96	0	61,453	20,037	36,087	732	56,856	0.9		
2018	3,030	47,459	13,094	0	522	88	0	47,968	9,913	34,710	0	44,623	0.9		
2019	2,636	41,097	59,502	543	556	331	2	65,667	9,583	64,425	1,775	75,783	1.2		
2020	1,161	14,747	15,028	0	205	97	0	33,885	7,508	20,250	0	27,758	0.8		
2021 ^{c/}	2,040	27,312	29,781	91	315	182	0	65,870	15,976	49,769	1,228	66,973	1.0		

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. Few er than 500 pounds may be shown as zero. (Page 2 of 4)

				RECREATIONAL									
Year or		Catch											
	Effort (boat days	Numbers of Fish			Thousands of Pounds (Dressed Weight)			Effort (salmon angler ⁻	Catch (numbers of fish)				Salmon Per Angler
Average	fished)	Chinook	Coho	Pink	Chinook	Coho	Pink	trips)	Chinook	Coho	Pink	Total	Trip
						OREGO	N ^{d/}	. ,					
1966-70		122,000	804,500		1,159	5,358							
1971-75	45,788	208,500	979,000		2,128	6,015							
1976-80	55,885	232,632	741,693		2,427	4,252	139	387,743	39,974	289,189		329,163	8.0
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
1996-00	7,187	129,523	6,133	380	1,414	14	2	45,609	11,231	12,459	60	23,750	0.5
2001-05	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	8.0
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	4,392	42,347	-	0	518	0	0	38,864	4,095	8,410	0	12,505	0.3
2017	2,052	21,845	470	0	265	2	0	42,309	4,594	21,235	2	25,831	0.6
2018	2,573	24,461	92	0	288	1	0	63,831	4,990	25,672	0	30,662	0.5
2019	2,540	28,889	1,412	0	313	7	0	94,236	6,606	66,313	0	72,919	8.0
2020	1,968	12,810	129	0	182	1	0	57,010	7,188	20,800	0	27,988	0.5
2021 ^{c/}	1,969	17,537	2,229	0	219	13	0	98,670	8,249	93,456	0	101,705	1.0

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. Few er than 500 pounds may be shown as zero. (Page 3 of 4)

			CON	MERCIAL TI	ROLL	RECREATIONAL											
	-	Catch															
Year or	Effort (boat days	Numbers of Fish				Thousands of Pounds (Dressed Weight)			Catch (numbers of fish)				Salmon Per				
Average	fished)	Chinook	Coho	Pink	Chinook	Coho	Pink	angler - trips)	Chinook	Coho	Pink	Total	- Angler Trip				
		Ormilook	OONO	THIN	Ormitook	CALIFOR		u ipo)	Orinioon	CONO	1 11110	Total	тір				
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	95,422	31,158	0	126,580	8.0				
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	0	3,429	94	0	215,996	170,296	22,399	0	192,695	0.9				
1996-00	18,299	368,001	-	0	4,037	-	0	194,586	157,742	452	0	158,194	0.8				
2001-05	17,187	383,921	-	0	4,877	-	0	180,127	147,974	979	0	148,953	0.8				
2006	8,259	69,728	-	0	1,043	-	0	126,506	96,292	1,626	0	97,918	0.8				
2007	10,671	114,141	-	0	1,525	-	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	8.0				
2013	17,293	297,627	-	0	3,793	-	0	147,296	116,074	361	0	116,435	8.0				
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	7,198	55,185	-	0	615	-	0	70,099	38,012	70	0	38,082	0.5				
2017	6,725	42,326	-	0	497	-	0	73,974	62,197	465	0	62,662	8.0				
2018	7,577	78,416	-	0	930	-	0	96,625	87,314	195	0	87,509	0.9				
2019	15,790	271,489	-	0	2,604	-	0	103,702	88,460	696	0	89,156	0.9				
2020 ^{f/}	12,286	177,800	-	0	1,928	-	0	59,843	40,141	52	0	40,193	0.7				
2021 ^{c/}	9,917	201,419	-	0	2,294	-	0	88,152	55,281	540	0	55,821	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. Few er than 500 pounds may be shown as zero. (Page 4 of 4)

	COMMERCIAL TROLL								RECREATIONAL						
Year or	Effort (Boat	Nı.	ımbers of Fis	.h	Thousands of Pounds (Dressed Weight)			Effort (salmon angler	Catch (numbers of fish)				Salmon Per _ Angler		
Average	days . fished)	Chinook	Coho	Pink	Chinook	Coho	Pink	trips)	Chinook	Coho	Pink	Total	Trip		
	Попоц	Orimioon	00110	1 11 11	Oninoon	COUNCIL AF		u ipo)	Ormitook	00110	1 1111	Total			
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	147,188	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	1,669,298	413,380	10,658	9,111	930	948,849	249,488	832,174	23,544	1,105,206	1.2		
1981-85 ^{b/}	98,043	679,481	577,980	154,474	6,830	2,626	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	2,478	140	601,240	227,698	424,082	2,419	654,199	1.1		
1991-95	38,873	485,349	238,176	32,452	4,821	530	114	420,491	190,686	256,764	2,544	449,993	1.1		
1996-00	26,146	522,792	34,625	2,062	5,736	38	11	278,654	173,912	54,356	1,859	230,128	8.0		
2001-05	30,927	745,940	46,757	1,246	9,109	80	4	413,758	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	1	266,836	63,589	145,187	4,670	213,446	8.0		
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	1	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	1	214,028	84,189	58,730	10,828	153,747	0.7		
2012	23,798	380,330	41,422	0	4,371	224	0	292,974	176,449	47,614	0	224,063	8.0		
2013	30,183	501,634	54,761	350	6,134	282	0	312,845	175,226	61,037	7,668	243,931	8.0		
2014	28,646	476,847	82,440	0	6,070	473	0	361,430	133,345	223,043	0	356,388	1.0		
2015	25,843	329,018	9,095	190	3,705	48	0	244,931	86,353	103,060	8,631	198,044	8.0		
2016	13,888	137,977	44	0	1,607	0	0	160,400	59,014	24,539	0	83,553	0.5		
2017	12,113	121,518	15,188	208	1,358	98	0	177,736	86,828	57,787	734	145,349	8.0		
2018	13,180	150,336	13,186	0	1,740	89	0	208,424	102,217	60,577	0	162,794	8.0		
2019	20,966	341,475	60,914	543	3,473	338	2	263,605	104,649	131,434	1,775	237,858	0.9		
2020 ^{f/}	15,415	205,357	15,157	0	2,315	98	0	150,738	54,837	41,102	0	95,939	0.6		
2021 ^{c/}	13,926	246,268	32,010	0	2,828	195	0	252,692	79,506	143,765	1,228	224,499	0.9		

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.

f/ Recreational estimates for California do not include May and June due to restrictions on sampling caused by the COVID-19 pandemic.

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

		COMMERCIAL	IROLL		Tff - m4		RECREAT	UNAL		
	Effort ^{a/}	0-1-1-7		- 1- 3	Effort	_				0 - 1
V	(days		mbers of fis		(salmon _		atch (numbe			Salmon Per
Year	fished)	Chinook	Coho	Pink	angler trips) A BORDER TO 0	Chinook	CON	Pink	Total	Angler Trip
Troots	Indian (II S	S./Canada Bo				APETAL	CON			
2012	960	54,789	37,530	0	r Point) :					
2013	1,596	51,160	48,268	209	_	_	_		_	_
2013	1,527	61,761	56,035	0	-	_	_		_	_
2015	1,458	58,939	4,010	122	-	_	_		_	_
2016	670	23,101	4,010	0	_	_	_		_	_
2017	963	24,414	13,350	195	_	_	_	_	_	_
2018	881	23,903	11,802	0	_	_	_	_	_	_
2019	898	18,321	55,505	58	_	_	_	_	_	_
2020	185	2,437	14,391	0	_	_	_	_	_	_
2021 ^{c/}	440	8,227	26,411	0	_	_	_	_	_	_
		0,221	20,411	O	_	_	_	_	_	_
Non-In		45.000	0.000		00.407	05.400	00.400		00 500	
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	3,260	84,249	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	5,085	68	105,743	42,188	83,577	4,670	130,435	1.2
2016	1,853	19,402	-	0	55,769	17,947	18,713	0	36,660	0.7
2017	2,715	35,560	1,838	0	70,021	21,945	42,657	7,627	72,229	1.0
2018	2,247	23,889	1,384	0	55,667	10,602	41,838	0	52,440	0.9
2019	1,925	23,284	5,409	33	80,362	10,878	81,649	10,828	103,355	1.3
2020	1,041	12,500	766	483	37,338	7,661	23,971	0	31,632	0.8
2021 ^{c/}	1,640	19,263	3,511	33	78,755	17,814	64,177	0	81,992	1.0
			CA		ON TO HUMBU	IG MOUNT				
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	4,040	39,891	-	0	30,344	2,552	5,704	0	8,256	0.3
2017	1,601	18,889	-	0	31,729	2,180	14,665	0	16,845	0.5
2018	2,000	20,229	-	0	49,132	2,708	18,526	0	21,234	0.4
2019	2,117	26,509	-	0	75,184	4,739	48,547	0	53,286	0.7
2020	1,780	11,795	-	0	47,300	5,400	17,079	0	22,479	0.5
2021 ^{c/}	1,811	16,935	-	0	79,932	5,516	78,282	0	83,798	1.0
			HUMI	BUG MOU	JNTAIN TO 40°	10' LINE (I	<mz)<sup>e/ ⋅</mz)<sup>			
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	186	594	-	0	13,141	5,503	79	0	5,582	0.4
2017	109	329	-	0	2,012	506	400	0	506	0.3
2018	1,174	12,910	-	0	14,369	5,331	120	0	5,451	0.4
2019	540	7,729	-	0	12,069	5,529	697	0	6,226	0.5
2020	123	825	-	0	11,230	3,466	18	0	3,484	0.3
2021 ^{c/}	118	424	-	0	8,114	1,536	775	0	2,311	0.3
					TO U.S./MEXI					
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	7,139	54,989	-	0	61,146	33,012	43	0	33,055	0.5
2017	6,725	42,326	-	0	73,974	62,197	465	0	62,662	0.8
2018	6,878	69,405	-	0	89,256	83,576	93	0	83,669	0.9
2019	15,486	265,632	-	0	95,990	83,503	541	0	84,044	0.9
2020 ^d /	12,286	177,800	-	0	54,870	38,310	34	0	38,344	0.7
2021 ^{c/}	9,917	201,419	- nber of deliv	0	85,891	54,640	531	0	55,171	0.6

a/ Treaty Indian troll effort in number of deliveries.

b/ May through September only.

c/ Preliminary.

d/ Recreational estimates for California do not include May and June due to restrictions on sampling caused by the COVID-19 pandemic.

 $^{^{&#}x27;}$ in 2021, the southern boundary of the KMZ was officially moved five nautical miles north from Horse Mountain to latitude 40°10' N.

TABLE I-6. Coho and Chinook harvest quotas and guidelines (*) for 2021 Council managed fisheries compared with actual harvest

by management area and fishery.

by management area and fishery.						
	Ch		Coho			
	Quota or		Catch/			Catch/
Fishery Governed by Quota or Guideline	Guideline ^{a/}	Catch	Quota	Quota	Catch	Quota
	OF CAPE FALCO	N				
TREATY INDIAN COMMERCIAL TROLL						
May-June, All salmon except coho	20,000	2,565	0.13	-	-	-
July-September, All salmon	20,000	5,662	0.28	26,500	26,411	1.00
Subtotal Treaty Indian Commercial Troll	40,000	8,227	0.21	26,500	26,411	1.00
NON-INDIAN COMMERCIAL TROLL						
May-June, All salmon except coho	15,375 *	9,868	0.64	-	-	-
July-September, All salmon	16,931 *b/c/	9,395	0.55	5,000	3,511	0.70
Subtotal Non-Indian Commercial Troll	30,750	19,263	0.63	5,000	3,511	0.70
RECREATIONAL						
U.S./Canada Border to Cape Alava						
June 20-Sept. 30, All salmon except coho June 20-28, all	5,825 *	4,417	0.76	5,730	2,618	0.46
salmon thereafter, coho mark-selective						
Cape Alava to Queets River						
June 20-Sept. 30, All salmon except coho June 20-28, all	1,300 *	329	0.25	1,430	1,347	0.94
salmon thereafter, coho mark-selective						
Queets River to Leadbetter Pt.						
June 20-Sept. 30, All salmon except coho June 20-28, all	12,925 *	7,054	0.55	20,440	20,665	1.01
salmon thereafter, coho mark-selective						
Leadbetter Pt. to Cape Falcon						
June 20-Sept. 30, All salmon except coho June 20-28, all	7,200 *	6,015	0.84	42,400	39,548	0.93
salmon thereafter, coho mark-selective	.,	0,0.0	0.0.	,	00,010	0.00
·		.=				
Subtotal Recreational	27,250	17,814	0.65	70,000	64,177	0.92
TOTAL NORTH OF CAPE FALCON	98,000	45,304	0.46	101,500	94,099	0.93
SOUTH	OF CAPE FALCO	N				
COMMERCIAL TROLL (all except coho)						
Cape Falcon to Humbug Mt., All salmon, coho mark-selective	-	-	-	10,000	2,088	0.21
July 5-7, 12-14, 19-21, 26-28; Aug. 1-4, 8-10, 15-17						
Humbug Mt. to OR/CA Border (June 1-16)	300	275	0.92	-	-	-
Humbug Mt. to OR/CA Border (July 1-31)	216 b/	132	0.61	-	-	-
Subtotal Troll	516	407	0.79	10,000	2,088	0.21
DECREA TIONAL						
RECREATIONAL						
Cape Falcon to OR/CA Border				400.000	CO 070	0.57
June 12-Aug.28, coho mark-selective	-	-	-	120,000	68,278	0.57
Cape Falcon to Humbug Mt.				20,230 b/	10 700	0.52
Sept. 10-12, 17-30, coho non-mark-selective	-	-	-	20,230 **	10,700	0.53
TOTAL SOUTH OF CAPE FALCON	732	539	0.74	150,230 b/	81,066	0.54
GRAND TOTAL COUNCIL AREA	98,732 b/	45,843	0.46	251,730 b/	175 165	0.70
OLATIND TOTAL COOLIGINATION	30,132	40,040	0.40	201,730	170,100	0.70

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-I, I-2, I-3, or Appendix Table C-9 for specifics of inseason adjustments.

c/ The remaining Chinook from the spring guideline (5,557) were rolled over to the summer Chinook guideline on a 1-1 basis. This action did not change the preseason adopted total commercial quota of 30,750 Chinook.

TABLE I-7. Estimated incidental mortality of Chinook and coho in 2021 ocean salmon fisheries. Observed incidental mortality was calculated by scaling preseason projections of incidental mortality by the ratio of observed to projected catch.

Observed in 2021 2021 2021 Bycatch 2021 Catch Mortality^{a/} **Bvcatch** Bycatch Projection^{b/} Projection Projection Area and Fishery Catch Mortality^{a/} CHINOOK (thousands of fish) OCEAN FISHERIES: NORTH OF CAPE FALCON Treaty Indian Ocean Troll 40.0 4.1 10.3 8.2 8.0 19.3 Non-Indian Commercial Troll 30.7 12.5 44.5 7.8 Recreational 27.2 3.3 15.4 17.8 2.2 CAPE FALCON TO HUMBUG MT.C/ Commercial Troll 31.3 9 1 27.0 16.9 4.9 Recreational 6.8 0.7 2.4 5.5 0.6 HUMBUG MT. TO OR/CA BORDERC/ Commercial Troll 0.3 0.40.1 1.2 1.0 0.4^{d} Recreational 0.2 0.9 1.2 0.9 OR/CA BORDER TO 40°10' LINE. 0.0 0.0 0.0 0.0 Commercial Troll 0.3 ^{d/} Recreational 3.0 0.3 1.1 0.6 40°10' LINE TO PT. ARENA 17.0 d/ Commercial Troll 7.7 2.2 6.7 43.7 $0.4^{\ d/}$ Recreational 5.9 0.6 2.1 3.7 PT. ARENA TO PIGEON PT. 21.5 d/ Commercial Troll 34.6 10.0 29.8 104.9 3.9 d/ Recreational 28.4 3.0 9.6 34.0 SOUTH OF PIGEON PT. 8.7 d/ 7.0 20.7 Commercial Troll 24.0 52.8 1.8 ^{d/} 1.2 Recreational 11.7 3.9 17.0 TOTAL OCEAN FISHERIES Commercial Troll 169.5 45.2 140.0 246.3 60.9 79.5 Recreational 84.2 9.3 35.4 9.4 INSIDE FISHERIES: Area 4B $3.0^{\ d/}$ Buoy 10 24.2 2.8 14.7 20.8 COHO (thousands of fish) OCEAN FISHERIES: NORTH OF CAPE FALCON 2.1 26.5 4.3 26.4 1.3 Treaty Indian Ocean Troll Non-Indian Commercial Troll 3.6 12.6 3.5 2.0 5.0 Recreational 70.0 10.2 41.1 64.2 15.6 SOUTH OF CAPE FALCON Commercial Troll 10.0 8.1 28.7 3.2 2.1 Recreational 134.0 25.6 113.9 79.0 24.1 TOTAL OCEAN FISHERIES 45.6 32.0 Commercial Troll 415 138 6.5 Recreational 204.0 35.8 155.0 143.2 39.7 **INSIDE FISHERIES:** Area 4B 6.8 d/ 0.08 15.3 66.3 37.0 Buoy 10

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 2021 recreational fisheries selective for marked hatchery Chinook (preliminary data).

	A maticina at a st	Observed	December	Anticipated	Land	led Chinook	(Catch	Legal sized	Sub-legal Sized	Estimated	
Area	Anticipated Mark Rate	Observed Mark Rate	Preseason Quota	Nonretention _. Mortality ^{a/}	Total	Marked	Unmarked	Chinook Released ^{b/}	Chinook Released ^{b/}	Nonretention Mortality ^{a/}	Effort ^{c/}
Recreational										,	
Ocean Fisheries (no mark-sele	ctive fisheries	in 2021)									
Neah Bay/La Push	-	-	-	-	-	-	-	-	-	-	-
Westport	-	-	-	-	-	-	-	-	-	-	-
Columbia River	-	-	-	-	-	-	-	-	-	-	-
North of Cape Falcon Total	-	-	-	-	-	-	-	-	-	-	-
Inside Fisheries											
Strait of Juan de Fuca ^{d/}	54%	57%	4,077 ^{e/}	4,135	4,060	3,959	101	2,812	5,865	1,769	11,902
Grand Total	-	-	4,077	4,135	4,060	3,959	101	2,812	5,865	1,769	11,902

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 - 19) selective fishery only. Data are preliminary.

e/ Expected catch; not a quota.

TABLE I-9. Summary of 2021 recreational and commercial fisheries selective for marked hatchery coho (preliminary data).

				Anticipated				Unmarked	Estimated	
	Anticipated	Observed	Preseason	Nonretention	Laı	nded Coho Cat		Coho	Nonretention	
Area	Mark Rate	Mark Rate	Quota	Mortality ^{a/}	Total	Marked	Unmarked	Released ^{b/}	Mortality ^{a/}	Effort ^{c/}
Recreational Ocean Fisheries										
Ocean Fisheries										
Neah Bay	62%	52%	5,730	1,056	2,618	2,539	79	2,055	535	10,899
La Push	67%	42%	1,430	229	1,347	1,309	38	1,817	415	1,601
Westport	72%	44%	20,440	2,894	20,665	20,598	66	25,025	5,945	24,915
Columbia River	73%	56%	42,400	5,838	39,548	39,478	70	33,800	8,492	41,199
North of Cape Falcon Total	-	-	70,000	10,017	64,177	63,924	254	62,697	15,387	78,613
Cape Falcon to OR/CA Border	61%	21%	120,000	23,076	68,278	68,091	187	100,139	22,440	70,445
Recreational Ocean Total	-	-	190,000	33,093	132,455	132,015	441	162,836	37,828	149,058
Inside Fisheries										
4B Add-on	-	-	-	-	-	-	-	-	-	-
Strait of Juan de Fucad/	51%	45%	16,478 ^{e/}	3,306	19,720	19,569	151	26,828	4,478	35,711
Buoy 10	61%	61%	80,000 ^{e/}	15,279	37,031	36,948	83	25,850	6,763	105,865
Inside Fisheries Total	-	-	96,478	18,585	56,751	56,517	234	52,677	11,241	141,576
Commercial Ocean Fisheries										
Neah Bay	60%	-	-	75	67	67	0	52	19	56
La Push	58%	-	-	343	417	417	0	340	126	217
Westport	69%	-	-	355	2,763	2,763	0	1,455	589	581
Columbia River	66%	-	-	471	264	264	0	159	62	15
North of Cape Falcon Total	-	-	5,000	1,244	3,511	3,511	0	2,006	797	869
Cape Falcon to Humbug Mt.	61%	_	10,000	2,794	2,088	2,088	0	1,538	581	557
Commercial Ocean Total	-	-	15,000	4,038	5,599	5,599	0	3,544	1,379	1,426
Grand Total	<u>-</u>	-	301,478	55,717	194,805	194,130	675	219,057	50,447	-

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 where available; where unavailable, anticipated mark rates are used. Cape Falcon-Humbug Mt. 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 (July 1-September 30, 2021).

e/ Expected catch; not a quota.

 $\underline{\text{TABLE I-10. Chinook catch by Southeast Alaska marine fisheries in thousands of fish.}}$

							Additional Catch		
	T	otal Catches	<u> </u>	Tr	eaty Chinoo	k	Terminal	Hatchery	
Year	Troll	Net	Sport	Troll	Net	Sport	Exclusion ^{a/}	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	68.2	86.6	304.9	20.4	63.3	40.2	64.4	
2006	282.3	67.4	85.8	264.0	26.7	69.4	27.0	48.4	
2007	268.1	53.7	82.8	240.5	25.5	62.3	8.1	68.4	
2008	151.9	43.1	49.3	126.4	14.0	32.6	5.3	66.1	
2009	175.6	48.4	69.6	159.1	20.7	48.1	3.7	62.0	
2010	195.6	30.6	58.5	178.0	8.3	44.3	0.5	53.6	
2011	242.6	48.2	66.6	220.8	16.4	54.0	0.7	65.5	
2012	209.1	39.7	46.5	191.6	13.5	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	269.9	53.7	79.8	251.1	18.8	65.2	0.2	68.1	
2016	276.4	42.3	68.3	266.0	25.2	59.4	0.7	35.7	
2017	129.6	25.1	52.3	123.7	7.6	44.1	0.0	31.6	
2018	107.6	30.8	26.4	101.5	5.1	21.2	0.0	37.0	
2019	109.4	36.0	29.7	103.1	12.6	24.6	0.2	34.6	
2020	169.9	29.8	35.1	165.4	8.7	30.6	0.0	30.2	
2021 ^{c/}	163.2	31.0	42.0	155.6	9.6	36.9	0.0	34.1	

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		/Central I	•		WCVI			t of Georg	jia ^{a/}	Jua	an de Fuc	a
Avg.	Troll	Net	Sport	Troll	Net	Sport ^{b/}	Troll	Net ^{c/}	Sport	Troll	Net	Sport
					(CHINOOK						
1986-1990	215.0	42.1	17.8	327.9	17.8	27.7	35.3	17.2	133.4	0.0	11.5	30.6
1991-1995	169.1	43.8	30.9	210.3	20.4	21.1	25.3	10.0	108.0	0.0	6.2	16.6
1996-2000	54.0	22.0	35.6	26.0	0.2	15.2	1.1	0.5	53.6	0.0	0.6	14.3
2001-2005	119.8	18.5	72.1	135.6	9.1	37.7	0.6	0.4	35.9	0.0	0.3	29.1
2006-2010	90.5	9.6	64.0	88.2	13.4	50.9	0.0	0.2	23.0	0.0	0.2	23.3
2011	74.7	8.4	70.4	129.0	21.8	75.2	0.0	0.0	33.6	0.0	0.3	21.1
2012	80.3	4.4	52.9	69.1	10.2	66.2	0.0	0.0	36.7	0.0	0.3	24.5
2013	69.3	7.4	61.4	49.5	8.9	67.3	0.0	0.0	54.7	0.0	0.3	34.7
2014	172.0	4.9	64.7	133.5	19.1	59.2	0.0	0.3	61.8	0.0	0.1	21.7
2015	106.7	7.8	75.6	68.5	10.1	50.5	0.0	0.1	90.2	0.0	0.0	47.1
2016	147.4	4.4	58.6	60.5	5.1	42.6	0.0	0.0	60.0	0.0	0.0	30.9
2017	97.7	4.8	62.4	60.4	30.5	57.1	0.0	0.0	82.3	0.0	0.1	37.6
2018	72.3	5.2	50.2	36.1	21.7	49.3	0.0	0.0	90.2	0.0	0.0	37.6
2019	42.8	6.1	71.1	36.8	45.5	36.6	0.0	0.1	62.1	0.0	0.2	25.8
2020	30.1	4.1	15.7	24.2	42.9	19.4	0.0	0.0	43.4	0.0	0.1	16.2
2021 ^{g/}	64.5	1.9	36.2	42.0	31.6	23.0	0.0	0.0	49.8	0.0	0.0	9.3
						СОНО						
1986-1990	991.5	272.1	28.0	1877.9	14.2	19.1	178.4	109.2	618.9	0.7	194.4	66.2
1991-1995	672.7	202.7	42.2	1422.5	4.9	31.7	95.1	56.2	288.6	0.0	92.1	105.9
1996-2000	120.8	39.0	24.1	157.7	0.2	11.1	0.0	2.3	9.1	0.1	0.9	38.9
2001-2005	181.9	39.3	38.2	0.4	2.9	11.4	0.0	0.0	5.7	0.0	0.0	7.1
2006-2010	119.3	20.6	60.5	1.0	2.7	30.4	0.0	0.1	3.8	0.0	0.0	4.2
2011	296.6	11.2	97.5 ^{d/}	0.0	1.0	54.0	0.0	0.3	1.2	0.0	15.6	10.2
2012	215.5	0.5	6.0 e/	2.1	0.4	46.2	0.0	0.0	3.7	0.0	0.0	16.6
2013	399.3	45.5	NA	6.1	1.1	72.3	0.0	2.6	24.3 ^{f/}	0.0	0.0	19.7
2014	177.5	38.3	NA	35.0	0.6	23.4	0.0	1.9	14.2 f/	0.0	0.0	21.1
2015	255.7	21.2	96.7	6.2	0.3	29.3	0.0	0.0	2.7	0.0	0.0	10.7
2016	215.0	37.9	69.2	0.2	8.0	20.1	0.0	0.2	17.3	0.0	0.0	7.6
2017	339.7	13.4	93.8	7.3	1.5	15.1	0.0	0.3	9.9	0.0	0.0	8.2
2018	176.9	0.7	60.8	6.1	4.1	22.1	0.0	1.7	19.0	0.0	0.0	11.2
2019	181.9	6.0	79.7	0.0	2.9	36.3	0.0	0.0	6.5	0.0	0.0	10.2
2020	89.4	0.0	30	0.0	0.0	15.1	0.0	0.1	8.9	0.0	0.0	22.8
2021 ^{g/}	67.4	0.0	28	0.1	0.1	27.0	0.0	0.0	6.5	0.0	0.0	14.0

a/ Includes Johnstone Strait.

b/ For Chinook, includes AABM catch only.

c/ For coho, includes Fraser seine.

d/ Does not include catch from Area 6.

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

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

g/ Preliminary, catch estimates in some areas may be incomplete.

TARLE L12	West Coast Vancouver Island	angregate abundance-based	I management troll Chinook	salmon catch by month

Season ^{a/}	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug. ^{b/}	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	178	13	1	51	342	315	6,456	31,799	-	-	7,574	2,390	49,119
2016-2017	-	-	-	72	276	358	4,065	23,557	-	8,169	6,758	4,279	47,534
2017-2018	-	-	-	74	141	297	-	11,009	-	-	5,063	2,572	19,156
2018-2019	-	-	-	-	-	-	-	-	-	-	20,113	3,082	23,195
2019-2020	-	-	-	-	-	-	-	-	-	-	9,524	1,781	11,305
2020-2021 ^{c/}	-	-	-	-	-	-	-	-	-	-	24,485	740	25,225

a/ Includes commercial Area G troll only since the 2015-2016 season.

TABLE I-13. Summary of 2021 coho catch and release in British Columbia commercial fisheries.

Gear/Area	Coho Kept	Coho Released
Northern Troll	67,360	79
Northern Net	0	1,004
North Central Troll	0	0
South Central Troll	0	0
Central Net	0	0
Johnstone Strait Troll	0	0
Johnstone Strait Net	0	0
Strait of Georgia Net	0	678
Strait of Georgia Troll	0	2
Fraser Gill Net	0	0
Northwest Vancouver Island Troll	99	11,198
Southwest Vancouver Island Troll	0	3,875
Northwest Vancouver Island Net	0	283
Southwest Vancouver Island Net	52	1,126

TABLE I-14. Summary of 2021 coho catch and release in British Columbia recreational fisheries.

Area	Kept	Released
Juan de Fuca Strait	13.956	35.750
Strait of Georgia	4.003	15.890
Johnstone Strait	2.527	2.939
WCVI ^{a/}	26.957	30,685
Total	47,443	85,264

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

b/ Fishery restricted to plugs only.

c/ Preliminary.

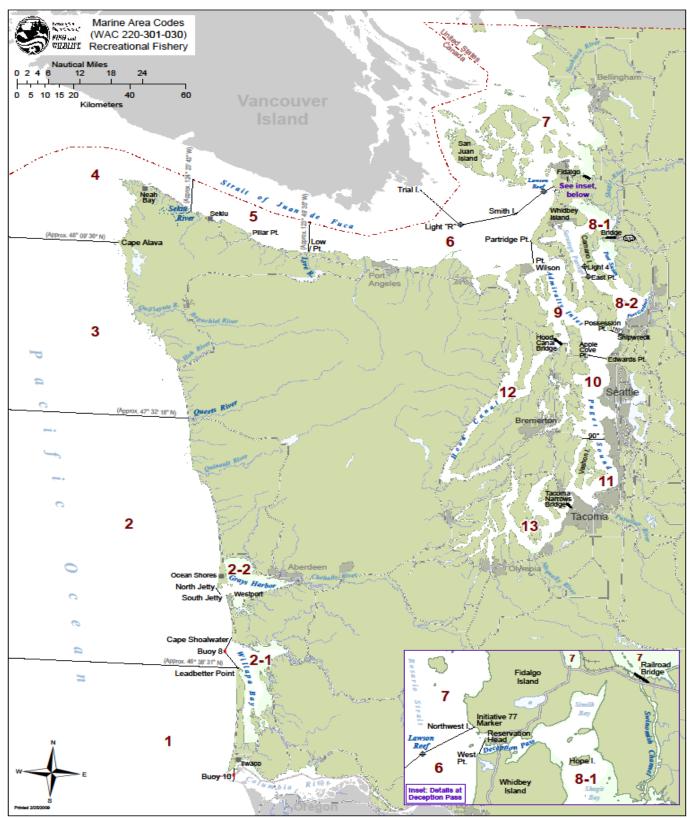


Figure I-1. Washington marine area code numbers and locations.

2 CHAPTER II – CHINOOK SALMON MANAGEMENT

2.1 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 threatened in August 1989 and 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 2021 fisheries: (1) for SRFC, the harvest control rule-specified maximum allowable exploitation rate of 55.0 percent, which results in an escapement of at least 122,000 hatchery and natural area adults; and (2) for SRWC, the harvest control rule-specified a maximum allowable age-3 ocean impact rate of 20.0 percent in fisheries south of Point Arena, in addition to the ESA consultation standard restrictions concerning the duration, timing, and minimum size limits in the same ocean area.

Regulations to Achieve Objectives

In 2021, fishing opportunity south of Cape Falcon was primarily constrained by the Klamath River fall Chinook conservation objective, and not Central Valley Chinook stocks. Season and size limit details are presented in Tables I-1 and I-3.

Commercial

The fishery south of Pigeon Point (the Monterey management area) opened on May 1 and was open for a total of 20 days in that month. The fishery was then open in June for 15 days, in July for 6 days, and from August 1-17. The area between Point Arena and Pigeon Point (the San Francisco management area) opened on June 16 and then was open concurrently with the Monterey area during the months of June, July, and August. The San Francisco area was then open for the entire month of September. An October 1-15 fishery was open Monday through Friday between Point Reyes and Point San Pedro. The area between latitude 40°10'N and Point Arena (the Fort Bragg management area) was open for the first 17 days in August and the entire month of September.

The California portion of the KMZ was closed to commercial fishing in 2021. The Oregon portion of the KMZ was open without a quota for portions of March through May, followed by monthly quotas in June and July (see table I-6) with weekly landing and possession limits. Quotas were adjusted in-season (see table C-9).

Oregon fisheries between Cape Falcon and the Heceta Bank line were open continuously from March 20 through the end of April. The fishery from Cape Falcon to Humbug Mountain opened on May 1, with periodic open and closed periods each month from May to August. Openings in July and August allowed for coho retention. A weekly landing and possession limit of 75 Chinook was in place for the months of September and October.

Commercial fisheries had a 27-inch minimum size limit in California, except for September in the San Francisco management area and the October Point Reyes to Point San Pedro fishery, where the minimum size limit was 26 inches. Oregon fisheries had a 28-inch minimum size limit.

Recreational

The Monterey management area was open from April 3 through September 30, with a 24-inch minimum size limit through May 15 and a 20-inch minimum size limit thereafter.

The San Francisco management area was open from June 26 through October 31 with a 20-inch minimum size limit.

The Fort Bragg management area was open from June 29 through October 31 with a 20-inch minimum size limit.

The California KMZ was open from June 29 through August 1 with a 20-inch minimum size limit.

The Oregon KMZ was open for retention of coho, marked with a healed adipose fin clip, from June 12 through August 28. Chinook retention was allowed from June 19 through August 15.

The Chinook fishery between Cape Falcon and Humbug Mountain extended from mid-March through the end of October. There was a mark-selective coho quota open from June 12 through August 28 and a non-mark-selective coho quota in September.

Recreational Chinook fisheries in Oregon had a 24-inch minimum size limit.

Inside Harvest

Recreational angling for salmon in the Sacramento River and its tributaries was expected to result in a catch of 21,800 adult SRFC. Actual harvest of SRFC in 2021 totaled 10,788 adults and 3,143 jacks.

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 beginning in 2017 from April 1 through July 31. This closure prohibits all fishing in the uppermost six miles of the Sacramento River that is accessible to salmon, from the Highway 44 Bridge to Keswick Dam.

In March 2018, a section of the lower American River, extending from Nimbus Dam to about one-half mile downriver, was closed permanently to all fishing as part of a project to reconstruct the Nimbus Fish Hatchery fish ladder. This section of river, known as Nimbus Basin, has typically comprised a sizable portion of SRFC river harvest. Foregone harvest in Nimbus Basin now contributes to American River natural area escapement.

Owing to low Chinook escapement to the Stanislaus, Tuolumne, and Merced rivers, the majority of the San Joaquin River Basin 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. Estimated harvest in the Mokelumne River fishery in 2021 was not available at the time of printing.

Escapement and Management Performance

Commercial harvest in areas from Cape Falcon to latitude 40°10'N were below preseason expectations, while the Fort Bragg, San Francisco, and Monterey management areas greatly exceeded expectations (Table I-7). The June and July commercial quotas in the Oregon KMZ were not attained (Table I-6). Recreational harvest estimates for California areas north of Point Arena were below preseason expectations while more southern areas exceeded harvest expectations. In Oregon, recreational harvest between Cape Falcon and the Oregon/California border was below preseason expectations (Table I-7).

2.1.1 Sacramento River Fall Chinook

Under the 2021 regulations, the projected spawning escapement in the Sacramento River Basin was 133,913 hatchery and natural area fall Chinook adults. A total of 104,483 hatchery and natural area adult spawners were estimated to have returned to the Sacramento River Basin in 2021 (Table II-1, Figure II-1).

Fall Chinook returns to Sacramento River hatcheries in 2021 totaled 31,255 adults and 7,773 jacks, and escapement to natural areas was 73,228 adults and 9,230 jacks. Table II-1 and Figure II-1 display historical natural area and hatchery adult 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.

In 2018, SRFC met the criteria for overfished status. Under the terms the salmon FMP, SRFC are considered rebuilt when the 3-year geometric mean spawning escapement exceeds the level associated with MSY (S_{MSY}) of 122,000 hatchery and natural area adults. SRFC met this criterion and were determined to be rebuilt in 2021. The geometric mean of adult spawning escapement for years 2019-2021 is 133,192 and therefore SRFC should not be considered 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 2021 SRFC exploitation rate is not yet available. However, fisheries in 2020 resulted in a preliminary exploitation rate of 0.61, which is below the MFMT. Therefore, overfishing did not occur in 2020 (Table II-6).

2.1.2 Sacramento River Winter and Spring Chinook

Spawner escapement of endangered SRWC in 2021 was estimated to be 10,225 adults and 281 jacks. This estimate was derived from three sources: a carcass survey conducted on the upper Sacramento River, SRWC captured in the Keswick trap which provides broodstock to Livingston Stone National Fish Hatchery, and SRWC returns to Battle Creek into and upstream of Coleman National Fish Hatchery as part of the Battle Creek "jumpstart" reintroduction effort.

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 to be 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 2021 totaled 8,285 fish (jacks and adults), with an estimated return of 5,642 to upper Sacramento River tributaries and the remaining 2,643 fish returning to the Feather River Hatchery. Estimates of spring Chinook escapement to the upper mainstem Sacramento River are no longer made due 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 are tagged and returned to the river; the number of tagged fish that re-entered the hatchery during the spring run spawning period are used as the estimate of spring Chinook escapement in the Feather River. The fish that are tagged at the hatchery and returned to the river but did not reenter the hatchery during the spawning period are 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.

2.1.3 Sacramento River Late-Fall Chinook

Late-fall Chinook spawning escapement in 2021 was estimated to be 3,637 adults and 269 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).

2.1.4 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 2021 totaled 6,676 fish (jacks and adults) in natural areas, and 4,484 fish (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 between 1986 and 2014, spawner returns to the San Joaquin River constituted less than 10 percent of the total Central Valley escapement for fall run Chinook. Since 2015, the San Joaquin contribution has exceeded 10 percent in several years with an average contribution of 14 percent. In 2021, San Joaquin fall Chinook spawners constituted 8.4 percent of the total fall run escapement to the Central Valley.

2.2 Northern California 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 2021 specified a maximum exploitation rate of 25.0 percent, resulting in an expected spawner escapement of 31,574 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 62,121 fall Chinook adults, resulting in a spawner escapement of 31,574 adults to natural areas, taking into account projected river fishery impacts of 10,089 adults and returns to basin hatcheries; (2) 50 percent (8,135) of the allowable adult harvest for tribal subsistence and commercial fisheries; (3) 15.0 percent (1,221) of the non-tribal harvest to the Klamath River recreational fishery; and (4) 7.7 percent (531) of the ocean harvest to the KMZ recreational fishery. The age-4 ocean harvest rate resulting from the above configuration was forecast to be 10.5 percent. Season and size limit details are presented in Tables I-1 and I-3.

The primary constraint to commercial and recreational fisheries south of Cape Falcon in 2021 was meeting the minimum escapement goal for KRFC.

Commercial

Oregon fisheries between Cape Falcon and the Heceta Bank line were open from March 20 through April 30. The Chinook fishery from Cape Falcon to Humbug Mountain was open from May through August with periodic closures. The fishery in this region re-opened for the months of September and October with a weekly landing and possession limit of 75 Chinook. The Oregon portion of the KMZ was open without a quota for a portion of March, all of April and portions of May. Monthly quotas, with weekly landing and possession limits, occurred in June and July (see table I-6). Quotas were adjusted in-season (see table C-9). The California portion of the KMZ was closed to commercial fishing in 2021. The Fort Bragg management area was open for the first 17 days in August and the month of September (Table I-3).

Recreational

The Chinook fishery between Cape Falcon and Humbug Mountain was open from March 15 through October 31. The Oregon KMZ was open for Chinook retention from June 19 through August 15, while the California KMZ was open from June 29 through August 1. The Fort Bragg management area was open from June 29 through October 31 (Table I-3).

Inside Harvest

Yurok and Hoopa Valley tribes shared a federally-reserved right of 50 percent (8,135) of the available harvest surplus of adult Klamath fall Chinook. Tribal adult harvest was 8,066 (Yurok: 5,440 adults; Hoopa Valley: 2,626 adults), which was 99 percent of the tribal allocation (Appendix B, Tables B-4, and B-5). An estimated 2,265 fall Chinook adults were harvested in the Klamath River basin recreational fishery in 2021, exceeding the expected harvest. Harvest estimates for streams outside the Klamath River Basin were not available.

Escapement and Management Performance

Commercial harvest in areas from Cape Falcon to latitude 40°10'N were below preseason expectations, while the Fort Bragg, San Francisco, and Monterey management areas substantially exceeded expectations (Table I-7). The June and July commercial quotas in the Oregon KMZ were not attained (Table I-6). Recreational harvest estimates for California were lower than projected north of latitude 40°10'N, while more southern areas exceeded expectations. In Oregon, recreational harvest between Cape Falcon and Humbug Mountain, and the Oregon KMZ, were below preseason expectations (Table I-7).

2.2.1 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 have been limited. Cursory, nonsystematic surveys had been conducted on Tomki Creek (Eel River Basin), Sprowl Creek (Eel River Basin), and Cañon Creek (Mad River Basin), but the surveys on Sprowl and Cañon creeks were discontinued in 2016. However, there have been recent increases in survey effort. Video counts of Chinook passage at Mirabel Dam on the Russian River began in 2000. Additional Chinook escapement estimates or redd counts for Redwood Creek, the Mad River, the mainstem Eel River, the South Fork Eel River, and the Mattole River are now available and will be reported on an annual basis. These streams are considered important spawning habitat for California Coastal Chinook. Historical spawning stock surveys for these northern California coastal rivers are presented in Appendix B, Table B-7.

2.2.2 Klamath River Fall Chinook

The 2021 preliminary postseason river run size estimate for KRFC was 53,954 adults compared to the preseason-predicted ocean escapement (river run size) of 62,121 adults. The escapement to natural spawning areas was 29,942 adults, which was 95 percent of the preseason prediction of 31,574 adults. The estimated hatchery return was 12,850 adults. Jack returns to the Klamath Basin totaled 10,334 including 6,622 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 9,169 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 2021 to the Shasta River was 5,972 adults. Escapement to the Salmon and Scott rivers was 1,890 and 1,307 adults, respectively (Appendix B, Table B-6).

In 2018, KRFC met the criteria for overfished status. Under the terms of the salmon FMP, KRFC are considered rebuilt when the 3-year geometric mean spawning escapement exceeds the level associated with MSY (S_{MSY}) of 40,700 natural area adult spawners. The geometric mean of adult spawning escapement in natural areas for years 2019-2021 is 25,039, therefore KRFC remain 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 2021 KRFC exploitation rate is not yet available. However, fisheries in 2020 resulted in a preliminary exploitation rate of 0.30, which is lower than the MFMT. Therefore, overfishing did not occur in 2020 (Table II-6).

2.3 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, except for 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 a 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 to provide additional harvest on robust hatchery or naturally produced fall Chinook were not adopted in 2021 due to lower-than-average expected returns. When in place, special regulations for each of these seasons are implemented to maintain fishery impacts within conservation objectives. These regulations would include 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. If fisheries occur, the 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 2021 fisheries, regulations were adopted with the intention of reducing impacts on some of these stocks. Complete estimates of the 2021 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

Under the 2021 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 and KRFC. 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 2021. ODFW is developing alternative 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 34,992 naturally-produced fall Chinook adults passing Huntley Park in the Rogue River was met in 2021.

2.3.1 North Migrating Chinook

Index counts of adult spawners (peak count per index mile) were conducted for six of the nine standard streams and used to measure natural spawner escapement trends for north-migrating fall Chinook in 2021. Data have been collected since about 1950 for most systems. Overall peak Chinook adult index spawner counts in 2021 were preliminarily estimated at 85 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 2019, 2020, and 2021 was 91 fish per mile, which exceeded both the MSST (30) and the MSY spawner escapement level. Estimates of exploitation rates were not available for 2020 or 2021, 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).

2.3.2 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 2021 preliminary estimate was reported at 20 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 2019, 2020, and 2021 was 30,706, 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).

2.4 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 upper Columbia summer Chinook is also included. Management details for Columbia River spring Chinook stocks are not discussed. Councilmanaged 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 the *Joint Staff Report:* stock status and fisheries for fall Chinook salmon, coho salmon, chum salmon, summer steelhead, and white sturgeon published annually by the joint staffs of ODFW and WDFW.

Management Objectives

In 2021, Council-area fisheries north of Cape Falcon were managed to access URB, 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 38.0 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 20,400. 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 a key consideration for management of Council-area Chinook fisheries north of Cape Falcon. However, the impacts on LCR natural tule Chinook did not limit, by itself, the fisheries north of Cape Falcon in 2021.

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 2021 forecast for the combined abundance of Chinook stocks contributing to AABM fisheries was higher than in 2020 but was lower than the most recent ten-year average. The impacts of northern fisheries on Columbia River stocks are included in the modeling of Council-area fisheries.

The 2021 overall non-Indian Chinook total allowable catch (TAC) for North of Cape Falcon was 58,000. This compares to a 2020 non-Indian TAC of 54,000. The 2021 overall TAC was divided into 30,750 commercial and 27,250 recreational. The 2021 treaty Indian ocean troll TAC was 40,000 Chinook and is applicable to the May-September period. This compares to a 2020 treaty Indian TAC of 35,000. 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 May 16-June 29 with landing and possession limits of 75 Chinook per vessel per landing week (Thursday – Wednesday) in the management areas north of the Queets River and south of Leadbetter Point. This fishery had a preseason quota of 15,375 Chinook, no more than 5,680 of

which may be caught in the area between the U.S./Canada border and the Queets River, and no more than 4,195 of which may be caught in the area between Leadbetter Pt. and Cape Falcon.

The July 1 through September 30 non-Indian commercial all-salmon fishery had a preseason quota of 15,375 Chinook with landing and possession limits of 20 marked coho per vessel per landing week (Thursday-Wednesday).

Recreational

In the area between the U.S./Canada Border and Cape Falcon, the coastwide quota was 27,250 Chinook. All subareas opened on June 19 and were scheduled to close September 15. In the management areas south of the Queets River, the two-salmon daily bag limit was set to include only one Chinook, and the minimum size limit was modified to 22 inches.

Treaty Indian Ocean Harvest

The Tribal troll ocean fishery (also known as the Treaty troll fishery) quotas were limited by the conservation concerns for ESA-listed Chinook, select coho stocks that have been declared overfished. The 2021 Chinook Tribal troll quota of 40,000 was higher compared to the 2020 quota. The Chinook quota was split 50/50 between the May-June and July-September 15 sub-quotas. The 2021 coho Tribal troll quota of 26,500 was an increase when compared to the 2020 quota of 16,500. 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 September 15 with a sub-quota of 20,000 Chinook and a coho quota of 26,500.

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 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 120,000 to 200,000 URB, including at least 8,000 SRW fall Chinook, the allowable URB impact rate would be 31.25 percent. NMFS used the URB impact rate as a proxy in the SRW consultation standard. A new 10-year *U.S.* v *Oregon* management agreement for 2018-2027 was finalized, and NMFS issued a new Biological Opinion in February 2018.

In 2021, the fall fisheries were managed to achieve the NMFS ESA consultation standards for threatened LCR natural tule and SRW Chinook, and the 2021 URB and SRW preseason forecast run sizes (354,200 and 11,000, respectively) were both large enough to allow a 31.25 percent harvest rate in inriver fisheries.

Within the ESA limitations there were harvestable numbers of salmon available for most major stocks in 2021. While preliminary postseason run reconstructions were complete for spring and summer Chinook salmon, the postseason fall Chinook run reconstruction was not completed in time for this report. The preliminary catch estimates (adults) for the non-Indian commercial net fisheries were 644 spring and 0 summer Chinook. The preliminary catch estimate (adults) for the

recreational fisheries totaled 5,339 spring Chinook and 2,385 summer Chinook in mainstem sport fisheries below and above Bonneville Dam (Appendix B, Table B-20).

Escapement and Management Performance

2.4.1 Upper Columbia Summer Chinook

Upper Columbia summer Chinook met the escapement objective, and Columbia River fall Chinook are expected to also meet the escapement objectives (Table II-5). The number of URB fall Chinook counted at McNary Dam was 172,259, and the natural area spawner escapement is expected to exceed the MSY level of 39,625 adults established under FMP Amendment 16. The upper Columbia summer Chinook escapement (Rock Island Dam count) in 2021 was 52,076, exceeding the MSY spawner escapement objective of 12,143 adults established under FMP Amendment 16.

The geometric mean of upper Columbia summer Chinook adult escapement in 2019, 2020, and 2021 was 53,273, which exceeded the MSST (6,072); therefore, upper Columbia summer Chinook should not be considered overfished (Table II-6). Estimates of combined ocean and in-river exploitation rates were not available for 2020 or 2021, but the 2019 exploitation rate of 0.26 was below the MFMT (0.75); therefore, upper Columbia summer Chinook did not experience overfishing in 2019 (Table II-6).

2.4.2 Upriver Bright Fall Chinook

The preliminary 2021 URB in-river harvest rate estimate was not available in time for this report. The total count of adult fall Chinook (SRW, hatchery, and supplementation) at Lower Granite Dam in 2021 was 31,358, which was greater than the count of 24,558 in 2020. The preliminary estimate of URB spawning escapement in 2021 was 102,616 adult Chinook.

The preliminary geometric mean of Columbia URB fall Chinook adult escapement in 2019, 2020, and 2021 was 92,302, which exceeded the MSST (19,182); therefore, Columbia URB fall Chinook should not be considered overfished (Table II-6). Estimates of combined ocean and in-river exploitation rates were not available for 2020 or 2021, but the 2019 exploitation rate of 0.37 was below the MFMT (0.86); therefore, Columbia URB fall Chinook did not experience overfishing in 2019 (Table II-6).

2.4.3 Snake River Wild Fall Chinook

The estimated number of SRW adult fall Chinook at Lower Granite Dam in 2021 was 7,162. Postseason estimates of the exploitation rate on SRW fall Chinook in ocean fisheries were unavailable.

2.4.4 Lower Columbia River Natural Tule Fall Chinook

Table II-7 provides conservation objective and fishery impacts for Lower Columbia River (LCR) Natural tule fall Chinook, recent year estimates are preliminary.

2.5 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 2021.

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.

2.5.1 Willapa Bay Chinook

Inside Harvest

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

A Chinook directed non-Indian gillnet fishery was not conducted during July and August 2021. Beginning in 2015, the Willapa Bay Salmon Management Policy (C-3622) prohibits Chinook directed non-Indian gillnet fisheries until after Labor Day. The 2021 preseason forecast of Chinook returning to Willapa Bay was 34,394 fish (3,924 natural and 30,470 hatchery). There were 24 12-hour Chinook and coho directed non-Indian gillnet fishery openings from August 20 through November 15, 2021. Retention of unmarked Chinook was prohibited. Total Chinook harvest in the non-Indian gillnet fisheries during 2021 was 4,058 fish, based on preliminary data.

There were four emergency regulations issued in-season for the commercial salmon fishery between September 12 and November 16, 2021.

- The first emergency regulation closed three commercial salmon fishing days in management week 38 due to higher impacts on natural origin fall Chinook than predicted preseason.
- The second emergency regulation closed a day in a single area and changed the gear type used from larger gillnet mesh to the smaller tangle net gear for the remainder of that management week for all areas. This again was due to higher impacts of natural original fall Chinook than predicted preseason.
- The third emergency regulation closed all commercial salmon fishing in Willapa Bay on November 1, 2021. This was due to Willapa Bay chum catch higher than predicted preseason.
- The final emergency regulation issued for the commercial salmon fishery in Willapa Bay for 2021 closed November 8 and 15, 2021 due to the catch of Willapa Bay natural origin coho being higher than predicted preseason and the low natural origin coho forecasted for 2021.

Recreational salmon fisheries in the marine waters of Willapa Bay (Area 2-1) were open from June 19 through July 31, 2021, concurrent with Marine Area 2 (ocean rules applied). From August 1, 2021, through January 31, 2022, Willapa Bay marine waters 2-1 were scheduled to be open to recreational salmon fishing with a daily-bag-limit of 6 salmon, only 2 may be adults. Anglers were required to release unmarked Chinook and unmarked coho. Anglers could 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, 2021 and remained open through January 31, 2022. 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. All freshwater systems in Willapa Bay were open to recreational salmon fishing with a daily-bag-limit of 6 salmon, only 2 may be adults. Anglers were required to release unmarked Chinook and unmarked coho. Anglers could fish with two poles in sections of the Naselle and Willapa rivers with the Two-Pole Endorsement.

Expected Chinook harvest in all recreational fisheries based on preseason forecast abundances was 5,030 hatchery and wild Chinook combined for the 2021 season. Marine and freshwater recreational harvest estimates were unavailable for 2021, but the 2020 marine area 2-1 and freshwater recreational estimates totaled 3,774 Chinook.

Escapement and Management Performance

In 2020, hatchery-origin Chinook returning to the Willapa Bay watershed totaled 29,798 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. The 2021 escapement estimate was unavailable.

The 2020 natural escapement was 3,585 Chinook, above the FMP objective of 3,393. The 2021 escapement estimate was unavailable.

The geometric mean of Willapa fall Chinook adult escapement in 2018, 2019, and 2020 was 3,091, which exceeded the MSST (1,696); therefore, Willapa Bay fall Chinook should not be considered overfished (Table II-6).

Exploitation rate estimates for Willapa Bay fall Chinook were available through 2019 and calculated using Queets River fall Chinook CWTs as a surrogate for ocean fishery exploitation rates. For terminal fisheries, adjustments were made to the Queets River CWT-based exploitation rates to account for harvest rates that occurred in the Willapa Bay terminal area. In 2017, 2018, and 2019 the Willapa Bay fall Chinook exploitation rates were 0.51, 0.61, and 0.73 respectively; all of which were below the MFMT (0.78); therefore, Willapa Bay fall Chinook were not subject to overfishing during the most recent three years of available data (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.

2.5.2 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 has not conducted any spring/summer or other commercial gillnet fishery on the Chehalis River and in Grays Harbor commercial fishing Areas 2A, 2A-1, and D since 2018 because of forecasts of low spring/summer Chinook stock abundances. A fishery in marine area 2C and the lower Humptulips River limited to mesh between 5½ to 6½ inches was conducted in 2021 from June 21 to July 28 at 2½ days per week. No spring/summer fisheries were directed at salmon or white sturgeon in 2021.

There were no non-Indian recreational fisheries allowing the retention of spring Chinook in the Chehalis River during the spring Chinook management period. The Chehalis Tribe did not conduct a spring Chinook commercial fishery in 2021.

In 2021, The Quinault Indian Nation conducted a fall gillnet fishery harvesting a total of 2,408 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 excluded 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 2021 fishery was scheduled on the Chehalis side to run from week 40 to week 48, during the weeks beginning Sunday September 26 at 2 days, then beginning October 3 at 2 days, and then week 42 beginning October 10 at 2 days. The fishery closed during weeks 43 and 44, then opened week 45 during two open periods. It opened first on Sunday, October 31, closing on Tuesday, November 2, and then opening again on Thursday, November 4 and then closing on Saturday, November 6. During week 46, the fishery opened Sunday, November 7, then closed Wednesday November 10. During week 47, the fishery opened Tuesday November 16, then closed on Friday, November 19. During week 48 the fishery was set at 3 days beginning Sunday, November 21 and closing on Wednesday, November 24. All weeks of Chehalis fishing were conducted with a 6 ½-inch maximum mesh size restriction. The Chehalis side fishery then remained closed through the following winter steelhead season, because of a low forecast of wild returns. The Chehalis area treaty Indian fishery catch of 1,692 Chinook was close to the predicted catch of 1,631.

The Humptulips area treaty Indian fishery schedule was also set with a 6½-inch maximum mesh restriction through the fall period from weeks 39 through 48. The week 39 was open for 5 days beginning Sunday, September 19 and closing on Friday September 24. Week 40 was open for 3 days beginning Tuesday, September 28 and closing on Friday, October 1. In week 41 the fishery opened for 3 days beginning Tuesday, October 5 then closed Friday, October 8. The fishery then closed for three weeks. In week 45 the fishery re-opened for 5 days, opening Sunday, October 31 and closing on Friday, November 5. Week 46 was open 3 days beginning Monday, November 8 and closed on Thursday, November 11. During week 47, the fishery opened 3 days beginning Tuesday, November 16 and closing Friday November 19. During week 48 the fishery was set at 3 days beginning Sunday, November 21 and closing on Wednesday, November 24. The Humptulips reported harvest was 716 Chinook. The Chinook catch was about 50% of the expected catch of 1,481. The combined Grays Harbor Chinook catch of 2,408 was lower than the expected catch of 3,112 (77% of the total expected catch).

The non-Indian gillnet fishery in Humptulips commercial Area 2C harvested 75 Chinook for three 24-hour days during week 43 starting October 17 and two 24-hour days beginning October 24. The non-Indian gillnet mark-selective fishery in the Chehalis River commercial Areas 2A and 2D harvested 2 hatchery-origin Chinook for three 12-hour day scheduled during week 44 (week of October 24), and two 12-hour days during week 45 (week of October 31). It is estimated that 24 unmarked Chinook mortalities occurred during this fishery based on data collected during onboard monitoring, catch accounting, and a 56 percent mortality rate of encountered unmarked Chinook. It is estimated that another 3 Chinook mortalities occurred due to net drop out. During these fisheries all areas of 2D were open, however, live boxes were required, and wild Chinook retention was prohibited.

A 2021 recreational mark-selective fishery in the northern portion of Marine Area 2-2 and Commercial Area 2C was open from August 1 through September 23. During this time, the daily bag limit was 1 adult salmon, however, wild Chinook and wild coho were required to 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, all Chinook were required to be released.

A recreational mark-selective Chinook fishery was scheduled on the mainstem Humptulips River from the mouth to the confluence of the East and West forks that opened September 1 through October 31. The daily limit was 2 adults during the month of September, then reduced to one adult fish through the end of the schedule.

No recreational fisheries targeting Chinook were scheduled in 2021 in the Chehalis River or any of the tributaries, including the Hoquiam and Wishkah basins.

Escapement and Management Performance

Chehalis River spring Chinook, also referred to as Grays Harbor spring Chinook, are of natural origin and managed for an escapement goal of 1,400 adults. The 2021 terminal run forecast was 1,082 adult fish, compared to the preliminary natural spawning escapement estimate of 2,573. The geometric mean of natural spawning escapement estimates in 2019, 2020, and 2021 is 1,927 fish, which exceeded the MSST (546); therefore, Grays Harbor spring Chinook should not be considered overfished (Table II-6).

The 2021 Grays Harbor fall Chinook run size forecast was for 15,520 natural and 7,559 hatchery adults. The return of hatchery-origin fall Chinook to Grays Harbor hatchery programs to date are 1,823 fish, sufficient to provide for 2022 fall Chinook production goals. The 2020 Grays Harbor fall Chinook run size of 27,128 included 20,642 natural and 6,486 hatchery adults. The combined components of the 2020 return were about 46% larger than the 2020 forecast of 15,001.

Grays Harbor fall Chinook are managed for a natural spawning escapement goal of 13,326 adults. The preliminary natural spawning escapement estimate for 2021 was not available. The final 2021 spawning ground escapement estimate for the Grays Harbor fall Chinook is in development by QIN and WDFW. The 2020 natural origin spawning escapement estimate was 18,246 out of a total natural escapement of 20,879. The geometric mean of natural spawning escapement estimates in 2018, 2019, and 2020 was 18,609, which exceeded the MSST (5,694); therefore, Grays Harbor fall Chinook should not be considered overfished (Table II-6).

Exploitation rate estimates for Grays Harbor fall Chinook were available through 2019 and calculated using Queets River fall Chinook CWTs as a surrogate for ocean fishery exploitation rates. For terminal fisheries, adjustments were made to the Queets River CWT-based exploitation rates to account for harvest rates that occurred in the Grays Harbor terminal area. Exploitation rate estimates in the most recent years available were below the MFMT (0.78); therefore, Grays Harbor fall Chinook should not be considered subject to overfishing (Table II-6).

2.5.3 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 Quinault 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.

In 2021, the tribal fishery had a reported harvest of five spring/summer Chinook during the midsummer fishery running from mid-June through the first week of July during a fishery directed on sockeye. Subsequent commercial salmon fisheries were closed until the fall fishing period.

The 2021 recreational fishery within the Quinault Indian Reservation was conducted from August 29 through December 1 under regulations with COVID restrictions for the safety of tribal and non-tribal fishers. The Quinault River mainstem had a bag limit of 1 adult Chinook beginning September 1.

Non-treaty recreational fishery upstream of Lake Quinault was open from July 1 through September 30 for jack salmon only. From October 1 through November 30 anglers are allow a daily limit of 2 adult salmon but required to release sockeye and chum salmon.

The 2021 treaty Indian gillnet fishery harvested 6,818 fall Chinook. The 2021 commercial schedule was similar to 2020, except that it began in week 36 instead of week 35 as in the previous season. It was open an average of about 4 days per week to provide harvest opportunity in the months of September through November. The Quinault River Fall gillnet fishery is designed to maximize harvest opportunity during hatchery Chinook and coho entry while reduced effort occurs during the scheduled fishing days later in the season during primarily wild Chinook and wild coho entry.

Escapement and Management Performance

Quinault fall Chinook are managed for hatchery production. The 2021 fall Chinook natural spawning escapement is expected to be available for 2022 management planning. Hatchery fall Chinook egg-take goals for the Quinault River were attained at the Lake Quinault tribal hatchery.

2.5.4 Queets River Chinook

Inside Harvest

Historical terminal run size, catch, and escapement data for Queets River Chinook stocks are presented in Appendix B, Tables B-29 and B-30.

The 2021 treaty Indian gillnet harvest of spring/summer Chinook remained closed through the summer months until week 36, the normal fall opening period, with the treaty commercial fishery opening to target early entering hatchery coho. There were 369 Chinook taken in week 36 during

a 4-day schedule, and another large catch in week 37 during a 4-day schedule that occurred during low late summer flows.

There were no non-Indian recreational fisheries allowing the retention of spring Chinook in the Queets River basin during the spring/summer Chinook management period.

The 2021 recreational fishery within the Quinault Indian Reservation was conducted from August 29 through December 1 under regulations with COVID restrictions for the safety of tribal and non-tribal fishers. The Queets River mainstem catch bag limit of 2 adult Chinook was allowed beginning September 1.

The 2021 non-Indian in-river recreational fishery was open in September only in the Clearwater and Salmon rivers. Anglers were allowed to retain one Chinook per day. In the Queets River, within the Olympic National Park, the fishery was open September 1 through November 30 and anglers were required to release all wild fish encountered. Catch during these fisheries are not available for 2021, but 127 adult fall Chinook were harvested during the 2020 season.

Fall Chinook were harvested in the 2021 treaty gillnet fishery, which opened during Week 36 (beginning August 29) running at 4 days each week through week 38 open from Sunday through Thursday with a maximum 6 ½ stretch gill-net web. The week 39 fishery subsequently ran from Sunday through Tuesday at 2 days with 6 ½ inch web. Beginning week 40 the remaining fishery was set with a minimum 9-inch stretch web to target chinook while limiting wild coho catch. The remaining fishery schedule began in week 40 and scheduled one (1) day opening Monday September 27. The fishery then continued at one (1) day during week 43, opening on October 17 at one (1) day and then in week 45 opening on November 1 then closing November 2 for the remainder of the fall season. The fall fishery was directed at harvesting hatchery coho using 6 ½ inch maximum mesh and available Chinook, while limiting the harvest of wild coho using 9-inch minimum mesh. The treaty Indian commercial gillnet fishery harvested 1,537 fall Chinook compared to a preseason expected commercial catch of 874. The Chinook catch exhibited similar large catches during weeks 36, 37, and week 40 during the 2021 season.

The catch estimate for the 2020 recreational salmon fisheries was 114 fall Chinook. The 2021 Queets mainstem recreational fishery was regulated with a bag limit of 2 chinook beginning September 1 through October 31. During this period coho retention was allowed until September 30, then prohibited beginning October 1 through the remaining season. The Salmon River recreational salmon fishery was open from August 29 to October 17 to target hatchery coho along with requiring non-retention of fall chinook. Catch estimates for 2021 recreational salmon fisheries were unavailable.

Escapement and Management Performance

The Queets River spring/summer Chinook spawning escapement estimate for 2021 is currently under development and review. The 2020 escapement estimates for Queets River spring/summer Chinook was 342. The geometric mean of the adult spawning escapement in 2018, 2019, and 2020 is 376, which is above the MSST (350), therefore, Queets River spring/summer Chinook should not be considered overfished (Table II-6).

The 2021 Queets River fall Chinook spawner survey estimate will be available prior to the March Council meeting in 2022. The indicator Chinook originate from wild brood stock taken each year in the river. The 2020 spawning escapement estimate for Queets River fall Chinook was 3,459 natural plus indicator returns with an additional 155 chinook including 4 indicator Chinook taken for broodstock. In Appendix Table B-30, fish removed from the river for hatchery (indicator) brood stock are included in the escapement columns (footnote b/) and only natural broodstock are included in the terminal natural run size columns.

The geometric mean of Queets River fall Chinook adult spawning escapement in 2018, 2019 and 2020 is 2,729, which exceeded the MSST (1,250); therefore, Queets River fall Chinook should not be considered overfished (Table II-6). Exploitation rates were not available for Queets River fall Chinook for 2020 and 2021 but between 2016 and 2019 the exploitation rates ranged from 0.55 to 0.66 percent, all of which were below the MFMT (0.87); therefore, Queets River fall Chinook should not be considered subject to overfishing (Table II-6).

2.5.5 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 2021 Hoh River spring/summer Chinook terminal abundance forecast was 988 fish. The tribal fishery targeted 3.9 percent of the terminal run with commercial and ceremonial and subsistence fisheries. The treaty Indian gillnet fishery occurred from the week of May 3 to the week of June 14. The Tribal commercial fishery harvested 64 natural spring/summer Chinook and 88 hatchery spring/summer Chinook for a total of 152 spring/summer Chinook.

The non-Indian recreational salmon fishery was closed, June 1 through September 15.

Hoh River fisheries for fall Chinook were based on an expected terminal run size of 2,596 adults, allowing for a terminal harvest rate of 23.7 percent. The spawning escapement was expected to be 1,981 adults.

The treaty Indian fishery targeted 17 percent of the terminal run. The treaty Indian gillnet fishery was closed during weeks 36 and 37, open one day per week during weeks 38-45. The Hoh treaty commercial fishery caught approximately 1,158 Chinook.

The non-Indian recreational salmon fishery was open September 16 through November 30, from the Olympic National Park boundary upstream to the Oxbow Campground boat launch, and open October 16 through November 30 from the Oxbow Campground upstream to Morgans Crossing Boat Launch. The daily-bag-limit through November 30 was 2 salmon, of which 1 adult could be retained, and only 1 single-point barbless hook allowed. Sport catch is not yet available for 2021.

Escapement and Management Performance

The preliminary 2021 spawning escapement estimate for Hoh River spring/summer Chinook is not available. The geometric mean of Hoh River spring/summer Chinook spawner escapement in

2018, 2019, and 2020 was 912, 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. 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 2021 spawning escapement estimate for Hoh River fall Chinook is not available. The geometric mean of Hoh River fall Chinook adult spawning escapement in 2018, 2019, and 2020 was 2,060, which exceeded the MSST (600); therefore, Hoh River fall Chinook should not be considered overfished (Table II-6).

Exploitation rate estimates for Hoh River fall Chinook were available through 2019 and calculated using Queets River fall Chinook CWTs as a surrogate for ocean fishery exploitation rates. For terminal fisheries, adjustments were made to the Queets River CWT-based exploitation rates to account for harvest rates that occurred in the Hoh River terminal area. Exploitation rate estimates were not available for 2020 and 2021 but ranged from 0.55 to 0.66 between 2016 and 2019, all of which were below the MFMT (0.90); given these assumptions, Hoh River fall Chinook should not be considered subject to overfishing (Table II-6).

2.5.6 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 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/summer Chinook were established by a preseason management agreement between WDFW and the Quileute Tribe. The total Indian gill net (IGN) catch for 2021 was 631 hatchery and 74 natural spring/summer Chinook. Chinook taken in the ceremonial and subsistence fishery are included in the IGN catch. The Quillayute system was closed to all recreational fishing April 1 through April 30 and August 1 through September 15 in 2021, and WDFW required the release of unmarked Chinook in fisheries through July to reduce impacts of the recreational fishery on the natural spring/summer Chinook stock. Sport catch is not yet available for 2021, recent year averages are used as a placeholder for 2021 in the B tables until those estimates are available.

The recreational and tribal fisheries for fall Chinook were established by a preseason management agreement between WDFW and the Quileute Tribe. The total 2021 Quileute IGN harvest of fall (natural) Chinook was 715 and catch of stray fall hatchery Chinook was 3 for a total harvest of 718. Catch for ceremonial and subsistence use is included in the IGN harvest numbers. Sport catch is not yet available for 2021.

Both the treaty and non-treaty fall fisheries were reduced from previous years for conservation reasons. In-river recreational fisheries were closed to all fishing April 1 through April 30 and August 1 through September 15, 2021. The recreational fishery in the Quillayute (park boundary to confluence of Bogachiel and Sol Duc) and Sol Duc (mouth to Sol Duc hatchery) was open February 1 through March 31 and May 1 through July 31 with up to two adults retained (release wild adult Chinook, wild adult coho, and sockeye), open September 16 through November 30 with up to three adult salmon of which one could be a natural Chinook (release wild adult coho and sockeye). The Bogachiel (mouth to highway 101 bridge), Dickey (ONP boundary to confluence with East and West Forks) and Calawah (mouth to highway 101 bridge) were open July 1 through July 31 with up to two adult salmon allowed (release wild adult coho and wild adult Chinook) and from September 16 through November 30 with a limit of one adult salmon (release wild adult coho). The Quileute Tribe greatly reduced the total number of days fished in their 2021 fall IGN fishery by being closed to fishing weeks 36 through 38 and 44 through 46, restricting weekly open periods to only 3 half days (6am-6pm) in weeks 39 and 40 and weeks 41 through 43 one half day only Additionally, week 39 was restricted to 73/4 inch minimum mesh, set net only, 25 fathom maximum length and weeks 40 through 43 were restricted to 7³/₄ inch minimum mesh.

Escapement and Management Performance

The 2021 management agreement called for an escapement goal of 600 hatchery spring Chinook. The actual hatchery rack return was 813 plus 180 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 2021 preliminary natural spawning summer Chinook escapement estimate was 748, which excludes 46 wild brood stock fish.

The geometric mean of Quillayute River summer Chinook spawner escapement in 2019, 2020, and 2021 is 1,003, which exceeded the MSST (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 are managed for a target 40 percent in-river harvest rate, equating to an escapement of 60 percent of the terminal return or 3,000 adults, whichever is greater. The preliminary 2021 escapement estimate of 3,873 fall Chinook was over the escapement floor and above the targeted escapement of 60 percent of the return (60 percent of the estimated preliminary return of fall Chinook is about 3,223).

The geometric mean of the Quillayute River fall Chinook adult spawning escapement in 2019, 2020, and 2021 was 6,389, which exceeded the MSST (1,500); therefore, Quillayute River fall Chinook should not be considered overfished (Table II-6).

Exploitation rate estimates for Quillayute River fall Chinook were available through 2019 and calculated using Queets River fall Chinook CWTs as a surrogate for ocean fishery exploitation rates. For terminal fisheries, adjustments were made to the Queets River CWT-based exploitation rates to account for harvest rates that occurred in the Quillayute River terminal area. Estimates of

exploitation rates were not available for 2020 or 2021 but ranged from 0.64 to 0.73 between 2016 and 2019, all of which were below the MFMT (0.87); therefore, Quillayute River fall Chinook should not be considered subject to overfishing (Table II-6).

2.5.7 Hoko River Chinook

Inside Harvest

Hoko River Chinook are harvested primarily 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 1980s, although some terminal catch is occasionally reported by anglers on WDFW Catch Record Cards. Historical terminal run size, catch, and escapement data for Hoko River summer/fall Chinook are presented in Appendix B, Table B-38.

Escapement and Management Performance

The 2021 escapement and terminal run size estimates for Hoko Chinook are not available. 2020 escapement estimate for Hoko Chinook is 1,839 spawning in the river (natural origin and hatchery strays combined) and 283 spawned at the hatchery for a terminal run size of 2,122.

The geometric mean of Hoko River summer/fall Chinook escapement in 2018, 2019, and 2020 is 2,032 which exceeds the MSST (425); therefore, Hoko River summer/fall Chinook should not be considered overfished (Table II-6). Exploitation rate estimates were not available for 2021, 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).

2.6 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 were 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 preseason. 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 for six 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 2021 was 84,815 Chinook, compared to 55,234 Chinook caught in 2020. The 2021 non-Indian net catch was 7,316 Chinook, compared to 9,286 Chinook caught in 2020. The 2021 treaty Indian net and troll harvest was 77,499 Chinook, compared to 45,948 Chinook caught in 2020.

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 2021 Puget Sound recreational fishery were unavailable.

Escapement and Management Performance

Puget Sound Chinook management goals for fishery planning processes in 2021 were compared to predicted escapements and 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-41. Recreational salmon catch estimates are summarized in Appendix B, Table B-40. Historical spring Chinook escapement data are presented in Appendix B, Table B-44.

Escapement and hatchery estimates for 2021 were not available for most runs. In many natural spawning areas, hatchery-origin Chinook comprise a large component of the natural spawning population.

2.7 Coastwide Goal Assessment Summary

In 2021, the Sacramento River fall Chinook and Klamath River fall Chinook adult spawner escapement fell below their FMP objectives. Information to assess compliance with FMP conservation objectives and ESA consultation standards was unavailable for LCR natural tule Chinook, several Washington coast Chinook stocks, and all Puget Sound natural Chinook stocks.

2.8 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 since 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 3-year geometric mean spawning escapement is greater than the MSST but less than S_{MSY}.
- A stock is rebuilt when the most recent 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 these SDCs, Sacramento River fall Chinook have been declared rebuilt, while Klamath River fall Chinook continue to meet the criteria for overfished status (using data from 2019-2021). In June 2018, NMFS published an overfished designation for these two Chinook stocks based on the geometric mean of escapement in 2015-17. Rebuilding plans for both of these Chinook stocks were completed in July 2019. Based on the most recent year exploitation rate estimates available, no stocks were subject to overfishing.

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

Year or		Upper River ^{a/}			Low er Rive	er	To	otal	_
Average	Hatchery	Natural ^{b/}	Subtotal	Hatchery	Natural ^{b/}	Subtotal	Hatchery	Natural ^{b/}	- Grand Total
1981-85	11,557	57,913	69,470	16,917	81,880	98,797	28,475	139,793	168,268
1986-90	11,507	87,396	98,903	11,521	73,633	85,154	23,028	161,029	184,057
1991-95	11,948	60,151	72,099	16,951	70,691	87,642	28,899	130,842	159,741
1996-00	29,965	153,777	183,742	21,137	137,071	158,207	51,102	290,848	341,949
2001-05	72,122	197,215 ^{c/}	269,337	30,520	214,652	245,172	102,643	411,867	514,510
2006	56,819	89,933	146,752	21,722	106,556	128,278	78,541	196,489	275,030
2007	11,543	36,079	47,622	9,759	33,993	43,752	21,302	70,072	91,374
2008	10,181	36,274	46,455	7,867	11,042	18,909	18,048	47,316	65,364
2009	5,433	12,277	17,710	10,492	12,671	23,163	15,925	24,948	40,873
2010	8,666	25,688	34,354	24,484	65,438	89,922	33,150	91,126	124,276
2011	19,312	20,466	39,778	22,176	57,388	79,564	41,488	77,854	119,342
2012	77,318	67,190	144,508	41,878	99,043	140,921	119,196	166,233	285,429
2013	67,758	90,119	157,877	33,453	215,516	248,969	101,211	305,635	406,846
2014	17,937	80,407	98,344	25,872	88,260	114,132	43,809	168,667	212,476
2015	13,861	40,696	54,557	25,103	33,808	58,911	38,964	74,504	113,468
2016	8,306	10,563	18,869	25,096	45,734	70,830	33,402	56,297	89,699
2017	1,316	1,526	2,842	25,162	16,325	41,487	26,478	17,851	44,329
2018	8,207	18,317	26,524	25,570	53,372	78,942	33,777	71,689	105,466
2019	13,065	53,706	66,771	29,073	67,923	96,996	42,138	121,629	163,767
2020	12,478	36,447	48,925	25,444	63,722	89,166	37,922	100,169	138,091
2021 ^{d/}	14,555	52,320	66,875	16,700	20,908	37,608	31,255	73,228	104,483
Goal ^{e/}									122,000

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 for 2002 was changed due to an extremely high Battle Creek escapement.

d/ Preliminary.

e/ Sacramento River fall Chinook S_{MSY}

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.

					Inri	ver			Non-la	anded	Inriver Run
Year or		Spaw ning	Escapement		Recreatio	nal Catch	Indian Ne	et Catch	Fishing I	Mortality	Size
Average	Hatchery	Natural	Total	Percent	Numbers	Percent	Numbers	Percent	Numbers	Percent	Numbers
1981-85	11,746	27,667	39,413	63%	5,096	8%	17,128	27%	1,593	2%	63,230
1986-90	25,106	70,785	95,891	63%	15,145	10%	36,669	25%	3,498	2%	151,203
1991-95	18,084	47,932	66,016	74%	3,094	5%	10,574	19%	983	2%	80,666
1996-00	35,970	54,229	90,199	72%	6,817	6%	24,565	20%	2,275	2%	123,856
2001-05 ^{a/}	38,952	56,346	95,298	70%	7,659	5%	25,414	19%	2,366	2%	136,848
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	3,578	13,937	17,515	71%	1,310	5%	5,160	21%	486	2%	24,582 b/
2017	11,213	19,904	31,117	94%	71	0%	1,880	6%	164	0%	33,232
2018	18,567	52,352	70,919	78%	4,110	5%	14,769	16%	1,262	1%	91,060
2019	5,178	20,022	25,200	68%	5,376	14%	5,989	16%	511	1%	37,084 b/
2020	8,331	26,185	34,516	76%	5,123	11%	5,212	11%	558	1%	45,409
2021 ^{c/}	12,850	29,942	42,792	79%	2,265	4%	8,066	15%	717	1%	53,954 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 lchthyophthirius multifiliis during the following years: 2014 - 272 adults; 2015 - 123 adults; 2016 - 111 adults, 2019 - 8 adults, 2021 - 113 adults and 6 jacks. c/ Preliminary.

d/ In December 2011, Amendment 16 to the Salmon Fishery Management Plan w as approved, w hich replaced the 35,000 spawning escapement floor w ith an SMSY management objective of 40,700 natural area adult spawners. The 35,000 spawner floor w as 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 SMSY in some years due to meeting SACL requirements and de minimis fishing provisions.

TABLE II-3.	Oregon coastal s	pring and fall Chino	ok hatchery return an	d harvest in estuary and	freshwater fisheries.
Year or	Public Ha	tchery ^{a/}	Private	Estuary and Fres	shwater Harvest ^{b/}
Average	Spring	Fall	All	Spring	Fall
		Т	HOUSANDS OF CHIN	IOOK	
1976-80	4.9	2.0	1.9	13.7	31.1
1981-85	5.0	3.0	12.8	8.2	26.8
1986-90	22.9	5.4	31.4	21.1	49.3
1991-95	15.7	3.3	4.1	15.2	49.6
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	-	18.3	117.2
2016	4.2	5.8	-	10.1	54.8
2017	5.1	3.1	-	9.8	56.0
2018	5.2	1.5	-	6.8	34.7
2019	5.2	2.5	-	NA	NA
2020	3.0	3.9	-	NA	NA
2021 ^{c/}	3.0	3.4	_	NA	NA

a/ Adults only.

b/ Freshw ater 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.al

TABLE 11-4.		paw ner Indices	I fall Chinook and south migrating/localized spring Chinook. South/local Migrating Spring Chinook				
_		Rogue River	_	s (1000's of fish)			
Year or	North Migrating Peak	(South/local migrating)	Rogue River	Umpqua River			
Average	Count Adults Per Mile	Adult Carcass Counts	Gold Ray Dam Counts ^{b/}	Winchester Dam Counts			
			-				
1976-80	72	5,256	26	6			
1981-85	89	3,906	16	5			
1986-90	141	16,797	29	8			
1991-95	116	4,387	10	4			
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	118	d/	10	4			
2017	114	d/	10	4			
2018	92	d/	10	3			
2019	65	d/	5	4			
2020	137	d/	4	6			
2021 ^{e/}	85	d/	5	2			
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/ \ln 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 2021 preseason conservation objectives (preliminary data).

(Page 1 of 2)

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	2021 Conservation/Management	
System and Stock	Objective(s)	2021 Achievement
Sacramento River Chinook		
Fall	Minimum escapement of 122,000 natural area and hatchery adults.	Preliminary estimate of 104,483 natural and hatchery adult fall Chinook is below the 2021 management objective.
Winter (Endangered)	Age-3 impact rate for the area south of Point Arena, CA no greater than 20.0% (NMFS ESA consultation standard).	Preseason projection of 14.7%; no postseason estimate w as available at time of printing.
Spring (Threatened)	No management objective	No management objective
California North Coast Chinoo	k	
Klamath River Fall	Minimum escapement of 31,574 natural area adult spaw ners.	Preliminary estimate of 29,942 is below the 2021 management objective.
California Coastal (Threatened)	No greater than 16.0% ocean harvest rate on age-4 Klamath River fall Chinook.	Preseason projection of 10.5%; 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).	85 natural adult spaw ners per mile, w ithin the aggregate stock index range.
South/Local Migrating Stocks	34,992 natural adult passage estimate at Huntley Park in the low er Rogue River.	48,870 natural adult passage estimate at Huntley Park, above the conservation objective.
Columbia River Basin Fall Chir	nook	
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 20,400, well above the conservation objective.
LCR natural tules (Component of threatened low er Columbia River	Total (ocean plus inriver) AEQ exploitation rate on ESA-listed natural tules of no more than 38.0%.	Preseason projection of 38.0%. Postseason estimate not available.
LRH	14,800 adult hatchery spawners.	Preseason LRH forecast w as 73,800. Postseason estimate not available.
SCH	6,000 adult hatchery spawners.	22,057 adult hatchery spawners, above the goal.
MCB	No FMP objective; target of 7,900 hatchery adults.	Preliminary estimate of 10,674 adult hatchery spaw ners, above the target.
URB	Minimum 40,000 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.	172,259 natural and hatchery adults over McNary Dam, well over the MSY target in FMP.

TABLE II-5. Performance of Chinook salmon stocks in relation to 2021 preseason conservation objectives (preliminary data). (Page 2 of 2)

(Fage 2 01 2)								
	2021 Conservatio	n/Management						
System and Stock	Objectiv	e(s)		2021 Achi	evement			
Columbia River Basin Fall Chir	nook (continued)							
Snake River Fall Chinook (Threatened; component of URB)	SRFI ≤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 0.503. Postseason estimate w as not available.				
Washington Coastal Chinook								
Fall	Natural spaw ner escapement objectives as provided in state-tribal agreements; meet hatchery egg-take goals and meet treaty Indian obligations.			Preliminary estimates: Quillayute was above the goal. Estimates for other fall stocks were not available.				
Spring/Summer	Natural spaw ner escapement objectives as provided in state-tribal agreements; meet hatchery egg-take goals and meet treaty Indian obligations.			Preliminary estimates: Grays Harbor was above the goal, and Quillayute was below the goal. Estimates for other spring/summer stocks were not available.				
Puget Sound Chinook (Threatened)	Minor part of WasI	nington ocean		Postseason estim	ates w ere not avai	lable.		
(harvest; Council o	-	nent	Preseason predictions of adult equivalent				
	not directed at the	-		•	and spaw ner objec			
	equivalent exploita	tion rate stand	ard	w ere:				
	developed for son	ne stocks:						
	Exploitation Rate	Spaw ner Es	c. ISBM	Exploitation Rate	Spaw ner Esc.	ISBM		
· Nooksack spring	≤10.5% SUS	-	<u>≤1.00</u>	10.5%	-	0.89		
· Skagit summer/fall	≤17% SUS	Ξ.	≤0.95	17.0%	-	0.66		
Skagit spring	≤10.3% SUS	= =	≤0.95	10.3%	-	NA ^{a/}		
· Stillaguamish summer/fall	≤22% Total	-	≤1.00	18.1%	-	0.58		
Snohomish summer/fall	≤8% SUS	_	≤1.00	6.3%	_	0.62		
Lake Wash, summer/fall	-	>0.500	_	-	0.547	-		
· White River spring	≤22% SUS	-	_	16.6%	-	_		
· Green River summer/fall	-	>1.200	_	-	1.669	_		
· Puyallup summer/fall	-	>0.750	_	_	0.929	_		
· Nisqually summer/fall	≤47% Total ^{b/}	-	_	47.7%	-	_		
· Skokomish summer/fall	≤50% Total	_	_	49.2%	_	_		
· Mid-Hood Canal fall	TBD	_	_	12.1%	_	_		
· Dungeness spring	≤10% SUS	_	_	3.6%	_	_		
· ⊟w ha summer/fall	≤10% SUS	_	_	3.8%	-	_		

a/ ISBM obligation not applicable because escapement goal expected to be met.

b/ An additional 2% ER may be added to facilitate inriver selective gear studies.

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).

		,	Spaw ning E	scapement												
							3-yr Geo				E	xploitat	ion Ra	te		
Chinook Stock	2016	2017	2018	2019	2020	2021	Mean	MSST	S_{MSY}	2016	2017	2018	2019	2020	2021	MFMT
Sacramento Fall	89,699	44,329	105,466	163,767	138,091	104,483	133,192	91,500	122,000	0.56	0.68	0.52	0.68	0.61	NA	0.78
Klamath River Fall	13,937	19,904	52,352	20,022	26,185	29,942	25,039	30,525	40,700	0.37	0.10	0.32	0.43	0.30	NA	0.71
Southern Oregon	27,278	91,977	39,497	19,426	30,497	48,870	30,706	20,500	34,992	NA	NA	NA	NA	NA	NA	0.78
Central and Northern ORa/	118	114	92	65	137	85	91	30 fish/mile	150k-200k	0.47	0.45	0.66	0.50	NA	NA	0.78
Upper River Bright - Fall ^{a/}	151,373	96,096	58,540	77,880	98,401	102,616	92,303	19,182	39,625	0.53	0.49	0.34	0.37	NA	NA	0.86
Upper River - Summer ^{a/}	79,253	56,265	38,816	41,090	70,654	52,076	53,273	6,072	12,143	0.55	0.46	0.54	0.26	NA	NA	0.75
Willapa Bay - Fall ^{b/}	1,888	3,147	2,847	2,894	3,585	NA	3,091	1,696	3,393	0.72	0.51	0.61	0.73	NA	NA	0.78
Grays Harbor Fall ^{a/b/}	11,248	17,145	20,741	14,880	20,879	NA	18,609	5,694	13,326	0.64	0.48	0.63	0.72	NA	NA	0.78
Grays Harbor Spring	926	1,384	493	983	2,828	2,573	1,927	546	1,400	NA	NA	NA	NA	NA	NA	0.78
Queets - Fall ^{a/}	3,035	2,822	2,207	2,663	3,459	NA	2,729	1,250	2,500	0.62	0.55	0.66	0.64	NA	NA	0.87
Queets - Sp/Su	704	825	484	322	342	NA	376	350	700	NA	NA	NA	NA	NA	NA	0.78
Hoh - Fall ^{a/b/}	2,831	1,808	2,478	1,552	2,273	NA	2,060	600	1,200	0.54	0.51	0.56	0.79	NA	NA	0.90
Hoh Sp/Su	1,144	1,364	793	766	1,248	NA	912	450	900	NA	NA	NA	NA	NA	NA	0.78
Quillayute - Fall ^{a/b/}	3,654	3,604	3,937	7,765	8,672	3,873	6,389	1,500	3,000	0.64	0.69	0.72	0.73	NA	NA	0.87
Quillayute - Sp/Su	871	1,097	990	1,442	935	748	1,003	600	1,200	NA	NA	NA	NA	NA	NA	0.78
Hoko -Su/Fa ^{a/}	1,324	1,188	2,179	1,815	2,122	NA	2,032	425	850	0.28	0.26	0.54	0.77	NA	NA	0.78

a/ Preliminary CWT based exploitation rates from PSC-CTC 2021 Exploitation Rate Analysis.

b/ Queets River fall Chinook coded-wire-tag (CWT) exploitation rates used as a proxy. Adjustments made to terminal fishery impacts to account for differential harvest rates.

TABLE II-7. Conservation objective and fishery impacts for Lower Columbia River Natural Tule Chinook.

•	LCR Natural Tule Fishery	Impact (Total Marine and Fres	hw ater Exploitation Rate)
Year	Conservation Objective	Preseason Projection	Postseason Estimate ^{a/}
2002	≤0.49	0.45	-
2003	≤0.49	0.47	0.39
2004	≤0.49	0.46	0.44
2005	≤0.49	0.44	0.51
2006	≤0.49	0.47	0.43
2007	≤0.42	0.42	0.47
2008	≤0.41	0.36	0.35
2009	≤0.38	0.38	0.38
2010	≤0.38	0.38	0.36
2011	≤0.37	0.37	0.42
2012	≤0.41	0.41	0.43
2013	≤0.41	0.41	0.35
2014	≤0.41	0.41	0.44
2015	≤0.41	0.40	0.36
2016	≤0.41	0.38	0.37
2017	≤0.41	0.37	0.37
2018	≤0.38	0.38	0.36
2019 ^{b/}	≤0.38	0.36	0.31
2020 ^{b/}	≤0.38	0.38	0.26
2021	≤0.38	0.38	NA

a/ Post season estimates for 2003-18 are from FRAM validation runs completed in Sept. 2021.

b/ Postseason estimates preliminary.

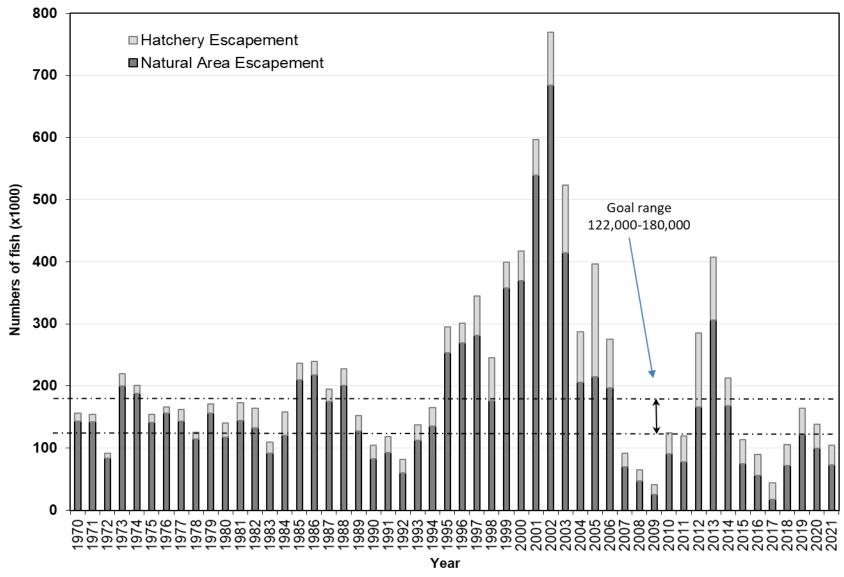


Figure II-1. Sacramento River adult fall Chinook spawning escapement, 1970-2021.

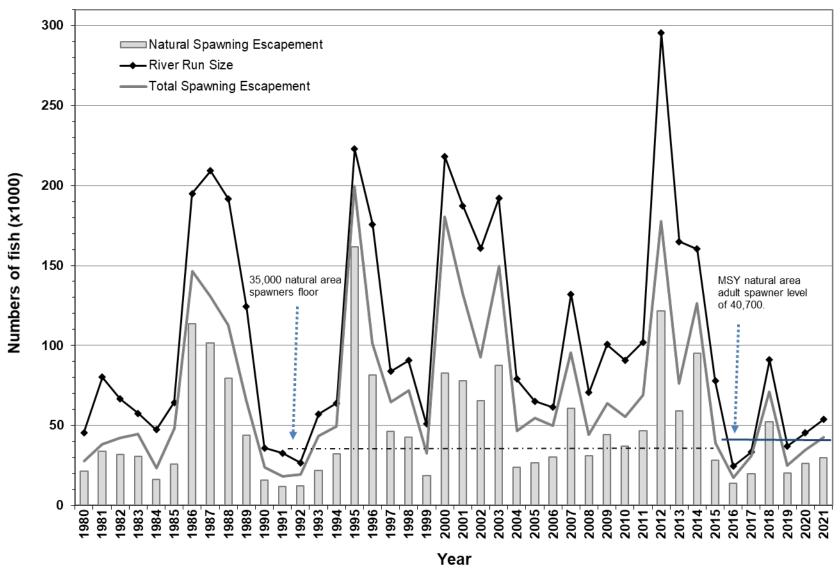


Figure II-2. Klamath River adult fall Chinook returns and spawning escapement, 1980-2021.

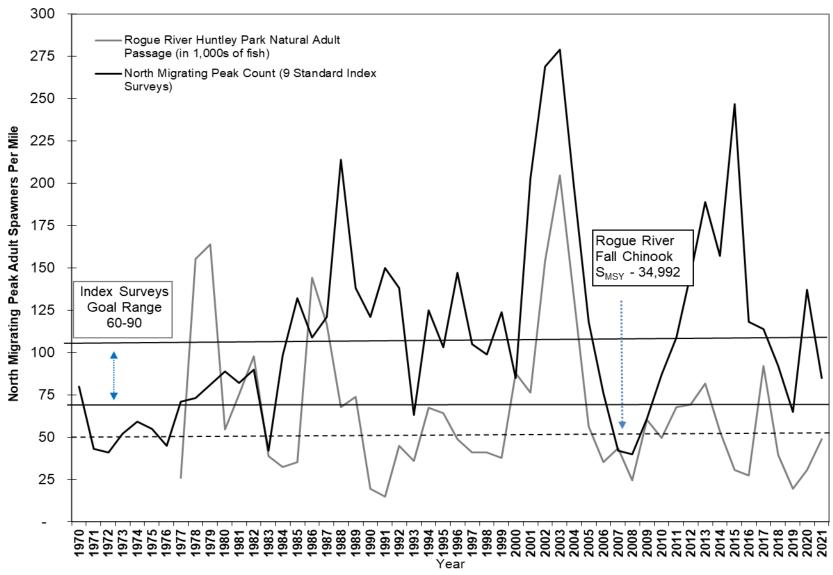


Figure II-3. Spawner indices for naturally produced Oregon coastal fall Chinook, 1970-2021.

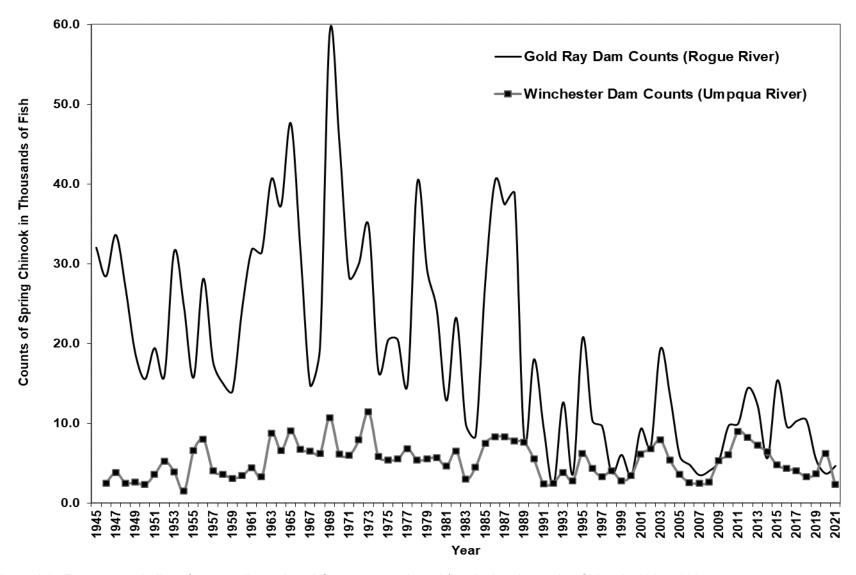


Figure II-4. Escapement indices for naturally produced Oregon coastal south/local migrating spring Chinook, 1945-2021.

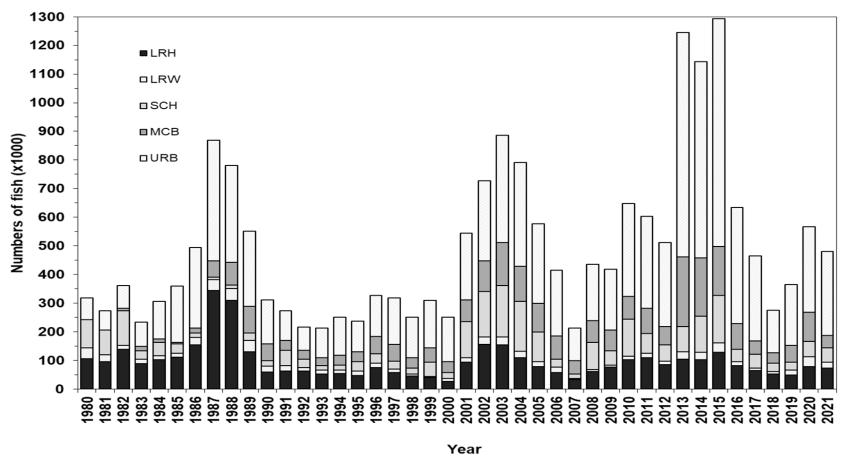


Figure II-5. Columbia River mouth adult returns of the five major fall Chinook stock groups, 1980-2021.

3 CHAPTER III – COHO SALMON MANAGEMENT

3.1 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 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 2021 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 30.0 percent.
- 4. Fishery impacts on threatened OCN coho must not exceed a coastwide marine and freshwater exploitation rate of 15.0 percent.

Based on parent escapement levels and the marine survival, the total allowable OCN coho exploitation rate for 2021 fisheries was no greater than 15.0 percent under the Salmon FMP (Amendment 13) and no greater than 15.0 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 2.7 percent for RK coho in marine fisheries, 12.8 percent for OCN coho in marine and freshwater fisheries combined, and 10.1 percent for LCN coho in marine and freshwater fisheries combined.

Total coastwide allowable harvest set preseason for treaty Indian troll fisheries, non-Indian commercial troll fisheries, and recreational fisheries were 26,500 15,000, and 204,000 coho, respectively. 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 except for limited fisheries in 2007, 2009, 2014, and 2021. In 2021, a fishery from Cape Falcon to Humbug Mountain had a quota of 10,000 marked coho.

All species treaty Indian fisheries north of Cape Falcon were not restricted to mark-selective retention of coho and operated on an overall quota of 26,500 coho (Table I-2).

Non-Indian commercial troll fisheries from Cape Falcon to the U.S./Canada border in 2021 had an overall quota of 5,000 marked coho. (Table I-1). The fisheries were restricted to mark-selective retention of coho.

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 2021, the recreational coho fisheries north of Cape Falcon operated with a mark-selective quota of 70,000 (Table I-3). The recreational fishery between Cape Falcon and the Oregon/California border operated with a mark-selective quota of 120,000. After inseason adjustments, a non-mark-selective fishery with a quota of 20,230 occurred in September between Cape Falcon and Humbug Mountain (Table I-3).

Inside Harvest

Coho retention in all California fisheries was prohibited.

The 2021 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 2021 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 three lake systems and four rivers in 2021. The preliminary total catch estimate for these fisheries was 5,598 coho.

The 2021 Columbia River non-Indian commercial net fishery harvested 112,100 adult coho. Select Area fisheries in both Oregon and Washington accounted for 96,700 of the total 2021 Columbia River commercial coho catch. The Columbia River treaty Indian mainstem commercial gillnet catch was approximately 23,200 coho. Columbia River commercial coho fishery harvest was mostly mark-selective in 2021. Coho harvest information for Columbia River commercial and recreational fisheries are reported in Appendix B, Table B-21.

In 2021, all lower Columbia River recreational fisheries were mark-selective for coho, and barbless hooks were required in mainstem fisheries. The upriver boundary for the Buoy 10 fishery was at the Tongue Point, Oregon to Rocky Point, Washington line. The Buoy 10 fishery opened August 1 for Chinook and marked coho with a daily-bag-limit of two fish. Chinook were restricted to marked only through August 10 and Chinook retention was closed from August 27 through September. The daily-bag-limit increased to three fish on September 7 through the end of the year but only one Chinook when retention allowed. The 2021 Buoy 10 effort totaled 105,900 angler trips (Table III-2) and resulted in a harvest of 37,000 adult coho. Historical Buoy 10 catch and effort data are provided in Appendix B, Table B-22. Recreational coho harvest estimates for Columbia River mainstem downstream of Bonneville Dam are reported in Appendix B, Table B-21.

Escapement and Management Performance

The overall abundance estimate for OPI area stocks in 2021 was 1,126,900 compared to 499,700 in 2020, and to the recent ten-year average of 564,000 (Table III-3; Figure III-1). All Councilarea coho fisheries and quota limits are included in Table I-6.

3.1.1 Central California Coast and Northern California Coho

Table B-7 displays natural area coho spawning stock estimates for nine watersheds that have only recently been reported in this document, although estimates are mostly unavailable for the 2021/22 escapements.

For SONCC coho, redd counts are conducted in Redwood Creek, four tributaries to Humboldt Bay, and the South Fork Eel River. During the 2020/21 season there were 1,132 redds counted in the Humboldt Bay tributaries and 617 redds counted in the South Fork Eel River (redd counts were

not available for Redwood Creek). In Freshwater Creek, one of the tributaries to Humboldt Bay that is included in the redd count, there are also escapement estimates derived from mark-recapture surveys. In 2020/21, 335 coho were estimated to have entered Freshwater Creek. In the Klamath Basin, estimates are available for escapement to hatcheries. In 2021/22, a total of 2,383 coho returned to Trinity River Hatchery and 1,138 coho returned to Iron Gate Hatchery (hatchery spawners are not reported in Table B-7).

For CCC coho, Table B-7 displays escapement estimates for Ten Mile River, Pudding Creek, Noyo River, and Big River. During the 2020/21 season, an estimated 2,479, 399, 1,541, and 866 coho returned to these watersheds, respectively (escapement estimates were not available for Little River). Further south in the CCC coho ESU, redd counts are conducted in the Lagunitas Creek basin. In 2020/21 and 2021/22, 161 and 179 redds were counted, respectively. The 2021/22 spawning season for this watershed was not complete at the time of this report's publication, and the final redd count will likely change.

3.1.2 Oregon Coast Natural Coho

The 2021 preliminary estimate of natural spawner escapement to Oregon coastal river and lake systems from the Sixes River north (Oregon Coast ESU) was 242,400 adult coho. This compares to 111,500 adults in 2020. 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 highest since 2014. The total estimate of the natural spawning population in 2021 was 251,400, 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 11.3 percent, which is lower than the preseason projection of 12.8 percent, and less than the 15.0 percent maximum allowed under the OCN work group matrix.

Preliminary postseason estimates of marine exploitation on RK coho is 2.1 percent, which is lower than the preseason projection of 2.7 percent, and less than the 13.0 percent maximum ESA consultation standard.

3.1.3 Oregon Coastal Hatchery Coho

The preliminary estimate of total coho returns to Oregon coastal public hatcheries in 2021 is 6,700 adults (Table III-1).

3.1.4 Columbia River Coho

The 2021 ocean escapement of adult early and late Columbia River coho stocks was 665,600 fish, compared to 338,600 adults in 2020 (Appendix B, Table B-21).

Preliminary postseason estimates of marine exploitation on LCN coho was 7.8 percent, which is higher than the preseason projected 6.6 percent. The total exploitation rate (marine and freshwater), was estimated at 10.4 percent, less than the 30.0 percent allowed (Table III-5).

3.2 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, 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 for Grays Harbor and Olympic Peninsula coho stocks include 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.

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 2021 Council-area ocean fishery management, particularly north of Cape Falcon. All ocean non-tribal coho fisheries both north and south of Cape Falcon were mark-selective except for a September recreational coho fishery south of Cape Falcon. Season and size limit details are presented in Tables I-1, I-2, and I-3.

3.2.1 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 2021 gillnet coho harvest in Willapa Bay totaled 24,810 fish. Based on the preseason forecast for a terminal run of 67,952 (50,354 hatchery and 17,598 natural) fish, the scheduled commercial fisheries were expected to harvest approximately 12,270 total coho. There were 24 12-hour Chinook and coho directed non-Indian gillnet fishery openings August 20 through November 15, 2021. Retention of both marked and unmarked coho was allowed. Unmarked Chinook retention was prohibited.

There were four emergency regulations issued in-season for the commercial fishery between September 12 and November 15, 2021.

- The first two emergency regulations issued closed commercial salmon fishing either for all areas or a single area and changed the gear type used from larger gillnet mesh to the smaller tangle net gear for that management week. Both of these emergency regulation changes were due to higher impacts of natural origin fall Chinook than predicted preseason.
- The third emergency regulation closed all commercial salmon fishing in Willapa Bay on November 1, 2021. This was due to Willapa Bay chum catch being higher than predicted preseason.
- The final emergency regulation issued for the commercial salmon fishery in Willapa Bay for 2021 closed November 8 and 15, 2021 due to the catch of Willapa Bay natural origin coho being higher than predicted preseason and the low natural origin coho forecasted for 2021.

From June 19 through July 31, 2021, Willapa Bay (Marine Area 2-1) was open for recreational fishing concurrent with Marine Area 2 (ocean rules applied). From August 1, 2021, through January 31, 2022, Willapa Bay marine area 2-1 was scheduled to be open to recreational fishing with a daily-bag-limit of 6 salmon, only 2 of which may be adults. Anglers were required to release unmarked Chinook and unmarked coho. Anglers could fish with two poles, if they had a Two-Pole Endorsement.

Freshwater recreational fisheries in the Willapa Bay watersheds varied in duration but were generally open for salmon fishing as early as August 1, 2021, and remained open through January 31, 2022, with a daily-bag-limit of 6 salmon, only 2 may be adults. Anglers were required to release unmarked Chinook salmon and unmarked coho. Barbless hooks were required when fishing for salmon. Anglers could fish with two poles, if they had a Two-Pole Endorsement.

Expected coho harvest in all recreational fisheries based on preseason forecast abundances was 5,268 hatchery and wild coho combined for the 2021 season. Marine and freshwater recreational harvest estimates were unavailable for 2021, but the 2020 Marine Area 2-1 and freshwater recreational harvest estimates totaled 3,680 coho.

Escapement and Management Performance

Willapa Bay coho were managed primarily for natural production. Estimates of natural spawning escapement for 2021 were unavailable. The most recent but still preliminary natural area spawner escapement estimate available was 16,476 in 2020, which was below the FMP escapement objective of 17,200 natural area spawners. Escapement to Willapa Bay hatcheries in 2020 was estimated at 38,591 coho, which met the WDFW escapement objective of 6,100 spawners.

The geometric mean of Willapa Bay coho natural spawning escapements in 2018, 2019, and 2020 is 16,249, 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 2020 or 2021; 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).

3.2.2 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 2020 terminal run size estimates for Grays Harbor coho, after execution of the ocean fishery were 30,099 natural origin and 21,923 hatchery origin coho. The 2021 terminal runsize data are not available.

The 2020 Treaty Indian gillnet and non-Treaty gillnet fisheries reported a harvest of 7,555 coho (natural, hatchery, and net-pen origin). The non-Treaty sport fishery ended on December 31 and an estimated 6,538 coho were caught. The Chehalis Tribe did not conduct a commercial fishery for coho in 2020. The 2020 pre-terminal fishery was conducted to limit the impact to Queets coho and other limiting coho stocks, while the Grays Harbor terminal fisheries were conducted with regulations designed to minimize impacts on Grays Harbor coho.

The Quinault Indian Nation operated two separately scheduled 2021 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 preseason expected coho fishery impacts were limited by the expected abundance and harvest of Chinook in the Lower Chehalis side of the fishery. The combined Grays Harbor Treaty coho harvest was 13,888. This compared to an expected total coho catch of 10,752. Actual QIN coho catch was approximately 29% greater than the expected coho catch.

The non-Indian gillnet fishery in Humptulips commercial Area 2C harvested 226 coho during three 24-hour days in week 43 (week of October 17) and two 24-hour days in week 44 (week of October 24). This fishery was predicted to catch only 36 coho. The non-Indian gillnet fishery in the Chehalis River, commercial Areas 2A and 2D, was scheduled for three 12-hour days in week 44 (week of October 24) and two 12-hour days in week 45 (week of October 31). During these fisheries, all areas of 2D were open with live boxes required and wild Chinook retention prohibited. Total catch for areas 2A and 2D is 1,278 coho, about 45 percent high than the predicted harvest estimate of 702.

The 2021 Chehalis Tribe Chehalis River upper mainstem fisheries harvested 180 coho (72 wild and 108 hatchery origin). Fisheries were limited due to the moderate forecast for natural origin coho and Chehalis River steelhead.

The 2021 recreational fisheries were conducted in three general areas: Marine Area 2.2, the Chehalis River and its tributaries, and the Humptulips River. Catch estimates are not currently available.

A recreational fishery in the northern portion of Marine Area 2-2, Commercial Area 2C, was open from August 1 through September 23. During this time, the daily bag limit was one adult salmon, and wild Chinook and 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 one adult salmon per day and all Chinook must be released.

The Chehalis River and its tributaries were scheduled to open in 2021 for coho fishing on the following dates and areas:

- Chehalis River mainstem downstream of the Hwy 107 Bridge: August 1 through September 15, with a daily limit of 6 and all adults must be released. From October 1 through November 30: adult daily limit of one adult salmon and all Chinook must be released. From December 1 through December 31, with a daily limit of one adult salmon and all Chinook and wild coho must be released.
- Upstream of the South Elma Bridge (Wakefield Road) to the high bridge on Weyerhaeuser 1000 line approximately 400 yards downstream from Roger Creek and tributaries: October 1 through November 30: adult daily limit of one adult salmon and all Chinook must be released. From December 1 through December 31, with a daily limit of one adult salmon and all Chinook and wild coho must be released.

The Humptulips River recreational fishery was scheduled to open in 2021 for coho fishing on the following dates from the mouth to the confluence of the East and West forks:

- September 1 through September 30: a daily limit of 6, 2 of which may be adults; wild Chinook and wild coho must be released.
- October 1 through October 31: a daily limit of 6, 1 of which may be an adult; wild Chinook and wild coho must be released.
- November 1 through December 31: a daily limit of 6, 1 of which may be an adult; all Chinook and wild coho must be released.

Escapement and Management Performance

Grays Harbor coho are managed by the co-managers for natural production with a spawning escapement goal of 35,400, which exceeds the FMP S_{MSY} of 24,426. The 2021 spawning escapement and terminal run size estimates for Grays Harbor coho are unavailable. Coho from this return are still spawning and are being enumerated at this time. The preliminary escapement estimate for 2020 natural spawning coho is 23,814. The 2020 terminal runsizes are estimated at 30,099 natural-origin coho and 21,923 hatchery-origin coho. The returns of hatchery-origin coho to Grays Harbor hatchery programs were sufficient to provide for 2021 coho production goals. The 2021 escapement has not been determined, but 607 natural origin fish were taken for hatchery broodstock.

The geometric mean of Grays Harbor coho natural spawning escapements in 2018, 2019, and 2020 is 33,020, which exceeded 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 2020 or 2021; 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).

3.2.3 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 14,617 coho were harvested by the gillnet fishery during the 2021 season.

River sport fisheries are regulated by both the Quinault Indian Nation (QIN) regulations on the Quinault Reservation and Washington State (WDFW) and Olympic National Park (ONP) regulations off the Quinault Reservation. Sport fisheries regulated under Quinault Indian Nation authority occur within the Lower Quinault River, while WDFW and ONP regulated sport fisheries occur upstream of Lake Quinault. Harvest during these fisheries currently is not available for 2021. Sport fisheries regulated under QIN regulations harvested 947 coho in 2020. Sport fisheries regulated under WDFW regulations harvested 24 coho in 2020.

Escapement and Management Performance

Quinault River coho were managed for hatchery production. Escapement estimates for Quinault River coho in 2021 were unavailable. The Quinault National Fish Hatchery egg take objectives for 2021 were achieved.

3.2.4 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 preseason abundance estimates and planned Council-area ocean fisheries. The 2021 fishery was structured to target returning hatchery coho while limiting incidental impacts on natural coho, which were also limiting to marine harvest coast-wide and limiting total freshwater Chinook harvest to a maximum rate of 40 percent. The schedule and mesh size restrictions fished in 2021 are depicted in the discussion of the Chinook directed fishery. The total harvest of coho in the Treaty Indian gillnet fishery was 5,467 commercially-landed fish, which was more than the preseason modeled catch of 2,949. The gillnet harvest was comprised of a mix of early-timed hatchery fish and normal/late-timed natural fish. A final estimate of the hatchery/natural mix in the catch is currently unavailable.

The 2021 recreational fishery within the Quinault Indian Reservation was conducted from August 29 through December 1 under regulations with COVID restrictions for the safety of tribal and non-tribal fishers. The Quinault River mainstem and Cook Creek had a bag limit of 3 adult coho. For the Queets River the mainstem was open through the fall season with a coho bag limit of 2 coho through September 30, after which coho retention was prohibited while the fishery continued through the remaining season under the chinook bag limit. The Salmon River was open from August 29 through to October 17 with a catch bag limit of 2 adult coho, which was allowed up to October 15 on Reservation. The 2021 recreational catch estimates are not available. In 2020 Tribal regulated recreational catch estimate was 1.027 adult fish in the Oueets River.

State regulated recreational fisheries, outside of the Quinault Indian Reservation, on Clearwater and Salmon rivers occurred in September only for salmon fishing to focus the fishery on early timed hatchery coho. The recreational fishery in the Clearwater allowed one adult salmon and required the release of wild coho. In the Queets and Salmon rivers, anglers could keep up to two adult salmon and were required to release wild coho. In the Queets River within the Olympic National Park, the fisheries were open September 1 through November 30 and anglers were required to release all wild fish encountered. Catch during 2021 State and National Park regulated recreational fishery is currently not available. During State and National Part regulated recreational fisheries in 2020, 113 coho were harvested in the Queets River basin.

Escapement and Management Performance

The spawning escapement objective in the FMP for Queets River coho is a range of 5,800-14,500 natural adult spawners. In 2021, comanagers agreed to a spawning escapement objective of 3,154 natural origin adult coho (which is below the escapement goal) from a forecasted return of 3,435. The preliminary 2021 spawning escapement estimate is not available. In 2020, the comanagers had agreed to a spawning escapement objective of 5,795, almost within the range of 5,800-14,500 natural adult spawners in the FMP. The 2020 final natural coho escapement estimate was 4,181 adult fish. The final natural coho escapement estimates in 2018 and 2019, were 2,631, and 1,700, respectively.

The geometric mean of Queets River coho escapement in 2018, 2019 and 2020 was 2,654, which is below the MSST of 4,350. In June 2018, NMFS published an overfished designation for Queets River coho based on the geometric mean of escapement in 2014-16 of 4,291. A rebuilding plan was adopted by the Council in September 2019; therefore, no additional action is warranted, and the stock remains categorized as 'overfished' (Table III-7). Estimates of Queets River coho exploitation rates were not available for 2020 and 2021; however, fisheries in earlier years resulted in exploitation rates well below the MFMT (0.65); therefore, Queets River coho should not be considered subject to overfishing (Table III-7).

3.2.5 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 2021 forecast for the terminal runsize of Hoh River natural coho was 2,611. The tribal fishery targeted 14.2 percent of the terminal run with commercial and ceremonial and subsistence fisheries. The treaty Indian gillnet fishery occurred from the week of September 13 to the week of November 1 as described in Chapter II under the section labeled Hoh River Chinook. The Tribal commercial fishery harvested 1,532 natural coho and 32 hatchery coho for a total of 1,564 coho.

The non-Indian recreational fishery was open September 16 through November 30, from the Olympic National Park boundary upstream to the Oxbow Campground boat launch, and open October 16 through November 30 from the Oxbow Campground upstream to Morgans Crossing Boat Launch. Regulations allowed a daily-bag-limit of 2 salmon, of which only 1 adult could be retained, and all wild coho released. Only 1 single-point barbless hook was allowed. A catch

estimate for the 2021 coho recreational fishery was not available but the river was closed to coho retention in sport fisheries.

Escapement and Management Performance

The preliminary 2021 spawning escapement estimate for coho in the Hoh River is not available. The escapement goal range established for this stock is 2,000 to 5,000.

The geometric mean of Hoh River coho escapement in 2018, 2019, and 2020 was 2,576, which exceeds the MSST of 1,890, therefore Hoh River coho should not be considered overfished. Estimates of Hoh River coho exploitation rates for the most recent three years available are 0.43, 0.34, and 0.57 in 2017, 2018 and 2019, respectively. Exploitation rates are not yet available for 2020 or 2021. Fisheries resulted in an exploitation rate below the MFMT (0.65), therefore, Hoh River coho should not be considered subject to overfishing (Table III-7).

3.2.6 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. The 2021 Quileute Tribe's commercial, ceremonial, and subsistence fisheries harvested 51 summer coho (46 hatchery and 5 natural). The Quileute Tribe closed the Indian Gill Net (IGN) fishery in the summer weeks 33 through 35 for wild summer coho and Chinook conservation measures. The 2021 recreational fishery catch estimates are not yet available for summer coho.

Both the treaty and non-treaty fall fisheries were reduced in 2021 from previous years for conservation reasons. The Quileute Tribe greatly reduced the total number of days fished in their 2021 fall IGN fishery by being closed to fishing weeks 36 through 38 and 44 through 46, restricting weekly open periods to only 3 half days (6am-6pm) in weeks 39 and 40 and weeks 41 through 43 one half day only Additionally, week 39 was restricted to 7¾ inch minimum mesh, set net only, 25 fathom maximum length and weeks 40 through 43 were restricted to 7¾ inch minimum mesh. The 2021 tribal harvest of fall coho was 1,592 (543 hatchery and 1,049 natural). Fall coho taken in the ceremonial and subsistence fishery are included in the IGN catch. The 2021 recreational fishery catch estimate is 1,352 fall coho.

In-river recreational fisheries were closed to all fishing April 1 through April 30 and August 1 through September 15, 2021. Release of wild coho was required in all sport fisheries when open. The 2021 recreational coho fishery in the Quillayute (park boundary to confluence of Bogachiel and Sol Duc) and Sol Duc (mouth to Sol Duc hatchery) was open:

- February 1 through March 31 and May 1 through July 31 with up to two adults retained (release wild adult Chinook, wild adult coho, and sockeye).
- September 16 through November 30 with up to three adult salmon retained (release wild adult coho and sockeye).

The 2021 recreational coho fishery in the Bogachiel (mouth to highway 101 bridge), Dickey (ONP boundary to confluence with East and West Forks) and Calawah (mouth to highway 101 bridge) was open:

- July 1 through July 31 with up to two adult salmon allowed (release wild coho and wild Chinook).
- September 16 through November 30 with a limit of one adult salmon (release wild adult coho).

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 2021 summer coho hatchery rack return was 3,728, which exceeds the goal of 300 hatchery summer coho. The 2021 wild summer coho escapement estimate was 380 fish.

The 2021 preliminary escapement estimate for Quillayute natural fall coho was 8,321, which includes 21 brood stock fish. The 2021 Sol Duc Hatchery rack return for fall coho was 9,856 adults and 3,104 jacks. Based on the WDFW In-Season Hatchery Escapement Report the fall coho egg take goal for Sol Duc Hatchery was met with a total of 840,000 eggs.

The geometric mean of natural Quillayute fall coho escapement in 2019, 2020, and 2021 was 7,599, which exceeds the MSST of 4,725; therefore, Quillayute fall coho should not be considered overfished. Estimates of Quillayute fall coho exploitation rates were not available for 2020 or 2021; however, fisheries in earlier years resulted in exploitation rates below the MFMT (0.59); therefore, Quillayute Fall coho should not be considered subject to overfishing (Table III-7).

3.3 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]).

In 2002, the PSC adopted a management plan for coho salmon originating in Washington and southern B.C. river systems. 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 2021. 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 2021, the objectives and categorical status under the PST Southern Coho Management Plan were as follows:

•	Strait of Juan de Fuca (East and West):	Low status	20 percent maximum exploitation rate
•	Hood Canal:	Moderate status	45 percent maximum exploitation rate
•	Skagit:	Moderate status	35 percent maximum exploitation rate
•	Stillaguamish:	Abundant status	50 percent maximum exploitation rate
•	Snohomish:	Moderate status	40 percent maximum exploitation rate

Regulations to Achieve Objectives

Puget Sound coho stocks did not play a primary role in 2021 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 commercial and recreational fisheries 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 for 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 2021 total Puget Sound commercial catch of coho was 313,827 fish, compared to a catch of 203,672 coho in 2020. Non-Indian harvest was 11,964 coho, compared to 6,652 coho in 2020. Treaty Indian net and troll fisheries harvested 301,863 coho, compared to 197,020 coho in 2020.

Historical coho catches in the Puget Sound recreational fishery beginning in 1971 are listed in Appendix B, Table B-40. Catch estimates for the 2021 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 2021 postseason estimates were available for SUS harvest impacts on Puget Sound coho stocks; therefore, the 2021 preseason exploitation rate objectives could not be evaluated. Preliminary 2021 escapement information was not available for natural Puget Sound coho.

3.3.1 Strait of Juan de Fuca Coho

The geometric mean of Strait of Juan de Fuca natural coho escapement (combined Western and Eastern; the current stock designation) in 2018, 2019, and 2020 was 6,002, which was below the MSST of 7,000 and below the S_{MSY} estimate of 11,000. In June 2018, NMFSs published an overfished designation for Strait of Juan de Fuca coho based on the geometric mean of escapement in 2014-16 of 6,842. A rebuilding plan was adopted by the Council in September 2019; therefore, no additional action is warranted, and the stock remains categorized as 'overfished'. Estimates of Strait of Juan de Fuca coho exploitation rates were not available for 2020 and 2021; 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).

3.3.2 Hood Canal Coho

The geometric mean of Hood Canal natural coho escapement in 2018, 2019, and 2020 was 9,990, which was below the MSST of 10,750; therefore, Hood Canal coho meet the criteria for overfished status. Estimates of Hood Canal coho exploitation rates were not available for 2020 and 2021; however, fisheries in earlier years resulted in exploitation rates well below the MFMT (0.65); therefore, Hood Canal coho should not be considered subject to overfishing (Table III-7).

3.3.3 Skagit River Natural Coho

The geometric mean of Skagit natural coho escapement in 2018, 2019, and 2020 was 18,624, 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 2020 and 2021; however, fisheries in earlier years have resulted in exploitation rates below the MFMT (0.60) therefore, Skagit coho should not be considered subject to overfishing (Table III-7).

3.3.4 Stillaguamish River Natural Coho

The geometric mean of Stillaguamish natural coho escapement in 2018, 2019, and 2020 was 18,804, 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 2020 and 2021; however, fisheries in earlier years resulted in exploitation rates below the MFMT (0.50); therefore, Stillaguamish coho should not be considered subject to overfishing (Table III-7).

3.3.5 Snohomish River Natural Coho

The geometric mean of Snohomish natural coho escapement in 2018, 2019 and 2020 was 46,418, which was above the MSST of 31,000 but below the S_{MSY} estimate of 50,000. In June 2018, NMFS published an overfished designation for Snohomish natural coho based on the geometric mean of escapement in 2014-16 of 29,677. A rebuilding plan was adopted by the Council in September 2019; and the stock should now be categorized as 'not overfished/rebuilding'. Estimates of Snohomish coho exploitation rates were not available for 2020 and 2021; however, fisheries in earlier years resulted in exploitation rates below the MFMT (0.60); therefore, Snohomish coho should not be considered subject to overfishing (Table III-7).

3.4 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 2021 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 (2.4 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.

3.5 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 2021 were met for Rogue/Klamath, OCN, and LCN coho stocks (Table III-6). The 2021 data

needed to assess compliance with FMP conservation objectives for most Washington coastal, and Puget Sound coho stocks were unavailable.

3.6 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 3-year geometric mean spawning escapement is greater than the MSST but less than S_{MSY}.
- A stock is rebuilt when the most recent 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 SDC as required by the FMP. Stock specific reference points and recent year estimates for relevant stocks are presented in Table III-7.

Based on these SDC, Hood Canal natural coho meet the criteria for overfished status (using the most recent data from 2018, 2019, and 2020). Strait of Juan de Fuca and Queets natural coho continue to meet the criteria for overfished status (using the most recent data from 2018, 2019, and 2020). Snohomish natural coho continue to meet the criteria for 'not overfished/rebuilding' status (using the most recent data from 2018, 2019, and 2020). In June 2018, NMFS published an overfished designation for these three coho stocks based on the geometric mean of escapement in 2014-16. A rebuilding plan was adopted by the Council in September 2019 for each of these stocks. Exploitation rate estimates for these stocks are not available for 2020 and 2021. The most recent year where exploitation rates are available is 2019, and no stocks were subject to overfishing.

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

				Winchester Dam				Inside	Ocean
	Returi	ns to Hatc	heries	Count ^{c/}	Number	of OCN Spa	aw ners ^{a/}	Harvest	Escapement to
Year	Private	Public	STEP ^{b/}	(North Umpqua)	Lakes	Rivers	Total	Impacts ^{d/}	Oregon Coast ^{a/}
1970-1975	-	-	-	-	-	-	-	-	-
1976-1980	26.1	19.0	-	0.4	4.0	26.6	30.6	9.1	79.9
1981-1985	176.8	18.0	-	2.2	7.2	46.1	53.3	12.9	263.2
1986-1990	154.3	26.9	1.3	3.6	6.2	37.1	43.3	15.2	244.6
1991-1995	35.1	26.3	1.9	3.2	7.2	43.9	51.1	13.9	103.5
1996-2000	-	16.9	0.5	6.4	11.7	40.4	52.0	4.2	80.0
2001	-	37.4	1.4	16.0	19.6	143.1	162.7	10.0	227.6
2002	-	30.9	2.6	7.4	22.0	236.4	258.4	8.0	307.3
2003	-	15.9	3.6	10.4	16.1	213.3	229.4	6.8	266.2
2004	-	13.2	0.8	7.2	18.6	154.1	172.8	6.3	200.3
2005	-	10.0	0.3	8.9	14.7	139.9	154.6	6.1	179.9
2006	-	9.8	0.1	7.0	24.1	104.7	128.8	2.6	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	189.9
2009	-	6.1	0.0	0.6	17.3	245.4	262.7	7.3	276.8
2010	-	7.9	0.0	0.7	38.7	244.7	283.4	5.7	297.6
2011	-	4.6	0.0	0.2	20.3	336.0	356.2	12.8	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	0.1	22.0	337.6	359.6	23.5	399.2
2015	-	4.7	0.0	0.2	4.7	52.4	57.1	4.2	66.2
2016	-	8.9	0.0	0.1	8.0	67.9	75.9	1.8	86.7
2017	-	2.3	0.0	0.2	1.3	60.1	61.4	1.0	64.9
2018	-	1.1	0.0	0.2	6.7	67.8	74.5	1.1	76.9
2019	-	1.6	0.0	0.4	7.4	87.7	95.1	1.6	98.7
2020	-	4.2	0.0	0.2	9.7	101.7	111.5	2.5	118.3
2021 ^{e/}	-	6.7	0.0	0.4	19.6	222.8	242.4	8.7	258.2

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 catch 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 2021 Buoy 10 recreational fisheries (all data are preliminary). $a^{1/2}$

	Ending Date of		Cat	tch ^{b/}	
Week Number	Period	Angler Trips	Chinook	Coho	Catch Per Trip
31	Aug1	1,634	364	39	0.25
32	Aug8	8,039	637	93	0.09
33	Aug15	17,228	5,422	439	0.34
34	Aug22	26,941	10,465	4,028	0.54
35	Aug29	18,792	3,802	9,627	0.71
36	Sept5	10,390	43	3,811	0.37
37	Sept12	8,943	3	6,967	0.78
38	Sept19	4,213	0	3,812	0.90
39	Sept26	4,111	2	3,978	0.97
40	Oct3	2,627	28	2,414	0.93
41	Oct10	1,552	19	1,019	0.67
42-44	Oct31	1,395	4	804	0.58
Total		105,865	20,789	37,031	0.55

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. Youngs Bay bubble closure in effect August 1 through September 15. Fishery opened August 1 for Chinook and marked coho with a two fish daily-bag-limit. Chinook were restricted to marked only through August 10 and Chinook retention was closed from August 27 through September. The daily-bag-limit increased to three fish on September 7 through the end of the year but only one Chinook when retention allowed.

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/}

			Oregon an	d California Coas	tal Returns			
			Hatcheries and			_		Ocean Exploitation
Year or	Ocean F	isheries ^{b/}	Freshw ater	OCN	Private	Columbia River		Rate Based on OPI
Avg.	Troll	Sport	Harvest ^{c/}	Spaw ners ^{d/}	Hatcheries	Returns	Abundance ^{e/}	Abundance ^{f/}
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
1986-1990	574.6	339.3	55.1	45.5	154.3	705.0	1,602.2	0.70
1991-1995	107.4	182.7	46.6	53.2	35.1	315.1	668.4	0.35
1996-2000	8.9	35.6	33.0	57.5	-	259.4	391.2	0.1
2001	38.1	216.8	75.7	174.7	-	1,128.3	1,673.2	0.15
2002	15.0	118.7	53.9	266.9	-	535.8	972.2	0.14
2003	28.8	252.4	44.9	236.2	-	713.2	1,266.9	0.22
2004	26.2	159.3	38.1	198.5	-	463.5	904.5	0.21
2005	10.5	58.2	42.7	165.1	-	354.7	629.9	0.11
2006	4.5	47.5	29.5	133.1	-	409.7	674.1	0.08
2007	26.2	128.5	10.9	71.6	-	349.0	631.3	0.25
2008	0.6	26.4	16.0	180.2	-	520.8	769.8	0.04
2009	27.7	201.2	16.5	265.5	-	760.2	1,341.3	0.17
2010	5.8	48.8	18.5	287.7	-	466.5	848.4	0.06
2011	4.2	54.7	20.0	361.3	-	378.1	836.4	0.07
2012	4.7	45.5	18.5	104.9	-	152.4	311.3	0.16
2013	8.4	48.3	26.5	136.8	-	252.8	494.1	0.11
2014	35.6	197.4	42.0	362.4	-	1,019.5	1,724.8	0.14
2015	11.7	84.4	11.8	61.6	-	169.5	350.5	0.27
2016	2.8	31.7	11.4	83.5	-	203.6	340.3	0.10
2017	2.1	50.0	3.9	66.2	-	235.9	362.4	0.14
2018	1.5	53.8	3.1	83.8	-	137.2	265.8	0.21
2019	5.0	135.4	4.3	97.8	-	212.4	454.3	0.31
2020	0.2	40.2	8.1	111.8	-	338.6	499.7	0.08
2021 ^{g/}	2.4	158.6	10.1	251.4	-	665.6	1,126.9	0.14

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.

Adjusted SRS Adult Coho Spaw ner Population Estimates in Thousands of Spawners by Stock Component^{a/} Adult Coho Spaw ners Per Spaw ner Habitat Mile Northern^{b/} Northern^{b/} North South Southern^e Coast-South Southern^{e/} Coast-North Central^{c/} Central^{d/} Central^{c/} Central^{d/} w ide w ide Year 1990 5.6 13.5 22.5 2 8 2.2 1.2 5 3 6 10 1991 0.5 6 13 9.3 6.7 21.6 38.1 9 1 1992 2.4 15.4 24.4 2.0 44.2 3 13 15 5 11 1^{f/} 1993 0.8f/ 55.7 5 7 27 4.5 7.8 43.1 14 1994 3.5 9.8 30.9 4.3 48.5 4 8 19 11 12 4 3.9 36.5 3.4 57.3 12 22 8 14 1995 13.6 4 1996 3.3 18.1 52.6 5.2 79.3 16 32 13 19 2 1997 2.1 2.8 18.4 8.2 31.6 2 11 20 8 3 3 1998 2.6 3.3 26.1 2.3 34.3 16 6 8 1999 8.9 29.2 51.2 10 3 13 11.8 14 10 18 2000 81.1 20 23 27 20 17.9 14.3 37.9 11.0 12 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 28.8 101.9 25.8 32 36 63 48 42.1 198.5 63 2005 10.5 44 26 40 16.5 51.4 86.7 165.1 18 53 2006 24.1 21.2 83.5 4.3 133.1 27 18 51 10 33 2007 36.5 5.3 19 11 22 17 17.5 12.3 71.6 13 2008 25.6 68.1 86.0 0.5 180.2 28 59 53 1 44 2009 48.1 86.4 128.2 2.8 265.5 54 74 79 7 65 2010 55.0 56.5 171.9 4.3 287.7 61 49 106 10 70 2011 45.9 119.1 191.3 5.0 361.3 51 102 118 12 88 2012 7.5 33.8 57.8 5.8 104.9 8 29 36 14 26 136.8 2013 11.0 39.7 73.7 12.4 12 34 45 30 33 75 105 2014 67.4 122.0 170.4 2.7 362.4 105 6 89 7 15 2015 6.7 22.7 27.7 4.5 61.6 19 17 11 2016 18.7 26.5 30.7 7.6 83.5 21 23 19 18 20 2017 13.6 22.8 24.9 4.8 66.2 15 20 15 12 16 2018 44.5 9.2 83.8 9 27 23 20 80 22 0 19 2019 22.3 20.1 52.8 2.7 97.8 25 17 33 7 24 24 27 27 2020 21.5 30.8 57.6 1.8 111.8 36 4

251.4

49

72

71

22

9.0

43.6

83.9

114.9

2021g/

a/ A spaw ner escapement methodology study based on SRS had been in effect from 1990 to 1997 in w hich 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. Spaw ner population estimates include an adjustment for observation error.

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

c/ Estimate based on 1,163 miles of spaw ner 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 spaw ner habitat within Umpqua, Coos, and Coquille Rivers. Also includes spaw ners using tributaries to Siltcoos, Tahkenitch, and Tenmile Lakes.

e/ Estimate based on a mark-recapture methodology and 410 miles of spaw ner 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.

	0	CN Fishery Impa	ct	LCN Fishery Impact			
_	(Total Marine ar	nd Freshwater E	xploitation Rate)	(Total Marine ar	nd Freshwater E	(ploitation Rate)	
_	Conservation	Preseason	Postseason	Conservation	Preseason	Postseason	
Year	Objective ^{a/}	Projection	Estimate ^{b/}	Objective ^{c/}	Projection	Estimate ^{b/}	
1990-1995	≤0.20	0.274	0.366	-	-	-	
1996-2000	≤0.13-≤0.20	0.105	0.316	-	-	-	
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	0.10d/	0.179	
2006	≤0.15	0.096	0.076	≤0.15	0.10d/	0.146	
2007	≤0.20	0.113	0.118	≤0.20	0.13d/	0.208	
2008	≤0.08	0.069	0.019	≥0.08	0.080	0.073	
2009	≤0.15	0.130	0.067	≤0.20	0.20	0.187	
2010	≤0.15	0.112	0.045	≤0.15	0.150	0.107	
2011	≤0.15	0.132	0.059	≤0.15	0.150	0.111	
2012	≤0.15	0.150	0.183	≤0.15	0.150	0.140	
2013	≤0.30	0.231	0.149	≤0.15	0.150	0.143	
2014	≤0.30	0.253	0.141	≤0.225	0.225	0.164	
2015	≤0.15	0.149	0.198	≤0.23	0.230	0.244	
2016	≤0.20	0.131	0.087	≤0.18	0.130	0.089	
2017	≤0.30	0.093	0.116	≤0.18	0.114	0.108	
2018	≤0.15	0.129	0.127	≤0.18	0.162	0.146	
2019	≤0.15	0.137	0.147	≤0.23	0.180	0.193	
2020	≤0.15	0.116	0.074	≤0.18	0.169	0.065	
2021 ^{e/}	≤0.15	0.128	0.113	≤0.30	0.101	0.104	

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

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 2021 preseason conservation objectives (preliminary data). (Page 1 of 2)

(Page 1 01 2)		
	2021 FMP Conservation/Management	
System and Stock	Objectives	2021 Achievement
OPI Area Coho (Columbia River and coastal stocks south of Leadbetter Point)	Natural spaw ner escapement objectives as provided below; meet hatchery eggtake goals; meet treaty Indian obligations.	Hatchery egg-take goals achieved. Treaty obligations met.
Northern California (Threatened) and CCC (Endangered)	No directed coho fisheries or retention of coho south of the OR/CA border. Marine exploitation rate ≤13.0% as indicated by R/K hatchery stocks.	No coho retention south of the California/Oregon border. Preliminary postseason estimate of 2.1%.
OCN	Combined marine and freshwater exploitation rate ≤30.0%.	Preliminary postseason estimate of 11.3%.
LCN-Columbia River Natural (Threatened)	Combined marine and mainstem Columbia River exploitation rate ≤30.0%.	Preliminary postseason estimate of 10.4% exploitation rate in marine and mainstem Columbia River fisheries.
Washington Coast Coho	Natural spaw ner 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 spaw ners.	Escapement estimate w as unavailable; preseason projection w as 32,175 ocean escapement.
Grays Harbor	24,400 adult spaw ners.	Escapement estimate w as unavailable; preseason projection w as 42,713 ocean escapement.
Queets	5,800 comanager adult spaw ner agreement.	Escapement estimate w as unavailable; preseason projection w as 3,435 ocean escapement.
Hoh	2,000 adult spaw ners.	Escapement estimate w as unavailable; preseason projection w as 2,611 ocean escapement.
Quillayute Fall	6,300 adult spaw ners.	Preliminary postseason escapement estimate w as 8,321.

TABLE III-6. Performance of coho salmon stocks in relation to 2020 preseason conservation objectives (preliminary data).

Page (2 of 2)

2021 FMP Conservation/Management										
System and Stock	Objectives	2021 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 2021 natural spawner escapements. Hatchery egg-take goals will be met.								
Strait of Juan de Fuca	≤20% total exploitation rate.	Preseason expectation of a 9.2% total exploitation rate; postseason estimate unavailable.								
Hood Canal	≤45% total exploitation rate.	Preseason expectation of a 43.1% total exploitation rate; postseason estimate unavailable.								
Skagit	≤35% total exploitation rate.	Preseason expectation of a 34.9% total exploitation rate; postseason estimate unavailable.								
Stillaguamish	≤50% total exploitation rate.	Preseason expectation of a 28.6% total exploitation rate; postseason estimate unavailable.								
Snohomish	≤40% total exploitation rate.	Preseason expectation of a 28.5% total 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).

	Spawning Escapement															
		3-yr Geo							Exploitation Rate							
Coho Stock	2016	2017	2018	2019	2020	2021	Mean	MSST	S_{MSY}	2016	2017	2018	2019	2020	2021	MFMT
Willapa Bay	30,667	11,379	17,228	15,115	16,476	NA	16,249	8,600	17,200	0.38	0.34	0.35	0.39	NA	NA	0.74
Grays Harbor	38,595	26,907	49,622	30,468	23,814	NA	33,020	18,320	24,426	0.11	0.32	0.22	0.40	NA	NA	0.65
Queets ^{a/}	5,156	5,232	2,631	1,700	4,181	NA	2,654	4,350	5,800	0.15	0.23	0.23	0.57	NA	NA	0.65
Hoh	5,009	4,478	2,463	2,445	2,840	NA	2,576	1,890	2,520	0.08	0.43	0.34	0.57	NA	NA	0.65
Quillayute Fall	9,630	7,474	6,091	6,852	7,695	8,321	7,599	4,725	6,300	0.18	0.42	0.30	0.37	NA	NA	0.59
Juan de Fuca ^{a/}	8,435	5,530	5,470	4,625	8,548	NA	6,002	7,000	11,000	0.03	0.05	0.08	0.12	NA	NA	0.60
Hood Canal	24,313	23,871	7,512	7,884	16,832	NA	9,990	10,750	14,350	0.40	0.35	0.57	0.46	NA	NA	0.65
Skagit	35,822	20,184	19,047	14,246	23,808	NA	18,624	14,875	25,000	0.20	0.09	0.49	0.48	NA	NA	0.60
Stillaguamish	13,048	6,099	23,937	12,887	21,555	NA	18,804	6,100	10,000	0.16	0.12	0.22	0.20	NA	NA	0.50
Snohomish ^{b/}	44,141	18,195	58,135	40,314	42,675	NA	46,418	31,000	50,000	0.18	0.21	0.25	0.17	NA	NA	0.60

a/ Categorized as overfished in 2018. Rebuilding plan in place.

b/ Categorized as overfished in 2018, catagorized as 'not overfished-rebuilding in 2021. Rebuilding plan in place.

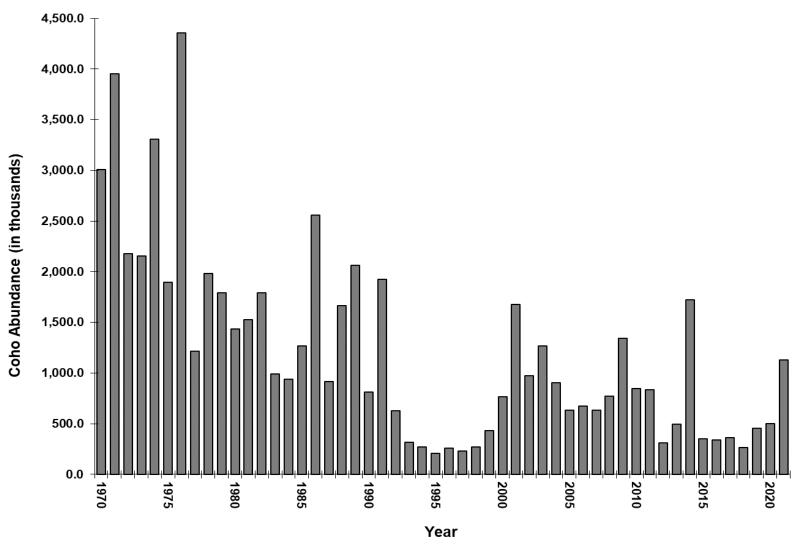


Figure III-1. Oregon Production Index (OPI) area coho abundance estimates, 1970-2021.

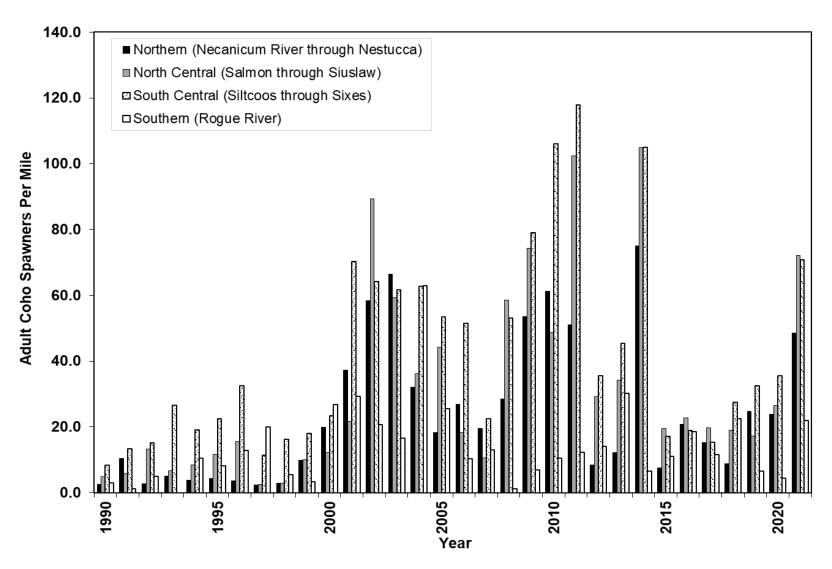


Figure III-2. Oregon coastal natural (OCN) adult coho spawners per habitat mile by coastal region based on SRS accounting methods, 1990-2021.

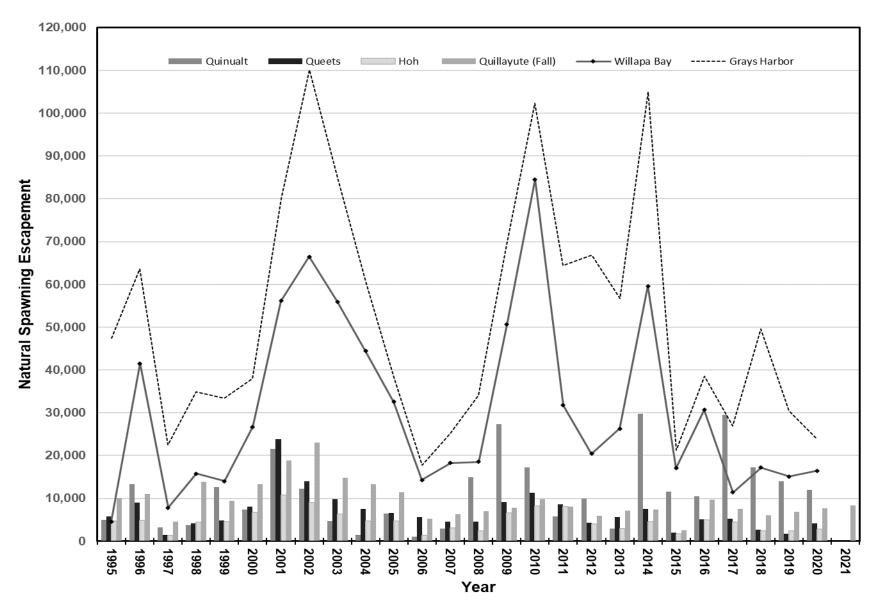


Figure III-3. Washington Coast adult coho natural spawning escapement, 1995-2021.

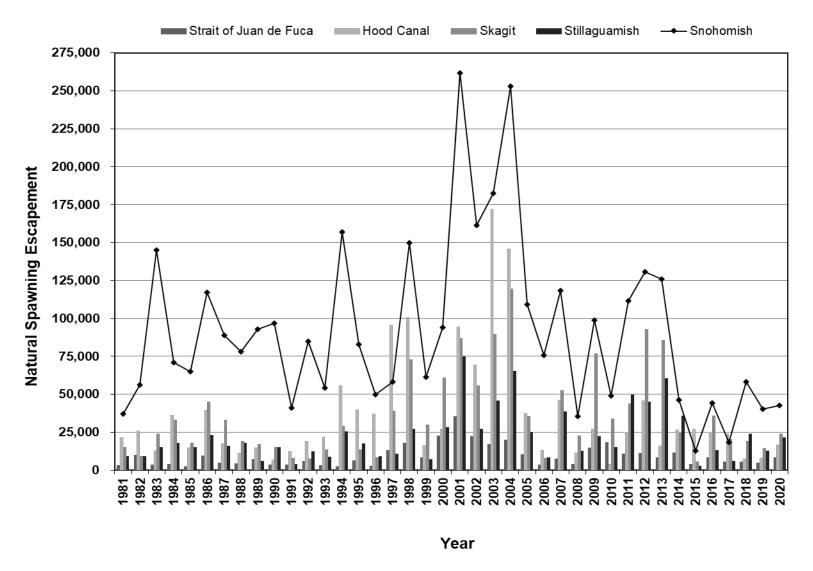


Figure III-4. Puget Sound adult coho natural spawning escapement, 1981-2020.

4 CHAPTER IV – SOCIOECONOMIC ASSESSMENT

4.1 Socioeconomic Assessment Summary of 2021 Ocean Salmon Fisheries

Total 2021 exvessel value of the Council-managed non-Indian troll commercial salmon fishery was \$22.8 million. This was 28 percent above the prior year's total of \$17.8 million, two percent above the 2019 level of \$22.4 million, and 47 percent above the 2016-2020 average of \$15.5 million, but 68 percent below the 1979-1990 average of \$71.3 million (including pink salmon, all dollar values adjusted for inflation). The coastwide average exvessel price for Chinook in 2021 was \$8.26 per pound, six percent above the prior year's average of \$7.82, 19 percent above the 2019 average of \$6.93 but five percent below the 2016-2020 average of \$8.67 (all dollar values adjusted for inflation). More than 99 percent of total coastwide exvessel value of non-Indian commercial troll salmon landed in 2021 was from Chinook. Approximately \$132,900 exvessel value of coho were landed in the ocean commercial troll fishery in 2021, more than eight times the \$16,010 landed the prior year and the highest value in inflation-adjusted terms since \$259,600 in 2014. The coastwide average exvessel price for coho in 2021 was \$3.95, 21 percent above the prior year's value of \$3.27, and the highest since \$4.56 in 1988 (all dollar values adjusted for inflation).

The preliminary number of vessel-based ocean salmon recreational angler trips taken on the West Coast in 2021 was 247,700, an increase of 64 percent from 150,600 taken the prior year which was down due to the effect of the COVID-19 pandemic on fishing activity, six percent below 263,600 trips in 2019, and 30 percent above the 2016-2020 average of 190,800.

Total West Coast income impacts associated with commercial and recreational ocean salmon fisheries in 2021 for Washington, Oregon, and California combined were an estimated \$75.8 million, 41 percent above the prior year's total of \$53.8 million, slightly below the 2019 total of \$76.5 million, and 38 percent above the 2016-2020 average of \$61.7 million (all dollar values adjusted for inflation).¹

4.2 Allocation of the Salmon Resource

Salmon management by the Council involves numerous allocation issues including:

- Determining the number 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 number 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.

¹A change in methodology from FEAM-based to IO-PAC-based income impact multipliers means that comparisons of annual income impacts for years prior to 2010 with later years are not meaningful. Consequently, any comparisons of income impacts in this document are generally confined to describing trends appearing since 2009, 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.

In general, the recreational fishery has tended to have a somewhat less volatile harvest level than the commercial fishery (in both absolute and relative terms) (Figures IV-1 and IV-2). Most 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 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 2021 season is provided in Chapter I, and an assessment of success in meeting the objectives is provided in Chapters II and III for Chinook and coho, respectively.

4.3 Commercial Salmon Fisheries

4.3.1 West Coast Non-Indian Commercial Ocean Fishery

In-season Price Trends

Monthly average exvessel price data provide information on price trends over the season (Table IV-1). The coastwide weighted-average exvessel prices for salmon caught in the 2021 ocean commercial troll fishery were \$8.26 per dressed pound for Chinook and \$3.95 per dressed pound for coho. Monthly average exvessel price data provide information on price trends over the season (Table IV-1). California Chinook prices averaged \$8.06 for the season and were at their highest in October, May, and September, averaging \$11.75, \$10.73, and \$10.04 per pound, respectively, in those months. Weighted-average Chinook prices in Oregon were \$10.04 for the season and highest in May, April, and March at \$12.84, \$12.82, and \$11.99 per pound, respectively. Weighted-average Chinook prices in Washington were \$8.58 for the season, and highest in May, June, and July at \$11.71, \$8.66, and \$7.80 per pound, respectively. The lowest weighted-average Chinook exvessel prices by state were recorded in California in August at \$6.88, in Oregon in August at \$8.32, and in Washington in September at \$7.30 per pound. Over the entire 2021 season, Chinook exvessel prices in California, Oregon, and Washington averaged \$8.06, \$10.04, and \$8.58 per pound, respectively, above the prior year's inflation-adjusted state-level averages by four percent, 15 percent, and 17 percent, respectively. Coho exvessel prices were highest in Oregon in July at \$4.18 per pound and in Washington during September at \$3.74 per pound. For the season coho exvessel prices averaged \$4.12 and \$3.84 per pound in Oregon and Washington, respectively (Tables IV-3 and IV-4).

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

Average Chinook and coho troll exvessel prices and value by state and species, compiled from fish receiving tickets and expressed both in nominal and inflation-adjusted terms, 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 troll fishery in Council management areas and associated state territorial ocean-area waters.

In 2021, the total coastwide exvessel value of the Council-managed non-Indian commercial troll salmon fishery was \$22.8 million, 28 percent above the prior year's \$17.8 million, two percent above the 2019 level of \$22.4 million, and 47 percent above the 2016-2020 average of \$15.5 million, all values adjusted for inflation (Figure IV-4). More than 99 percent of total coastwide exvessel value of non-Indian commercial troll salmon landed in 2021 was from Chinook. Exvessel revenues from coho landings in 2021 were \$132,900, more than eight times the prior year's \$16,000, 48 percent above the 2019 level of \$89,600, nearly four times the 2016-2020 average of \$33,700, and the highest value since \$259,600 in 2014 (all values adjusted for inflation).

In 2021, California achieved \$18.5 million in non-Indian commercial troll salmon exvessel landings value, 23 percent above the prior year's level of \$15 million, two percent above the 2019 level of \$18.1 million, 74 percent above the 2016-2020 average of \$10.6 million, but 51 percent below the 1979-1990 average of \$37.6 million (which include coho landings during that period). All values are adjusted for inflation.

The 2021 exvessel value of the Oregon non-Indian commercial troll harvest (\$2.2 million) was 42 percent above the prior year's level of \$1.6 million (which was the lowest recorded since \$0.4 million in 2009), two percent above the \$2.2 million recorded in 2019, 17 percent below the 2016-2020 average of \$2.7 million, and 90 percent below the 1979-1990 average of \$22.6 million. All values are adjusted for inflation.

The \$2.0 million exvessel value of Washington's 2021 non-Indian troll harvest was 67 percent above the prior year's value of \$1.2 million (which was the lowest value since \$0.9 million in 2008), slightly above the 2019 value, but five percent below the 2016-2020 average of \$2.2 million, and 80 percent below the 1979-1990 average of \$10.1 million. All values are adjusted for inflation.

The 2021 average West Coast ocean harvest Chinook price of \$8.26 per pound was six percent above the prior year's value of \$7.82 per pound, 19 percent above the 2019 value of \$6.93 per pound, five percent below the 2016-2020 average of \$8.67 per pound, and 45 percent above the 1979-1990 average of \$5.68. All values are adjusted for inflation.

In terms of numbers of fish, the 2021 coastwide non-Indian commercial troll harvest of 238,000 Chinook was 17 percent above the prior year's level of 202,900, 26 percent below 2019's harvest of 323,200, 38 percent above the 2016-2020 five-year average of 172,900 fish, but 59 percent below the 1976-2020 long-term average harvest of 577,300 Chinook (Figure IV-1). The 2021 coastwide average weight per non-Indian commercial troll harvested Chinook of 11.5 pounds per fish was two percent above the prior year's average of 11.2 pounds, 15 percent above the 2019 average weight of 10.0 pounds (2019 had the lowest coastwide average weight since 9.2 pounds in 1998), and three percent above the previous five-year (2016-2020) average of 11.1 pounds per fish (Appendix D Tables D-1, D-2, and D-3).

The coastwide non-Indian commercial troll fishery landed 5,600 coho in 2021, more than seven times the number landed the prior year (i.e., fewer than 800 landings in 2020 were the lowest recorded non-zero coho harvest in the non-Indian commercial troll fishery since at least 1976), four percent above the 5,400 coho landed in 2019, nearly three times the recent 2016-2020 average of nearly 1,900 coho, and the largest number since 26,400 coho were landed in 2014. (Note: Zero coho were harvested in the non-Indian commercial troll fishery in 1994, 1997, 1998 and 2016).

On average over the last three years (2019-2021), more than half of coastwide non-Indian commercial troll Chinook landings (by weight) were landed in the San Francisco management area. West Coast port areas with the highest landings shares by weight in 2021 were San Francisco (47 percent), Fort Bragg (21 percent), Monterey (14 percent), Westport (6 percent), and Newport (5 percent). This compares with the leading ports in 2020: San Francisco (64 percent), Monterey (16 percent), Newport (5 percent), Fort Bragg (5 percent), and Westport (5 percent) (Note: There were no commercial Chinook landings in Neah Bay in 2020); and in 2019: San Francisco (50 percent), Monterey (26 percent), Newport (6 percent), Neah Bay (4 percent), and Westport and Fort Bragg (3 percent each). Prior to 2019 the average annual share landed in San Francisco during 2011 to 2018 was approximately 25 percent.

In 2021 the ports north of Cape Falcon (from the Astoria port area north) accounted for only about 8.1 percent of aggregate coastwide Chinook harvest by weight, slightly above the prior year's share of 7.3 percent (2020 had the lowest share since 6.7 percent in 2004). By way of historical comparison, ports north of Cape Falcon accounted for 9.4 percent of aggregate coastwide Chinook harvest in 2019, 17.5 percent in 2018, and 32.5 percent in 2017. In the years since 2008 and 2009, during which there was no commercial ocean salmon harvest in California, ports north of Cape Falcon have accounted for an average of 18.5 percent of coastwide Chinook landings by weight.

Compared with the prior year, non-Indian commercial troll Chinook harvest by weight of 2.7 million pounds in 2021 was up 20 percent coastwide and also up in each state (up by 19 percent in California, 20 percent in Oregon, and 31 percent in Washington). Total non-Indian commercial troll coho harvest in 2021 was 30,600 pounds, more than six times coastwide coho landings by weight the prior year(4,900 pounds). By state, 2021 coho harvests by weight were more than 17 times higher in Oregon and more than four times higher in Washington than in 2020. In 2021 approximately 58 percent of non-Indian commercial troll coho harvest was landed in Washington, compared with approximately 85 percent the prior year and 76 percent in 2019. In each of those years the remainder was landed in Oregon. Commercial harvest of coho in California has been prohibited since 1992.

4.3.1.1 Ocean Commercial Salmon Harvesters

Based on preliminary Pacific Coast Fisheries Information Network (PacFIN) data extracted January 18, 2022, a total of 543 harvesting vessels participated in the West Coast non-Indian commercial troll salmon fishery in 2021. This is four (less than one percent) more than participated in the prior year (539), but 13 percent fewer than participated in 2019 (626), 23 percent fewer vessels than participated in 2018 (706), and the second fewest since 313 vessels participated in 2009. Note that these coastwide vessel counts are lower than totals derived by summing values in the three state-level tables (Appendix D, Tables D-4, D-5, and D-6) due to a degree of

incompleteness at the time PacFIN data were extracted for this report, and because vessels landing in more than one state are counted more than once when summing the three state-level tables.

In 2021, 486 non-Indian commercial vessels made salmon landings in California, 13 more than participated the prior year, 85 fewer than in 2019, and 30 more vessels than made landings in California in 2018. In Oregon, the active fleet increased by 12 vessels to 186 in 2021 from 174 the prior year. However, the 186 vessels in 2021 were 32 fewer than participated in 2019, and 44 fewer than made landings in 2018. The preliminary number of active vessels in Washington in 2021 was 76, 16 more than participated the prior year, 12 fewer than in 2019, and 32 fewer than in 2018 (The 60 vessels participating in 2020 was the lowest number of vessels landing salmon in Washington since 57 vessels participated).

Coastwide, the number of limited entry salmon permits issued by the three states in 2021 (2,054) decreased by 36 from the prior year (2,090). This is the lowest number of coastwide salmon permits on record, with declines over the prior year (which had previously been the lowest number) occurring in California (-6) and Oregon (-30), while the number of permits assigned to Washington vessels was unchanged from the prior year at 153.

Landings were made on 36 percent of all permits coastwide in 2021, higher than the share the prior year (34 percent), but lower than the shares in 2019 (41 percent) and 2018 (37 percent), and below the 10-year (2011-2020) average share of 43 percent. Note that the years in which the salmon fishery was closed in California are the two years with lowest recorded rate of participation by permitted vessel since 1982, i.e., 2008 (9 percent) and 2009 (13 percent). 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 removed in a buyback program. See Appendix D, tables D-4, D-5, and D-6 for details.

In 2021, coastwide average inflation-adjusted exvessel value of salmon landings per vessel increased by 21 percent compared with the prior year to \$30,445 per vessel. Compared to the prior year, average state-level exvessel revenue per vessel in 2021 was up in all three states: by 20 percent to \$38,026 in California, by 31 percent to \$12,091 in Oregon, and by 31 percent to \$26,882 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 relatively 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 detailed historical information on landings by vessel size, percentages of the fleet responsible for most of the harvest, and harvest by residence of participants in each state's fishery is included in Appendix D.

4.3.2 West Coast Treaty Indian Commercial Ocean Fishery

Treaty Indian commercial fisheries in ocean areas 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 2021, the

treaty Indian ocean troll fishery harvested approximately 8,300 Chinook (67,700 pounds) and 26,400 coho (134,700 pounds) compared with 3,100 Chinook (35,600 pounds) and 14,400 coho (89,200 pounds) in 2020, and 19,400 Chinook (188,700 pounds) and 55,500 coho (280,900 pounds) in 2019. Chinook landings in 2021 were 90 percent above the prior year's harvest by weight, which was the lowest on record in terms of both weight and numbers of fish. Coho landings were 51 percent above the prior year in terms of weight and 30 percent above the recent five-year (2016-2020) average treaty Indian coho harvest of 103,900 pounds. Recent inflation-adjusted values were an estimated \$0.5 million in 2020 and \$1.9 million in 2019².

4.3.3 Columbia River Commercial Fishery

Harvest in the ocean salmon fisheries affects the number of fish available for harvest in inside and in-river 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 dollar values in the table and the following discussion are reported in inflation-adjusted dollars. Exvessel prices for in-river commercial salmon landings 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 2021 was \$7.2 million. This was 15 percent above the prior year's level of \$6.2 million, 86 percent above the 2019 level of \$3.9 million (which was the lowest level since \$3.2 million in 2007), but 11 percent below the recent five-year (2016-2020) average of \$8.1 million (all values adjusted for inflation). Of these amounts, the total exvessel value of salmon harvested in the non-Indian portion of the Columbia River commercial fishery in 2021 was \$3.5 million, 45 percent above the prior year's value of \$2.4 million, nearly triple the \$1.2 million harvested in 2019 (which was the lowest since \$0.4 million in 1998), and 11 percent above the recent five-year (2016-2020) average of \$3.2 million (all values adjusted for inflation) (Table IV-9).

Total exvessel value of treaty Indian salmon harvested in the Columbia River and sold on fish tickets in 2021 was \$3.7 million. This is three percent below the \$3.8 million harvested the prior year, 38 percent above the \$2.7 million in 2019 (which was the lowest since \$2.0 million in 2009), and 25 percent below the recent five-year (2016-2020) average of \$5.0 million (all values adjusted for inflation). 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.

4.3.4 Puget Sound and Washington Coastal Inside Fisheries

Information on 2021 Puget Sound and Washington coastal inside fisheries below is preliminary. All dollar values reported below are adjusted for inflation. In previous years, substantial revisions to these numbers have occurred after publication of this review. Based on PacFIN data (as of January 18, 2022) the preliminary exvessel value of all salmon species taken in the commercial

Numbers of fish are from Table A-15, average weights are from Table D-3, and revenue values are based on incomplete PacFIN data extracted January 18, 2022. Treaty Indian ocean troll fishery exvessel values for 2020 were estimated using average exvessel Chinook and coho prices derived from 2020 non-Indian ocean troll fishery commercial salmon landings.

non-Indian fisheries in Puget Sound and Washington coastal inside fisheries (excluding the Columbia River) in 2021 was approximately \$2.4 million. This was 44 percent more than the prior year's \$1.7 million, 26 percent above the \$1.9 million harvest value in 2019, but more than 70 percent below the values landed in 2018 (\$9.5 million) and 2017 (\$8.5 million). Of total Puget Sound and Washington coastal inside fisheries non-Indian commercial landings in 2021, \$0.9 million were Chinook and coho, compared with \$0.7 million in 2020, \$0.6 million in 2019, and \$0.8 million in 2018. The 1981-2020 inflation-adjusted average annual exvessel value from Puget Sound and Washington coastal inside non-Indian commercial salmon landings was \$17.4 million, of which approximately \$4.1 million on average were landings of Chinook and coho. It is interesting to note that all years with recorded values higher than those averages occurred prior to 1995.

The preliminary 2021 exvessel values reported by PacFIN (as of January 18, 2022) for all salmon species taken in Puget Sound and Washington coastal inside commercial treaty Indian fisheries (excluding the Columbia River) were not complete enough for this report. For reference, the revised inflation-adjusted total exvessel value for the 2020 commercial treaty Indian harvest in Puget Sound and Washington coastal inside fisheries (excluding the Columbia River) is \$5.4 million for all salmon species, of which \$4.3 million were Chinook and coho³. From 1981 through 2020, the inflation-adjusted average annual exvessel value of commercial treaty Indian salmon fisheries in Puget Sound and Washington coastal inside areas was \$23.2 million, of which on average \$9.1 million were Chinook and coho.

4.3.5 Klamath River Tribal Fisheries

Commercial sales from the Yurok and Hoopa Valley tribal spring and fall gillnet fisheries on the Klamath and Trinity rivers occur periodically. The 1,900 fall Chinook harvested commercially in 2019 were the first since 2015 when 17,100 fall Chinook were harvested commercially (Appendix B, Table B-5). Sales from the spring Chinook fishery occurred in 1989, 1996, 2000-2004, and 2007-2013. The average annual commercial catch of spring Chinook during years that the fishery was open was approximately 1,100 fish. Sales from the fall Chinook fishery occurred in 1987-1989, 1996, 1999-2004, 2007-2015, and 2019. The average annual commercial catch of fall Chinook during years that the fishery was open was approximately 21,200 fish, the vast majority of which were taken in the estuary.

Records are not available for the weight and value of harvests for years since 1997, after which each Indian fisher began marketing their fish independently. 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 (\$1.6 million in inflation-adjusted 2021 dollars). In 1996, 3,100 spring Chinook and 40,100 fall Chinook were harvested, with an average weight per fish landed of 13.5 pounds and combined value at first sale of an estimated \$525,000 (\$0.8 million in inflation-adjusted 2021 dollars).

4.3.5.1 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 number of salmon used for ceremonial and subsistence purposes are documented in Appendix B, Table B-5. Discussion of

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³ Based on PacFIN data extracted January 18, 2022.

the importance of ceremonial and subsistence fish to Indian communities is presented in Appendix B to Amendment 14 of the salmon FMP.

4.4 Recreational Salmon Fisheries

4.4.1 West Coast Recreational Ocean Fishery

The preliminary number of vessel-based ocean salmon recreational angler trips taken on the West Coast in 2021 was 247,700 representing a 64 percent increase over the prior year's 150,600 trips, a six percent decrease from 263,600 trips in 2019, 30 percent above the 2016-2020 average of 190,800 trips, and 59 percent below the 1979-1990 average of 599,700 angler-trips per year. Compared with the prior year, preliminary estimates of the number of trips taken in 2021 increased in all three states: by 47 percent in California, 73 percent in Oregon, and by 80 percent in Washington. Note that recreational fishery estimates for 2020 in California do not include private trips that occurred during May and June due to restrictions on sampling caused by the COVID-19 pandemic. Also note that Neah Bay and La Push were closed to public access in 2020, and Neah Bay remained closed to public access in 2021 while La Push did not open to public access until July 12 due to the COVID-19 pandemic. Values for Washington in 2020 and 2021 include catch and effort from ocean trips originating from Sekiu. Washington effort estimates shown in Tables IV-10 and IV-13 may differ from those in Table 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 2021 (24 percent) was five percent below the proportion of charter trips the prior year (25 percent), 10 percent below the share taken in 2019 (27 percent), and 17 percent below the 2016-2020 average of 29 percent. Underlying the coastwide 2021 changes in the proportion of charter trips relative to the prior year were state level decreases of nine percent in California and three percent in Washington, but an increase of 99 percent in Oregon. 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.

4.4.1.1 California

The number of ocean recreational salmon trips in California in 2021 (88,200) was 47 percent above the number the prior year (59,800), 15 percent below 2019 (103,700), and nine percent above the recent 2016-2020 average of 80,800 angler trips per year. Note that recreational fishery estimates for 2020 in California do not include May and June values due to restrictions on sampling caused by the COVID-19 pandemic. Regionally, compared with the prior year, the number of recreational salmon trips in 2021 decreased in three port areas: by 45 percent in Crescent City, 58 percent in Eureka, and by less than one percent in San Francisco; but increased by 67 percent in Fort Bragg and by more than 650 percent in Monterey. A total of 55,300 Chinook were caught in California on the total of 88,200 trips, for an average success rate of 0.63 Chinook per trip, which is down nearly seven percent from the prior year, and nearly 18 percent below the recent five-year (2016-2020) average success rate of 0.76 fish per angler-trip. The charter industry's share of California recreational salmon trips in 2021 was 41 percent, nearly nine percent below the prior year's share,

seven percent below the share in 2019, and 12 percent below the recent five-year (2016-2020) average charter share of angler trips (Table IV-10, Table IV-11, and Figure IV-5).⁴

4.4.1.2 Oregon

The 98,700 ocean recreational salmon trips in Oregon in 2021 were 73 percent above the 57,000 angler trips the prior year, five percent above the 94,200 angler trips in 2019, and 67 percent above the recent five-year (2016-2020) average of 59,300 angler trips per year (Tables IV-10 and IV-12). Compared with the prior year, regional effort was up by 273 percent in Astoria, 41 percent in Tillamook, 125 percent in Newport and 25 percent in Coos Bay, but down by six percent in Brookings.

From 1984 to 1993, on average coho accounted for 87 percent of the Oregon annual 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 (0.37 fish per angler day compared to an average of 0.99 for 1979 through 1993). Salmon retention rates increased with the opportunity to retain coho in mark-selective fisheries south of Cape Falcon beginning in 1999. From 1999 through 2020, retention rates have averaged 0.66 salmon per angler-day. The 2021 Oregon salmon retention rate of 1.03 was more than double the prior year's value of 0.49, 33 percent above 0.77 fish per angler day in 2019, and 90 percent above the recent five-year (2016-2020) average retention rate of 0.54 salmon per angler-day. In 2021, coho contributed 92 percent of total Oregon recreational ocean salmon catch, 24 percent above the prior year's share of 74 percent, one percent above the 2019 value of 91 percent, 15 percent above the recent five-year (2016-2020) average of 80 percent, and the highest coho share since 98 percent in 2009.

The charter industry's share of Oregon recreational salmon trips in 2021 was eight percent, 99 percent higher than the prior year's share (2020 had the lowest annual Oregon charter trip share on record), approximately the same as in 2019, and 22 percent above the recent five-year (2016-2020) annual average charter industry's share of Oregon recreational salmon trips (Table IV-10, Table IV-12, and Figure IV-5).

4.4.1.3 Washington

In 2021, 60,900 ocean angler salmon trips were taken on vessels on the Washington coast representing an increase of 80 percent above the 33,800 trips the prior year (which was the fewest number of trips since 12,300 recorded in 1998), seven percent below the 65,700 trips taken in 2019, and 20 percent above the recent five-year (2016-2020) average of 50,700 angler trips per year. Effort was higher than the prior in three of four Washington regions, but with zero salmon trips being reported again in 2021 from Neah Bay due to COVID-19 related port closures. Increases over the prior year include 38 percent (to a total of 24,900 trips) in Westport, 171 percent (to a total of 23,400 trips) in Ilwaco, and a total of 1,600 trips in La Push compared with zero the prior year. The angler success rate in Washington (in terms of retained fish per angler-trip) was 1.06 in 2021, 29 percent above the prior year, six percent below 2019, and 18 percent above the recent five-year (2016-2020) average success rate of 0.90 fish per angler-trip. Approximately 27

⁴ As noted, recreational estimates for California in 2020 do not include private trips that occurred during May and June of that year due to restrictions on sampling caused by the COVID-19 pandemic. Therefore, the 2020 values presented in this section should be considered an underrepresentation of the actual recreational effort and harvest in California, and an overrepresentation of the charter industry's share of the effort.

percent of Washington angler trips in 2021 were taken on charter vessels, a decrease of three percent from proportion the prior year, nearly two percent below the proportion in 2019, and nearly five percent below the recent five-year (2016-2020) average charter trip share of 28 percent (Table IV-10, Table IV-13, and Figure IV-5). 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 (if open).

4.4.2 North of Cape Falcon Non-Salmon Recreational Fisheries

To offset the impact of reduced ocean recreational salmon trips on coastal communities, beginning in 1985 partial-week closures were instituted in the ocean recreational salmon fishery over the entire north of Cape Falcon area in hopes of increasing angler participation in non-salmon recreational fishing (e.g., bottomfish) and extending the overall length of the salmon season. 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). 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, in Westport. In the same year, partial week openings were instituted for much of the season in both northern areas. Since then, seven-day per week openings have been increasingly used in the Westport and Columbia River areas. Beginning in 2011, seven-day openings became common for all areas.

In 2021, there were approximately 39,500 total recreational bottomfish trips north of Cape Falcon (including trips taken inside Buoy-10 and from Columbia River jetties), 21 percent more than the 32,600 trips taken the prior year (2020 had the fewest recorded bottomfish trips since at least 1986), but nearly 36 percent below the numbers of bottomfish trips taken in 2019 (61,500) and 2018 (61,400). Compared with the prior year, total bottomfish effort increased in both Westport and La Push, decreased in the Columbia River–Buoy 10 area, and was negligible again in Neah Bay–Area 4B (Table IV-14).

4.4.3 Buoy 10 and Area 4B Add-On Fisheries

Salmon anglers fishing from private and charter boats originating from Oregon and Washington ports made a total of approximately 98,900 trips in the Buoy 10 fishery in 2021. This effort level is 48 percent more than the 66,700 trips the prior year, 36 percent more than the 73,000 trips recorded in 2019, and 30 percent above the 2016-2020 average of 76,300 angler-trips. The success/retention rate for anglers fishing from boats in the Buoy 10 fishery in 2021 was 0.56 salmon per angler trip, 78 percent above the 0.31 success rate the prior year, 25 percent above the 0.45 average success rate in 2019, and 51 percent above the average annual success rate of 0.37 salmon per angler trip in the Buoy 10 fishery during 2016-2020 (Table IV-15).

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

4.5 Salmon Fishery Income Impacts and Community Dependance

Coastal community income impacts provide information on the effects of fluctuations in annual 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 *Review of 2014 Ocean Salmon Fisheries*, income impacts were estimated using the Fisheries Economic Assessment Model (FEAM). When IO-PAC was adopted, it was applied retrospectively back to 2010. The change in methodology means that income impacts estimated using IO-PAC for years beginning with 2010 are not completely comparable with historical values for years prior to 2010, which were estimated using FEAM. Consequently, comparisons of income impacts in this document are generally confined to describing trends occurring beginning with the 2010 salmon fishery, during which period the IO-PAC-based models and multipliers have been exclusively and consistently 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 overlapping 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 measures 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 commercial salmon fisheries and trip-related expenditures made by recreational salmon anglers, expressed at the local community (county) and state levels. The income impacts reported in this chapter consist of the sum of personal income earned by those directly participating in the fishery (e.g. vessel owners, crew members, processing workers, recreational charter operators), income indirectly associated with the fishery that is earned by those providing inputs to harvesting, processing and recreational sectors (e.g., fuel, gear, packaging, bait, and ice suppliers; and hotel, restaurant, and campground operators), and income earned by those whose goods and services are purchased when direct and indirect income is re-spent in the community (e.g., grocery store owners and employees, local manufacturers, auto mechanics, restaurants, health care, and legal professionals). This latter category of impacts is sometimes called 'induced income.'

When the commercial or recreational fishery is reduced or absent, the net impact on local communities will depend on the economic base of the community and on how people respond to the reduced fishery. For example, if a recreational angler is unable to make a coastal salmon trip and instead travels inland to fish in a river or at a mountain lake, then the impact associated with the lost salmon trip represents 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 whose livelihood involves the salmon fishery would experience an income reduction, as if the angler's money had been spent elsewhere (or not at all). Similarly, for those involved in the commercial fishery, whether or not reduced income impacts associated with a reduction in salmon harvest represents a net loss to the community depends on the degree to which opportunities exist in the community to engage in some other economic activity to compensate for the loss of income from commercial salmon harvesting and processing.

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⁵ 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.).

Income impacts are presented at the local and state levels. Estimates of changes in income impacts may represent a disruption due to redistribution of activity within the local economy or a net loss from activity leaving the local economy. At higher levels, such as for the state, it is more likely that an estimate of change represents a disruption due to redistribution of activity within the economy rather than a net loss to the greater state economy.

Income impacts are estimated based on several data components, including reported commercial fishery landings and exvessel prices by port or area, an inventory of local harvesters and processors, estimates of operational expenditures by harvesters and processors, estimates of the number of angler trips and expenditure patterns of recreational anglers, and local and state-level total income impact coefficients generated using 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 estimates of coastal community impacts but may be 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 fishing-dependent and non-fishing 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 document are in terms of inflation-adjusted 2021 dollars.

4.5.1.1 West Coast Ocean Fishery Commercial and Recreational Income Impacts

Total state-level income impacts associated with non-Indian commercial ocean troll and recreational salmon fisheries for all three states combined in 2021 were \$75.8 million, 41 percent above the prior year's level of \$53.8 million, one percent below the 2019 level of \$76.5 million, and 38 percent above the 2016-2020 annual average of \$55.1 million (all values adjusted for inflation) (Tables IV-16, IV-17, and IV-18). Total West Coast income impacts associated with the 2021 non-Indian commercial ocean troll fishery were \$40.7 million, 27 percent above the prior year's estimate (\$31.9 million), nine percent above the 2019 level of \$37.5 million, and 58 percent above the 2016-2020 annual average of \$25.7 million (all values adjusted for inflation). Income impacts generated by the three states' combined 2021 ocean recreational salmon fisheries totaled \$35.2 million, 61 percent above the prior year's level of \$21.8 million, 10 percent below the 2019 level of \$39.1 million, and 19 percent above the 2016-2020 average of \$29.4 million (all values adjusted for inflation). Note that these aggregated coastwide values may mask the underlying

⁶ In 2020 Neah Bay and La Push were closed to public access in late March for the remainder of 2020 due to the COVID-19 pandemic. Puget Sound and state totals reported in the tables include effects of ocean troll-caught salmon (36,000 pounds Chinook, 800 pounds coho) landed in Puget Sound ports of Sekiu and Port Angeles (authorized by emergency rule), and 7,016 recreational ocean salmon angler trips (276 charter, 6,740 private) that occurred from the port of Sekiu. The port of Neah Bay was also restricted to limited local access only in 2021 due to the COVID-19 pandemic. Vessels were allowed to land in the Puget Sound ports of Sekiu and Port Angeles by emergency rule, including ocean troll-caught salmon landings (9,100 pounds of Chinook, 1,300 pounds of coho) in Puget Sound ports. An additional 10,899 ocean recreational salmon angler trips (345 charter and 10,554 private) and 17,367 ocean bottomfish angler trips (1,005 charter, and 16,362 private) occurred from the port of Sekiu.

⁷ 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.

⁸ As noted previously, recreational fishery estimates for California do not include private trips that occurred during May and June in 2020 due to restrictions on sampling caused by the COVID-19 pandemic. Therefore, income impacts reported here for the 2020 recreational fishery are likely lower than what actually occurred.

effects in individual states and 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.

4.5.1.2 Selected Inside Fisheries

Columbia River Commercial Fisheries

Historically the non-Indian and treaty Indian Columbia River commercial salmon fisheries have generated a substantial amount of income for Oregon and Washington communities on the Columbia River. In 2021, income impacts associated with the Columbia River commercial catch (combined non-Indian and treaty Indian) were estimated at \$12.2 million, 16 percent above the prior year's value of \$10.6 million, more than double the estimate for 2019 of \$5.9 million (which was the lowest estimated value since prior to 2010), and four percent above the recent five-year annual average of \$11.8 million for the 2016-2020 period (all values adjusted for inflation) (Table IV-19).

Buoy 10

Estimated local community income impacts associated with the 2021 Columbia River Buoy 10 recreational salmon fishery were \$7.8 million, 45 percent above the prior year's value of \$5.4 million, 38 percent above the 2019 value of \$5.6 million, 30 percent above the 2016-2020 annual average value of approximately \$6.0 million, and the third highest estimated annual value since 2009 (all values adjusted for inflation) (Table IV-20).

TABLE IV-1. Average monthly exvessel troll salmon price in dollars per dressed pound for California, Oregon, and Washington in 2021.

Species/Grade	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Season ^{b/}
			-	CAL	IFORNIA						
Chinook ^{a/}	-	-	10.73	7.05	8.43	6.88	10.04	11.75	-	-	8.06
Coho	-	-	-	-	-	-	-	-	-	-	-
				o	REGON						
Chinook											
Large (>11 Pounds)	10.00	14.10	12.65	12.62	8.32	8.03	9.27	10.97	11.00	-	9.23
Medium (7-11 Pounds)	10.00	13.91	12.38	11.57	7.49	7.03	9.00	10.48	10.50	-	9.20
Small (<7 Pounds)	-	-	12.50	13.00	10.39	6.00	8.00	10.50	-	-	11.70
Ungraded Chinook	12.01	12.79	12.90	11.11	9.09	8.48	9.50	11.59	12.60	-	10.28
Weighted Average	11.99	12.82	12.84	11.22	8.82	8.32	9.45	11.00	11.65	-	10.04
Mixed Coho	-	-	-	-	4.18	4.08	3.90	-	-	-	4.12
				WAS	HINGTON	o/					
Chinook											
Large (>11 Pounds)	-	-	11.70	8.35	7.81	7.59	7.40	-	-	-	8.49
Medium (8-11 Pounds)	-	-	11.79	9.03	7.11	7.05	7.42	-	-	-	8.73
Small (<8 Pounds)	-	-	10.97	9.41	7.57	7.15	7.24	-	-	-	9.50
Ungraded Chinook	-	-	-	-	-	-	-	-	-	-	-
Weighted Average	-	-	11.71	8.66	7.80	7.52	7.30	-	-	-	8.58
Mixed Coho	_	-	_	-	3.66	3.54	3.74	-	_	_	3.63

a/ Chinook salmon are sometimes sold in multiple 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, 2021) dollars.^{a/}

ulesseu poul	ia) iii iioiiiii		nook	juotou, Loz i	y dollaro.	Co	ho		To	tal ^{b/}
•	Nominal	Real	Nominal	Real	Nominal	Real	Nominal	Real	Nominal	Real
	Value	Value	Price Per	Price Per	Value	Value	Price Per	Price Per	Value	Value
Year or Avg	(\$*1,000)	(\$*1,000)	Pound (\$)	Pound (\$)	(\$*1,000)	(\$*1,000)	Pound (\$)	Pound (\$)	(\$*1,000)	(\$*1,000)
1979	17,356	52,976	2.53	7.72	2,303	7,030	2.19	6.68	19,659	60,006
1980	12,741	35,668	2.27	6.35	408	1,142	1.36	3.81	13,149	36,810
1981-1985	10,945	25,902	2.42	5.65	554	1,326	1.62	3.80	11,499	27,228
1986-1990	21,151	42,570	2.56	5.11	490	970	1.81	3.60	21,641	43,540
1991-1995	7,335	12,555	2.28	3.94	143	257	0.63	1.12	7,478	12,812
1996	5,984	9,676	1.44	2.33	-	-	-	-	5,984	9,676
1997	7,288	11,585	1.38	2.19	-	-	-	-	7,288	11,585
1998	3,060	4,810	1.66	2.61	-	-	-	-	3,060	4,810
1999	7,429	11,515	1.93	2.99	-	-	-	-	7,429	11,515
2000	10,304	15,618	2.01	3.05	-	-	-	-	10,304	15,618
2001	4,773	7,075	1.98	2.94	-	-	-	-	4,773	7,075
2002	7,776	11,349	1.55	2.27	-	-	-	-	7,776	11,349
2003	12,181	17,435	1.91	2.73	-	-	-	-	12,181	17,435
2004	17,895	24,944	2.87	4.00	-	-	-	-	17,895	24,944
2005	12,913	17,452	2.97	4.01	-	-	-	-	12,913	17,452
2006	5,350	7,014	5.13	6.73	-	-	-	-	5,350	7,014
2007	7,902	10,088	5.18	6.61	-	-	-	-	7,902	10,088
2008	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-
2010	1,246	1,532	5.47	6.73	-	-	-	-	1,246	1,532
2011	5,133	6,184	5.18	6.24	-	-	-	-	5,133	6,184
2012	13,521	15,991	5.34	6.32	-	-	-	-	13,521	15,991
2013	23,632	27,467	6.23	7.24	-	-	-	-	23,632	27,467
2014	12,521	14,286	5.56	6.34	-	-	-	-	12,521	14,286
2015	8,347	9,429	7.03	7.94	-	-	-	-	8,347	9,429
2016	5,312	5,942	8.63	9.65	-	-	-	-	5,312	5,942
2017	4,925	5,406	9.90	10.87	-	-	-	-	4,925	5,406
2018	7,932	8,503	8.53	9.14	-	-	-	-	7,932	8,503
2019	17,209	18,124	6.61	6.96	-	-	-	-	17,209	18,124
2020	14,408	14,993	7.47	7.77	-	-	-	-	14,408	14,993
2021 ^{c/}	18,480	18,480	8.06	8.06	-	-	-	-	18,480	18,480

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, 2021) dollars.

pourid) in non	iinai ana io	-	nook	22 1) dollaro.		Co	oho		Total ^{a/}		
•	Nominal	Real	Nominal	Real	Nominal	Real	Nominal	Real	Nominal	Real	
	Value	Value	Price Per	Price Per	Value	Value	Price Per	Price Per	Value	Value	
Year or Avg.	(\$*1,000)	(\$*1,000)	Pound (\$)	Pound (\$)	(\$*1,000)	(\$*1,000)	Pound (\$)	Pound (\$)	(\$*1,000)	(\$*1,000)	
1971-1975	2,036	9,127	0.89	4.06	3,658	16,793	0.64	2.89	5,694	25,920	
1976-1980	5,290	17,275	2.17	7.06	6,389	21,492	1.51	4.91	11,679	38,767	
1981-1985	3,582	8,432	2.46	5.75	2,248	5,521	1.45	3.40	5,830	13,953	
1986-1990	9,381	18,850	2.47	4.93	3,203	6,451	1.54	3.08	12,584	25,302	
1991-1995	1,971	3,381	2.24	3.87	326	585	0.64	1.12	2,297	3,966	
1996	3,007	4,862	1.56	2.52	-	-	-	-	3,007	4,862	
1997	2,469	3,925	1.60	2.54	-	-	-	-	2,469	3,925	
1998	2,297	3,611	1.64	2.58	-	-	-	-	2,297	3,611	
1999	1,400	2,170	1.94	3.01	1	2	1.03	1.60	1,401	2,172	
2000	2,988	4,529	2.02	3.06	75	114	1.06	1.61	3,063	4,643	
2001	4,680	6,937	1.61	2.39	41	61	0.79	1.17	4,721	6,998	
2002	5,383	7,857	1.54	2.25	8	12	0.75	1.09	5,391	7,869	
2003	7,186	10,285	1.97	2.82	36	52	0.85	1.22	7,222	10,337	
2004	9,832	13,706	3.45	4.81	86	120	1.24	1.73	9,919	13,826	
2005	8,466	11,442	3.17	4.28	37	50	1.87	2.53	8,503	11,492	
2006	2,663	3,491	5.48	7.18	38	50	2.90	3.80	2,701	3,541	
2007	2,630	3,357	5.66	7.23	193	246	1.90	2.43	2,822	3,603	
2008	484	606	7.31	9.16	10	13	2.82	3.53	494	619	
2009	77	96	5.06	6.30	267	332	2.04	2.54	345	429	
2010	2,775	3,413	5.49	6.75	16	19	2.23	2.74	2,791	3,432	
2011	2,396	2,887	5.96	7.18	5	6	2.01	2.42	2,401	2,893	
2012	4,263	5,042	5.75	6.80	8	10	2.20	2.60	4,271	5,052	
2013	7,604	8,838	5.88	6.83	7	8	2.56	2.98	7,611	8,846	
2014	14,692	16,763	5.71	6.51	67	77	2.00	2.28	14,760	16,840	
2015	7,313	8,261	6.15	6.95	21	24	1.88	2.12	7,334	8,285	
2016	4,261	4,766	8.23	9.20	-	-	-	-	4,261	4,766	
2017	2,121	2,328	8.03	8.81	8	9	3.03	3.33	2,129	2,337	
2018	2,440	2,616	8.48	9.09	2	2	3.65	3.91	2,442	2,618	
2019	2,085	2,196	6.66	7.01	18	19	2.66	2.80	2,103	2,214	
2020	1,521	1,583	8.40	8.74	3	3	3.29	3.42	1,524	1,585	
2021 ^{b/}	2,196	2,196	10.04	10.04	53	53	4.12	4.12	2,249	2,249	

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, 2021) dollars.al

,			nook		, ,	Co	ho		To	tal ^{b/}
-	Nominal	Real								
	Value	Value	Price Per	Price Per	Value	Value	Price Per	Price Per	Value	Value
Year or Avg.	(\$*1,000)	(\$*1,000)	Pound (\$)	Pound (\$)	(\$*1,000)	(\$*1,000)	Pound (\$)	Pound (\$)	(\$*1,000)	(\$*1,000)
1971-1975	2,714	12,322	0.89	4.07	3,060	13,926	0.66	3.02	5,775	26,247
1976-1980	5,313	17,713	2.39	7.73	6,086	20,241	1.67	5.42	11,399	37,954
1981-1985	1,954	4,734	2.46	5.75	1,272	3,094	1.32	3.09	3,225	7,828
1986-1990⊄	1,310	2,626	2.61	5.23	360	710	1.62	3.24	1,670	3,336
1991-1995 ^d	550	967	2.17	3.75	120	211	0.86	1.49	670	1,178
1996 ^{d/}	d/	d/	d/	d/	59	95	0.86	1.39	d/	d/
1997	125	199	1.55	2.46	-	-	-	-	125	199
1998	123	193	1.51	2.37	-	-	-	-	123	193
1999	377	584	1.90	2.95	19	29	88.0	1.36	396	614
2000	224	340	1.71	2.59	34	52	1.09	1.65	258	392
2001	349	517	1.44	2.13	34	50	0.69	1.02	383	568
2002	756	1,103	1.11	1.62	2	2	1.58	2.31	758	1,106
2003	951	1,361	1.15	1.65	40	58	0.74	1.06	991	1,419
2004	1,079	1,504	2.14	2.98	106	147	1.16	1.62	1,185	1,652
2005	1,273	1,721	2.70	3.65	16	22	1.65	2.23	1,290	1,743
2006	1,029	1,348	4.64	6.08	16	22	1.69	2.22	1,045	1,370
2007	905	1,155	4.90	6.26	48	62	1.46	1.86	953	1,216
2008	673	843	6.73	8.43	36	45	2.49	3.12	709	888
2009	893	1,112	5.76	7.17	276	343	2.02	2.51	1,169	1,455
2010	3,083	3,792	5.61	6.90	32	40	2.14	2.63	3,115	3,831
2011	1,652	1,990	5.12	6.17	35	43	2.10	2.53	1,687	2,033
2012	2,323	2,747	5.34	6.32	35	42	1.99	2.35	2,358	2,789
2013	2,771	3,220	6.16	7.16	67	78	2.15	2.50	2,838	3,298
2014	2,549	2,908	5.50	6.28	160	183	1.83	2.09	2,709	3,091
2015	3,423	3,867	5.48	6.19	26	29	1.67	1.89	3,448	3,896
2016	1,606	1,796	8.00	8.95	-	-	-	-	1,606	1,796
2017	2,896	3,179	8.66	9.51	23	25	2.59	2.84	2,919	3,204
2018	2,326	2,493	9.16	9.82	24	26	2.81	3.01	2,350	2,519
2019	1,858	1,957	6.19	6.52	67	71	3.03	3.19	1,925	2,028
2020e/	1,160	1,208	7.07	7.36	13	13	3.12	3.25	1,173	1,221
2021 [#]	1,963	1,963	8.58	8.58	80	80	3.84	3.84	2,043	2,043

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 w as 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.

e/ The port of Neah Bay was closed to public access and the port of La Push was restricted to local access only in 2020 due to the COVID-19 pandemic. Vessels were allowed to land in the Puget Sound ports of Sekiu and Port Angeles by emergency rule. Totals include revenue from ocean troll-caught landings (36,000 pounds of Chinook, 800 pounds of coho) in Puget Sound ports authorized by the emergency rule.

f/ The port of Neah Bay was partially closed and restricted to limited local access only in 2021 due to the COVID-19 pandemic. Vessels were allowed to land in the Puget Sound ports of Sekiu and Port Angeles by emergency rule. Totals include revenue from ocean troll-caught landings (9,100 pounds of Chinook, 1,300 pounds of coho) in Puget Sound ports authorized by the emergency rule.

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, 2021) dollars.

(dollars per d			egon	(.,,	Washir	ngton		Total		
	Nominal	Real	Nominal	Real	Nominal		Nominal	Real	Nominal		
Year or	Value	Value	Price Per	Price Per	Value	Real Value	Price Per	Price Per	Value	Real Value	
Avg. ^{a/}	(\$*1,000)	(\$*1,000)	Pound (\$)	Pound (\$)	(\$*1,000)	(\$*1,000)	Pound (\$)	Pound (\$)	(\$*1,000)	(\$*1,000)	
1976-1980	167	570	0.75	2.43	1,200	3,865	0.54	1.77	1,367	4,435	
1981-1985	129	308	0.74	1.73	287	695	0.41	0.97	416	1,003	
1986-1990	41	85	0.77	1.54	57	110	0.66	1.32	98	195	
1991-1995	1	3	0.88	1.51	38	67	0.64	1.10	39	69	
1997	b/	b/	0.56	0.89	b/	b/	0.20	0.32	b/	b/	
1999	b/	b/	0.67	1.04	b/	b/	0.38	0.59	b/	b/	
2001	1	1	0.58	0.86	b/	b/	0.22	0.33	1	1	
2003	b/	b/	0.85	1.22	b/	b/	0.30	0.43	b/	1	
2005	b/	b/	1.25	1.69	b/	b/	0.52	0.70	b/	b/	
2007	b/	b/	1.11	1.42	b/	b/	0.33	0.42	b/	b/	
2009	b/	b/	0.51	0.63	b/	b/	0.33	0.41	b/	b/	
2011	b/	b/	1.31	1.58	1	1	0.83	1.00	1	1	
2013	b/	b/	1.35	1.57	b/	b/	0.61	0.71	b/	b/	
2015	b/	b/	1.60	1.81	b/	b/	0.77	0.87	b/	b/	
2017	-	-	-	-	b/	b/	b/	b/	b/	b/	
2019	b/	b/	2.11	2.22	b/	b/	b/	b/	b/	b/	
2021	_	-	2.42	2.42	b/	b/	1	1	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. albi									
Year or Avg.	Crescent City	Eureka	Fort Bragg	San Francisco	Monterey	State Total					
		CHINOOK (th	nousands of dre	ssed pounds)							
1991-1995	2	25	183	1,893	1,326	3,429					
1996-2000	2	35	146	2,155	1,699	4,037					
2001-2005	86	64	1,268	2,704	756	4,877					
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/	6	165	313	131	615					
2017	-	3	37	316	141	497					
2018	42	43	123	577	145	930					
2019	39	14	98	1,624	830	2,604					
2020	-	3	123	1,448	354	1,928					
2021 ^{d/e/}	26	39	564	1,282	384	2,294					
		COHO (the	usands of dress	sed pounds)							
1991-1995	c/	4	11	56	23	94					
1996-2000	-	-	-	-	-	-					
2001-2005	-	-	-	-	-	-					
2006	-	-	-	-	-	-					
2007	-	-	-	-	-	-					
2008	-	-	-	-	-	-					
2009	-	-	-	-	-	-					
2010	-	-	-	-	-	-					
2011	-	-	-	-	-	-					
2012	-	-	-	-	-	-					
2013	-	-	-	-	-	-					
2014	-	-	-	-	-	-					
2015	-	-	-	-	-	-					
2016	-	-	-	-	-	-					
2017	-	-	-	-	-	-					
2018	-	-	-	-	-	-					
2019	-	-	-	-	-	-					
2020	-	-	-	-	-	-					
2021	-	-	-	-	_	-					

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, Mendocino, and Albion; San Francisco includes Point Arena, Bodega Bay, Richmond, Bolinas, Sausalito, Berkeley, Alameda, 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/ Less than 500 pounds.

d/ Preliminary.

e/ Crescent City and Eureka port area landings in 2021 are fish caught in the Fort Bragg and San Francisco areas and landed in Crescent City and Eureka ports.

TABLE IV-7.	Pounds of salm	non landed by the c	ommercial troll oce	ean fishery for majo	or Oregon port area	ıs. ^{a/}
Year or Avg.	Astoria	Tillamook	New port	Coos Bay	Brookings	State Total
		CHINOOK (th	ousands of dre	ssed pounds)		
1991-1995	7.4	85.8	579.5	235.5	31.0	939.6
1996-2000	25.2	70.4	790.3	435.0	92.2	1,413.6
2001-2005	186.5	213.8	1,380.7	1,124.0	203.6	3,108.9
2006	99.0	67.5	218.1	56.2	45.0	485.8
2007	21.7	36.5	75.8	231.9	98.3	464.3
2008	39.2	19.0	-	-	7.9	66.2
2009	6.7	4.1	-	-	4.6	15.3
2010	116.4	40.0	184.5	122.2	42.6	505.7
2011	30.4	13.7	67.9	231.2	58.8	401.9
2012	84.4	64.0	275.0	221.0	97.1	741.5
2013	34.0	76.0	232.0	783.0	166.0	1,291.0
2014	172.1	149.0	927.0	1,025.0	298.0	2,571.1
2015	115.0	89.0	429.0	429.0	127.0	1,189.0
2016	24.0	16.0	338.0	116.0	24.0	518.0
2017	22.0	15.0	180.0	34.0	14.0	265.0
2018	3.0	8.0	131.0	87.0	59.0	288.0
2019	3.0	16.0	196.0	63.0	35.0	313.0
2020	2.0	10.0	122.0	24.0	24.0	182.0
2021 ^{c/}	5.0	15.0	140.0	38.0	21.0	219.0
		COHO (tho	usands of dress	sed pounds)		
1991-1995	16.5	92.9	110.3	103.9	1.5	325.1
1996-2000	14.4	-	_	-	-	14.4
2001-2005	28.7	9.8	1.0	-	-	39.1
2006	7.6	5.5	_	-	-	13.1
2007	36.5	34.3	13.5	14.3	2.5	101.1
2008	2.9	0.7	_	-	-	3.7
2009	47.7	43.4	35.0	4.6	b/	130.8
2010	6.3	0.7	-	-	-	7.0
2011	2.0	0.6	-	-	-	2.6
2012	2.5	1.3	-	-	-	3.8
2013	2.0	-	-	-	-	2.0
2014	32.7	17.8	9.2	6.5	1.3	67.5
2015	10.0	1.0	-	-	-	11.0
2016	-	-	-	-	-	-
2017	1.0	1.0	-	-	-	2.0
2018	b/	b/	-	-	-	0.6
2019	4.0	3.0	-	-	-	7.0
2020	b/	b/	-	-	-	0.8
2021 ^{c/}	b/	2.0	10.0	1.0	-	13.0

a/ The major port areas listed include smaller ports as follows: Astoria also includes Gearhart/Seaside and Cannon Beach; Tillamook also includes Garibaldi, Netarts, Pacific City, and Nehalem Bay; Newport 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/ Less than 500 pounds.

c/ Preliminary.

TABLE IV-8. Pounds of salmon landed by the non-Indian commercial troll ocean fishery for major Washington port areas. albi

			•		Coastal	<u> </u>	•
					Community		
Year or Avg.	Neah Bay	La Push	Westport	llw aco	Total	Puget Sound	State Total ^{c/}
		CHIN	OOK (thousands	s of dressed	pounds)		
1991-1995 ^{d/}	137	29	123	9	204	30	234
1996-2000 ^{d/}	49	1	37	3	80	22	102
2001-2005	250	55	208	26	539	4	543
2005-2010	45	40	138	12	234	2	236
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
2017	69	22	237	6	334	-	334
2018	42	49	162	1	254	-	254
2019	133	59	105	3	300	-	300
2020 ^{f/}	-	17	102	8	128	36	164
2021 ^{g/}	32	9	162	4	207	9	216
		СО	HO (thousands	of dressed p	ounds)		
1991-1995	52	14	49	13	102	12	111
1996-2000	10	e/	8	3	22	2	24
2001-2005	7	8	23	5	40	1	41
2006-2010	8	9	17	7	41	1	42
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/
2017	2	1	5	1	9	-	9
2018	1	3	4	e/	9	-	9
2019	5	3	14	1	22	-	22
2020 ^{f/}	-	e/	3	e/	3	1	4
2021 ^{g/}	e/	1	14	2	16	1	18

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; Ilw aco 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.

f/ The port of Neah Bay was closed to public access and the port of La Push was restricted to local access only in 2020 due to the COVID-19 pandemic. Vessels were allowed to land in the Puget Sound ports of Sekiu and Port Angeles by emergency rule. Totals include revenue from ocean troll-caught landings (36,000 pounds of Chinook, 800 pounds of coho) in Puget Sound ports authorized by the emergency rule.

g/ The port of Neah Bay was partially closed and restricted to limited local access only in 2021 due to the COVID-19 pandemic. Vessels were allowed to land in the Puget Sound ports of Sekiu and Port Angeles by emergency rule. Totals include revenue from ocean troll-caught landings (9,100 pounds of Chinook, 1,300 pounds of coho) in Puget Sound ports authorized by the emergency rule.

TABLE IV-9.Landings, exvessel values and average prices (inflation adjusted, 2021 dollars) of inriver commercial harvest of Columbia River salmon.^{al} (Page 1 of 3)

			on-Indiar	ı Gilinet"					y Indian	All G	ears		
		Chinook						Chinook					Col. R.
Year or Avg.	Spring	Fall Brights ^{d/}	Tules	Coho	Chum ^{e/}	TOTAL	Spring	Fa Brights ^{d/}		Coho	Chum ^{e/}	TOTAL	Total By State
	969	D. Igilio		000		Oregon	909	D. Ig. Ito		000	0.14.11		01010
				Averag	ge Price P	er Landed Po	ound ^{f/} (dolla	ırs)					
1991-1995	5.87	1.76	0.48	1.37	0.57		6.05	1.51	0.34	0.99	-		
1996-2000	4.01	1.42	0.29	1.06	0.34		4.27	1.16	0.20	0.63	-		
2001-2005	4.43	1.41	0.23	0.88	0.44		3.11	1.36	0.33	0.90	-		
2006-2010	6.49	2.94	0.51	1.73	0.68		4.76	2.55	0.43	1.59	-		
2011	6.12	2.75	0.70	1.99	0.93		4.30	2.84	0.86	1.84	-		
2012	6.88	2.61	0.64	1.90	0.58		6.53	3.03	0.88	2.19	-		
2013	7.50	2.92	0.66	2.14	0.58		6.03	2.39	0.74	1.56	-		
2014	6.14	2.09	0.65	1.33	0.57		5.74	1.96	0.65	1.04	-		
2015	6.52	2.73	0.56	1.72	0.34		4.72	2.81	0.52	1.65	-		
2016	7.93	3.59	0.70	2.06	-		6.71	3.24	0.67	1.73	-		
2017	8.22	3.49	0.68	2.23	0.55		7.87	5.38	0.66	2.15	-		
2018	11.17	3.79	0.72	2.11	-		8.52	5.00	0.74	2.25	-		
2019	11.96	2.78	0.56	1.79	-		6.41	3.77	0.53	2.09	-		
2020	7.45	2.98	0.59	1.72	-		6.62	3.54	0.42	1.77	-		
2021	9.34	3.26	0.69	1.85	-		6.90	3.79	0.50	1.68	-		
				Eyve	ssel Valu	e (thousands	s of dollars)					
1991-1995	345	304	21	762	,3301 valu g/	1,432	1	284	34	9	_	328	1,76
1996-2000	152	108	12	393	g/	664	1	85	12	3	_	100	70
2001-2005	949	489	40	843	g/	2,322	59	213	12	6	_	290	2,6
2006-2010	1,108	961	81	857	g/	3,007	278	663	46	34	g/	1,021	4,0
2011	1,406	1,743	164	872	g/	4,185	221	720	37	36	9/	1,014	5,19
2011	1,249	1,064	130	176	g/ g/	2,620	87	414	6	13	-	520	3,14
2012	1,076	2,467	123	571	g/	4,237	104	1,205	26	7	_	1,342	5,57
2013	716	1,849	161	1,894	g/	4,620	318	1,013	16	39	-	1,342	6,00
2014	1,407	1,638	105	292	g/ g/	3,442	481	1,111	34	2	_	1,629	5,0
2016	1,396	1,479	67	435	9'	3,378	158	942	2	9	_	1,111	4,48
2010	1,611	606	33	481	g/	2,731	177	976	3	17	-	1,173	3,9
2017	1,502	330	24	150	9/	2,731	474	944	2	21	-	1,173	3,44
2019	479	192	12	213	-	896	166	1,078	g/	14	-	1,258	2,15
2020	375	554	44	540	_	1,514	265	1,763	2	72	-	2,102	3,6
2020 2021 ^{h/}	691	545	52	1,321	-	2,611	436	1,703	4	113	-	1,645	3,0 4,25
					_								
1991-1995	58	165	45	539	Poun 1	ds (thousand 809	ds) g/	194	113	8	_	314	1,12
1996-2000	37	80	46	395	1	559	g/ g/	72	58	3	_	133	69
2001-2005	211	355	178	1,082	g/	1,825	9/ 24	141	73	8	-	246	2,07
2006-2010	174	342	120	517	g/	1,152	54	268	81	22	- -	425	1,57
2011	230	635	234	439	g/ g/	1,537	51	253	43	20	g/ -	367	1,90
2011	181	407	204	92	g/ g/	885	13	137	43 7	6	-	163	1,90
2012	144	846	186	267		1,442	17	503	35	5	-	560	2,00
					g/						-		
2014	117	886	247	1,419	g/	2,669	55	516	24	38	-	634	3,30
2015	216	599	186	170	g/	1,171	102	395	64	1	-	563	1,73
2016	176	412	95	211	g/	895	24	290	3	5	-	322	1,2
2017	196	174	48	215	g/	633	22	182	4	8	-	216	8
2018	134	87	34	71	-	326	56	189	3	9	-	257	58
2019	40	69	22	119	-	250	26	286	1	7	-	319	56
2020	50	186	73	315	-	625	40	498	4	41	-	583	1,20
2021 ^{h/}	74	167	75	713	-	1,029	63	289	8	67	-	427	1,45

TABLE IV-9. Landings, exvessel values and average prices (inflation adjusted, 2021 dollars) of inriver commercial harvest of Columbia River salmon. all (Page 2 of 3)

Family F				on-Indiar	Gillnet"						y Indian	- All C	ears		0 : -
															Col. R.
Washington Was	Vear or Ava	Spring			Coho	Chum ^{e/}	ΤΟΤΔΙ		Spring			Coho	Chum ^{e/}	ΤΟΤΔΙ	,
New range Price Per Landed Pound" (collars)	rear or Avg.	Opring	Drigino	Tuics	CONO	Onum	Washingt	on ^{h/}		Drigitio	Tuics	CONO	Onam	TOTAL	Otato
					Averac					ars)					
1986-2000	1991-1995	5.73	1.60	_	•	•	-	-	,	,	_	2.18	_		
2001-2005				_			_	_			_		_		
2006-2010 6.90 2.72 - 1.59 0.98 - 4.54 1.57 - 0.24 - 2.2011 5.41 2.30 - 1.82 0.70 - 4.23 2.19 - 1.72 3.77 20112 7.42 2.41 - 1.93 0.51 - 5.46 2.05 - 1.49 - 2.2013 7.12 2.49 - 2.13 - 5.56 2.05 - 1.49 - 2.2013 7.12 2.49 - 2.13 - 5.51 2.20 - 1.36 - 2.2014 6.12 1.85 - 1.29 0.52 - 5.37 1.65 - 1.12 1.23 2016 8.32 3.24 - 2.09 6.02 2.68 - 1.55 - 2.2016 8.32 3.24 - 2.09 6.02 2.68 - 1.55 - 2.2017 10.56 3.24 - 2.26 5.52 2.40 - 1.39 - 2.2017 10.56 3.24 - 2.26 5.52 2.40 - 1.39 - 2.2019 14.71 2.69 - 2.02 5.52 2.40 - 1.39 - 2.2019 14.71 2.69 - 2.02 5.52 2.40 - 1.39 - 2.2019 14.71 2.69 - 2.08 6.57 2.11 - 1.53 - 2.2011 1.95 2.84 - 2.08 6.57 2.11 - 1.53 - 2.2011 1.95 2.84 - 2.08 6.77 2.11 - 1.53 - 2.2011 1.95 2.84 - 2.08 6.27 2.11 - 1.53 - 2.2011 1.95 2.84 - 2.08 6.27 2.11 - 1.53 - 2.2011 1.95 2.84 - 2.08 6.27 2.11 - 1.53 - 2.2011 1.95 2.84 - 2.08 6.27 2.11 - 1.53 - 2.2011 1.95 2.84 - 2.08 6.27 2.11 - 1.53 - 2.2011 1.95 2.84 - 2.08 6.27 2.11 - 1.53 - 2.2011 1.95 2.84 - 2.08 2.08 6.27 2.11 - 1.53 - 2.2011 1.95 2.84 - 2.08 2.08 6.27 2.11 - 1.53 - 2.2011 1.95 2.84 - 2.08 2.08 2.09 2.00 2.00 4.00 5.60 8.55 - 1.30 8' 2.27 - 1.6 5 7 7 - 2.7 2.0011 1.00 1.00 5.20 1.				_			_	_			_		_		
2011				_			_	_			_		_		
2012 7,42 2,41 - 1,93 0.51 5,46 2,05 - 1,49 - 2 2013 7,12 2,49 - 2,13 5,31 2,20 - 1,36 - 2 2014 6,12 1.85 - 1,29 0.52 5,37 1.65 - 1,12 1,23 2 2015 6,26 2,27 - 1,84 4,51 2,10 - 1,46 - 2 2016 8,32 3,24 - 2,29 5,60 2,268 - 1,55 - 2 2017 10,56 3,24 - 2,26 5,58 0,92 - 1,46 0,92 2 2018 13,60 3,14 - 1,91 7,23 3,21 - 1,84 1,02 2 2019 14,71 2,69 - 2,02 5,52 2,40 - 1,39 2 2020 7,90 2,51 - 1,85 5,52 2,40 - 1,39 2 2021 11,95 2,84 - 2,08 5,52 2,40 - 1,39 2 2021 11,95 2,84 - 2,08 5,52 2,40 - 1,39 2 2021 11,95 2,84 - 2,08 5,52 2,40 - 1,39 2 2021 11,95 2,84 - 2,08 5,52 2,40 - 1,39 2 2021 11,95 2,84 - 2,08 6,27 2,11 - 1,53 2 2021 11,95 2,84 - 2,08 6,27 2,11 - 1,53 2 2021 11,95 2,84 - 2,08 6,27 2,11 - 1,53 2 2021 11,95 2,84 - 2,08 6,27 2,11 - 1,53 2 2021 11,95 2,84 - 2,08 6,27 2,11 - 1,53 2 2021 11,95 2,84 - 2,08 6,27 2,11 - 1,53 2 2021 11,95 2,84 - 2,08 6,27 2,11 - 1,53 2 2021 11,95 2,84 - 2,08 6,27 2,11 - 1,53 2 2021 11,95 2,84 - 2,08 6,27 2,11 - 1,53 2 2021 11,95 2,84 - 2,08 6,27 2,11 - 1,53 2 2021 11,95 2,84 - 2,08 6,27 2,11 - 1,53 2 2021 11,95 2,84 - 2,08 1,16 6 5 - 7 - 9 - 330 1,3 206,200 6 85 - 136 g/ 2,27 - 16 5 - 7 - 9 - 330 1,3 206,201 406 556 - 359 1 1,322 - 995 335 - 68 g/ 1,339 2,7 2012 390 860 - 73 g/ 1,324 - 1,990 2,016 - 42 - 3,148 4,4 2013 2,26 1,671 - 2,53 - 2,050 - 1,016 4,999 - 12,6 - 6,082 8,1 2014 425 899 - 2,87 1 1,611 - 2,08 1,041 - 2,81 1 - 9,867 12,2 2015 570 1,679 - 90 - 2,339 - 2,996 6,840 - 31 - 9,867 12,2 2016 488 2,044 - 1,23 - 2,634 - 2,110 4,838 - 96 - 7,044 9,6 2017 103 712 - 172 - 967 - 1,219 4,358 - 113 12 5,702 6,6 2017 103 712 - 172 - 967 - 1,219 4,358 - 113 12 5,702 6,6 2017 103 712 - 75 5 - 290 - 1,016 4,339 - 13 1 - 9,867 12,2 2019 18 2,17 - 55 - 290 - 1,016 4,339 - 1,10 - 361 6,6 2017 20 596 - 2,81 - 8,81 - 8,91 - 1,29 - 1,29 - 1,29 - 1,29 - 1,29 - 1,29 - 1,29 - 1,29 - 1,29				_			_	_			_		3.77		
2013 7.12 2.49 - 2.13 5.31 2.20 - 1.36 - 2014 6.12 1.85 - 1.29 0.52 5.37 1.65 - 1.12 1.23 2015 6.26 2.27 - 1.84 4.51 2.10 - 1.46 - 2016 8.32 3.24 - 2.09 6.02 2.68 - 1.55 - 2016 8.32 3.24 - 2.09 6.02 2.68 - 1.55 - 2016 8.32 3.24 - 2.09 7.23 3.21 - 1.84 1.02 2019 14.71 2.69 - 2.02 5.58 10.92 - 1.46 0.92 2018 13.60 3.14 - 1.91 5.52 1.78 - 1.39 2020 2.02 - 1.95 2.00 2.02 - 1.46 2.00 2.00 14.71 2.69 - 2.02 5.52 1.78 - 1.34 - 2.00 2020 7.90 2.51 - 1.85 5.32 1.78 - 1.34 - 2.00 2021 11.95 2.84 - 2.08 6.27 2.11 - 1.53 2.00 2.00 11.95 2.84 - 2.08 6.27 2.11 - 1.53 2.00 2.00 2.00 6.85 - 3.32 1 6.39 - 1 g/ - 10 - 11 6.99 2.00 2.00 6.85 - 3.32 1 6.39 - 1 g/ - 10 - 11 6.99 2.00 2.00 2.00 6.85 - 3.35 1 1.32 2 - 9.95 3.35 - 6.8 g/ 1.39 2.7 2.00 2.00 1.04 40.6 556 - 3.59 1 1.32 2 - 9.95 3.35 - 6.8 g/ 1.39 2.7 2.00 2.00 2.00 8.0 - 7.3 g/ 1.324 - 1.090 2.016 - 42 - 3.148 4.4 2.011 4.25 8.99 - 2.87 1 1.611 - 2.008 1.041 - 2.81 1 3.330 4.9 2.01 2.01 2.00 2.00 8.0 - 7.3 g/ 1.324 - 1.090 2.016 - 42 - 3.148 4.4 2.01 2.01 2.00 2.016 4.2 - 3.148 4.4 2.013 2.00 2.016 4.2 - 3.148 4.4 2.013 2.00 2.00 8.0 - 7.3 g/ 1.324 - 1.090 2.016 - 42 - 3.148 4.4 2.013 2.00 2.00 6.00 8.8 2.00 2.00 1.00 4.00 5.56 - 3.59 1 1.32 2 - 9.95 5.849 - 412 2 8.52 11.0 2.015 5.70 1.679 - 9.0 - 2.339 - 2.996 6.840 - 3.1 - 9.867 1.2 2.00 2.016 4.2 - 3.148 4.4 4.00 2.015 5.70 1.679 - 9.0 - 2.339 - 2.996 6.840 - 3.1 - 9.867 1.2 2.00 2.016 4.8 2.0 4.0 2.00 2.00 2.0 5.96 - 2.2 1.2 2.0 2.0 - 1.016 4.393 - 1.0 2.0 2.0 2.0 5.96 - 7.04 4.9 6.0 2.0 1.0 2.0 5.0 1.0 2.0 2.0 5.0 2.0 2.0 5.0 2.0 2.0 5.0 2.0 2.0 5.0 2.0 2.0 5.0 2.0 2.0 5.0 2.0 2.0 5.0 2.0 2.0 5.0 2.0 2.0 2.0 5.0 2.0 2.0 2.0 5.0 2.0 2.0 5.0 2.0 2.0 2.0 5.0 2.0 2.0 5.0 2.0 2.0 2.0 5.0 2.0 2.0 5.0 2.0 2.0 2.0 5.0 2.0 2.0 2.0 5.0 2.0 2.0 5.0 2.0 2.0 2.0 5.0 2.0 2.0 5.0 2.0 2.0 5.0 2.0 2.0 2.0 5.0 2.0 2.0 2.0 5.0 2.0 2.0 2.0 5.0 2.0 2.0 2.0 5.0 2.0 2.0 2.0 2.0 5.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2	2012			_			_	_			_		-		
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2014 46 846 - 524 g/ 1,416 421 3,540 - 369 2 4,332 5,76 2015 91 738 - 49 - 878 666 3,254 - 21 - 3,940 4,8 2016 56 629 - 59 - 744 350 1,803 - 62 - 2,216 2,91 2017 10 220 - 76 - 306 207 1,325 - 77 12 1,621 1,93 2018 6 89 - 25 - 121 55 415 - 32 8 510 66 2019 1 81 - 27 - 110 36 487 - 34 - 557 60 2020 g/ 316 - 64 - 379 55 748 - 66 - 869 1,24											-		-		
2015 91 738 - 49 - 878 666 3,254 - 21 - 3,940 4,8 2016 56 629 - 59 - 744 350 1,803 - 62 - 2,216 2,91 2017 10 220 - 76 - 306 207 1,325 - 77 12 1,621 1,92 2018 6 89 - 25 - 121 55 415 - 32 8 510 66 2019 1 81 - 27 - 110 36 487 - 34 - 557 60 2020 g/ 316 - 64 - 379 55 748 - 66 - 869 1,24											-		2		
2016 56 629 - 59 - 744 350 1,803 - 62 - 2,216 2,90 2017 10 220 - 76 - 306 207 1,325 - 77 12 1,621 1,90 2018 6 89 - 25 - 121 55 415 - 32 8 510 60 2019 1 81 - 27 - 110 36 487 - 34 - 557 60 2020 g/ 316 - 64 - 379 55 748 - 66 - 869 1,24															
2017 10 220 - 76 - 306 207 1,325 - 77 12 1,621 1,93 2018 6 89 - 25 - 121 55 415 - 32 8 510 63 2019 1 81 - 27 - 110 36 487 - 34 - 557 66 2020 g/ 316 - 64 - 379 55 748 - 66 - 869 1,24													-		
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2019 1 81 - 27 - 110 36 487 - 34 - 557 60 2020 g/ 316 - 64 - 379 55 748 - 66 - 869 1,24															
2020 g/ 316 - 64 - 379 55 748 - 66 - 869 1,2-															631
															667
2021 2 210 - 135 - 347 89 651 - 75 - 815 1,10															
	2021	2	210	-	135	-	347		89	651	-	/5	-	815	1,162

TABLE IV-9. Landings, exvessel values and average prices (inflation adjusted, 2021 dollars) of inriver commercial harvest of Columbia River salmon.^{a/} (Page 2 of 3)

- a/ Excluding pink, sockeye, and steelhead.
- b/ Mainstem below Bonneville and Select Areas (Youngs Bay, Tongue Point, Blind Slough, and Deep River). Gear type may also include purse seine, beach seine and tanglenet gear after 2013.
- c/ Treaty Indian landings and values do not include direct sales to consumers ('Over-the-bank' sales).
- 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/ Sale and possession of chum salmon prohibited beginning October 2013 in Columbia R. commercial fisheries. Reported sales are likely mis-identified fish at time of landing.
- f/ Gillnet exvessel salmon prices are recorded in round weight and therefore are not strictly comparable to exvessel troll prices.
- g/ Less than \$500 or 500 pounds.
- h/ Preliminary. (All Washington values in this table are based on preliminary information available when each year's Salmon Review is drafted.)
- i/ Washington prices for years prior to 2000 are based on a combination of Washington and Oregon value information.
- j/ Treaty Indian values are primarily mainstem Columbia 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)

	Angle	r Trips	Chinook	Catch	Cono	Catch ^{a/}
ear or Avg.	Charter	Private	Charter	Private	Charter	Private
			CALIFORNIA			
981-1985	68.9	78.1	74.6	34.4	1.5	18.3
986-1990	95.9	144.8	100.1	66.3	5.3	35.1
991-1995	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
2001-2005	76.5	103.6	72.5	75.5	0.1	0.9
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	-	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	31.2	38.9	22.9	15.1	-	0.1
2017	35.3	38.7	38.8	23.4	b/	0.4
2018	47.7	49.0	59.2	28.1	b/	0.2
2019	45.3	58.4	48.7	39.8	b/	0.7
2020 ^{d/}	26.6	33.3	24.3	15.9	b/	b/
2021 ^{c/}	35.7	52.4	30.8	24.5	b/	0.5
			OREGON ^{e/f/}			
981-1985	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
2001-2005	17.6	101.2	8.5	31.5	13.6	52.4
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	2.4	36.4	0.3	3.8	1.2	7.2
2017	2.4	39.9	0.3	4.3	1.7	19.6
2018	5.6	58.2	0.3	4.7	2.0	25.7
2019	7.5	86.8	0.3	6.3	5.6	60.7
2020	2.3	54.7	0.2	7.0	0.7	20.1
-020	۷.5	J 4 .1	U.Z	1.0	0.1	∠∪. I

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)

	Anglei	r Trips	Chinook	:Catch ^{a/}	Coho (Catch ^{a/}
Year or Avg.	Charter	Private	Charter	Private	Charter	Private
_			WASHINGTON ^{9/}	h/		
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
1996-2000	13.6	20.6	2.7	2.2	17.4	20.8
2001-2005	38.2	67.5	17.0	18.2	41.4	66.9
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	13.7	34.0	4.5	12.3	5.8	10.1
2017	16.3	42.4	4.2	15.7	11.5	24.5
2018	14.5	33.5	3.0	7.0	11.8	22.9
2019	18.1	47.5	1.6	8.0	22.6	41.8
2020 ^{i/}	9.5	24.3	2.2	5.3	7.0	13.2
2021 ^{c/i/}	16.5	44.4	3.8	12.0	16.4	32.6

a/ Catch numbers may include some illegal harvest.

b/ Few er than 50 fish.

c/ Preliminary.

d/ Estimates for private trips do not include May and June due to restrictions on sampling caused by the COVID-19 pandemic.

e/ Salmon data from surveyed ports only. These generally include Astoria, Garibaldi, Depoe Bay, New port, 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.

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

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

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

i/ Neah Bay and La Push were closed to public access in 2020 and Neah Bay again in 2021 due to the COVID-19 pandemic. 2020 Values for Washington include catch and effort from 7,016 ocean salmon angler trips (276 charter and 6,740 private) from Sekiu. 2021 Values for Washington include catch and effort from 10,899 ocean salmon angler trips (345 charter and 10,554 private) from Sekiu.

TABLE IV-11.	Estimates of Calif	ornia recreatio	nal ocean salmon a	angler trips (thousand	ds) by port area a	and boat type.
Year or Avg.	Crescent City	Eureka	Fort Bragg	San Francisco	Monterey	State Total
			CHARTER TRIP	S		
1991-1995	0.4	8.0	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
2006-2010	-	0.6	2.8	11.6	3.0	18.1
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	a/	1.6	2.3	26.2	1.1	31.2
2017	-	-	0.8	33.3	1.1	35.3
2018	a/	1.0	3.1	42.0	1.6	47.7
2019	a/	1.5	2.6	37.2	3.9	45.3
2020 ^{b/}	-	0.6	8.0	24.6	0.6	26.6
2021 ^{c/}	a/	0.4	1.9	28.3	5.2	35.7
			PRIVATETRIPS	3		
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
2006-2010	1.0	7.7	6.2	13.1	11.3	39.2
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	0.6	6.8	7.3	17.6	6.7	38.9
2017	-	-	3.8	20.9	13.9	38.7
2018	1.3	5.0	6.8	23.5	12.3	49.0
2019	0.5	5.7	5.0	20.8	26.4	58.4
2020 ^{b/}	1.2	3.2	4.4	20.8	3.6	33.3
2021 ^{c/}	0.7	1.1	6.8	17.1	26.7	52.4
			TOTAL TRIPS			
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
2006-2010	1.0	8.3	9.0	24.8	14.3	57.4
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	0.6	8.4	9.6	43.8	7.8	70.1
2017	-	-	4.7	54.2	15.1	74.0
2018	1.3	6.0	9.9	65.4	13.9	96.6
2019	0.5	7.2	7.6	58.1	30.3	103.7
2020 ^{b/}	1.2	3.8	5.2	45.5	4.2	59.8
2021 ^{c/}	0.7	1.6	8.6	45.4	31.9	88.2

a/ Few er than 50 angler trips.

 $^{\,}$ b/ Estimates for private trips do not include May and June due to restrictions on sampling caused by the COVID-19 pandemic.

c/ Preliminary.

2006-2010 2.0	TABLE IV-12.	Estimates of Ore	gon recreational oc	ean salmon angler	trips (thousands) b	by port area and bo	at type.
1991-1995 ^{al} 4.3 1.6 7.9 3.5 0.7 18.0 1995-2000 13 0.4 2.4 0.6 0.6 5.3 2001-2005 3.3 1.7 8.8 3.4 0.5 17.6 2006-2010 2.0 0.7 4.1 0.9 0.2 7.8 2011 1.6 0.5 3.6 0.1 0.1 1.5 9 2012 1.7 0.4 3.7 0.5 0.2 6.6 2010 2.0 1.7 0.4 3.7 0.5 0.2 6.6 2010 2.0 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 2015 2.0 0.6 5.1 c/ 0.1 7.8 2016 0.4 0.1 1.9 - c/ 2.4 2016 0.4 0.1 1.9 - c/ 2.4 2017 0.6 0.2 1.5 c/ c/ 2.4 2018 0.5 0.4 4.7 c/ 0.1 5.6 2019 0.9 1.1 5.3 - 0.1 7.5 2020 0.1 0.6 1.5 - 0.1 7.5 2020 0.1 0.6 1.5 - 0.1 7.5 2020 0.1 0.6 1.5 - 0.1 7.5 2020 0.1 0.6 1.5 - 0.1 7.5 2020 0.1 0.6 1.5 - 0.1 7.5 2020 0.1 0.6 1.5 - 0.1 7.5 2020 0.1 0.6 1.5 - 0.1 7.5 2020 0.1 0.6 1.5 - 0.1 7.5 2020 0.1 0.6 1.5 - 0.1 1.2 3 2021 ^{bl} 0.3 0.9 6.4 - 0.2 7.8 2020 0.1 0.6 1.5 - 0.1 1.2 3 2021 ^{bl} 0.3 0.9 6.4 - 0.2 7.8 2020 0.1 1.5 6.0 6.4 - 0.2 7.8 2020 0.1 1.5 6.0 6.4 - 0.2 7.8 2020 0.1 1.5 6.0 6.4 - 0.2 7.8 2020 0.1 1.5 6.0 6.4 - 0.2 7.8 2020 0.1 1.5 6.0 6.4 - 0.2 7.8 2020 0.1 1.5 6.0 6.4 - 0.2 7.8 2020 0.1 1.5 6.5 6.5 2.5 6.0 2020 0.1 1.5 6.6 6.0 7.5 6.0 6.4 - 0.2 7.8 2020 0.1 1.5 6.5 6.5 6.5 20.5 20.5 20.5 20.5 20.5 20.5 20.5 20	Year or Avg.	Astoria	Tillamook	New port	Coos Bay	Brookings	State Total
1998-2000				CHARTER TRIPS			
2001-2005 3.3 1,7 8.8 3.4 0.5 17.6 2006-2010 2.0 0.7 4.1 0.9 0.2 7.8 2011 1.6 0.5 3.6 0.1 0.1 0.1 5.9 2012 1.7 0.4 3.7 0.5 0.2 6.6 2011 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 0.4 0.1 1.9 - c/ 0.1 7.8 2016 0.4 0.1 1.9 - c/ 0.1 7.8 2016 0.4 0.1 1.9 - c/ 0.1 5.6 2016 0.4 0.1 1.9 - c/ 0.1 5.6 2017 0.6 0.2 1.5 c/ 0.1 5.6 2019 0.9 1.1 5.3 - 0.1 7.5 2020 0.1 0.5 2020 0.1 0.6 1.5 - 0.1 2.3 2021 0.3 0.9 6.4 - 0.2 7.8 2021 0.3 0.6 7.4 2017 0.6 0.2 1.5 c/ 0.1 5.6 2019 0.9 1.1 5.3 - 0.1 7.5 2020 0.1 0.6 1.5 - 0.1 2.3 2021 0.3 0.9 6.4 - 0.2 7.8 20.0 2021 0.3 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9	1991-1995 ^{a/}	4.3	1.6	7.9	3.5	0.7	18.0
2006-2010 200 2011 16 05 36 01 11 15 9 2012 1.7 0.4 3.7 0.5 0.2 66 2013 1.7 0.6 4.2 0.3 0.6 7.4 2014 2.6 1.0 10.2 2.0 3 0.4 14.5 2015 2016 2.0 0.6 5.1 0.1 1.9 0.6 2.1 2016 0.4 0.1 1.9 0.6 2.1 2.1 2017 0.6 0.2 2.1.5 0.7 0.7 0.7 2.4 2018 2019 0.9 1.1 5.3 0.0 0.1 1.7 2020 0.1 1.7 203 0.0 1.7 204 2018 0.5 0.7 2019 0.9 1.1 5.3 0.0 0.1 1.7 2020 0.1 1.6 0.5 0.2 0.1 1.7 2020 0.1 1.6 0.1 1.7 2020 0.1 1.6 1.5 0.1 1.7 2020 0.1 1.6 1.5 0.1 1.7 2020 0.1 1.6 1.5 0.1 1.7 2020 0.1 1.6 1.5 0.1 1.7 2.8 2020 0.1 1.6 1.5 0.6 1.5 0.7 0.1 1.7 2.8 2020 0.1 1.7 2.8 2021 2021 2021 2021 2021 203 1.7 203 2021 203 204 204 205 206 207 208 208 2001 2002 208 208 209 209 209 209 209 209 209 209 209 209	1996-2000	1.3	0.4	2.4	0.6	0.6	5.3
2011	2001-2005	3.3	1.7	8.8	3.4	0.5	17.6
2012	2006-2010	2.0		4.1		0.2	
2013 1,7 0,6 4,2 0,3 0,6 7,4 1,5 2014 2,6 1,0 10,2 0,3 0,4 14,5 2015 2,0 0,6 5,1 e/ 0,1 7,8 2016 0,4 0,1 1,9 - c/ 2,4 2018 0,5 0,4 4,7 e/ 0,1 5,6 2019 0,9 1,1 5,3 - 0,1 2,2 2,2 2,2 2,2 2,2 2,2 2,2 2,2 2,2 2	2011						
2014 2.6		1.7					6.6
2015	2013	1.7	0.6	4.2	0.3	0.6	7.4
2016	2014	2.6	1.0	10.2	0.3	0.4	14.5
2017 0.6 0.2 1.5 c/ c/ 2.4 2 2018 0.5 0.4 4.7 c/ 0.1 5.6 2 2019 0.9 1.1 5.3 - 0.1 7.5 2 2020 0.1 0.6 1.5 - 0.1 2.3 2 2021 ^{bt/-} 0.3 0.9 6.4 - 0.2 7.8 2 **PRIVATE TRIPS** 1991-1995 ^{bt/-} 8.5 12.0 17.0 22.4 22.0 82.0 1 1996-2000 4.1 7.7 3.0 7.6 17.8 40.3 2 201-2005 14.0 20.3 18.0 31.1 17.8 101.2 2 2006-2010 7.4 15.7 12.2 13.2 7.5 56.0 2 2011 5.8 12.3 8.3 10.2 6.2 42.8 2 2012 3.1 12.0 11.1 16.0 18.6 60.7 2 2013 4.4 13.5 11.1 29.5 19.5 78.1 2 2014 9.7 24.2 27.0 29.5 16.7 107.0 2 2016 6.6 14.9 13.1 14.7 8.9 58.2 2 2017 7.9 8.4 8.8 12.8 2.0 39.9 2018 7.2 10.8 18.9 14.3 6.9 58.2 2 2019 13.8 20.0 29.8 19.0 4.3 6.9 58.2 2 2019 13.8 20.0 29.8 19.0 4.3 8.8 8 2020 3.4 12.6 17.7 35.5 19.4 5.6 90.8 2 ***TOTAL TRIPS*** **TOTAL TRIPS** **	2015	2.0	0.6	5.1	c/	0.1	7.8
2017 0.6 0.2 1.5 c/ c/ 2.4 2 2018 0.5 0.4 4.7 c/ 0.1 5.6 2 2019 0.9 1.1 5.3 - 0.1 7.5 2 2020 0.1 0.6 1.5 - 0.1 2.3 2 2021 ^{bt/-} 0.3 0.9 6.4 - 0.2 7.8 2 **PRIVATE TRIPS** 1991-1995 ^{bt/-} 8.5 12.0 17.0 22.4 22.0 82.0 1 1996-2000 4.1 7.7 3.0 7.6 17.8 40.3 2 201-2005 14.0 20.3 18.0 31.1 17.8 101.2 2 2006-2010 7.4 15.7 12.2 13.2 7.5 56.0 2 2011 5.8 12.3 8.3 10.2 6.2 42.8 2 2012 3.1 12.0 11.1 16.0 18.6 60.7 2 2013 4.4 13.5 11.1 29.5 19.5 78.1 2 2014 9.7 24.2 27.0 29.5 16.7 107.0 2 2016 6.6 14.9 13.1 14.7 8.9 58.2 2 2017 7.9 8.4 8.8 12.8 2.0 39.9 2018 7.2 10.8 18.9 14.3 6.9 58.2 2 2019 13.8 20.0 29.8 19.0 4.3 6.9 58.2 2 2019 13.8 20.0 29.8 19.0 4.3 8.8 8 2020 3.4 12.6 17.7 35.5 19.4 5.6 90.8 2 ***TOTAL TRIPS*** **TOTAL TRIPS** **	2016	0.4	0.1	1.9	-	c/	2.4
2018 0.5 0.4 4.7 c/ 0.1 5.6 2019 0.9 1.1 5.3 - 0.1 7.5 2020 0.1 0.6 1.5 - 0.1 7.5 2020 0.1 0.3 0.9 6.4 - 0.2 7.8 2021 0.3 0.9 6.4 - 0.2 7.8 2021 0.3 0.9 6.4 - 0.2 7.8 2021 0.3 0.9 6.4 - 0.2 7.8 2021 0.3 0.9 6.4 - 0.2 7.8 2021 0.3 0.9 6.4 - 0.2 7.8 2021 0.3 0.9 6.4 - 0.2 7.8 2021 0.3 2021 0.3 0.9 6.4 - 0.2 7.8 2020 0.3 2021 0.3 0.9 6.4 - 0.2 7.8 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20		0.6			c/	c/	
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2001-2005 17.3 22.1 26.7 34.5 18.3 118.9 2006-2010 9.4 16.4 16.2 14.1 7.7 63.8 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 4.3 11.0 8.2 11.2 4.2 38.9 2017 8.6 8.6 10.3 12.8 2.0 42.3 2018 7.7 11.3 23.6 14.3 7.0 63.8 2019 14.7 21.1 35.1 19.0 4.4 94.2 2020 3.5 13.2 18.6 15.5 6.3 57.0	1996-2000	5.4		5.3	8.3	18.4	45.6
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 4.3 11.0 8.2 11.2 4.2 38.9 2017 8.6 8.6 10.3 12.8 2.0 42.3 2018 7.7 11.3 23.6 14.3 7.0 63.8 2019 14.7 21.1 35.1 19.0 4.4 94.2 2020 3.5 13.2 18.6 15.5 6.3 57.0	2001-2005	17.3	22.1	26.7	34.5	18.3	118.9
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 4.3 11.0 8.2 11.2 4.2 38.9 2017 8.6 8.6 10.3 12.8 2.0 42.3 2018 7.7 11.3 23.6 14.3 7.0 63.8 2019 14.7 21.1 35.1 19.0 4.4 94.2 2020 3.5 13.2 18.6 15.5 6.3 57.0	2006-2010	9.4	16.4	16.2	14.1	7.7	63.8
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 4.3 11.0 8.2 11.2 4.2 38.9 2017 8.6 8.6 10.3 12.8 2.0 42.3 2018 7.7 11.3 23.6 14.3 7.0 63.8 2019 14.7 21.1 35.1 19.0 4.4 94.2 2020 3.5 13.2 18.6 15.5 6.3 57.0	2011	7.4		12.0	10.3	6.3	48.8
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 4.3 11.0 8.2 11.2 4.2 38.9 2017 8.6 8.6 10.3 12.8 2.0 42.3 2018 7.7 11.3 23.6 14.3 7.0 63.8 2019 14.7 21.1 35.1 19.0 4.4 94.2 2020 3.5 13.2 18.6 15.5 6.3 57.0	2012	4.8	12.4	14.8	16.5	18.8	67.3
2015 8.6 15.5 18.2 14.7 9.0 66.0 2016 4.3 11.0 8.2 11.2 4.2 38.9 2017 8.6 8.6 10.3 12.8 2.0 42.3 2018 7.7 11.3 23.6 14.3 7.0 63.8 2019 14.7 21.1 35.1 19.0 4.4 94.2 2020 3.5 13.2 18.6 15.5 6.3 57.0	2013	6.1	14.1	15.3	29.8	20.1	85.5
2015 8.6 15.5 18.2 14.7 9.0 66.0 2016 4.3 11.0 8.2 11.2 4.2 38.9 2017 8.6 8.6 10.3 12.8 2.0 42.3 2018 7.7 11.3 23.6 14.3 7.0 63.8 2019 14.7 21.1 35.1 19.0 4.4 94.2 2020 3.5 13.2 18.6 15.5 6.3 57.0	2014	12.3		37.2	29.8		121.5
2016 4.3 11.0 8.2 11.2 4.2 38.9 2017 8.6 8.6 10.3 12.8 2.0 42.3 2018 7.7 11.3 23.6 14.3 7.0 63.8 2019 14.7 21.1 35.1 19.0 4.4 94.2 2020 3.5 13.2 18.6 15.5 6.3 57.0	2015						
2017 8.6 8.6 10.3 12.8 2.0 42.3 2018 7.7 11.3 23.6 14.3 7.0 63.8 2019 14.7 21.1 35.1 19.0 4.4 94.2 2020 3.5 13.2 18.6 15.5 6.3 57.0							
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2019 14.7 21.1 35.1 19.0 4.4 94.2 2020 3.5 13.2 18.6 15.5 6.3 57.0							
2020 3.5 13.2 18.6 15.5 6.3 57.0							
	2020 2021 ^{b/}	12.9	18.7	41.9	19.4	5.9	98.7

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.

Year or Avg.	Neah Bay ^{a/}	La Push	Westport	llw aco ^{b/}	t area and boat type State Total
	,,	CHARTER			
1991-1995	0.7	0.1	19.4	7.9	28.0
1996-2000	0.3	0.1	9.7	3.6	13.6
2001-2005	1.6	0.6	24.1	11.9	38.2
2006-2010	0.5	0.5	15.6	7.7	24.3
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	0.6	0.3	7.5	5.3	13.7
2017	0.7	0.4	10.5	4.7	16.3
2018	0.7	0.5	9.2	4.1	14.5
2019	0.8	0.6	10.8	5.9	18.1
2020°/	-	-	7.1	2.1	9.5
2021 ^{d/e/}	_	0.4	10.4	5.3	16.5
2021		0.4	10.4	0.0	10.0
		PRIVATE	TRIPS		
1991-1995	16.4	2.8	18.5	25.4	63.1
1996-2000	8.8	1.6	12.7	12.8	35.8
2001-2005	17.7	3.6	18.4	27.8	67.5
2006-2010	11.6	3.2	13.5	17.9	46.2
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	7.7	0.8	10.4	15.1	34.0
2017	10.0	1.5	15.5	15.4	42.4
2018	8.0	1.4	13.3	10.7	33.5
2019	9.3	1.7	12.6	24.0	47.5
2020 ^{c/}	-	-	11.0	6.5	24.3
2021 ^{d/e/}	_	1.2	14.5	18.1	44.4
2021		1.2	11.0	10.1	
		TOTAL	TRIPS		
1991-1995	17.1	2.9	37.9	33.3	91.1
1996-2000	9.1	1.6	22.4	16.4	49.4
2001-2005	19.3	4.1	42.5	39.7	105.6
2006-2010	12.1	3.7	29.1	25.6	70.5
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	8.3	1.1	17.8	20.5	47.7
2017	10.7	1.9	26.0	20.0	58.6
2018	8.7	1.9	22.5	14.9	48.0
2019	10.1	2.3	23.4	29.9	65.7
2020 ^{c/}	10.1	2.0	18.1	8.7	33.8
2020 2021 d/e/	=	1.6	24.9	23.4	60.9

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/ Neah Bay and La Push were closed to public access in 2020 due to the COVID-19 pandemic. State totals include 7,016 ocean salmon angler trips (276 charter and 6,740 private) from Sekiu.

d/ Neah Bay remained closed to public access in 2021 due to the COVID-19 pandemic. 2021 Values for Washington include catch and effort from 10,899 ocean salmon angler trips (345 charter and 10,554 private) from Sekiu.

e/ 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 2)

		Columb	ia River and I	Buoy 10			Westport			La Push		Neah Bay and Area 4B Add-On		
Year	Charter	Private	Subtotal	Jetty ^{b/}	Total	Charter	Private	Total	Charter	Private	Total	Charter	Private	Total
						SAL	MON EFFO	RT						
1991-1995	18.0	88.5	106.4	20.1	126.6	24.2	20.6	44.8	0.2	2.5	2.6	1.2	19.3	20.5
1996-2000	7.5	51.3	58.8	6.3	65.1	9.7	6.3	15.9	0.1	1.5	1.5	0.4	7.9	8.3
2001-2005	17.0	123.0	140.0	7.6	146.0	28.1	18.4	42.5	0.6	3.6	4.1	1.6	17.8	19.4
2006-2010	10.3	70.9	81.2	1.2	82.2	15.6	13.5	29.1	0.5	3.2	3.7	0.5	11.8	12.2
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	8.0	2.7	3.5	1.0	13.8	14.8
2016	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
2017	5.9	110.8	116.7	8.2	124.9	10.5	15.5	26.0	0.4	1.5	1.9	0.7	10.0	10.7
2018	5.3	82.5	87.7	2.2	89.9	9.2	13.3	22.5	0.5	1.4	1.9	0.7	8.0	8.7
2019	6.9	110.7	117.6	4.0	121.6	10.8	12.6	23.4	0.6	1.7	2.3	8.0	9.3	10.1
2020 ^{h/}	2.6	76.2	78.8	5.9	84.7	7.1	11.0	18.1	-	-	-	-	-	-
2021 ^{c/i/}	5.8	129.5	135.3	11.9	147.2	10.4	14.5	24.9	0.4	1.2	1.6	-	-	-
						вотто	OM FISH EFF	ORT ^{d/}						
1991-1995	1.8	0.6	2.4	2.3	4.7	22.5	1.7	24.1	0.1	1.4	1.5	4.8	18.1	22.9
1996-2000 ^{e/f/}	1.3	0.6	1.9	1.2	3.1	19.2	1.2	20.4	0.1	1.5	1.5	4.8	21.6	26.4
2001-2005	4.9	0.7	3.0	0.7	3.6	15.1	1.5	16.6	0.5	1.8	2.3	4.2	17.5	21.7
2006-2010	2.9	1.5	4.5	0.5	4.9	14.8	1.8	16.6	0.6	2.8	3.4	2.7	15.6	18.3
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	4.6	3.0	7.5	1.6	9.2	18.8	5.5	24.3	0.8	6.4	7.2	1.3	17.7	19.0
2017	3.6	3.2	6.8	2.1	8.9	17.1	5.8	22.9	0.7	5.0	5.6	1.3	16.2	17.5
2018	5.2	3.8	9.0	b/	9.0	19.0	5.8	24.8	1.0	6.3	7.3	1.6	18.7	20.3
2019	3.8	3.2	7.0	b/	7.0	17.2	6.1	23.4	1.0	7.5	8.5	1.4	21.2	22.6
2020 ^{h/}	3.7	6.0	9.7	1.8	11.6	11.8	9.2	21.0	a/	a/	a/	a/	a/	a/
2021 ^{c/i/}	4.5	3.9	8.4	1.7	10.1	17.5	9.2	26.7	0.1	2.6	2.7	a/	a/	a/

TABLE N-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 2)

												1	Neah Bay and	d
		Columb	ia River and I	Buoy 10			Westport			La Push		Ar	ea 4B Add-0	On
Year	Charter	Private	Subtotal	Jetty ^{b/}	Total	Charter	Private	Total	Charter	Private	Total	Charter	Private	Total
						STUF	RGEON EFFO	RT ^{g/}						
1991-1995	6.0	41.7	47.7	-	47.7	-	-	-	-	-	-	-	-	-
1996-2000	12.5	53.4	65.9	-	65.9	-	-	-	-	-	-	-	-	-
2001-2005	8.7	41.7	50.3	-	50.3	-	-	-	-	-	-	-	-	-
2006-2010	6.7	38.0	44.7	-	44.7	-	-	-	-	-	-	-	-	-
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	a/	2.5	2.5	-	2.5	-	-	-	-	-	-	-	-	-
2017	0.5	13.7	14.2	-	14.2	-	-	-	-	-	-	-	-	-
2018	1.0	16.5	17.5	-	17.5	-	-	-	-	-	-	-	-	-
2019	0.7	19.9	20.6	-	20.6	-	-	-	-	-	-	-	-	-
2020	a/	0.8	0.8	-	0.8	-	-	-	-	-	-	-	-	-
2021 ^{c/i/}	1.1	16.5	17.6	-	17.6	-	-	-	-	-	-	-	-	-

a/ Few er than 50 angler trips.

b/ Columbia River north jetty was not sampled in 2005, 2007, 2018 and 2019 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/ For 1996, no Oregon bottomfish trips are included.

f/ For 1996, includes tuna trips: Ilw aco - 9 charter, 14 private; Westport - 784 charter, 0 private.

g/ Annual sturgeon angler trips for the low er Columbia River from the w estern tip of Puget Island to mouth.

h/ Neah Bay and La Push were closed to public access in late March for the remainder of 2020 due to the COVID-19 pandemic. An additional 7,016 ocean salmon angler trips (276 charter, 6,740 private) and 9,940 ocean bottomfish angler trips (458 charter, 9,482 private) occurred from the port of Sekiu and are not included in this table.

i/ Neah Bay remained closed to public access in 2021 due to the COVID-19 pandemic. An additional 10,899 ocean salmon angler trips (345 charter and 10,554 private) and 17,367 ocean bottomfish angler trips (1,005 charter, and 16,362 private) occurred from the port of Sekiu and are not included in this table.

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

		Angler Trips			Chinook Catch			Coho Catch		Pink (Catch
Year or Avg.	Charter	Private	Jetty	Charter	Private	Jetty	Charter	Private	Jetty	Charter	Private
					OREGO	N BUOY 10					
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
2001-2005	664	41,198	2,025	32	8,055	3	435	20,070	237	0	0
2006-2010	131	26,556	929	11	3,511	5	56	8,860	117	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	96	59,778	4,114	5	13,551	404	13	5,560	582	0	0
2017	73	59,382	2,443	2	21,368	160	30	11,469	475	0	0
2018	36	41,898	2,153	1	8,191	66	13	3,927	457	0	0
2019	10	50,492	3,995	-	8,587	49	1	15,367	1,368	0	0
2020	16	40,724	2,194	1	10,046	35	3	3,489	588	0	0
2021 ^{c/}	20	75,704	4,024	-	17,731	133	6	26,671	1,470	0	0
					WASHING	FON BUOY 10					
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
2001-2005	970	39,680	97	61	6,547	5	738	21,472	-	0	0
2006-2010	486	18,765	-	41	1,748	-	222	6,090	-	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	149	28,668	2,145	7	3,797	16	62	2,691	274	0	0
2017	471	28,162	3,016	79	6,721	68	252	5,933	675	0	0
2018	615	22,616	-	84	3,278	-	114	2,250	-	0	0
2019	22	22,458	-	-	2,638	-	2	6,037	-	0	0
2020	362	25,555	3,592	41	4,489	21	63	2,738	183	0	0
2021 ^{c/}	118	23,106	2,893	-	2,925		90	7,790	1,004	0	0

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

		Angler Trips			Chinook Catch			Coho Catch		Pink (Catch
Year or Avg.	Charter	Private	Jetty	Charter	Private	Jetty	Charter	Private	Jetty	Charter	Private
					TOTAL	BUOY 10					
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
2001-2005	1,634	80,878	2,122	93	14,602	8	1,173	41,541	237	0	0
2006-2010	617	45,322	929	51	5,259	5	278	14,950	117	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	245	88,446	6,259	12	17,348	420	75	8,251	856	0	0
2017	544	87,544	5,459	81	28,089	228	282	17,402	1,150	0	0
2018	651	64,514	2,153	85	11,469	66	127	6,177	457	0	0
2019	32	72,950	3,995	0	11,225	49	3	21,404	1,368	0	0
2020	378	66,279	5,786	42	14,535	56	66	6,227	771	0	0
2021 ^{c/}	138	98,810	6,917	0	20,656	133	96	34,461	2,474	0	0
					TOTAL ARE	A 4B ADD-ON ^d	ı				
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
1996-2000 ^{e/}	123	2,528	-	1	23	-	173	3,086	-	28	83
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 in 1999 and 2006 as 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, 2021) dollars of the troll and recreational ocean salmon fishery for major port areas.^{a/}

						Coastal	
Year or						Community	State-Level
Avg.	Crescent City	Eureka	Fort Bragg	San Francisco	Monterey	Total ^{b/}	Total
			OCI	EAN TROLL c/			
1991-1995	12	180	1,269	14,755	8,406	24,622	29,671
1996-2000	13	214	897	15,454	9,370	25,948	27,454
2001-2005	606	406	7,644	18,430	4,970	32,056	33,762
2006-2010	78	200	1,703	3,424	639	6,044	6,317
2011	40	485	4,664	2,954	720	8,862	11,061
2012	23	746	4,287	13,570	4,100	22,726	27,231
2013	122	1,914	11,187	21,702	2,202	37,126	43,389
2014	117	838	7,152	10,595	623	19,325	22,503
2015	30	397	4,885	5,117	943	11,371	13,849
2016	d/	63	1,725	4,969	1,043	7,800	8,842
2017 ^{e/}	-	33	400	5,545	1,298	7,275	8,803
2018	285	365	1,023	9,124	1,192	11,988	14,210
2019	178	86	743	19,201	4,710	24,917	30,288
2020 ^{e/}	-	24	1,131	22,035	2,233	25,423	26,671
2021 ^{f/}	103	318	4,738	20,232	3,256	28,647	32,877
			REC	REATIONAL			
1991-1995	1,049	1,129	1,705	14,477	6,933	25,294	29,697
1996-2000	486	894	1,742	14,514	6,375	24,011	27,935
2001-2005	198	951	2,316	10,301	4,148	17,914	18,994
2006-2010	48	491	788	2,962	1,223	5,512	6,094
2011	60	1,286	1,942	6,225	3,363	12,877	15,918
2012	633	2,264	1,956	11,055	5,489	21,398	26,457
2013	560	2,267	2,355	13,303	3,498	21,983	26,719
2014	364	1,643	2,361	10,788	3,261	18,416	22,320
2015	52	873	1,565	9,273	1,708	13,471	15,896
2016	44	845	1,214	8,491	865	11,459	13,459
2017	-	-	559	10,640	1,572	12,771	14,558
2018	111	589	1,337	13,091	1,512	16,641	19,248
2019	42	743	1,056	11,609	3,354	16,804	19,786
2020 ^{e/g/}	94	362	600	8,444	472	9,971	11,480
2021 ^{f/}	51	175	1,069	8,959	3,638	13,892	16,401

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 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/ Less than 500 dollars.

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

f/ Preliminary

g/ California 2020 estimates do not include private trips during May and June due to restrictions on sampling caused by the COVID-19 pandemic.

TABLE IV-17. Estimates of Oregon coastal community and state personal income impacts in thousands of real (inflation adjusted, 2021) dollars of the troll and recreational ocean salmon fishery for major port areas.^{a/}

						Coastal	
Year or Avg.						Community	State-Level
	Astoria	Tillamook	New port	Coos Bay	Brookings	Total ^{b/}	Total
			OCEAN	TROLL ^{c/}			
1991-1995	108	840	3,443	1,673	170	6,234	8,405
1996-2000	179	352	3,644	2,104	508	6,787	8,270
2001-2005	987	1,092	6,826	6,021	1,143	16,068	18,542
2006-2010	648	359	851	813	339	3,011	3,504
2011	268	64	583	2,599	290	3,804	5,005
2012	773	309	2,133	2,430	394	6,038	8,566
2013	388	544	1,721	7,319	685	10,658	14,368
2014	2,016	1,059	6,027	8,960	1,327	19,388	27,366
2015	1,068	758	2,821	3,891	574	9,112	11,320
2016	285	183	3,171	1,314	142	5,094	6,634
2017	357	166	1,782	368	103	2,776	3,648
2018	58	107	1,324	1,046	466	2,999	4,215
2019	52	150	1,616	590	198	2,605	3,561
2020	28	127	1,464	320	201	2,141	2,865
2021 ^{d/}	83	233	1,935	635	214	3,098	4,053
			RECRE/	ATIONAL			
1991-1995	1,184	954	2,159	1,928	1,361	7,587	9,838
1996-2000	458	526	518	572	1,099	3,172	4,183
2001-2005	1,238	1,169	2,230	1,957	860	7,454	9,162
2006-2010	746	786	1,249	743	361	3,886	4,857
2011	729	558	1,129	503	314	3,233	4,443
2012	559	531	1,316	822	950	4,178	5,911
2013	649	619	1,399	1,445	1,047	5,158	7,379
2014	1,201	1,100	3,397	1,438	879	8,014	11,028
2015	870	673	1,669	707	451	4,370	5,990
2016	361	455	711	532	210	2,268	3,227
2017	702	368	793	610	101	2,574	3,475
2018	616	489	1,954	682	351	4,093	5,520
2019	1,182	942	2,736	903	223	5,986	8,037
2020	261	580	1,308	737	316	3,203	4,553
2020 ^d							
2020	981	825	3,264	924	310	6,304	8,416

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:

 $\underline{\text{http://w w w .pcouncil.org/salmon/stock-assessment-and-fishery-evaluation-safe-documents/review-of-2014-ocean-salmon-fisheries}$

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, 2021) dollars of the troll and recreational ocean salmon fishery for major port areas.^{a/}

					Coastal		
					Community		State-Level
Year or Avg.	Neah Bay	La Push	Westport	llw aco ^{b/}	Total ^{c/d/}	Puget Sound	Total
	-		OCEAN T	TROLL ^{e/f/}		-	
1991-1995 ^{g/}	598	132	850	61	1,643	240	2,418
1996-2000	201	4	243	24	471	124	647
2001-2005	872	230	1,157	144	2,404	17	2,723
2006-2010	343	367	1,566	168	2,444	25	2,849
2011	632	250	1,546	105	2,533	-	3,325
2012	933	542	1,547	247	3,269	-	4,482
2013	531	491	2,932	82	4,036	0	5,025
2014	422	488	1,674	1,214	3,797	1	4,697
2015	308	626	3,080	429	4,443	31	5,898
2016	201	200	1,464	232	2,097	46	2,788
2017	557	174	3,252	81	4,064	-	5,472
2018	436	457	2,320	22	3,235	-	4,485
2019	909	410	1,067	47	2,433	-	3,610
2020	-	137	1,257	99	1,492	492	2,393
2021 ^{h/}	281	84	2,360	61	2,786	146	3,736
			RECREA	TIONAL			
1991-1995	676	132	3,761	1,907	6,477	-	8,758
1996-2000	358	97	1,761	861	3,078	-	4,150
2001-2005	1,027	257	6,318	3,884	11,485	_	13,436
2006-2010	587	241	4,338	2,667	7,832	-	9,722
2011	708	347	4,897	2,836	8,789	-	12,770
2012	885	329	5,534	2,678	9,426	-	13,697
2013	1,022	353	5,378	2,801	9,554	-	13,944
2014	1,120	467	7,860	4,404	13,850	-	20,078
2015	996	323	6,822	3,548	11,688	-	16,898
2016	-	109	2,595	2,424	5,129	-	8,274
2017	721	171	3,717	2,274	6,884	-	10,057
2018	601	188	3,234	1,808	5,830	-	8,495
2019	698	226	3,578	3,220	7,722	-	11,242
2020	-	-	2,545	1,003	3,548	822	5,814
2021 ^{h/}	<u>-</u>	148	3,627	2,644	6,418	1,259	10,350

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 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.

h/ Puget Sound and State totals include effects of ocean troll-caught salmon landings (36,000 pounds of Chinook, 800 pounds of coho) in Puget Sound ports of Sekiu and Port Angeles by emergency rule, and 7,016 ocean salmon angler trips (276 charter, 6,740 private) that occurred from the port of Sekiu.

TABLE IV-19. Local personal income impacts in real (inflation adjusted, 2021) dollars of the inriver commercial salmon fishery on Oregon and Washington Columbia River communities. along the inriver commercial salmon fishery on Oregon and Washington Columbia River communities. along the inriver commercial salmon fishery on Oregon and Washington Columbia River communities. along the inriver commercial salmon fishery on Oregon and Washington Columbia River communities. along the inriver commercial salmon fishery on Oregon and Washington Columbia River communities. along the inriver commercial salmon fishery on Oregon and Washington Columbia River communities. along the inriver commercial salmon fishery on Oregon and Washington Columbia River communities. along the inriver commercial salmon fishery on Oregon and Washington Columbia River communities. along the inriver commercial salmon fishery on Oregon and Washington Columbia River communities.

			n-Indian -	Gillnet b/				Trea	ty Indian	- All Gears	s ^{c/}		
		Chinook		_				Chinook		_			
Year or		Fa	all	_				Fa	all	_			Columbia
Avg.	Spring	Brights ^{d/}	Tules	Coho	Chum	TOTAL	Spring	Brights ^{d/}	Tules	Coho	Chum	TOTAL	River Total
						Oregon							
1991-1995	670	590	72	1,511	1	2,844	1	585	144	18	e/	749	3,594
1996-2000	296	288	81	1,044	2	1,711	2	241	97	7	e/	347	2,058
2001-2005	1,790	1,236	281	2,467	e/	5,774	127	510	107	14	e/	757	6,531
2006-2010	1,732	1,731	183	1,511	e/	5,158	427	1,251	114	64	e/	1,856	7,014
2011	1,859	2,304	216	1,152	e/	5,531	292	951	49	48	e/	1,340	6,871
2012	1,626	1,386	169	229	e/	3,410	114	538	8	18	e/	677	4,087
2013	1,673	3,837	191	888	e/	6,590	162	1,874	41	12	e/	2,088	8,678
2014	1,110	2,865	249	2,935	e/	7,159	493	1,569	25	61	e/	2,148	9,307
2015	1,813	2,110	135	376	e/	4,435	620	1,432	43	3	e/	2,098	6,533
2016	1,834	1,944	88	572	e/	4,438	207	1,238	3	11	e/	1,460	5,898
2017	2,511	945	51	750	e/	4,257	276	1,522	4	27	e/	1,828	6,085
2018	2,436	536	39	243	e/	3,253	769	1,532	4	34	e/	2,338	5,591
2019	778	312	19	345	e/	1,454	270	1,749	1	22	e/	2,041	3,495
2020 ^{f/}	669	987	78	963	e/	2,696	473	3,140	3	129	e/	3,744	6,440
2021 ^{f/}	1,232	972	93	2,354	e/	4,651	776	1,946	7	202	e/	2,931	7,581
						Washingto	n ^{f/g/h/}						
1991-1995	360	241		652	3	1,255	1	835		23	e/	859	2,114
1996-2000	10	219		375	1	605	33	1,503		21	e/	1,557	2,162
2001-2005	516	881		1,255	1	2,652	623	2,773		62	e/	3,458	6,111
2006-2010	671	1,030		643	1	2,345	1,647	3,009		163	e/	4,820	7,165
2011	625	1,323	-	422	1	2,371	2,955	1,532	e/	413	1	4,900	7,271
2012	559	1,234	-	105	e/	1,899	1,564	2,892	e/	61	e/	4,517	6,416
2013	321	2,229	-	359	e/	2,909	1,442	7,008	e/	179	e/	8,629	11,538
2014	399	2,207	-	958	e/	3,564	3,193	8,267	e/	583	3	12,043	15,607
2015	749	2,207	_	119	e/	3,075	3,939	8,992	e/	40	e/	12,971	16,046
2016	635	2,774	_	167	e/	3,576	2,864	6,568	e/	131	e/	9,562	13,138
2017	137	947	-	229	e/	1,312	1,621	5,795	e/	150	15	7,566	8,878
2018	115	389	_	67	e/	571	547	1,840	e/	83	12	2,469	3,040
2019	24	301	-	76	e/	402	275	1,622	e/	66	e/	1,962	2,364
2020	3	1,254	-	187	e/	1,444	464	2,104	e/	140	e/	2,708	4,152
2021	32	943	_	444	e/	1,420	885	2,167	e/	183	e/	3,235	4,655

TABLE IV-19. Local personal income impacts in thousands of real (inflation adjusted, 2020) dollars of the inriver commercial salmon fishery on Oregon and Washington Columbia River communities. ^a (page 2 of 2)

		Nor	n-Indian -	Gillnet b/				Trea	ity Indian	- All Gear	s ^{c/}		
_	Chinook							Chinook					
Year or		Fa	all	_			-	Fa	all	_			Columbia
Avg.	Spring	Brights ^{d/}	Tules	Coho	Chum	TOTAL	Spring	Brights ^{d/}	Tules	Coho	Chum	TOTAL	River Total
						Columbia I	River (Con						
1991-1995	1,030	830	72	2,163	4	4,099	3	1,421	144	41	e/	1,608	5,708
1996-2000	306	507	81	1,420	3	2,316	35	1,744	97	28	e/	1,904	4,220
2001-2005	2,306	2,117	281	3,723	1	8,427	750	3,283	107	76	e/	4,216	12,642
2006-2010	2,403	2,761	183	2,154	2	7,503	2,075	4,261	114	227	e/	6,676	14,179
2011	2,484	3,843		1,575	1	7,902	3,247	2,533		461	1	6,240	14,142
2012	2,185	2,789		334	e/	5,309	1,678	3,438		78	e/	5,194	10,503
2013	1,995	6,258		1,247	e/	9,499	1,604	8,922		191	e/	10,717	20,216
2014	1,508	5,322		3,894	e/	10,724	3,686	9,861		644	3	14,191	24,914
2015	2,562	4,453		495	e/	7,509	4,559	10,467		43	e/	15,069	22,578
2016	2,469	4,807		738	e/	8,014	3,072	7,808		142	e/	11,022	19,036
2017	2,647	1,943		979	e/	5,569	1,896	7,321		177	15	9,394	14,964
2018	2,551	963		309	e/	3,824	1,315	3,375		116	12	4,807	8,631
2019	802	632		421	e/	1,856	545	3,371		88	e/	4,004	5,859
2020	672	2,319		1,150	e/	4,141	936	5,247		269	e/	6,452	10,593
2021 ^{f/}	1,263	2,009		2,798	e/	6,070	1,661	4,120		385	e/	6,166	12,236

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/ 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, 2021) dollars of the Buoy 10 recreational fishery in Oregon and Washington and the Area 4B add-on fishery in Washington^{al}.

	Total Angler	<u>-</u>		
	Trips _	Incor	me Impacts (thousands of do	llars)
Year or Avg.	(thousands)	Oregon	Washington	Total
	RUOV 10 (including bank fishing	a)	
1991-1995	79	1,833	3,120	4,953
1996-2000	45	1,174	1,607	2,782
2001-2005	85	2,152	1,849	4,001
2006-2010	68	1,478	1,018	2,497
2011	49	2,338	1,356	3,694
2012	65	3,097	1,805	4,902
2013	66	3,189	1,702	4,891
2014	108	5,465	2,473	7,938
2015	108	5,438	2,535	7,973
2016	95	4,691	2,304	6,996
2017	94	4,536	2,410	6,946
2018	67	3,229	1,815	5,044
2019	77	3,987	1,658	5,646
2020	72	3,142	2,234	5,376
2021 ^{b/}	106	5,835	1,942	7,778
		oldlol		
		EA 4B ADD-ON c/d/e/		
1989-1990	12	-	796	796
1991-1995	6	-	464	464
1996-2000	3	-	166	166
2001-2005	-	-	-	-
2006	-	-	-	-
2007	-	-	-	-
2008	1	-	37	37
2009	-	-	-	-

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

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

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

d/ There was no Area 4B add-on fishery opening in 1999 and 2006 as the Area 4 ocean quota was not attained.

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

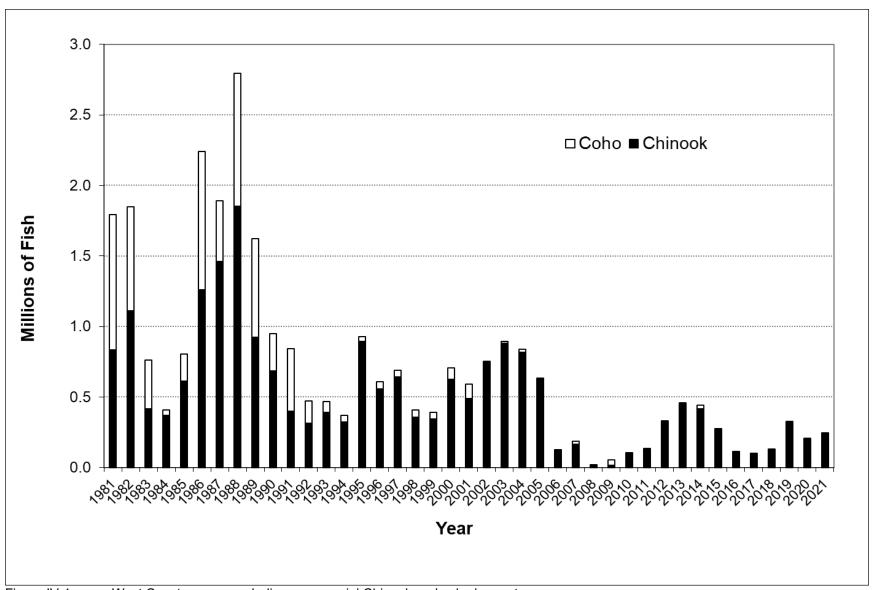


Figure IV-1. West Coast ocean non-Indian commercial Chinook and coho harvest.

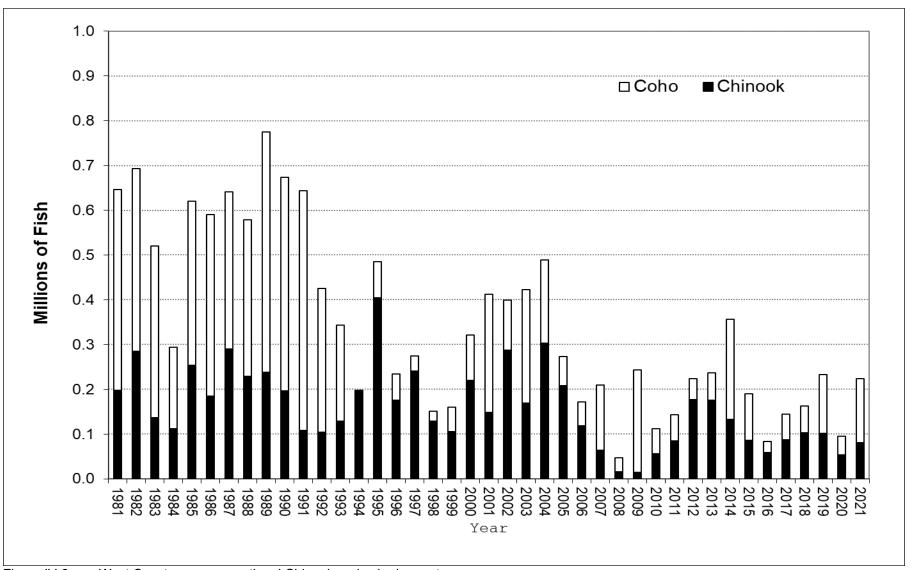


Figure IV-2. West Coast ocean recreational Chinook and coho harvest.

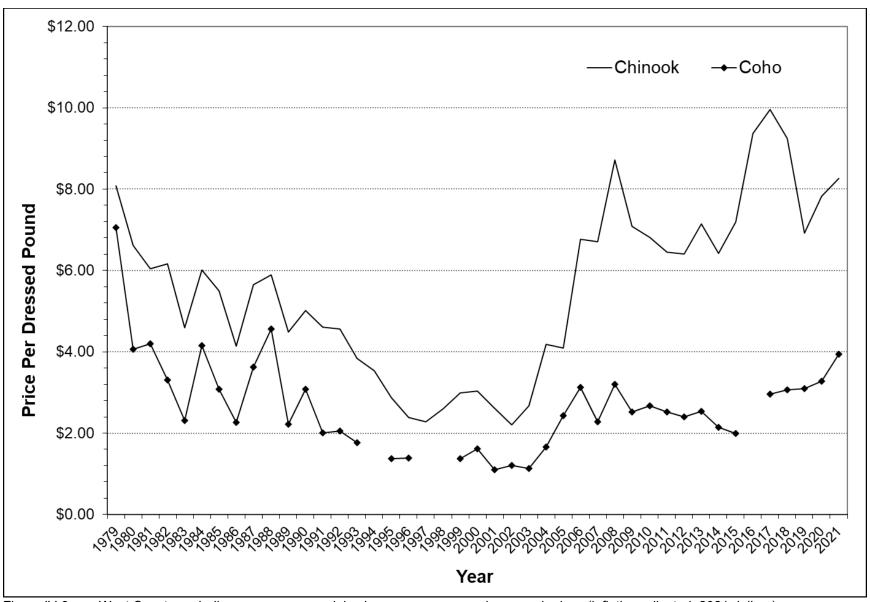


Figure IV-3. West Coast non-Indian ocean commercial salmon average annual exvessel prices (inflation adjusted, 2021 dollars).

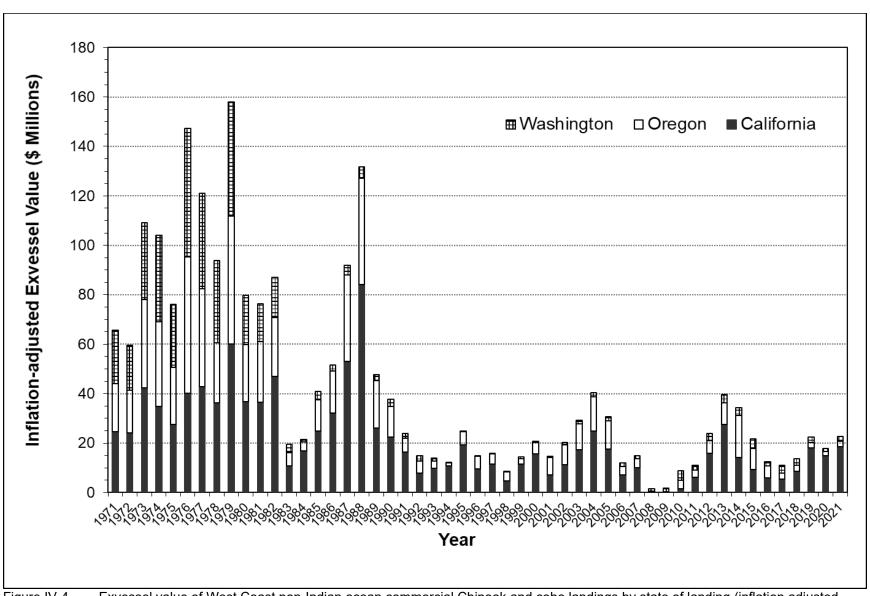


Figure IV-4. Exvessel value of West Coast non-Indian ocean commercial Chinook and coho landings by state of landing (inflation adjusted, 2021 dollars).

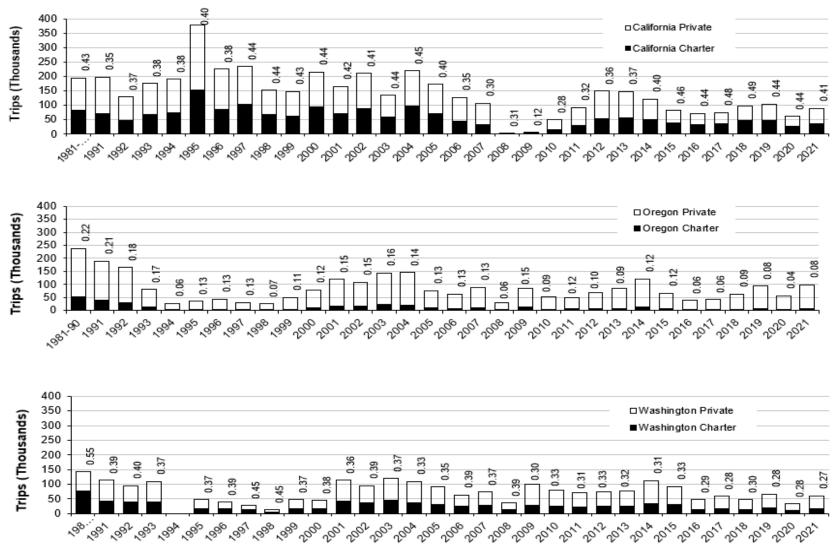


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APPENDIX A: HISTORICAL RECORD OF OCEAN SALMON FISHERY EFFORT AND LANDINGS

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TABLE A-1. California commercial troll	salmon fishing effort in da	vs fished and landing	as in numbers of fish by a	catch area.

Year or Avg.	Crescent City	Eureka	Fort Bragg	San Francisco	Monterey	Oregon	Season
	-		DAYS F		-		
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	119	261	3,255	8,878	4,674	87	17,187
2006-2010	87	270	1,107	4,156	1,587	-	6,968
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	7	52	1,486	4,093	1,560	-	7,198
2017	_	-	267	4,374	2,084	-	6,725
2018	238	461	819	4,747	1,312	-	7,577
2019	153	151	1,040	8,236	6,210	_	15,790
2020	-	-	219	9,451	2,616	-	12,286
2021 ^{a/}	-	-	1,576	5,080	3,261	-	9,917
4000 4000	12.007	32,329	CHINOOK L 252,416	- ANDINGS 351,115	144.046	1,064	704 702
1986-1990	13,997				144,846		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
2006-2010	2,367	6,395	13,168	41,349	8,881	-	66,319
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	6	190	15,380	26,363	13,246	-	55,185
2017	<u>-</u>	-	1,935	27,912	12,479	-	42,326
2018	4,412	4,599	10,551	39,429	19,425	-	78,416
2019	4,235	1,622	9,281	158,392	97,959	-	271,489
2020	-	-	1,849	145,741	30,210	-	177,800
2021 ^{a/}	-	-	43,722	104,893	52,804	-	201,419
			COHO LA	NDINGS			
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	-	_	-	-	-	-	-
2006-2010	_	-	_	-	-	-	_
2011	_	-	_	-	-	-	_
2012	_	-	_	-	-	-	_
2013	_	-	-	-	-	_	-
2014	_	-	-	-	-	_	-
2015	_	-	-	-	-	_	-
2016	-	-	-	-	-	-	-
2017	_	-	-	-	-	_	-
2018	-	-	-	-	-	_	-
2019	_	-	-	-	-	_	-
2020	_	-	-	-	-	_	-
2021	_	-	-	-	-	_	-
a/ Preliminary							

a/ Preliminary.

TADLEAG	California comm	orgial trall calma	n fiching offer	t in days fished	by actab area and	month (Page 1 of 2)
IABLE A-2	California comm	erciai troli saimo	n tisnina eπoi	T in davs tished	ny catch area and	month (Page 1 of 2)

TABLE A-2. Californ	nia commerci	ial troll salmon	fishing effort i	n days fished	by catch area		Page 1 of 2)	
Year or Avg.	Apr.	May	June	July	Aug.	Sept.	Oct.	Season
Crescent City ^{a/}								
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
2006-2010	_	_	_	-	_	87	_	87
2011	_	_	_	4	16	-	_	20
2012	_	_	_	-	-	45	_	45
2013	_	8	31	46	10	3	_	98
2014	_	-	-		-	7	_	7
2015	_	_	_	_	_	10	_	10
2016	_	_	_	_	_	7	_	7
2017	_	_	_	_	_	,	_	,
2017	-	20	108	42	68	-	-	238
	-					-	-	
2019	-	-	13	50	90	-	-	153
2020	-	-	-	-	-	-	-	-
2021 ^{c/}	-	-	-	-	-	-	-	-
<u>Eureka</u>								
1986-1990	_	_	882	518	547	467	64	1,629
1991-1995	_	_	-	-	-	500	100	600
1996-2000	_	_	_	_	128	177	-	202
2001-2005	_	_	_	_	94	242	_	261
2006-2010	_	_			-	270	_	270
2011	_	_	_	148	33	-	_	181
2012	-	-	-	140	-	260	-	260
2012	-	- 174	129	- 111	103	46	-	
	-	174	129	111			-	563
2014	-	-	-	-	-	92	-	92
2015	-	-	-	-	-	22	-	22
2016	-	-	-	-	-	52	-	52
2017	-	-	-	-	-	-	-	-
2018	-	110	116	121	114	-	-	461
2019	-	-	74	19	58	-	-	151
2020	-	-	-	-	-	-	-	-
2021 ^{c/}	-	-	-	-	-	-	-	-
Fort Bragg								
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
2006-2010	106	014	-				-	
	106	-	-	616	1,061	238	-	1,107
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	-	-	663	-	618	205	-	1,486
2017	-	-	-	-	-	267	-	267
2018	-	-	-	304	453	62	-	819
2019	-	-	306	319	415	-	-	1,040
2020	-	-	-	-	126	93	-	219
2021 ^{c/}	-	-	-	-	1,338	238	-	1,576

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 June	TABLE A-2. Calif	ornia commerc	cial troll salmo	n fishing effor	t in days fishe	d by catch are	ea and month.	(Page 2 of 2)	
1986-1990	Year or Avg.	Apr.	May	June	July	Aug.	Sept.	Oct.	Season
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 2006-2010 - 1,656 - 1,271 1,851 1,378 271 4,156 2011 - 900 164 873 394 459 1117 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 - 581 148 - 1,832 1,358 174 4,093 2017 - - - 2,610 1,544 220 4,374 2018 - - 1,333 2,014 1,801 2,379 1,108 251 8,236 2020 - 1,363 2,515 2,521 1,491 993 568 9,451 2021 - 3,363 2,515 2,521 1,491 993 568 9,451 2021 - 3,460 3,300 2,460 780 140 - 10,820 1,966 2010 - 1,769 66 204 150 89 - 1,587 2011 - 979 340 2,688 117 18 - 7,740 2011 - 979 340 268 117 18 - 1,587 2011 - 979 340 268 117 18 - 1,593 2015 - 1,590 315 120 - 1,593 2015 - 1,590 310 313 3117 2,441 1,840 318 46 -	San Francisco								
1986-2000 100	1986-1990	-	6,506	7,111	5,948	4,125	1,864	-	25,555
2001-2005 - 2,106 1,894 2,643 1,493 1,249 293 8,878 2006-2010 - 1,656 - 1,271 1,881 1,378 271 4,156 2011 - 900 164 873 394 459 117 2,907 2012 - 1,723 686 2,199 1,422 1,006 469 7,505 2014 - 2,401 1,206 761 2,068 1,660 575 8,441 2015 - 839 745 639 1,250 1,478 515 5,466 2016 - 581 148 - 1,832 1,358 174 4,093 2017 - 683 2,014 1,801 2,379 1,108 220 4,374 2018 - 1,363 2,515 2,521 1,491 993 568 9,451 2019 - 683 2,014	1991-1995	-	3,480	2,540	2,700	2,840	1,780	-	13,340
2001-2005 - 2,106 1,894 2,643 1,493 1,249 293 8,878 2006-2010 - 1,656 - 1,271 1,881 1,378 271 4,156 2011 - 900 164 873 394 459 117 2,907 2012 - 1,723 686 2,199 1,422 1,006 469 7,505 2014 - 2,401 1,206 761 2,068 1,660 575 8,441 2015 - 839 745 639 1,250 1,478 515 5,466 2016 - 581 148 - 1,832 1,358 174 4,093 2017 - 683 2,014 1,801 2,379 1,108 220 4,374 2018 - 1,363 2,515 2,521 1,491 993 568 9,451 2019 - 683 2,014	1996-2000	100					1,624	_	
2006-2010				1,894	2,643	1,493		293	8,878
2011	2006-2010	-							
2012		-		164		-	•		
2013		-		686		1,422			
2014		_							
2015		_							
2016		_							
2017		_			-				
2018		_		-	_				
2019		_		_	519				
2020		_		2 014					
Note Note		_				-			
Nonterey 1986-1990		_	1,303						
1986-1990		_	_	2,109	370	990	1,000	317	3,000
1991-1995									
1996-2000 313 3,117 2,441 1,840 178 94 - 7,740		-						-	
2001-2005 - 2,318 852 1,069 315 120 - 4,674 2006-2010 - 1,769 66 204 150 89 - 1,587 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 - 1,081 479 - - - - 2,542 2016 - 1,081 479 - - - - 2,084 2017 - 874 1,210 - - - -		-						-	
2006-2010 - 1,769 66 204 150 89 - 1,587 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 - 1,081 479 - - - - 2,542 2016 - 1,081 479 - - - - 2,542 2016 - 1,081 479 - - - - 2,084 2018 - 473 839 - - - - -		313						-	
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 - 1,081 479 - - - - 2,542 2016 - 1,081 479 - - - - 2,542 2016 - 1,081 479 - - - - 2,584 2017 - 874 1,210 - - - 2,084 2018 - 3,189 2,050 971 - - - 6,210		-	,		-			-	
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 - 1,081 479 - - - - 2,542 2016 - 1,081 479 - - - - 2,542 2016 - 1,081 479 - - - - 2,542 2017 - 874 1,210 - - - - 2,084 2018 - 473 839 - - - - 6,210 2019 - 3,189 2,050 971 - - - 2,616		-						-	•
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 - 1,081 479 - - - - 2,542 2017 - 874 1,210 - - - - 2,084 2018 - 473 839 - - - - 2,084 2019 - 3,189 2,050 971 - - - 6,210 2020 - 1,302 844 374 96 - - 2,616 2021c² - 2,525 483 197 56 - - 2,616 2021° - 1,525 483 197 56 - - 2,616		-						-	1,722
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2020 - 1,302 844 374 96 - - 2,616 2021c/ - 2,525 483 197 56 - - 3,261 Total Statewide ^{a/} 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 2006-2010 106 2,597 66 1,681 2,041 1,883 271 6,968 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	2019	-	3,189	2,050	971	-	-	-	6,210
2021 ^{c/} - 2,525 483 197 56 - - 3,261 Total Statewide ^{a/} 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 2006-2010 106 2,597 66 1,681 2,041 1,883 271 6,968 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<	2020	-		844	374	96	-	-	
Total Statewide ^{a/} 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 2006-2010 106 2,597 66 1,681 2,041 1,883 271 6,968 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 <	2021 ^{c/}	-		483	197	56	_	_	
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 2006-2010 106 2,597 66 1,681 2,041 1,883 271 6,968 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		a/							
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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 2006-2010 106 2,597 66 1,681 2,041 1,883 271 6,968 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		_							
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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		-							
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0045 4.04 0.000 4.040 0.000 4.707 545 40.044		-							
2015 - 4,434 2,392 1,943 2,000 1,727 515 13,011		-			1,943				
2016 - 1,662 1,290 - 2,450 1,622 174 7,198		-			-				
2017 - 874 1,210 - 2,610 1,811 220 6,725		-			-				
2018 - 603 1,063 986 2,933 1,551 441 7,577		-							
2019 - 3,872 4,457 3,160 2,942 1,108 251 15,790		-							
2020 - 2,665 3,359 2,895 1,713 1,086 568 12,286		-							
2021 ^{c/} - 2,525 2,592 767 2,392 1,324 317 9,917 a/ Includes minor effort off Oregon for fish landed in California		- "				2,392	1,324	317	9,917

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 was 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 1 of 3)

TABLE A-3. Ca	amorria coi	minorolar	ion Omno	CHIN		nango in ne	arriboro or	non by oaton	area aria i	monan. (r age r or	COH	Ю			
Crescent City ^{a/}	1							-								
1986-1990	_	527	12,995	3,017	2,534	452	-	13,997	-	-	4,408	1,262	5	18	_	3,795
1991-1995	-	_	-	-	-	-	-	-	-	-	-	-	-	-	-	
1996-2000	-	_	_	-	98	106	-	126	-	-	-	-	-	-	-	-
2001-2005 ^{b/}	1,186	84	53	5,245	10,184	1,351	293	7,103	-	-	-	-	-	-	-	-
2006-2010	-	-	-	-	-	2,367	-	2,367	-	-	-	-	-	-	-	-
2011	-	-	-	11	406	-	-	417	-	-	-	-	-	-	-	-
2012	-	-	-	-	-	400	-	400	-	-	-	-	-	-	-	-
2013	-	85	524	487	116	13	-	1,225	-	-	-	-	-	-	-	-
2014	-	-	-	-	-	21	-	21	-	-	-	-	-	-	-	-
2015	-	-	-	-	-	36	-	36	-	-	-	-	-	-	-	-
2016	-	-	-	-	-	6	-	6	-	_	-	-	_	-	-	-
2017	-	-	-	-	-	-	-	-	-	-	-	-	_	-	-	-
2018	-	241	1,497	775	1,899	-	-	4,412	-	-	_	-	-	-	-	-
2019	-	-	114	1,311	2,810	-	-	4,235	-	-	-	-	_	-	-	-
2020	-	-	-	-	-	-	-	-	-	-	-	-	_	-	-	-
2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Eureka</u>																
1986-1990	-	-	26,180	4,316	6,726	6,295	480	32,329	-	-	5,948	508	211	860	125	5,998
1991-1995	-	-	-	-	-	4,300	400	4,700	-	-	-	-	-	3,000	100	3,100
1996-2000	-	-	-	-	-	2,860	-	3,379	-	-	-	-	-	-	-	-
2001-2005	-	-	-	-	1,392	5,020	-	5,298	-	-	-	-	-	-	-	-
2006-2010	-	-	-	-	-	6,395	-	6,395	-	-	-	-	-	-	-	-
2011	-	-	-	1,573	401	-	-	1,974	-	-	-	-	-	-	-	-
2012	-	-	-	-	-	4,831	-	4,831	-	-	-	-	-	-	-	-
2013	-	2,603	2,400	1,887	1,892	171	-	8,953	-	-	-	-	-	-	-	-
2014	-	-	-	-	-	599	-	599	-	-	-	-	-	-	-	-
2015	-	-	-	-	-	10	-	10	-	-	-	-	-	-	-	-
2016	-	-	-	-	-	190	-	190	-	-	-	-	-	-	-	-
2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2018	-	696	980	1,045	1,878	-	-	4,599	-	-	-	-	-	-	-	-
2019	-	-	623	164	835	-	-	1,622	-	-	-	-	-	-	-	-
2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2021	-	-	_	-	-	-	-	_	-	-	-	-	-	-	-	-

TABLE A-3. California commercial troll Chinook and coho salmon landings in numbers of fish by catch area and month. (Page 2 of 3)

Year or Avg.	Apr.	May	June	July	Aug.	Sept.	Oct.	Season	Apr.	May	June	July	Aug.	Sept.	Oct.	Season
				CHIN	OOK							CO	НО			
Fort Bragg																
1986-1990	-	46,868	72,418	91,861	36,174	5,095	-	252,416	-	-	9,106	14,014	3,376	190	-	26,000
1991-1995	-	388	-	-	34,300	8,682	-	17,354	-	-	-	-	4,500	-	-	4,500
1996-2000	-	-	-	-	14,443	9,640	-	12,529	-	-	-	-	-	-	-	-
2001-2005	-	17,715	-	51,702	51,853	27,247	-	96,466	-	-	-	-	-	-	-	-
2006-2010	748	-	-	6,371	10,678	5,515	-	13,168	-	-	-	-	-	-	-	-
2011	-	-	-	21,085	17,766	460	-	39,311	-	-	-	-	-	-	-	-
2012	-	-	-	24,324	12,304	1,654	-	38,282	-	-	-	-	-	-	-	-
2013	-	4,352	23,785	68,781	14,916	4,324	-	116,158	-	-	-	-	-	-	-	-
2014	-	-	23,126	45,563	7,788	454	-	76,931	-	-	-	-	-	-	-	-
2015	-	38,546	11,317	5,333	3,848	1,008	-	60,052	-	-	-	-	-	-	-	-
2016	-	-	9,956	-	4,515	909	-	15,380	-	-	-	-	-	-	-	-
2017	-	-	-	-	-	1,935	-	1,935	-	-	-	-	-	-	-	-
2018	-	-	-	6,081	4,137	333	-	10,551	-	-	-	-	-	-	-	-
2019	-	-	3,581	2,894	2,806	-	-	9,281	-	-	-	-	-	-	-	-
2020	-	-	-	-	1,617	232	-	1,849	-	-	-	-	-	-	-	-
2021 ^{c/}	-	-	-	-	41,814	1,908	-	43,722	-	-	-	-	-	-	-	-
San Francisco																
1986-1990	-	131,362	111,938	71,214	26,550	10,050	-	351,115	-	-	5,375	3,280	820	82	-	9,377
1991-1995	-	69,489	43,811	43,504	29,911	13,873	-	200,588	-	-	33,100	19,700	500	-	-	26,900
1996-2000	3,266	49,931	51,659	57,754	20,264	15,401	-	195,662	-	-	-	-	-	-	-	-
2001-2005	-	52,401	74,746	75,262	19,186	12,158	1,905	210,228	-	-	-	-	-	-	-	-
2006-2010	-	25,396	-	19,140	12,888	7,017	712	41,349	-	-	-	-	-	-	-	-
2011	-	7,753	2,830	8,305	1,395	1,312	317	21,912	-	-	-	-	-	-	-	-
2012	-	34,005	10,090	51,592	14,292	5,808	3,313	119,100	-	-	-	-	-	-	-	-
2013	-	56,365	47,837	24,215	7,819	6,477	941	143,654	-	-	-	-	-	-	-	-
2014	-	30,605	14,917	6,994	15,879	11,044	2,985	82,424	-	-	-	-	-	-	-	-
2015	-	7,407	4,762	4,456	7,055	9,399	2,617	35,696	-	-	-	-	-	-	-	-
2016	-	3,147	446	-	13,819	8,362	589	26,363	-	-	-	-	-	-	-	-
2017	-	-	-	-	18,336	8,297	1,279	27,912	-	-	-	-	-	-	-	-
2018	-	-	-	7,015	19,790	10,593	2,031	39,429	-	-	-	-	-	-	-	-
2019	-	16,076	59,859	25,141	50,416	6,099	801	158,392	-	-	-	-	-	-	-	-
2020	-	12,572	41,698	63,138	17,658	8,240	2,435	145,741	-	-	-	-	-	-	-	-
2021 ^{c/}	-	-	72,832	10,988	14,384	5,649	1,040	104,893	-	-	-	-	-	-	-	-

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
_				CHIN	OOK							со	НО			
<u>Monterey</u>																
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	-	-	-	-	-	-	-	-
2006-2010	-	10,557	274	1,235	427	212	-	8,881	-	-	-	-	-	-	-	-
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	-	10,220	3,026	-	-	-	-	13,246	-	-	-	-	-	-	-	-
2017	-	5,588	6,891	-	-	-	-	12,479	-	-	-	-	-	-	-	-
2018	-	4,566	14,859	-	-	-	-	19,425	-	-	-	-	-	-	-	-
2019	-	54,925	33,706	9,328	-	-	-	97,959	-	-	-	-	_	-	_	_
2020	_	19,944	7,559	2,367	340	-	-	30,210	-	-	-	-	_	-	_	_
2021 ^{c/}	-	46,848	3,891	1,644	421	-	-	52,804	-	-	-	-	-	-	-	-
Total Statew	ide ^{a/}															
1986-1990	<u> </u>	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	_	_		-	_,020	-	-	
2001-2005	1,186	81,387	73,639	123,448	56,697	46,255	2,022	383,921	_	_	_	_	_	_	_	_
2006-2010	748	23,255	274	22,499	15,994	17,125	712	66,319	_	_	_	_	_	_	_	_
2011	- 10	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	_	13,367	13,428	12,320	18,334	9,467	589	55,185	_	_	-	_	_	_	_	_
2010	-	5,588	6,891	-	18,336	10,232	1,279	42,326	-	-	-	-	-	-	-	-
	-	-	-	14.046		-	•		-	-	-	-	-	-	-	-
2018	-	5,503	17,336	14,916	27,704	10,926	2,031	78,416	-	-	-	-	-	-	-	-
2019	-	71,001	97,883	38,838	56,867	6,099	801	271,489	-	-	-	-	-	-	-	-
2020	-	32,516	49,257	65,505	19,615	8,472	2,435	177,800	-	-	-	-	-	-	-	-
2021 ^{c/}	-	46,848	76,723	12,632	56,619	7,557	1,040	201,419	-	-	-	-	-	-	-	-

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 was 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
Crescent City											
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
2006-2010	-	-	-	225	425	462	252	195	-	-	1,218
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	-	-	-	59	222	176	56	50	-	-	563
2017	-	-	-	-	-	-	-	-	-	-	-
2018	-	-	-	-	359	673	328	3	-	-	1,363
2019	-	-	-	15	137	279	56	24	-	-	511
2020 ^{a/}	-	-	-	-		801	386	-	-	-	1,187
2021 ^{b/}	-	-	-	-	244	427	4	-	-	-	675
<u>Eureka</u>											
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
2006-2010	-	-	-	2,051	3,611	2,652	3,023	1,900	-	-	10,403
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	-	-	-	1,579	1,933	2,380	1,888	610	_	_	8,390
2017	-	-	-		-	-	-	-	-	-	-
2018	-	-	_	_	2,298	2,067	1,593	48	_	_	6,006
2019	_	_	_	349	2,601	2,535	1,617	99	_	_	7,201
2020 ^{a/}	_	-	_	-		2,939	847	-	_	_	3,786
2021 ^{b/}					127	1,401	58				1,586

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	th. (Page 2 of 3 Aug.	Sept.	Oct.	Nov.	Season
Fort Bragg	1 CD.	war.		iviay	ounc	ouly	Aug.	Осрі.	<u> </u>	1407.	Ocason
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
2001-2005	463 248	676 446	920					336	13	0	11,261
		440		1,946	4,084	4,462	2,563			-	
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	-	-	706	934	1,003	4,817	1,751	295	68	0	9,574
2017	-	-	403	1,101	-	-	1,869	1,286	17	0	4,676
2018	-	-	-	-	1,009	5,523	2,897	423	39	-	9,891
2019	-	-	606	166	1,646	3,171	1,735	228	52	-	7,604
2020 ^{a/}	-	-	-			2,637	2,062	469	0	0	5,168
2021 ^{b/}	-	-	-	-	251	4,733	2,249	975	429	-	8,637
San Francisco	<u>!</u>										
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
2006-2010	-	-	3,751	6,670	8,009	13,120	5,398	2,518	1,797	921	41,279
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	-	-	2,797	4,723	2,797	11,554	11,437	8,205	2,298	-	43,811
2017	-	_	1,470	1,665	5,429	19,131	17,489	7,210	1,834	_	54,228
2018	_	_	-	-	8,043	28,234	15,575	8,561	5,033	_	65,446
2019	_	_	3,207	1,612	12,056	15,392	17,321	6,697	1,769	_	58,054
2020 ^a /	_	_	-			19,892	14,050	7,132	4,252	147	45,473
2021 ^{b/}				_	3,016	19,880	13,545	6,949	2,001	-	45,391

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	160.	ıvıaı.	Αρι.	iviay	Julie	July	Aug.	θερι.	001.	INOV.	Ocason
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
2006-2010	-	, -	12,333	3,782	3,817	2,939	738	198	26	-	23,817
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	-	-	4,503	2,624	484	150	-	-	-	-	7,761
2017	-	-	8,232	2,234	1,145	3,459	-	-	-	-	15,070
2018	-	-	8,140	2,021	3,244	514	-	-	-	-	13,919
2019	-	-	13,537	3,801	4,471	4,360	4,163	-	-	-	30,332
2020 ^{a/}	-	-	-			3,438	641	138	12	-	4,229
2021 ^{b/}	-	-	12,287	8,838	6,780	3,201	442	315	-	-	31,863
Total Statewi	<u>de</u>										
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
2006-2010	248	446	17,005	14,674	19,947	23,636	8,981	4,384	1,822	921	57,362
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	-	-	8,006	9,919	6,439	19,077	15,132	9,160	2,366	0	70,099
2017	-	-	10,105	5,000	6,574	22,590	19,358	8,496	1,851	0	73,974
2018	-	-	8,140	2,021	14,953	37,011	20,393	9,035	5,072	-	96,625
2019	-	-	17,350	5,943	20,911	25,737	24,892	7,048	1,821	-	103,702
2020 ^{a/}	-	-	-			29,707	17,986	7,739	4,264	147	59,843
2021 ^{b/}	-	-	12,287	8,838	10,418	29,642	16,298	8,239	2,430	-	88,152

a/ Recreational estimates are not available for May and June due to restrictions on sampling caused by the COVID-19 pandemic.

b/ Preliminary.

TABLE A-5. California ocean recreational salmon landings in numbers of fish by catch area and month. (Page 1 of 3)

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											СОНО					
Crescent City																						
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
2006-2010	-	-	-	94	157	268	21	38	-	-	444	-	-	-	3	9	26	-	4	-	-	26
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	-	-	-	4	9	20	0	0	-	-	33	-	-	-	-	-	-	-	-	-	-	
2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2018	-	-	-	-	124	128	76	0	-	-	328	-	-	-	-	8	16	-	-	-	-	24
2019	-	-	-	1	33	10	13	4	-	-	61	-	-	-	-	-	4	4	-	-	-	8
2020 ^a	-	-	-	-		318	65	-	-	-	383	-	-	-	-	-	14	-	-	-	-	14
2021 ^{b/}	-	-	-	-	16	73	0	-	-	-	89	-	-	-	-	-	-	-	-	-	-	(
<u>Eureka</u>																						
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
2006-2010	-	-	-	1,710	3,540	2,149	2,260	1,485	-	-	8,729	-	-	-	88	63	61	79	43	-	-	155
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	-	-	-	1,450	934	1,414	646	523	-	-	4,967	-	-	-	-	18	9	-	-	-	-	27
2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2018	-	-	-	-	1,590	734	1,059	27	-	-	3,410	-	-	-	-	41	4	33	-	-	-	78
2019	-	-	-	315	2,273	1,308	941	59	-	-	4,896	_	-	-	_	47	61	39	-	-	-	147
2020 ^a	-	-	-	-		1,244	204	-	-	-	1,448	_	-	-	_	-	4	-	-	-	-	4
2021 ^{b/}	_	-	-	-	12	540	0	-	_	_	552	_	_	_	_	_	9	-	-	_	_	9

TABLEA-5. California ocean recreational salmon landings in numbers of fish by catch area and month. (Page 2 of 3)

Year or Avg.		Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season	Feb.	Mar.	Λnr	May	June	July	Aug.	Sept.	Oct	Nov.	Season
real of Avg.	reb.	iviai .	Арг.	iviay		CHINOOK		зері.	OCI.	INOV.	Season	reb.	iviai .	Арг.	iviay	Julie	COHO	Aug.	зері.	OCI.	NOV.	Season
Fort Bragg						OT III TOO											00110					
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
2006-2010	34	105	175	1,036	2,177	2,356	1,186	73	0	0	5,357	-	-	-	13	73	68	21	-	-	-	146
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	-	-	108	104	222	3,524	990	75	8	0	5,031	-	-	-	-	-	35	-	-	-	-	35
2017	-	-	22	650	-	-	837	370	8	0	1,887	-	-	-	-	-	-	4	-	-	-	4
2018	-	-	-	-	540	3,217	1,846	95	0	-	5,698	-	-	-	-	-	13	4	8	-	-	25
2019	-	-	206	81	947	1,697	825	101	0	-	3,857	-	-	-	-	13	22	5	-	-	-	40
2020 ^a	-	-	-			1,198	565	114	0	0	1,877	-	-	-	-	-	19	-	4	-	-	23
2021 ^{b/}	-	-	-	-	153	1,907	827	146	661	-	3,694	-	-	-	-	12	78	14	-	4	-	108
San Francisco		40.070	40.070	0.045	40 470	47.407	45 470	7.500	4.400	1.004	00.004	0	4	20	450	220	270	400	00	40	0	1 100
1986-1990 1991-1995	4,510	10,976 5,050	16,873 7,028	8,315	12,172 14,149	17,167 33,404	15,479 13,387	7,596 8,221	4,108 3,591	1,094	98,291 91,971	0 1	1	38 17	159 71	339 1,035	379 1,184	480 157		12	0	1,490
1991-1995	249	6,310	8,191	6,921 8,343	13,124	27,456	12,395	4,759	2,955	52 982	82,664	'	8	17	8	60	1,104	12	31 15	13 6	U	2,517 140
2001-2005	-	0,510	5,540	11,659	13,806	26,717	10,680	6,287	2,333	395	77,305	-	_	2	56	68	187	55		U	-	348
2006-2010	-	-	1,201	5,704	7,797	9,092	1,314	475	349	196	25,946	-	_		47	131	212	9		_	-	317
2011	_	_	432	934	326	4,457	6,531	5,914	1,140	130	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	_	_	1,206	3,563	1,253	8,025	6,111	5,858	630	_	26,646	_	_	_	_	-	-	8	_	_	_	8
2017	_	_	398	1,206	5.241	24,206	17,972	3,890	843	_	53,756	_	_	_	3	_	322	40	_	_	_	365
2018	-	_	-	-,	11,361	38,248	11,717	6,689	4,172	_	72,187	_	_	_	-	5	63	-	_	_	_	68
2019	-	_	2,982	1,645	15,459	16,558	15,861	3,570	468	_	56,543	_	_	_	2	100	4	348	14	5	_	473
2020 ^a	_	-	-			19,662	9,140	3,945	2,364	29	35,140	_	_	_	_	-	11	-	-	-	-	11
2021 ^{b/}	_	-	-	_	3,864	16,407	9,065	3,799	861	-	33,996	_	_	_	_	18	125	4	-	_	-	147
						,	,	, -			,											

TABLE A-5. California ocean recreational salmon landings in numbers of fish by catch area and month. (Page 3 of 3)

Year or Avg.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct. No	OV.	Season
_						CHINOOK											СОНО					
<u>Monterey</u>																						
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
2006-2010	-	-	4,565	942	1,140	987	167	41	0	-	7,842	-	-	8	24	137	63		-	-	-	155
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	-	-	716	572	47	0	-	-	-	-	1,335	-	-	-	-	-	-	-	-	-	-	-
2017	-	-	3,878	449	192	2,035	-	-	-	-	6,554	-	-	-	-	-	96	-	-	-	-	96
2018	-	-	3,935	476	1,157	123	-	-	-	-	5,691	-	-	-	-	-	_	-	-	-	-	-
2019	-	-	13,592	1,437	2,159	2,636	3,279	-	-	-	23,103	-	-	-	-	2	26	-	-	-	-	28
2020 ^a	-	-	-			1,242	33	18	0	-	1,293	-	-	-	-	-	_	-	-	-	-	-
2021 ^{b/}	-	-	7,626	4,184	3,196	1,710	177	57	-	-	16,950	-	-	-	210	54	12	-	-	-	-	276
Total Statew												_									_	
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
2006-2010	34	105	5,942	9,486	14,811	14,852	3,711	1,965	349	196	31,897	-	-	8	86	318	308	84	40	-	-	639
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	-	-	2,030	5,693	2,465	12,983	7,747	6,456	638	0	38,012	-	-	-	-	18	44	8	-	-	-	70
2017	-	-	4,298	2,305	5,433	26,241	18,809	4,260	851	0	62,197	-	-	-	3	-	418	44	-	-	-	465
2018	-	-	3,935	476	14,772	42,450	14,698	6,811	4,172	-	87,314	-	-	-	-	54	96	37	8	-	-	195
2019	-	-	16,780	3,479	20,871	22,209	20,919	3,734	468	-	88,460	-	-	-	2	162	117	396	14	5	-	696
2020 ^a	-	-	-			23,664	10,007	4,077	2,364	29	40,141	-	-	-	-	-	48	-	4	-	-	52
			7,626	4,184	7,241	20,637	10,069	4,002	1,522		55,281				210	84	224	18		4		540

a/ Recreational estimates are not available for May and June due to restrictions on sampling caused by the COVID-19 pandemic.

b/ 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 Oregon Ave. Astoria Tillamook New port Coos Bay Brookings Subtraction 1981-1985 1,096 3,409 6,008 9,960 5,024 25,49 1986-1990 659 6,887 8,650 20,307 1,652 38,15 1991-1995 374 1,941 4,722 2,011 196 9,01 1996-2000 70 947 3,733 2,135 316 7,18	otal Alaska 06 8 64 3 66 0 87 0 19 0	295 74 22 12	California 210 44 7	Total 26,009 38,275
DAYS FISHED 1981-1985 1,096 3,409 6,008 9,960 5,024 25,49 1986-1990 659 6,887 8,650 20,307 1,652 38,15 1991-1995 374 1,941 4,722 2,011 196 9,01	3 6 0 37 0 9 0	74 22	44	
1986-1990 659 6,887 8,650 20,307 1,652 38,15 1991-1995 374 1,941 4,722 2,011 196 9,01	3 6 0 37 0 9 0	74 22	44	
1991-1995 374 1,941 4,722 2,011 196 9,01	6 0 37 0 19 0	22		38,275
	37 0 19 0		7	
1996-2000 70 947 3,733 2,135 316 7,18	9 0	12	•	9,046
			31	7,230
2001-2005 390 1,591 4,664 4,935 439 12,01		125	8	12,153
2006-2010 628 435 1,283 945 220 3,21	0	0	0	3,210
2011 289 220 748 2,206 289 3,75	52 0	0	-	3,752
2012 416 635 2,112 2,711 382 6,25	6 0	0	-	6,256
2013 287 830 1,722 5,440 707 8,98	36 0	0	-	8,986
2014 816 556 3,697 4,864 770 10,70	0 0	0	-	10,703
2015 818 866 2,752 3,773 520 8,72	29 0	0	-	8,729
2016 225 237 2,756 1,047 127 4,39	92 0	0	-	4,392
2017 342 182 1,264 155 109 2,05	52 0	0	-	2,052
2018 98 179 1,043 778 475 2,57	'3 0	0	-	2,573
2019 187 137 1,593 387 236 2,54	0 0	0	-	2,540
2020 65 134 1,185 461 123 1,96	88 0	0	-	1,968
2021 ^b / 40 224 1,160 427 118 1,96	69 0	0	-	1,969
CHINOOK LANDINGS				
1981-1985 5,556 5,901 27,917 63,507 42,623 145,50	3 89	2,982	2,157	150,731
1986-1990 3,477 26,242 82,957 253,426 28,825 394,92	27 137	1,179	1,386	397,628
1991-1995 937 6,887 76,934 15,554 1,679 100,94	15 0	212	276	101,432
1996-2000 572 8,191 81,290 36,042 3,542 129,52	23 0	54	597	130,175
2001-2005 8,095 25,572 126,126 117,529 5,245 282,56	67 0	5,574	311	288,452
2006-2010 5,840 2,160 11,779 7,121 1,485 23,37	76 0	0	0	23,376
2011 2,836 1,106 4,980 21,833 1,326 32,08	31 0	0	-	32,081
2012 8,444 7,397 26,612 25,204 5,444 73,10	0 0	0	-	73,101
2013 1,945 8,880 15,700 79,416 6,816 112,75	57 0	0	-	112,757
2014 16,182 7,009 83,122 85,637 16,146 208,09	96 0	0	-	208,096
2015 10,882 8,845 36,858 43,451 4,223 104,25	59 0	0	-	104,259
2016 2,058 1,067 31,281 7,543 398 42,34	17 0	0	-	42,347
2017 2,627 717 17,438 734 329 21,84	15 0	0	-	21,845
2018 333 465 14,487 5,277 3,899 24,46	31 0	0	-	24,461
2019 508 567 22,771 3,171 1,872 28,88	39 0	0	-	28,889
2020 190 678 8,934 2,183 825 12,81	0 0	0	-	12,810
2021 ^b / 178 1,308 12,667 2,960 424 17,53	37 0	0	-	17,537

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

Year			•	•	•	Oregon	•	•		
or Ave.	Astoria	Tillamook	New port	Coos Bay	Brookings	Subtotal	Alaska	Washington	California	Total
				COHO L	ANDINGS					
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
2006-2010	5,425	2,385	3,494	1,538	-	8,392	0	0	-	8,392
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
2017	470	-	-	-	-	470	0	0	-	470
2018	92	-	-	-	-	92	0	0	-	92
2019	1,412	-	-	-	-	1,412	0	0	-	1,412
2020	129	-	-	-	-	129	0	0	-	129
2021 ^{b/}	141	117	1,945	26	-	2,229	0	0	-	2,229

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

IABLE A-7.	Oregon comm	ierciai troli salm	on fishing effor	t in days fished	d by area and m	nonth." (Page	1 0f 4)				
Year or											
Average	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Season
<u>Astoria</u>											
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
2006-2010	-	-	201	199	113	109	28	-	-	-	628
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	-	-	71	82	21	51	-	-	-	-	225
2017	-	-	82	92	11	104	53	-	-	-	342
2018	-	-	16	50	3	29	0	-	-	-	98
2019	-	-	9	17	97	40	24	-	-	-	187
2020	-	-	17	12	20	13	3	-	-	-	65
2021 ^{b/}	-	-	1	3	21	9	6	-	-	-	40
<u>Tillamook</u>											
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
2006-2010	-	8	157	152	42	53	119	91	31	-	435
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	_	44	38	66	8	12	55	14	-	_	237
2017	_	7	34	46	8	-	70	17	-	-	182
2018	_	-	60	44	5	36	23	11	-	-	179
2019	_	3	45	22	16	12	15	24	-	-	137
2020	_	2	4	48	8	12	35	25	_	-	134
2021 ^{b/}	_	53	59	40	27	15	24	6	_	_	224
		00	00					Ŭ			+

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

Year or											
Average	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Season
New port											
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
2006-2010	-	81	412	512	285	222	263	140	50	-	1,283
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	-	666	625	309	388	547	217	4	-	-	2,756
2017	-	99	149	345	647	-	18	6	-	-	1,264
2018	-	_	161	119	191	534	36	2	-	-	1,043
2019	-	30	60	235	828	356	75	9	-	-	1,593
2020	-	91	77	276	401	216	111	13	-	-	1,185
2021 ^{b/}	32	352	163	60	290	244	15	4	-	-	1,160
Coos Bay											
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
2006-2010	-	253	530	394	168	615	83	115	110	26	945
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	_	178	170	260	146	75	58	119	41	_	1,047
2017	_	-	-	-	-	-	-	114	41	_	155
2018	_	_	127	270	91	97	21	89	83	_	778
2019	_	16	29	85	68	21	14	154	-	_	387
2020	-	43	11	43	140	21	29	174	_	_	461
2021 ^{b/}	=	70	121	70	25	9	31	171	_	_	427

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

Year or			9	<u>., </u>	area and month	. (Fage 3 01 2	• /				
Average	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Season
Brookings											
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
2006-2010	-	6	26	138	63	68	33	80	20	-	220
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	-	7	13	47	8	-	-	52	-	-	127
2017	-	-	-	-	-	-	-	109	-	-	109
2018	-	-	37	127	123	73	-	115	-	-	475
2019	-	2	7	21	71	135	-	_	-	-	236
2020	-	1	3	47	72	-	-	_	-	-	123
2021 ^{b/}	1	2	4	55	56	-	-	-	-	-	118
South of Cape F	alcon										
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
2006-2010	-	348	1,124	972	480	730	340	303	176	26	2,582
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	-	895	846	682	550	634	330	189	41	-	4,167
2017	-	106	183	391	655	-	88	246	41	-	1,710
2018	-	-	385	560	410	740	80	217	83	-	2,475
2019	-	51	141	363	983	524	104	187	-	-	2,353
2020	-	137	95	414	621	249	175	212	-	-	1,903
2021 ^{b/}	33	407	347	225	398	268	70	181			1,929

TABLE A-7. Oregon commercial troll salmon fishing effort in days fished by area and month. al (Page 4 of 4)

Year or							,				
Average	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Season
Statewide Total											
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
2006-2010	-	348	650	783	379	547	368	303	176	26	3,210
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	-	895	917	764	571	685	330	189	41	-	4,392
2017	-	106	265	483	666	104	141	246	41	-	2,052
2018	-	-	401	610	413	769	80	217	83	-	2,573
2019	-	51	150	380	1,080	564	128	187	-	-	2,540
2020	-	137	112	426	641	262	178	212	-	-	1,968
2021 ^{b/}	33	407	348	228	419	277	76	181	-	-	1,969

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 Brookings area prior to 1986 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-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
-					C	HINOOK								СОН	0		
<u>Astoria</u>								_									
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
2006-2010	-	-	2,252	2,587	521	432	48	-	-	-	5,840	-	2,164	3,086	175	-	5,425
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	-	-	519	743	169	627	-	-	-	-	2,058	=	-	-	-	-	-
2017	-	-	1,080	652	50	611	234	-	-	-	2,627	=	16	305	149	-	470
2018	-	-	16	269	10	38	0	-	-	-	333	-	8	84	-	-	92
2019	-	-	17	36	334	93	28	-	-	-	508	-	1,029	302	81	-	1,412
2020	-	-	84	36	57	13	0	-	-	-	190	-	63	64	2	-	129
2021 ^{b/}	-	-	15	8	126	24	5	-	-	-	178	-	75	25	41	-	141
<u>Tillamook</u>																	
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	-	-	-	-	-	-
2006-2010	-	14	1,433	1,514	332	57	162	252	71	-	2,160	-	-	1,195	1,787	#DIV/0!	2,385
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	-	167	185	515	16	23	135	26	-	-	1,067	-	-	-	-	-	-
2017	-	6	325	224	17	-	112	33	-	-	717	-	-	-	-	-	-
2018	-	-	180	168	19	58	26	14	-	-	465	-	-	-	-	-	-
2019	-	3	144	68	234	42	33	43	-	-	567	-	-	-	-	-	-
2020	-	15	9	481	38	19	73	43	-	-	678	-	-	-	-	-	-
2021 ^{b/}	_	413	355	238	105	146	47	4	_	_	1,308	_	61	56	_	_	117

TABLE A-8. Oregon commercial troll Chinook and coho salmon landings in numbers of fish by catch area and month. at (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								COF	Ю		
New port																	
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	-	-	-	-	-	-
2006-2010	-	279	2,752	4,446	2,128	1,223	1,970	791	321	-	11,779	-	-	1,607	2,691	-	3,494
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	-	5,610	5,044	1,948	9,188	8,063	1,426	2	-	-	31,281	-	-	-	-	-	-
2017	-	547	904	2,950	13,002	-	25	10	-	-	17,438	-	-	-	-	-	-
2018	-	-	491	709	2,101	11,031	151	4	-	-	14,487	-	-	-	-	-	-
2019	-	68	351	2,602	14,763	4,436	537	14	-	-	22,771	-	-	-	-	-	-
2020	-	532	709	1,786	3,790	1,672	428	17	-	-	8,934	-	-	-	-	-	-
2021 ^{b/}	229	1,970	785	264	4,444	4,942	26	7	-	-	12,667	-	856	1,089	-	-	1,945
Coos Bay																	
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	-	-	-	-	-	-
2006-2010	-	1,563	3,990	2,551	1,135	6,640	277	769	550	67	7,121	-	-	2,234	421	-	1,538
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	-	808	760	2,273	2,039	541	251	689	182	-	7,543	-	-	-	-	-	-
2017	-	-	-	-	-	-	-	638	96	-	734	-	-	-	-	-	-
2018	-	-	300	2,001	810	1,215	48	472	431	-	5,277	-	-	-	-	-	-
2019	-	79	170	632	1,245	170	62	813	-	-	3,171	-	-	-	-	-	-
2020	-	252	55	147	557	170	59	943	-	-	2,183	-	-	-	-	-	-
2021 ^{b/}	_	_	965	339	107	23	294	1,232	-	_	2,960	-	17	9	-	-	26

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

Year or Avg.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Season	June	July	Aug.	Sept.	Oct.	Seasor
_					(CHINOOK								COF	Ю		
<u>Brookings</u>																	
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	-	-	-	-	-	-
2006-2010	-	15	95	727	601	825	206	391	92	-	1,485	-	-	-	-	-	-
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	-	12	34	179	21	-	-	152	-	-	398	-	-	-	-	-	-
2017	-	-	-	-	-	-	-	329	-	-	329	-	-	-	-	-	-
2018	-	-	272	1,529	1,168	614	-	316	-	-	3,899	-	-	-	-	-	
2019	-	12	16	62	470	1,312	-	-	-	-	1,872	-	-	-	-	-	
2020	-	1	5	168	651	-	-	-	-	-	825	-	-	-	-	-	
2021 ^{b/}	2	2	13	275	132	-	-	-	-	-	424	-	-	-	-	-	-
South of Cape	Falcon																
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	-	-	-	-	-	-
2006-2010	-	1,871	8,268	7,902	3,617	6,256	1,143	1,496	872	67	17,536	-	-	5,036	4,899	-	7,417
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	-	6,597	6,023	4,915	11,264	8,627	1,812	869	182	_	40,289	-	-	-	-	-	
2017	-	553	1,229	3,174	13,019	, -	137	1,010	96	_	19,218	-	-	-	-	-	
2018	_	_	1,243	4,407	4,098	12,918	225	806	431	-	24,128	-	-	-	_	-	
2019	_	162	681	3,364	16,712	5,960	632	870	-	-	28,381	-	-	-	_	-	
2020	_	800	778	2,582	5,036	1,861	560	1,003	-	-	12,620	-	-	-	_	_	
2021 ^{b/}	231	2,385	2,118	1,116	4,788	5,111	367	1,243	_	_	17,359	_	934	1,154	_	_	2,088

TABLE A-8. Oregon commercial troll Chinook and coho salmon landings in numbers of fish by catch area and month. al (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								COF	Ю		
Statewide T	otal																
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
2006-2010	-	1,871	5,559	7,328	2,692	4,185	1,191	1,496	872	67	23,376	-	2,164	4,094	2,134	-	8,392
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	-	6,597	6,542	5,658	11,433	9,254	1,812	869	182	-	42,347	-	-	-	-	-	-
2017	-	553	2,309	3,826	13,069	611	371	1,010	96	-	21,845	-	16	305	149	-	470
2018	-	-	1,259	4,676	4,108	12,956	225	806	431	-	24,461	-	8	84	-	-	92
2019	-	162	698	3,400	17,046	6,053	660	870	-	-	28,889	-	1,029	302	81	-	1,412
2020	-	800	862	2,618	5,093	1,874	560	1,003	-	-	12,810	-	63	64	2	-	129
2021 ^{b/}	231	2,385	2,133	1,124	4,914	5,135	372	1,243	-	-	17,537	-	1,009	1,179	41	-	2,229

a/ 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 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 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. at (Page 1 of 4)

Year or Average	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season
<u>Astoria</u>										
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
2006-2010	-	-	66	296	2,809	5,785	716	-	-	9,357
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	-	-	-	-	1,920	2,412	-	-	-	4,332
2017	-	-	-	587	2,697	5,284	-	-	-	8,568
2018	-	-	-	380	1,839	5,332	148	-	-	7,699
2019	-	-	-	1,334	5,066	7,930	365	-	-	14,695
2020	-	-	-	86	3,367	-	-	-	-	3,453
2021 ^{b/}	-	-	-	336	4,676	7,873	-	-	-	12,885
<u>Tillamook</u>										
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
2006-2010	2	16	446	1,172	4,699	4,110	3,575	2,536	98	16,386
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	14	4	838	1,578	1,657	855	5,505	530	-	10,981
2017	0	12	335	692	2,161	2,039	3,100	292	-	8,631
2018	0	0	354	332	1,533	4,541	3,670	829	-	11,259
2019	0	0	293	2,061	8,113	6,440	2,725	1,470	-	21,102
2020	8	0	111	234	4,133	3,072	4,243	1,404	-	13,205
2021 ^{b/}	0	25	567	942	8,109	4,893	3,945	172	-	18,653

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

Year or Average	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season
<u>lew port</u>										
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
2006-2010	9	25	657	2,881	11,717	9,748	3,120	1,614	176	26,664
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	50	9	41	647	2,448	1,037	3,886	75	-	8,193
2017	0	0	12	299	4,528	2,751	2,603	89	-	10,282
2018	39	0	125	538	5,623	11,666	5,502	70	-	23,563
2019	37	0	65	2,864	16,935	11,609	3,507	96	-	35,113
2020	0	47	93	251	9,735	4,938	3,368	176	-	18,608
2021 ^{b/}	23	276	92	2,418	18,560	14,883	5,588	21	-	41,861
Coos Bay										
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
2006-2010	16	33	332	1,566	6,779	4,553	1,212	45		14,104
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	18	5	158	574	2,277	2,943	5,188	7		11,170
2017	17	48	153	925	3,368	4,593	3,640	72		12,816
2018	15	19	178	252	2,410	6,012	5,424	0		14,310
2019	6	8	52	1,348	7,337	6,775	3,428	15	-	18,969
2020	3	65	88	164	7,339	3,959	3,735	134	-	15,487
2021 ^{b/}	0	270	186	1,337	7,494	6,181	3,941	9	_	19,418

TABLE A-9. Oregon ocean recreational effort in salmon angler trips by catch area and month. all (Page 3 of 4

Year or Average	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season
<u>Brookings</u>										
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	-	-	1,663	3,322	2,588	5,226	2,509	2,983	-	18,291
2006-2010	-	-	357	897	1,459	1,704	2,268	2,420	-	7,684
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	-	-	44	467	717	190	898	1,872	-	4,188
2017	-	-	-	-	-	-	-	2,012	-	2,012
2018	-	-	508	1,058	1,398	1,934	-	2,102	-	7,000
2019	-	-	132	769	1,797	1,635	24	-	-	4,357
2020	-	-	-	1,624	4,046	587	-	-	-	6,257
2021 ^{b/}	-	-	-	1,965	2,734	1,154	-	-	-	5,853
South of Cape Fal	<u>con</u>									
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
2006-2010	30	84	1,327	5,517	19,501	16,363	7,601	4,559	69	54,411
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	82	18	1,081	3,266	7,099	5,025	15,477	2,484		34,532
2017	17	60	500	1,916	10,057	9,383	9,343	2,465		33,741
2018	54	19	1,165	2,180	10,964	24,153	14,596	3,001		56,132
2019	43	8	542	7,042	34,182	26,459	9,684	1,581	-	79,541
2020	11	112	292	2,273	25,253	12,556	11,346	1,714	-	53,557
2021 ^{b/}	23	571	845	6,662	36,897	27,111	13,474	202	_	85,785

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

Year or Average	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season
Total All Areas										
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
2006-2010	30	84	1,012	5,695	22,310	22,148	8,173	4,559	69	63,768
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	82	18	1,081	3,266	9,019	7,437	15,477	2,484		38,864
2017	17	60	500	2,503	12,754	14,667	9,343	2,465		42,309
2018	54	19	1,165	2,560	12,803	29,485	14,744	3,001		63,831
2019	43	8	542	8,376	39,248	34,389	10,049	1,581	-	94,236
2020	11	112	292	2,359	28,620	12,556	11,346	1,714	-	57,010
2021 ^{b/}	23	571	845	6,998	41,573	34,984	13,474	202	-	98,670

a/ Monthly totals are the sum of statistical weeks with closest fit to the calendar month. Since 1981, data from sampled ports only. Effort consists of salmon angler trips 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/ Preliminary.

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

Year or Average	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season	May	June	July	Aug.	Sept.	Oct.	Season
					CH	INOOK								СОНО			
<u>Astoria</u>																	
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
2006-2010	-	-	17	64	263	599	48	-	-	942	-	84	3,522	6,417	396	-	10,305
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	-	-	-	-	653	387	-	-	-	1,040	-	-	915	1,739	-	-	2,654
2017	-	-	-	330	567	1,011	-	-	-	1,908	-	13	2,249	4,308	-	-	6,570
2018	-	-	-	120	150	417	2	-	-	689	-	36	1,393	5,694	5	-	7,128
2019	-	-	-	104	668	485	38	-	-	1,295	-	1,852	6,548	8,543	281	-	17,224
2020	-	-	-	11	142	-	-	-	-	153	-	0	3,721	-	-	-	3,721
2021 ^{b/}	-	-	-	62	349	1,427	-	-	-	1,838	-	112	4,656	9,640	-	-	14,408
<u>Tillamook</u>																	
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
2006-2010	0	0	31	42	112	94	453	593	49	1,300	2	579	3,929	4,676	173	5	8,424
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	0	0	124	179	30	131	687	70	-	1,221	-	158	188	2	1,426	22	1,796
2017	0	0	76	80	89	141	424	35	-	845	-	86	901	1,440	1,252	-	3,679
2018	0	4	19	28	66	366	160	63	-	706	-	25	274	1,652	858	-	2,809
2019	8	0	37	95	422	212	293	239	-	1,306	-	609	6,201	2,749	1,156	5	10,720
2020	0	0	12	52	231	213	767	184	-	1,459	-	0	1,059	1,020	634	-	2,713
2021 ^{b/}	0	0	145	86	216	246	636	9	-	1,338	-	99	7,353	3,590	2,268	4	13,314

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.	Season
					CI	HINOOK								СОНО			
New port																	
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
2006-2010	2	1	28	53	124	176	81	40	16	393	-	1,103	5,927	5,758	515	-	13,200
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	28	5	2	14	117	348	135	6	-	655	-	29	582	18	1,793	-	2,422
2017	0	0	6	31	207	467	47	4	-	762	-	36	3,419	1,943	2,192	-	7,590
2018	0	0	23	59	409	490	217	11	-	1,209	-	2	2,125	6,042	3,095	-	11,264
2019	2	3	66	348	1,405	277	84	17	-	2,202	-	1,931	16,778	7,594	1,934	-	28,237
2020	0	4	19	37	1,460	231	217	24	-	1,992	-	0	4,050	3,302	3,152	-	10,504
2021 ^{b/}	12	54	16	369	1,833	544	90	0	-	2,918	-	539	23,433	20,767	6,807	-	51,546
Coos Bay																	
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
2006-2010	1	2	12	119	783	511	249	0		1,468	=	558	4,257	1,351	26	-	6,186
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	4	4	2	44	91	213	318	0		676	-	58	410	59	959	-	1,486
2017	0	6	7	28	212	199	121	0		573	-	241	1,452	557	1,146	-	3,396
2018	0	0	6	52	180	311	244	0		793	-	4	579	887	2,983	-	4,453
2019	0	0	0	87	603	236	305	-	-	1,231	-	1,265	4,322	2,023	1,980	-	9,590
2020	0	0	7	0	1,151	419	361	11	-	1,949	-	0	2,605	804	453	-	3,862
2021 ^{b/}	0	82	13	149	616	263	137	0	-	1,260	-	1,149	7,028	3,554	1,691	-	13,422

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

Year or Average	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season	May	June	July	Aug.	Sept.	Oct.	Season
					Cł	HINOOK								соно			
Brookings_																	
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	18,86
1991-1995	-	-	816	1,506	1,489	533	819	870	-	4,517	97	3,448	5,118	994	386	3	6,34
1996-2000	-	-	327	861	924	2,899	389	702	-	6,102	17	11	21	32	11	9	7
2001-2005	-	-	494	1,815	807	1,931	1,510	469	-	7,027	-	100	143	62	18	8	32
2006-2010	-	-	63	865	73	759	516	431	-	1,975	2	230	523	263	27	4	95
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	-	-	56
2015	-	-	30	97	149	47	69	792	-	1,184	-	5	118	5	4	6	138
2016	-	-	0	82	72	3	59	287	-	503	-	11	36	3	2	-	52
2017	-	-	-	-	-	-	-	506	-	506	-	-	-	-	-	-	
2018	-	-	105	149	458	448	4	429	-	1,593	-	3	3	12	-	-	1
2019	-	-	9	117	212	223	11	-	-	572	-	139	343	60	-	-	54
2020	-	-	-	566	956	113	-	-	-	1,635	-	-	-	-	-	-	
2021 ^{b/}	-	-	-	248	469	178	-	-	-	895	-	450	121	195	-	-	76
South of Cape F	alcon																
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	131,61
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	190,13
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	84,07
1996-2000	-	-	434	1,004	2,911	4,132	1,128	1,204	14	10,828	17	11	5,092	74	18	8	5,20
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	42,85
2006-2010	3	2	96	315	1,059	1,053	930	960	33	4,389	2	2,452	14,740	11,109	631	6	28,93
2011	0	7	204	185	500	951	1,252	440	6	3,545	-	556	3,580	2,019	6,631	-	12,78
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	14,40
2013	257	196	213	3,212	6,419	14,722	1,691	1,606		28,316	-	17	5,050	2,773	2,658	25	10,52
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	82,76
2015	30	8	181	364	550	423	2,883	2,246		6,685	-	463	11,959	2,562	4,430	28	19,44
2016	32	9	128	319	310	695	1,199	363		3,055	-	256	1,216	82	4,180	22	5,75
2017	0	6	89	139	508	807	592	545		2,686	-	363	5,772	3,940	4,590	-	14,66
2018	0	4	153	288	1,113	1,615	625	503		4,301	-	34	2,981	8,593	6,936	-	18,54
2019	10	3	112	647	2,642	948	693	256	-	5,311	-	3,944	27,644	12,426	5,070	5	49,08
2020	0	4	38	655	3,798	976	1,345	219	-	7,035	-	0	7,714	5,126	4,239	-	17,07
2021 ^{b/}	12	136	174	852	3,134	1,231	863	9	-	6,411	-	2,237	37,935	28,106	10,766	4	79,048

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

Year or Average	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season	May	June	July	Aug.	Sept.	Oct.	Season
					CI	HNOOK								СОНО			
Total All Areas																	
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
2006-2010	3	2	76	354	1,322	1,652	968	960	33	5,332	2	2,502	18,262	17,526	948	6	39,243
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	32	9	128	319	963	1,082	1,199	363		4,095	-	256	2,131	1,821	4,180	22	8,410
2017	0	6	89	469	1,075	1,818	592	545		4,594	-	376	8,021	8,248	4,590	-	21,235
2018	0	4	153	408	1,263	2,032	627	503		4,990	-	70	4,374	14,287	6,941	-	25,672
2019	10	3	112	751	3,310	1,433	731	256		6,606	-	5,796	34,192	20,969	5,351	5	66,313
2020	0	4	38	666	3,940	976	1,345	219		7,188	-	0	11,435	5,126	4,239	-	20,800
2021 ^{b/}	12	136	174	914	3,483	2,658	863	9		8,249	-	2,349	42,591	37,746	10,766	4	93,456

a/ Monthly totals are the sum of statistical weeks with closest fit to the calendar month and may include illegal catch. 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/ 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					Washington				
or Avg ^{a/} .	Neah Bay ^{a/}	La Push	Westport	llw aco	Subtotal	Oregon	California	Alaska	Total
				DAYS F	FISHED				
1981-1985	3,111	1,553	5,194	1,961	11,819	244	18	25	12,106
1986-1990	928	300	2,619	871	4,718	100	0	3	4,821
1991-1995	1,421	243	2,079	335	3,475	100	0	3	3,578
1996-2000	235	55	128	20	431	30	0	0	460
2001-2005	454	195	593	82	1,324	30	0	0	1,354
2006-2010	209	471	885	108	1,672	30	0	0	1,702
2011	170	669	1,133	92	2,064	-	-	0	2,064
2012	254	1,045	654	107	2,060	-	-	0	2,060
2013	245	435	1,498	130	2,308	-	-	0	2,308
2014	121	716	791	394	2,022	-	-	0	2,022
2015	266	657	1,447	275	2,645	-	-	0	2,645
2016	148	411	881	188	1,628	-	-	0	1,628
2017	367	502	1,411	93	2,373	-	-	0	2,373
2018	541	360	1,194	54	2,149	-	-	0	2,149
2019	942	429	290	77	1,738	-	-	0	1,738
2020	137	336	446	57	976	-	-	0	976
2021 ^{b/}	126	301	1,135	38	1,600	-	-	0	1,600
				CHINOOK I	ANDINGS				
1981-1985	10,074	7,061	34,995	9,172	61,303	901	184	203	62,591
1986-1990	9,601	4,251	27,281	5,089	46,222	1,431	0	1	47,654
1991-1995	12,082	2,769	13,907	1,386	25,628	1,431	0	1	27,060
1996-2000	7,048	1,503	1,329	184	10,018	812	0	0	10,830
2001-2005	17,310	4,481	17,254	1,293	40,338	812	0	0	41,149
2006-2010	2,119	4,767	11,529	1,003	19,418	-	-	0	19,418
2011	2,934	10,418	12,518	1,032	26,902	-	-	0	26,902
2012	6,102	19,722	8,781	2,250	36,855	-	-	0	36,855
2013	5,971	8,388	25,171	560	40,090	-	-	0	40,090
2014	3,326	13,851	12,550	8,980	38,707	-	-	0	38,707
2015	4,698	13,180	33,410	4,025	55,313	-	-	0	55,313
2016	1,788	4,173	9,724	1,659	17,344	-	-	0	17,344
2017	6,351	4,831	21,177	574	32,933	-	_	0	32,933
2018	7,276	3,208	12,941	131	23,556	-	_	0	23,556
2019	13,823	6,385	2,339	229	22,776	-	-	0	22,776
2020	1,418	4,647	5,867	378	12,310	-	-	0	12,310
2021 ^{b/}	940	3,255	14,744	146	19,085			0	19,085

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					Washington				
or Avg.	Neah Bay ^{a/}	La Push	Westport	llw aco	Subtotal	Oregon	California	Alaska	Total
				COHO LA					
1981-1985	42,272	34,020	63,633	32,087	152,480	8,260	33	876	161,649
1986-1990	19,563	4,139	15,616	23,765	54,379	1,501	0	103	55,983
1991-1995	13,939	2,876	8,689	5,957	27,800	1,501	0	103	29,404
1996-2000	7,478	851	2,387	1,413	8,881	0	-	103	8,984
2001-2005	1,231	1,555	3,240	929	6,397	0	-	103	6,500
2006-2010	213	1,943	2,963	1,084	6,203	-	-	0	6,203
2011	140	1,167	1,708	38	3,053	-	-	0	3,053
2012	204	2,119	856	89	3,268	-	-	0	3,268
2013	309	1,846	3,759	127	6,041	-	-	0	6,041
2014	41	4,602	8,525	2,239	15,407	-	-	0	15,407
2015	34	309	1,839	690	2,872	-	-	0	2,872
2016	-	-	-	-	-	-	-	-	-
2017	311	402	524	131	1,368	-	-	-	1,368
2018	405	488	366	33	1,292	-	-	-	1,292
2019	1,117	1,290	1,331	259	3,997	-	-	-	3,997
2020	45	204	373	15	637	-	-	_	637
2021 ^{b/}	67	417	2,763	123	3,370	-	-	-	3,370
					-1				
				PINK LAI					
1981-1985	107,620	22,914	7,589	1,272	139,394	342	1	263	140,000
1986-1990	18,894	364	412	45	19,714	19	0	0	19,733
1991-1995	23,992	1,773	11	30	25,792	19	0	0	25,811
1996-2000	21	7	2	0	29	19	0	0	48
2001-2005	29	38	18	13	97	19	0	0	116
2006-2010	17	120	5	0	141	-	-	0	141
2011	7	98	110	0	215	-	-	0	215
2012	0	0	0	0	0	-	-	0	0
2013	27	99	15	0	141	-	-	0	141
2014	0	0	0	0	0	-	-	0	0
2015	20	36	12	0	68	-	-	0	68
2016	0	0	0	0	0	-	-	0	0
2017	11	2	0	0	13	-	-	0	13
2018	0	0	0	0	0	-	-	0	0
2019	230	230	23	2	485	-	-	0	485
2020	0	0	0	0	0	-	-	0	0
2021 ^{b/}	15	16	2	0	33	-	-	0	33

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

b/ Preliminary.

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

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
llw aco	•		•		•		
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
2006-2010	31	39	11	20	6	-	108
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	78	48	30	32	-	-	188
2017	16	24	15	15	23	-	93
2018	13	17	15	7	2	-	54
2019	42	9	12	14	0	-	77
2020	17	25	0	10	5	-	57
2021 ^{d/}	8	15	1	5	9	-	38
Statewide Tot	<u>al</u>						
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
2006-2010	437	518	333	294	89	-	1,672
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	725	407	278	218	-	-	1,628
2017	778	630	395	426	144	-	2,373
2018	754	691	437	196	71	-	2,149
2019	403	344	673	205	113	-	1,738
2020	90	161	464	237	24	-	976
2021 ^{d/}	258	473	496	245	128	-	1,600

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
N 1 D C/			CHIN	OOK					CC	OHO					PI	IKS		
Neah Bay ^{c/}																		
1981-1985	3,293	532	6,289	1,424	31	10,074	-	-	43,965	15,853	100	42,272	113	20	,	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
2006-2010	1,041	618	157	207	96	2,119	-	-	136	67	10	213	5	4	8	0	0	17
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	948	794	39	7	-	1,788	-	-	-	-	-	-						
2017	451	374	3,058	2,158	310	6,351	-	-	49	182	80	311	0	0	10	1	0	11
2018	2,797	1,330	2,684	283	182	7,276	-	-	249	50	106	405						
2019	1,430	2,616	9,491	219	67	13,823	-	-	938	59	120	1,117	0	0	230	0	0	230
2020	135	389	692	202	0	1,418	-	-	29	16	0	45						
2021 ^{d/}	262	358	212	75	33	940	-	-	7	10	50	67	0	0	1	14	0	15
<u>La Push</u>																		
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
2006-2010	878	1,743	888	979	279	4,767	-	-	735	1,015	192	1,943	0	11	92	17	1	120
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	2,228	551	1,305	89	-	4,173	-	-	-	-	-	-						
2017	2,112	780	308	1,275	356	4,831	-	-	34	228	140	402	0	0	0	2	0	2
2018	1,174	94	297	1,119	524	3,208	-	-	41	181	266	488						
2019	529	61	1,838	2,373	1,584	6,385	-	-	313	633	344	1,290	0	0	230	0	0	230
2020	207	535	2,386	1,402	117	4,647	-	-	29	126	49	204						
2021 ^{d/}	410	232	978	1,314	321	3,255			61	235	121	417	0	0	1	15	0	16

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
			CHIN	OOK					CC	OHO					PIN	KS		
Westport																		
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
2006-2010	3,210	5,077	1,641	1,472	128	11,529	-	-	800	1,478	685	2,963	0	2	1	2	0	į
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	3,258	2,619	1,981	1,866	-	9,724	-	-	-	-	-	-						
2017	10,793	6,092	2,340	1,852	100	21,177	-	-	134	309	81	524	0	0	0	0	0	(
2018	2,682	7,518	2,457	281	3	12,941	-	-	125	225	16	366						
2019	1,803	341	65	49	81	2,339	-	-	226	368	737	1,331	0	0	23	0	0	2
2020	136	251	4,191	1,257	32	5,867	-	-	164	172	37	373						
2021 ^{d/}	1,870	6,612	4,357	1,751	154	14,744	-	-	483	826	1,454	2,763	0	0	2	0	0	2
<u>llw aco</u>																		
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	-	-	-	(
2001-2005	398	110	357	355	121	1,293	-	-	278	405	502	929	0	0	11	1	0	13
2006-2010	527	343	48	72	16	1,003	-	-	207	840	37	1,084	0	0	0	0	0	(
2011	472	543	1	12	4	1,032	-	-	1	25	12	38	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	(
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	(
2016	656	346	259	398	-	1,659	-	-	-	-	-	-						
2017	148	222	74	21	109	574	-	-	14	50	67	131	0	0	0	0	0	(
2018	20	68	20	19	4	131	-	-	32	1	-	33						
2019	139	26	36	28	0	229	-	-	161	98	0	259	0	0	0	2	0	:
2020	147	132	0	88	11	378	-	-	0	0	15	15						
2021 ^{d/}	24	77	2	33	10	146	_	_	0	43	80	123	0	0	0	0	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
	-		CHIN	OOK					CC	OHO					PIN	IKS		
Statewide T	<u>otal</u>																	
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
2006-2010	5,656	7,782	2,734	2,729	517	19,418	-	-	1,879	3,400	924	6,203	5	17	101	19	1	141
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	7,090	4,310	3,584	2,360	-	17,344	-	-	-	-	-	-						
2017	13,504	7,468	5,780	5,306	875	32,933	-	-	231	769	368	1,368	0	0	10	3	0	13
2018	6,673	9,010	5,458	1,702	713	23,556	-	-	447	457	388	1,292						
2019	3,901	3,044	11,430	2,669	1,732	22,776	-	-	1,638	1,158	1,201	3,997	0	0	483	2	0	485
2020	625	1,307	7,269	2,949	160	12,310	-	-	222	314	101	637						
2021 ^{d/}	2,566	7,279	5,549	3,173	518	19,085	-	_	551	1,114	1,705	3,370	0	0	4	29	0	33

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	v Indian ocean troll salmon fishi	na effort in deliveries b	v catch area and month.	(Page 1 of 2)

TABLE A-14	. Treat	ty Indian oc	ean troll salı	mon fishing	effort in del	iveries by ca	tch area a	nd month. (Page 1 of 2)	
Year or									Tota	al
Avg.	JanApr.	May	June	July	Aug.	Sept.	Oct.	NovDec.	May-Sept.	Year
Area 4B										
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
2006-2010	96	44	122	50	55	6	_	58	276	430
2000-2010	303	68	51	7	1	0		22	127	452
							-			
2012	182	75	78	67	16	8	-	29	244	455
2013	270	141	74	64	46	13	-	124	338	732
2014	419	45	167	6	6	6	-	34	230	683
2015	384	255	173	4	40	28	-	7	500	891
2016	35	167	40	22	27	2	-	34	258	327
2017	149	9	57	19	22	25	-	3	132	284
2018	93	73	114	86	21	22	_	26	316	435
2019	100	49	33	28	5	2	_	13	117	230
2020	68	0	0	10	14	1	_	0	25	93
2021 ^{b/}	18	21	84	116	19	3	_	0	243	261
2021	10	۷1	04	110	19	3	-	U	243	201
Neah Bay										
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
2006-2010	1	27	95	98	106	44	-	0	369	370
2011	0	24	130	122	95	21	-	0	392	392
2012	0	56	175	134	190	94	-	0	649	649
2013	0	131	106	270	495	107	-	0	1,109	1,109
2014	0	103	62	141	137	36	_	0	479	479
2015	0	24	173	143	85	22	_	0	447	447
2016	0	12	171	105	57	0	_	0	345	345
2017	0	15	29	293	320	139	_	0	796	796
2017	0	21	133	185	108	80		0	527	527
							-			
2019	0	11	36	327	255	105	-	0	734	734
2020	0	0	0	13	101	27	-	0	141	141
2021 ^{b/}	0	3	12	14	69	63	-	0	161	161
<u>La Push^{b/}</u>										
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
2006-2010	0	2	10	7	10	2	3		31	34
								-		
2011	0	0	3	0	3	2	1	-	8	9
2012	0	8	3	5	12	2	4	-	30	34
2013	0	6	18	30	13	35	0	-	102	102
2014	0	41	61	304	253	82	0	-	741	741
2015	0	38	23	205	115	54	0	-	435	435
2016	0	21	15	4	1	0	0	-	41	41
2017	0	0	1	2	3	2	0	-	8	8
2018	0	0	1	0	0	3	0	-	4	4
2019	0	0	0	0	2	5	0	_	7	7
2020	0	0	0	0	1	0	0	_	1	1
2020 2021 ^{b/}	0	0	0	4	8	0	0	-	12	12
ZUZ I	U	U	U	4	0	U	U	-	ΙZ	12

TABLE A 44	Tracty Indian according	ll a alman fiahina .	offert in deliveries	by catch area and month.	(Dogo 2 of 2)
IABLEA-14.	Treaty Indian ocean tro	II saimon fishind (errort in deliveries	ov calch area and month.	(Page 2 of 2)

Year or	r. Heaty IIIdi		IOII SAIITIOITTI			o by caton c	area and n		Tot	 al
Avg.	JanApr.	May	June	July	Aug.	Sept.	Oct.	NovDec.	May-Sept.	Year
Westport									, ,	
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
2006-2010	0	3	11	14	21	5	-	-	55	55
2011	0	0	8	23	41	1	-	-	73	73
2012	0	5	13	8	11	0	-	-	37	37
2013	0	1	8	5	29	4	-	-	47	47
2014	0	7	5	14	23	28	-	-	77	77
2015	0	7	11	37	21	0	-	-	76	76
2016	0	4	7	10	5	0	-	-	26	26
2017	0	3	3	3	12	6	-	-	27	27
2018	0	5	7	1	16	5	-	-	34	34
2019	0	5	3	10	14	8	-	-	40	40
2020	0	1	2	6	6	3	-	-	18	18
2021 ^{b/}	0	4	4	1	5	10	-	-	24	24
<u>Statewide</u>										
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
2006-2010	97	77	238	169	191	57	3	58	732	889
2011	303	92	192	152	140	24	1	22	600	926
2012	182	144	269	214	229	104	4	29	960	1,175
2013	270	279	206	369	583	159	0	124	1,596	1,990
2014	419	196	295	465	419	152	0	34	1,527	1,980
2015	384	324	380	389	261	104	0	7	1,458	1,849
2016	35	204	233	141	90	2	0	34	670	739
2017	149	27	90	317	357	172	0	3	963	1,115
2018	93	99	255	272	145	110	0	26	881	1,000
2019	100	65	72	365	276	120	0	13	898	1,011
2020	68	1	2	29	122	31	0	0	185	253
2021 ^{b/}	18	28	100	135	101	76	0	0	440	458

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					_		6/		Tota						_	_	h/	_	Tot	
Avg.	JanApr.	May	June	July	Aug.	Sept.	Oct.b/	NovDec	. May-Sept.	Year	JanApr.	May	June	July	Aug.	Sept.	Oct. ^{b/} N	ovDec.	May-Sept.	Year
A === 4D					CHIN	NOOK										соно				
<u>Area 4B</u> 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	0	1,221	132	-	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
2006-2010	1,009	476	2,140	398	504	42	_	488	3,559	5,056	0	0	2	1,020	1,018	27	_	3	2,068	2,071
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	1,661	1,989	2,468	223	383	10	-	721	5,073	7,455	3	0	0	378	454	354	-	10	1,186	1,199
2014	3,316	819	3,051	20	22	12	-	267	3,924	7,507	3	0	0	12	24	19	-	0	55	58
2015	3,249	4,142	4,283	47	135	73	-	17	8,680	11,946	0	0	0	0	249	190	-	2	439	441
2016	244	1,758	239	135	84	5	-	182	2,221	2,647	0	0	0	8	10	0	-	0	18	18
2017	1,343	68	712	452	56	92	-	11	1,380	2,734	0	0	0	48	51	288	-	0	387	387
2018	798	727	2,363	511	94	54	-	129	3,749	4,676	0	0	3	192	222	239	-	0	656	656
2019	1,001	503	603	700	8	5	-	70	1,819	2,890	0	0	0	173	59	7	-	0	239	239
2020	661	0	0	93	74	8	-	0	175	836	0	0	0	239	396	12	-	0	647	647
2021 ^{a/}	88	182	1,630	3,147	340	8	-	0	5,307	5,395	0	0	0	475	507	436	-	0	1,418	1,418
Neah Bay																				
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
2006-2010	12	820	6,616	3,445	4,610	1,765	-	7	17,256	17,276	4	3	26	10,833	10,955	4,670	-	0	26,487	26,490
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	6,995	2,073	-	0	39,673	39,673	0	0	0	6,955	33,559	3,847	-	1	44,361	44,362
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	0	372	12,687	4,342	1,036	0	-	1	18,437	18,438	0	0	0	15	0	0	-	1	15	16
2017	0	1,099	1,297	15,296	4,316	589	-	0	22,597	22,597	0	0	0	833	6,811	4,363	-	0	12,007	12,007
2018	0	521	9,216	7,952	1,604	397	-	0	19,690	19,690	0	0	12	1,559	4,781	3,972	-	0	10,324	10,324
2019	0	186	1,492	11,589	2,709	224	-	0	16,200	16,200	0	0	0	13,981	31,842	5,979	-	0	51,802	51,802
2020	0	0	0	290	1,500	44	-	0	1,834	1,834	0	0	0	348	10,377	2,723	-	0	13,448	13,448
2021a/	0	29	386	532	1,062	167	-	0	2,176	2,176	0	0	0	517	12,700	8,616	-	0	21,833	21,833

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							F-1		Tot								F./		Tot	
Avg.	JanApr.	May	June	July	Aug.	Sept.	Oct. ^{b/}	NovDec	. May-Sept.	Year	JanApr.	May	June	July	Aug.	Sept. COHO	Oct. ^{b/} No	ovDec.	May-Sept.	Year
La Push					CHIP	NOOK										COHO				
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
2006-2010	0	46	1,008	408	570	103	10	-	2,134	2,145	0	0	0	244	1,191	124	7	-	1,560	1,567
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	1,197	207	794	0	-	5,846	5,846	0	0	7	370	1,176	127	0	-	1,680	1,680
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	0	641	555	256	4	0	0	-	1,456	1,456	0	0	0	0	0	0	1	-	0	1
2017	0	0	10	5	4	30	0	-	49	49	0	0	0	8	14	167	0	-	189	189
2018	0	0	25	0	0	3	0	-	28	28	0	0	0	0	0	17	0	-	17	17
2019	0	0	0	0	14	23	0	-	37	37	0	0	0	0	123	219	0	-	342	342
2020	0	0	0	0	27	0	0	-	27	27	0	0	0	0	5	0	0	-	5	5
2021 ^{a/}	0	0	0	81	256	0	0	-	337	337	0	0	0	45	1,578	0	0	-	1,623	1,623
<u>Westport</u>																				
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
2006-2010	0	41	198	240	223	147	-	-	849	849	0	0	10	208	999	342	-	-	1,559	1,559
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	56	331	25	-	-	568	568	0	0	0	19	974	48	-	-	1,041	1,041
2014	0	350	205	592	652	59	-	-	1,858	1,858	0	0	15	95	265	249	-	-	624	624
2015	0	109	691	1,634	744	0	-	-	3,178	3,178	0	0	3	105	107	0	-	-	215	215
2016	0	134	271	396	186	0	-	-	987	987	0	0	0	6	5	0	-	-	11	11
2017	0	86	20	19	229	34	-	-	388	388	0	0	0	114	274	379	-	-	767	767
2018	0	71	152	23	185	5	-	-	436	436	0	0	0	0	509	296	-	-	805	805
2019	0	120	15	25	58	47	-	-	265	265	0	0	0	260	1,794	1,068	-	-	3,122	3,122
2020	0	8	23	239	117	14	-	-	401	401	0	0	0	0	86	205	-	-	291	291
2021 ^{a/}	0	210	128	1	10	58	-	-	407	407	0	0	0	2	210	1,325	-	-	1,537	1,537

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									Tota	al									Tota	al
Avg.	JanApr.	May	June	July	Aug.	Sept.	Oct.b/	NovDec	. May-Sept.	Year	JanApr.	May	June	July	Aug.	Sept.	Oct.b/ N	ovDec	May-Sept.	Year
					CHI	NOOK										СОНО				
State wide	<u>Total</u>																			
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
2006-2010	1,021	1,382	9,962	4,491	5,907	2,056	10	495	23,799	25,325	4	4	39	12,304	14,163	5,163	7	3	31,673	31,687
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	1,661	11,929	19,103	9,310	7,916	2,902	0	721	51,160	53,542	3	0	7	7,722	36,163	4,376	0	11	48,268	48,282
2014	3,316	12,608	17,002	20,643	8,793	2,715	0	267	61,761	65,344	3	0	30	10,405	39,231	6,369	0	0	56,035	56,038
2015	3,249	7,315	23,697	23,110	4,031	786	0	17	58,939	62,205	0	0	3	1,994	1,307	706	0	2	4,010	4,012
2016	244	2,905	13,752	5,129	1,310	5	0	183	23,101	23,528	0	0	0	29	15	0	1	1	44	46
2017	1,343	1,253	2,039	15,772	4,605	745	0	11	24,414	25,768	0	0	0	1,003	7,150	5,197	0	0	13,350	13,350
2018	798	1,319	11,756	8,486	1,883	459	0	129	23,903	24,830	0	0	15	1,751	5,512	4,524	0	0	11,802	11,802
2019	1,001	809	2,110	12,314	2,789	299	0	70	18,321	19,392	0	0	0	14,414	33,818	7,273	0	0	55,505	55,505
2020	661	8	23	622	1,718	66	0	0	2,437	3,098	0	0	0	587	10,864	2,940	0	0	14,391	14,391
2021 ^{a/}	88	421	2,144	3,761	1,668	233	0	0	8,227	8,315	0	0	0	1,039	14,995	10,377	0	0	26,411	26,411

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)

(Page 1 of 2)		•		• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •				
Year or									Tot	
Avg. ^{a/}	JanApr.	May	June	July	Aug.	Sept.	Oct.	NovDec.	May-Sept.	Year
<u>Area 4B</u>										
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
2017	0	0	0	1	1	0	-	0	2	2
2019	0	0	0	9	10	0	-	0	19	19
2021 ^{b/}	0	0	0	0	0	0	-	0	0	0
Neah Bay										
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
2017	0	0	0	60	133	0	-	0	193	193
2019	0	0	0	243	270	0	_	0	513	513
2021 ^{b/}	0	0	0	8	31	0	-	0	39	39
<u>La Push</u>										
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				1			-		
2003	0	0	0	0	1 14	0	0	-	1	1
		0	0	0		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
2017	0	0	0	0	0	0	0	-	0	0
2019	0	0	0	0	0	0	0	-	0	0
2021 ^{b/}	0	0	0	0	0	0	0	-	0	0

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	/								To	tal
Avg. ^{a/}	JanApr.	May	June	July	Aug.	Sept.	Oct.	NovDec.	May-Sept.	Year
Westport										
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
2017	0	0	0	0	0	0	-	-	0	0
2019	0	0	0	0	0	0	-	-	0	0
2021 ^{b/}	0	0	0	0	0	0	-	-	0	0
Total State	wide									
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
2017	0	0	0	61	134	0	0	0	195	195
2019	0	0	0	243	270	0	0	0	513	513
2021 ^{b/}	0	0	0	17	41	0	0	0	58	58

a/ Odd year averages only.

b/ Preliminary.

TABLE A-17.	Washing	ton ocean recre	eational salmo	n fishing effort i	in angler trips b	y port and statis	tical month.	(Page 1 of 3)
Year or								
Avg.	Apr.	May	June	July	Aug.	Sept.	Oct.	Season
Neah Bay								
1981-1985	80	557	979	9,338	13,391	3,382	126	27,495
1986-1990 ^{a/}	-	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	-	-	-	3,462	5,345	1,098	-	8,301
2001-2005	-	576	1,447	10,063	7,081	1,199	-	19,326
2006-2010	-	-	869	5,631	5,132	775	-	12,233
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	-	-	-	7,504	751	-	-	8,255
2017	-	-	386	7,874	2,037	494	-	10,791
2018	-	-	1,169	5,989	1,499	0	-	8,657
2019	-	-	2,527	5,150	1,987	400	-	10,064
2020 ^{d/}	-	-	1,322	4,700	768	-	-	6,790
2021 ^{b/d/}	-	-	1,939	6,668	1,775	516	-	10,899
<u>La Push</u>								
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
2006-2010	-	-	236	971	1,786	600	132	3,679
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	-	-	-	702	387	-	-	1,089
2017	-	-	82	465	1,005	348	-	1,901
2018	-	-	80	400	1,408	20	-	1,908
2019	-	-	124	530	1,114	294	240	2,301
2020 ^{d/}	-	-	0	17	146	63	-	225
2021 ^{b/d/}	-	-	0	539	797	265	-	1,601

TABLE A-17. Washington ocean recreational salmon fishing effort in angler trips by port and statistical month. (Page 2 of 3)

Avg.	Apr.	May	June	July	Aug.	Sept.	Oct.	Season
		,						
Westport		0.007	00.440	04.470	00.470	0.000	000	70 700
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
2006-2010	-	-	3,753	9,769	13,773	3,296	-	29,090
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	-	-	-	9,587	8,253	-	-	17,840
2017	-	-	-	13,216	12,780	-	-	25,997
2018	-	-	-	8,019	14,110	390	-	22,519
2019	-	-	1,604	9,823	10,178	1,788	-	23,393
2020 ^{d/}	-	-	676	7,937	6,205	3,278	-	18,097
2021 ^{b/d/}	-	-	1,752	9,577	9,599	3,987	-	24,915
llw aco ^{c/}								
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	_	_	, <u>-</u>	4,775	7,041	3,037	-	12,683
2001-2005	_	215	781	12,573	23,125	7,773	_	43,983
2006-2010	-	-	509	7,034	17,717	1,946	-	26,612
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	_		_,	7,666	16,587	-,	_	24,254
2017	_	_	388	8,532	13,844	_	_	22,765
2018	_	_	1,195	5,098	7,979	613	_	14,884
2019	_	_	2,396	10,576	15,602	1,335	_	29,909
2020 ^{d/}	_	_	610	8,163	10,002	1,000	_	8,773
2020 2021 ^{b/d/}	-	-	1,299	9,247	- 17,910	-	-	28,456

TABLE A-17. Washington ocean recreational salmon fishing effort in angler trips by port and statistical month. (Page 3 of 3)

Year or								
Avg.	Apr.	May	June	July	Aug.	Sept.	Oct.	Season
Statewide Tot	tal ^{c/}							_
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	-	1,258	4,140	48,319	36,915	16,837	714	104,949
1996-2000	-	-	-	15,695	21,407	4,496	-	38,459
2001-2005	-	2,711	6,245	42,497	47,179	14,601	132	109,947
2006-2010	-	-	4,302	23,405	38,408	6,228	132	71,614
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	-	-	-	25,458	25,978	-	-	51,437
2017	-	-	857	30,088	29,666	842	-	61,453
2018	-	-	2,444	19,506	24,995	1,023	-	47,968
2019	-	-	6,651	26,079	28,881	3,816	240	65,667
2020 ^{d/}	-	-	2,609	20,816	7,119	3,341	-	33,885
2021 ^{b/d/}	-	-	4,990	26,031	30,080	4,768	-	65,870

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).

d/ The ports of Neah Bay and La Push were closed to public access in 2020 due to the COVID-19 pandemic. In 2021, Neah Bay remained closed to public access and La Push opened to public access July 12. Effort shown in this table includes effort that occurred in the adjacent catch areas and originated from Sekiu during periods Neah Bay and La Push remained closed to public access.

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
				CHINO	OK							COH	Ю			
Neah Bay																
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	2,587	358	35	-	2,478	-	-	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
2006-2010	-	-	186	1,145	810	52	-	2,162	-	-	138	3,012	3,013	361	-	6,478
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	-	-	-	3,011	255	-	-	3,266	-	-	-	30	23	-	-	53
2017	-	-	244	6,134	856	54	-	7,287	-	-	45	1,767	1,214	507	-	3,533
2018	-	-	352	2,269	420	-	-	3,041	-	-	548	3,170	1,221	-	-	4,939
2019	-	-	1,474	2,385	-	-	-	3,859	-	-	754	3,344	1,764	318	-	6,179
2020 ^{c/}	-	-	551	1,400	49	-	-	2,000	-	-	50	2,381	624	-	-	3,055
2021 ^{c/d/}	-	-	633	3,542	215	28	-	4,417	-	-	4	1,144	1,027	442	-	2,618
<u>La Push</u>																
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
2006-2010	-	-	40	222	529	141	48	972	-	-	100	752	1,642	194	27	2,654
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	-	-	-	221	34	-	-	255	-	-	-	3	2	-	-	5
2017	-	-	7	209	229	37	-	482	-	-	13	159	1,155	423	-	1,750
2018	-	-	26	102	297	2	-	427	-	-	25	94	814	21	-	954
2019	-	-	10	216	190	33	164	613	-	-	2	336	1,095	318	16	1,767
2020 ^{c/}	-	-	0	13	4	0	_	17	-	-	0	5	166	23	-	194
2021 ^{c/d/}	_	_	0	225	92	12	_	329	-	_	0	271	867	209	_	1,347

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)

Page 1	TABLE A-18.	Washingto	n ocean	recreationa	al Chinook	and coho	salmon land	lings in n	umbers of f	ish by port of	f landing a	and statist	ical month.	(Page 2 o	of 3)		
Weshport Weshport	Year or Avg.	Apr.	May	June	July	Aug.	Sept.	Oct.	Season	Apr.	May	June	July	Aug.	Sept.	Oct.	Season
1881-1985					CHIN	OOK							COH	Ю			
1886-1990	Westport																
1991-1995 -	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
1996-2000 -	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
2001-2005 - 2,313	1991-1995	-	-	1,911	3,062	2,764	1,496	213	7,853	-	-	6,781	24,170	19,803	8,578	322	54,327
2006-2010 -	1996-2000	-	-	-	1,908	1,667	585	-	3,544	-	-	-	8,644	9,155	1,241	-	17,062
2011	2001-2005	-	2,313	4,117	9,698	7,559	2,200	-	11,440	-	5	1,074	12,899	14,113	7,057	-	33,518
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 - 13,869 - 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 5 54,474 2015 - 431 3,345 8,048 4,613 2,682 - 19,120 - 2,2357 12,753 7,358 8,216 - 30,684 2016 4,247 2,358 6,605 6,605 6,664 9,086 - 15,750 2018 4,247 2,358 6,605 6,605 6,664 9,086 15,750 2018 126 1,163 959 121 - 2,358 6,605 6,664 9,086 15,370 2019 126 1,163 959 121 - 2,358 3,411 7,878 10,930 1,077 - 20,227 2020° 126 1,163 959 121 - 2,368 6,818 1,488 1,414 2,488 1,414 2,488 1,414 2,488 1,488	2006-2010	-	-	2,327	4,255	4,317	576	-	10,544	-	-	205	5,254	12,050	3,727	-	21,155
2013	2011	-	-	2,220	5,579	10,835	455	-	19,089	-	-	229	4,499	6,723	2,392	-	13,843
2014	2012	-	-	7,574	4,033	6,709	1,170	-	19,486	-	-	184	3,124	3,375	5,241	-	11,924
2015	2013	-	-	2,192	3,403	7,021	1,074	-	13,689	-	-	379	3,097	12,233	4,668	-	20,377
2016	2014	-	427	3,935	8,190	9,944	970	-	23,466	-	-	5,935	17,687	17,874	12,979	-	54,474
2017 - 4,247	2015	-	431	3,345	8,048	4,613	2,682	-	19,120	-	-	2,357	12,753	7,358	8,216	-	30,684
2018	2016	-	-	-	4,198	4,232	-	-	8,430	-	-	-	30	13	-	-	43
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2017	-	-	-	4,247	2,358	-	-	6,605	-	-	-	6,664	9,086	-	-	15,750
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2018	-	-	-	2,537	2,307	32	-	4,877	-	-	-	1,638	13,496	236	-	15,370
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	2019	-	-	126	1,163	959	121	-	2,368	-	-	341	7,878	10,930	1,077	-	20,227
$\frac{\ \text{Waco}^{d'} \ }{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 2006-2010 - - 197 869 2,091 128 - 3,181 - - 222 9,143 21,337 1,397 - 31,731 2011 - - 1,793 2,200 2,691 730 - 7,414 - - 196 3,057 4,421 2,045 - 9,719 2012 - - 1,793 2,200 2,691 730 - 7,414 - - 196 3,057 4,421 2,045 - 9,719 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 - - - 319 2,191 3,153 - - 5,663 - - 2,563 - - 4,692 11,266 - - 15,958 2018 - - - 1,509 - - 1,509 - - - 1,505 2019 - - - 1,509 - - - 1,438 16,997 1,361 - 3,6251 2019 - - - 2,007 1,338 3,888 84 - 2,743 - - - 3,507 14,386 16,997 1,361 - 3,6251 2019 - - - 2,008 4,659 - - - - 9,108 - - - - 9,108 - - - - - - - - - $	2020 ^{c/}	-	-	51	2,750	1,538	479	-	4,818	-	-	-	2,484	3,105	2,304	-	7,893
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 2011 - - 352 808 4	2021 ^{c/d/}	-	-	920	3,929	1,792	413	-	7,054	-	-	17	2,448	11,412	6,787	-	20,665
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 2011 - - 352 808 4																	
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 2006-2010 - - 197 869 2,091 128 - 3,181 - - 222 9,143 21,337 1,397 - 31,731 2011 - 1,793 2,200 2,691																	
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$\begin{array}{cccccccccccccccccccccccccccccccccccc$		-	111		,			-	-	-	-			*		-	
2001-2005 - 53 664 1,814 3,895 826 - 6,944 - - 522 18,205 29,244 8,022 - 55,784 2006-2010 - - 197 869 2,091 128 - 3,181 - - 222 9,143 21,337 1,397 - 31,731 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 <		-	-	86				-	-	-	-	2,733	*	*	-	-	
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$\begin{array}{cccccccccccccccccccccccccccccccccccc$		-	-			•		-		-	-		*	*		-	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		-	-		•			-		-	-		•			-	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		-		-	-			-		-	-		•	*	-	-	
2016 - - 2,088 2,868 - - 4,957 - - - 4,692 11,266 - - 15,958 2017 - - 319 2,191 3,153 - - 5,663 - - 30 5,724 9,301 - - 15,055 2018 - - 455 507 586 21 - 1,569 - - 258 4,679 8,422 88 - 13,447 2019 - - 237 1,533 888 84 - 2,743 - - 3,507 14,386 16,997 1,361 - 36,251 2020°/ - - 208 465 - - 673 - - - 9,108 - - - 9,108		-						-	9,041	-	-					-	
2017 - - 319 2,191 3,153 - - 5,663 - - 30 5,724 9,301 - - 15,055 2018 - - 455 507 586 21 - 1,569 - - 258 4,679 8,422 88 - 13,447 2019 - - 237 1,533 888 84 - 2,743 - - 3,507 14,386 16,997 1,361 - 36,251 2020°/ - - 208 465 - - 673 - - 9,108 - - 9,108		-	61	957	,		2,140	-	-	-	-	2,607		*	5,022	-	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		-	-	-		•	-	-		-	-		•	•	-	-	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		-	-		,		-	-		-	-		•	•	-	-	
$2020^{c/} \qquad - \qquad - \qquad 208 \qquad 465 \qquad - \qquad - \qquad - \qquad 673 \qquad - \qquad - \qquad - \qquad 9,108 \qquad - \qquad - \qquad - \qquad 9,108$	2018	-	-	455	507	586	21	-		-	-		4,679	8,422	88	-	13,447
· · · · · · · · · · · · · · · · · · ·		-	-	237	1,533	888	84	-		-	-	3,507	14,386	16,997	1,361	-	36,251
$2021^{c/d/} \qquad - \qquad - \qquad 434 \qquad 1,157 \qquad 2,586 \qquad - \qquad - \qquad 4,177 \qquad - \qquad - \qquad 147 \qquad 7,451 17,542 \qquad - \qquad - \qquad 25,140 \qquad - \qquad - \qquad 147 \qquad 17,542 \qquad - \qquad - \qquad - \qquad 147 \qquad 17,542 \qquad - \qquad - \qquad - \qquad 147 \qquad 17,542 \qquad - \qquad - \qquad - \qquad 147 \qquad 17,542 \qquad - \qquad - \qquad - \qquad 147 \qquad 17,542 \qquad - \qquad - \qquad - \qquad 147 \qquad 17,542 \qquad - \qquad - \qquad - \qquad 147 \qquad 17,542 \qquad - \qquad - \qquad - \qquad 147 \qquad 17,542 \qquad - \qquad - \qquad - \qquad 147 \qquad 17,542 \qquad - \qquad - \qquad - \qquad - \qquad 147 \qquad 17,542 \qquad - \qquad $		-	-	208	465	-	-	-		-	-	-	9,108	-	-	-	
	2021 ^{c/d/}	-	-	434	1,157	2,586	-	-	4,177	-	-	147	7,451	17,542	-	-	25,140

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
				CHINO	OOK							COH	Ю			
Total Statewic	de ^{e/}															
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	14,500	8,674	1,212	-	25,590	-	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
2006-2010	-	-	2,101	6,443	7,643	879	48	16,694	-	-	495	18,381	38,456	5,444	27	62,703
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	-	-	-	9,519	7,388	-	-	16,907	-	-	-	4,755	11,304	-	-	16,059
2017	-	-	569	12,781	6,596	91	-	20,037	-	-	88	14,314	20,755	930	-	36,087
2018	-	-	833	5,414	3,611	56	-	9,913	-	-	832	9,581	23,952	345	-	34,710
2019	-	-	1,847	5,297	2,037	238	164	9,583	-	-	4,603	25,944	30,786	3,075	16	64,425
2020 ^{c/}	-	-	810	4,627	1,592	479	-	7,508	-	-	50	13,978	3,895	2,327	-	20,250
2021 ^{c/d/}	-	_	1,987	8,853	4,684	453	-	15,976	-	_	168	11,315	30,848	7,439	_	49,769

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/ The ports of Neah Bay and La Push were closed to public access in 2020 due to the COVID-19 pandemic. In 2021, Neah Bay remained closed to public access and La Push opened to public access July 12. Catch shown in this table includes catch that occurred in the adjacent catch areas and was landed into Sekiu during periods Neah Bay and La Push remained closed to public access.

d/ Preliminary.

e/ 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)

(Page 1 of 2)								
Year or Avg. ^{a/}	Apr.	May	June	July	Aug.	Sept.	Oct.	Season
<u>Neah Bay</u>								
1977-1985	9	6	83	1,276	5,553	225	17	7,092
1987-1995 ^{b/}	-	0	3	804	1,279	151	-	2,044
1997-2005 ^{b/}	-	-	6	1,369	1,851	67	-	3,274
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
2017	-	-	1	368	299	7	-	676
2019	-	-	15	260	593	0	-	869
2021 ^{c/d/}	-	-	7	671	395	22	-	1,095
<u>La Push</u>								
1977-1985	0	0	14	175	896	2	0	1,084
1987-1995	-	0	0	26	50	8	-	54
1997-2005	-	_	4	174	141	8	0	321
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
2017	-	-	0	4	8	0	0	12
2019	-	_	0	41	165	0	0	206
2021 ^{c/d/}	-	-	0	22	52	4	-	78
Westport								
1977-1985	0	94	470	2,826	944	4	0	4,319
1987-1995	-	0	0	65	42	3	_	109
1997-2005	-	_	6	984	231	14	_	1,229
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
2017	_	-	0	36	9	0	_	45
2019	_	_	0	127	565	8	_	700
2021 ^{c/d/}	-	-	0	29	21	1	-	51

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. ^{a/}	Apr.	May	June	July	Aug.	Sept.	Oct.	Season
llw aco ^{e/}	•	•		•	9	·		
1977-1985	0	10	37	208	219	1	0	472
1987-1995	-	0	0	36	51	0	-	87
1997-2005	-	-	0	2	10	1	-	13
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
2017	-	-	0	0	0	0	-	0
2019	-	-	0	0	0	0	-	0
2021 ^{c/d/}	-	-	0	3	0	-	-	3
Total Statewid	e ^{e/}							
1977-1985	2	27	151	1,121	1,903	58	4	3,242
1987-1995	-	0	1	233	355	40	-	573
1997-2005	-	-	4	632	558	22	0	1,209
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
2017	-	-	1	407	316	7	0	732
2019	-	-	15	428	1,324	8	0	1,775
2021 ^{c/d/}	-	-	7	725	468	27	-	1,228

a/ Odd year averages only, includes five years of data.

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

c/ Preliminary

d/ In 2021, the port of Neah Bay was closed to public access and the port of La Push opened to public access July 12 due to the COV ID-19 pandemic. Catch show n in this table includes catch that occurred in the adjacent catch areas and was landed into Sekiu during periods Neah Bay and La Push remained closed to public access.

e/ 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)

(Page 1 of 2)							-	-			
Year or Avg.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Season
Cape Falcon to	Humbug	Mt. ^{a/}									
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
2006-2010	-	342	1,098	926	439	685	326	239	163	26	2,406
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	-	888	833	635	542	634	330	137	41	-	4,040
2017	-	106	183	391	655	-	88	137	41	-	1,601
2018	-	-	348	433	287	667	80	102	83	-	2,000
2019	-	49	134	342	912	389	104	187	-	-	2,117
2020	-	136	92	367	549	249	175	212	-	-	1,780
2021 ^{b/}	32	405	343	170	342	268	70	181	-	-	1,811
Humbug Mt. to 4	40°10′ Lir	ne (KMZ) ^{a/d}	c/								
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
2006-2010	-	6	26	138	63	68	212	80	20	-	310
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	-	7	13	47	8	-	59	52	-	-	186
2017	-	-	-	-	-	-	-	109	-	-	109
2018	-	-	167	351	286	255	-	115	-	-	1,174
2019	-	2	7	108	140	283	-	-	-	-	540
2020	-	1	3	47	72	-	-	-	-	-	123
2021 ^{b/}	1	2	4	55	56	-	-	-	-	-	118

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
40°10' Line to U	J.S./Mexic	co Border									
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
2006-2010	-	106	2,597	66	1,681	2,041	1,705	271	-	-	6,849
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	-	-	1,662	1,290	-	2,450	1,563	174	-	-	7,139
2017	-	-	874	1,210	-	2,610	1,811	220	-	-	6,725
2018	-	-	473	839	823	2,751	1,551	441	-	-	6,878
2019	-	-	3,872	4,370	3,091	2,794	1,108	251	-	-	15,486
2020	-	-	2,665	3,359	2,895	1,713	1,086	568	-	-	12,286
2021 ^{b/}	-	-	2,525	2,592	767	2,392	1,324	317	-	-	9,917
Total South of	f Cape F	alcon ^{a/}									
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
2006-2010	-	454	2,480	1,016	2,161	2,771	1,093	412	176	26	6,763
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	-	895	2,508	1,972	550	3,084	1,952	363	41	-	11,365
2017	-	106	1,057	1,601	655	2,610	1,899	466	41	-	8,435
2018	-	-	988	1,623	1,396	3,673	1,631	658	83	-	10,052
2019	-	51	4,013	4,820	4,143	3,466	1,212	438	-	-	18,143
2020	_	137	2,760	3,773	3,516	1,962	1,261	780	-	-	14,189
2021 ^{b/}	33	407	2,872	2,817	1,165	2,660	1,394	498	-	-	11,846
a/ Monthly total	ls for Ore							calendar i	month		<u> </u>

a/ Monthly totals for Oregon data are the sum of statistical w eeks w ith closest fit to the calendar month.

b/ Preliminary.

c/ $\ln 2021$, the southern boundary of the KMZ was officially moved five nautical miles north from Horse Mountain to latitude $40^{\circ}10'$ N.

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 1 of 2)

Year or Avg. <u>Cape Falcon to Hum</u> 1981-1985 1986-1990	Mar.	Apr.	May	June	July CHIN	Aug. OOK	Sept.	Oct.	Nov.	Dec.	Season	Mar.	Apr.	May	June	July	Aug. OHO	Sept.	Oct.	Nov.	Dec.	Seasor
1981-1985	nbug N	<u>⁄lt.^{a/}</u>			CHIN	OOK																
1981-1985	nbug N	/It														C	UHU					
	_																					
1986-1990	-	-	13,353	6,839	43,988	23,644	6,660	2,804	36	-	97,325	-	-	-	-	260,127	85,249	5,803	-	-	-	351,179
	-	-	41,012	45,376	139,455	85,332	29,901	21,111	,	-	363,282	-	-	-	40	294,074	95,999	20,776	-	-	-	410,889
1991-1995	-	-	12,499	18,016	19,956	36,499	16,827	14,191	453	-	118,442	-	-	-	91,249	105,911	8,382	-	19	-	-	205,560
1996-2000	-	-	21,687	28,657	13,880	38,164	17,769	,	1,002	-	128,498	-	-	-	8	-	-	-	-	-	-	8
2001-2005 14	4,799	25,358	50,107	41,488	20,877	50,745	49,102	32,580	1,307	148	269,227	-	-	-	-	-	-	-	-	-	-	
2006-2010	-	1,856	8,174	7,660	3,217	5,706	1,061	1,184	811	67	16,348	-	-	-	-	-	5,036	4,899	-	-	-	7,417
2011	-	4,481	7,901	10,401	699	1,012	337	1,093	1,995	-	27,919	-	-	-	-	-	-	-	-	-	-	
2012	-	3,633	14,533	7,357	1,785	8,771	13,677	8,756	701	-	59,213	-	-	-	-	-	-	-	-	-	-	
2013	-	7,373	9,093	5,987	5,331	38,535	28,251	8,424	1,002	-	103,996	-	-	-	-	-	-	-	-	-	-	
2014	-	15,501	35,389	28,560	18,326	66,600	8,851	2,072	469	-	175,768	-	-	-	-	-	-	3,296	-	-	-	3,296
2015	-	16,381	13,140	19,803	27,250	7,457	2,006	1,954	1,163	-	89,154	-	-	-	-	-	-	-	-	-	-	
2016	-	6,585	5,989	4,736	11,243	8,627	1,812	717	182	-	39,891	-	-	-	-	-	-	-	-	-	-	
2017	-	553	1,229	3,174	13,019	-	137	681	96	-	18,889	-	-	-	-	-	-	-	-	-	-	
2018	-	-	971	2,878	2,930	12,304	225	490	431	-	20,229	-	-	-	-	-	-	-	-	-	-	
2019	-	150	665	3,302	16,242	4,648	632	870	-	-	26,509	-	-	-	-	-	-	-	-	-	-	
2020	-	799	773	2,414	4,385	1,861	560	1,003	-	-	11,795	-	-	-	-	-	-	-	-	-	-	
2021 ^{b/}	229	2,383	2,105	841	4,656	5,111	367	1,243	-	-	16,935	-	-	-	-	934	1,154	-	-	-	-	
Humbug Mt. to 40°10	0' Line	e (KMZ) ^{a/c/}																				
1981-1985	-	-	31,261	13,370	26,577	44,460	10,089	3,495	1,113	-	130,365	-	-	3,527	7,183	25,915	17,370	803	0	-	-	51,270
1986-1990	-	-	5,509	55,976	9,956	17,966	8,453	770	1,460	-	100,090	-	-	-	11,960	2,350	51	565	0	-	-	14,926
1991-1995	-	-	265	-	1,682	234	4,510	927	-	-	7,618	-	-	-	-	-	-	3	0	-	-	(
1996-2000	-	-	1,064	-	-	1,589	3,232	696	-	-	6,580	-	-	-	-	-	-	-	-	-	-	
2001-2005	25	656	446	1,182	3,363	6,874	7,582	661	66	-	17,645	-	-	-	-	-	-	-	-	-	-	
2006-2010	-	15	95	727	601	825	4,587	391	92	-	3,676	-	-	-	-	-	-	-	-	-	-	
2011	-	-	601	254	1,611	1,144	-	107	-	-	3,717	-	-	-	-	-	-	-	-	-	-	
2012	-	0	371	1,287	1,456	1,328	6,115	118	-	-	10,675	-	-	-	-	-	-	-	-	-	-	
2013	-	50	2,695	4,374	5,545	3,856	319	155	-	-	16,994	-	-	-	-	-	-	-	-	-	-	
2014	-	53	13,352	1,349	492	403	674	443	-	-	16,766	-	-	-	-	-	-	-	-	-	-	
2015	-	39	1,146	1,528	779	92	46	639	-	-	4,269	-	-	-	-	-	-	-	-	-	-	
2016	_	12	34	179	21	-	196	152	-	-	594	-	-	-	_	-	_	_	_	-	-	
2017	_	-	-	-	_	-	-	329	-	-	329	-	-	-	_	-	_	_	_	-	-	
	_	_	1,209	4,006	2,988	4,391	-	316	_	_	12,910	_	_	_	_	-	_	_	_	_	_	
				,	,	,																
2018	_	12	16	799	1.945	4.957	-	-	-	-	7.729	-	-	-	-	-	-	-	-	-	-	
	-	12 1	16 5	799 168	1,945 651	4,957 -	-	-	-	-	7,729 825	-	-	-	-	-	-	-	-	-	-	

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	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. D	ec.	Season
40°10′ Line to	IIS /Movico	Pordor		C	HINOOK											C	OHO					
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	_	_	_	20,000	12,200	2,020	_	_	_	_	-0,323
2001-2005	_	_	81,370	73,618	122,399	52,345	39,885	1,905	_	_	371,521	_	_	_	_	_	_	_	_	_	_	_
2006-2010	_	748	23,255	274	22,499	15,994	12,744	712	_	_	63,398	_	_	_	_	_	_	_	_	_	_	_
2011	_	- 10	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	_	_	13,367	13,428	,020	18,334	9,271	589	_	_	54,989	_	_	_	_	_	_	_	_	_	_	_
2017	_	_	5,588	6,891	_	18,336	10,232	1,279	_	_	42,326	_	_	_	_	_	_	_	_	_	_	_
2018	-	-	4,566	14,859	13,096	23,927	10,926	2,031	_	_	69,405	-	-	_	_	_	-	_	_	-	_	-
2019	-	-	71,001	97,146	37,363	53,222	6,099	801	_	_	265,632	-	-	_	_	_	-	_	_	-	_	-
2020 ^{b/}	_	_	32,516	49,257	65,505	19,615	8,472	2,435	_	_	177,800	_	_	_	_	_	_	_	_	-	-	_
2021 ^{b/}	-	-	46,848	76,723	12,632	56,619	7,557	1,040	-	-	201,419	-	-	-	-	-	-	-	-	-	-	-
Total South of																						
1981-1985	-	31,016	139,724	83,407	199,475	125,855	34,284	-,	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	,	21,881	,	-	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	,	1,002	-	488,661	-	-	-	8	-	-	-	-	-	-	8
2001-2005	14,823	,	131,834	116,052	141,118	98,440	96,569	35,145		148	658,393	-	-	-	-	-	-	-	-	-	-	-
2006-2010	-	2,619	21,015	8,084	26,116	22,250	7,993	1,781	872	67	57,328	-	-	-	-	-	5,036	4,899	-	-	-	7,417
2011	-	4,481	20,234	14,844	32,395	21,650	2,157	1,517	,	-	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	,	-	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	,	-	203,884	-	-	-	-	-	-	-	-	-	-	-
2016	-	6,597	19,390	18,343	11,264	26,961	11,279	1,458	182	-	95,474	-	-	-	-	-	-	-	-	-	-	-
2017	-	553	6,817	10,065	13,019	18,336	10,369	2,289	96	-	61,544	-	-	-	-	-	-	-	-	-	-	-
2018	-	-	6,746	21,743	19,014	40,622	11,151	2,837	431	-	102,544	-	-	-	-	-	-	-	-	-	-	-
2019	-	162	71,682	101,247	55,550	62,827	6,731	1,671	-	-	299,870	-	-	-	-	-	-	-	-	-	-	-
2020 ^{b/}	-	800	33,294	51,839	70,541	21,476	9,032	3,438	-	-	190,420	-	-	-	-	-	-	-	-	-	-	-
2021 ^{b/}	231	2,385	48,966	77,839	17,420	61,730	7,924	2,283	-	-	218,778	-	-	-	-	934	1,154	-	-	-	-	-

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

b/ Preliminary

c/ In 2021, the southern boundary of the KMZ was officially moved five nautical miles north from Horse Mountain to latitude 40°10′ N.

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)

(Page 1 of 2)											
Year or Avg.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season
Cape Falcon to	Humbug Mt.	a/									
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
2006-2010	-	30	84	970	4,621	18,042	15,000	5,787	2,623	69	46,727
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	-	82	18	1,037	2,799	6,382	4,835	14,579	612		30,344
2017	-	17	60	500	1,916	10,057	9,383	9,343	453		31,729
2018	-	54	19	657	1,122	9,566	22,219	14,596	899		49,132
2019	-	43	8	410	6,273	32,385	24,824	9,660	1,581	-	75,184
2020	-	11	112	292	649	21,207	11,969	11,346	1,714	-	47,300
2021 ^{b/}	-	23	571	845	4,697	34,163	25,957	13,474	202	-	79,932
Humbug Mt. to 4	0°10′ Line (KMZ) ^{a/c/}									
1981-1985	0 10 Lilie (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
2006-2010	_	-	_	2,633	3,319	3,328	4,160	4,362	2,420	_	16,980
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	-	_	_	1,682	2,622	3,273	2,134	1,558	1,872	_	13,141
2017	_	-	_	-	-	-	, · -	-	2,012	_	2,012
2018	-	-	_	508	3,715	4,138	3,855	51	2,102	_	14,369
2019	_	_	_	496	3,507	4,611	3,308	147	-	_	12,069
2020 ^{b/d/}	_	_	_	-	1,624	7,786	1,820	-	_	_	11,230
2021 ^{b/}	_	-	_	_	2,336	4,562	1,216	_	_	_	8,114
'					_,•	-, -	.,				-,

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)

(Page 2 of 2)											
Year or Avg.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Season
40°10' Line to U		Border ^{c/}									
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
2006-2010	248	446	17,005	12,398	15,911	20,521	8,700	3,053	1,822	921	60,083
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	-	-	8,006	8,281	4,284	16,521	13,188	8,500	2,366	0	61,146
2017	-	-	10,105	5,000	6,574	22,590	19,358	8,496	1,851	0	73,974
2018	-	-	8,140	2,021	12,296	34,271	18,472	8,984	5,072	-	89,256
2019	-	-	17,350	5,579	18,173	22,923	23,219	6,925	1,821	-	95,990
2020 ^{b/d/}	-	-	-			25,967	16,753	7,739	4,264	147	54,870
2021 ^{b/}	-	-	12,287	8,838	10,047	27,814	16,236	8,239	2,430	-	85,891
Total South of	Cape Fal	con a/									
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
2006-2010	248	466	17,061	16,001	17,486	33,683	23,548	11,108	5,287	990	111,773
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	-	82	8,024	11,000	9,705	26,176	20,157	24,637	4,850		104,631
2017	-	17	10,165	5,500	8,490	32,647	28,741	17,839	4,316		107,715
2018	-	54	8,159	3,186	17,133	47,975	44,546	23,631	8,073		152,757
2019	-	43	17,358	6,485	27,953	59,919	51,351	16,732	3,402	-	183,243
2020 ^{b/c/}	-	11	112	292	2,273	54,960	30,542	19,085	5,978	147	113,400
2021 ^{b/}		23	12,858	9,683	17,080	66,539	43,409	21,713	2,632	_	173,937
a/ Monthly total	s for Orea	on data ar	e the sum	of statistica	al w eeks v	vith closes	t fit to the c	alendar mo	onth.		<u> </u>

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

b/ Preliminary

c/ In 2021, the southern boundary of the KMZ was officially moved five nautical miles north from Horse Mountain to latitude 40°10′ N.

d/ Recreational estimates for California do not include May and June due to restrictions on sampling caused by the COVID-19 pandemic.

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)

Page 14 Page	TABLE A-23.																						
	Year or Avg.	Feb.	Mar.	Apr.	May				Sept.	Oct.	Nov.	Season	Feb.	Mar.	Apr.	May	June			Sept.	Oct.	Nov.	Season
1981-1985						(CHINOOK											COHO)				
1986-1990 150 1,678 7,128 4,099 1,639 14,664 1,136 21,855 97,505 45,30 6,824 171,288 1991-1995 146 1,144 3,030 1,044 4,65 1,254 4,25 6,259 1,145 1,	Cape Falcon to	<u>Humbug</u>	Mt. ^{a/}																				
1991-1995 146 1.144 3.030 1.044 465 1.254 42 4.200 622 2186 87.76 25.74 31.92 9.71.69 1996-2000 107 142 1.987 1.233 738 503 36 4.726 6.20 21.86 87.76 25.74 31.92 1 - 5.127 2001-2005 - 3 1 107 142 1.987 1.233 738 503 36 4.726 6.20 21.86 87.76 25.74 31.92 1 - 5.127 2001-2005 - 3 1 2 72 204 196 48 48 51 180 21 1.335 1.335 1.302 1 2.246 1 1.01 1.01 1.00 1 1.00	1981-1985	-	-	-	55	787	6,327	3,518	642	42		11,326	-	-	-	2,321	18,010	62,626	40,922	4,706	-	-	119,511
1996-2000	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
2001-2005 - 3 61 626 3,544 13.052 7.832 4.085 1.338 31 30,121	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
2006-2010 3 2 72 204 996 643 651 609 33 3,161 - 2 2,240 14,112 10,849 606 5 - 27,810	1996-2000	-	-	-	107	142	1,987	1,233	738	503	36	4,726	-	-	-	-	-	8,452	42	12	1	-	5,127
2011	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
2012 - 21 108 530 687 858 2,258 2,791 506 8 7,767 - - - 55 2,251 4,927 6,965 - - 14,198	2006-2010	-	3	2	72	204	996	643	651	609	33	3,161	-	-	-	2	2,240	14,112	10,849	606	5	-	27,810
Part	2011	-	0	7	56	161	493	623	1,056	207	6	2,609	-	-	-	-	556	3,568	2,011	6,623	-	-	12,758
2014 - 10	2012	-	21	108	530	687		,	2,791	506	8	7,767	-	-	-	-	55	2,251	4,927	6,965	-	-	14,198
2015 - 30 8 151 267 401 376 2,814 1,454 - 5,501 458 11,841 2,557 4,426 22 - 19,304 2016 - 32 9 128 237 238 692 1,140 76 - 2,552 2,455 1,180 79 4,178 22 - 5,704 2017 - 0 6 89 139 508 807 592 39 - 2,180 363 3,772 3,940 4,590 4,590 - 14,665 2018 - 0 4 48 139 655 1,167 621 74 - 2,708 2,708 363 3,772 3,940 4,590 6 5 18,526 2019 - 10 3 103 550 2,430 725 682 256 - 4,739 3,805 27,301 12,366 5,070 5 - 48,547 2020 - 0 4 38 89 2,842 863 1,345 219 - 5,540 0,714 5,162 4,239 17,070 2021 1 3 10 3 174 604 2,665 1,053 863 9 5 5,516 5,516 0,714 5,162 4,239 1 10,766 2,782 2 1,78	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
2016	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
2017	2015	-	30	8	151	267	401	376	2,814	1,454		5,501	-	-	-	-	458	11,841	2,557	4,426	22	-	19,304
2018	2016	-	32	9	128	237	238	692	1,140	76		2,552	-	-	-	-	245	1,180	79	4,178	22	-	5,704
2019 - 10 3 103 530 2,430 725 682 256 - 4,739 3,805 27,301 12,366 5,070 5 - 48,547 2020 - 0 4 38 89 2,842 863 1,345 219 - 5,400 0 7,714 5,126 4,239 17,079 2021 - 12 136 174 604 2,665 1,053 863 9 - 5,516 0 3,781 7,814 2,911 10,766 4 - 78,282 Humbug Mt. to 40*10' Line (KMZ)*** 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 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 1,818 1,918 1,919 1,	2017	-	0	6	89	139	508	807	592	39		2,180	-	-	-	-	363	5,772	3,940	4,590	-	-	14,665
2020 - 0 4 38 89 2,842 863 1,345 219 - 5,400 0 7,714 5,126 4,239 17,079 2021 ^{b/} - 12 136 174 604 2,665 1,053 863 9 - 5,516 0 7,714 5,126 4,239 17,079 2021 ^{b/} 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 1,782 14,924 21,557 8,664 1,935 581 - 49,211 0 378 5,668 17,700 5,744 354 1 0 29,844 1986-1990 - 0 1 2,463 4,949 17,196 1,849 653 - 13,312 1,081 12,458 32,289 7,650 877 10 - 54,361 1991-1995 2 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 1,288 3,637 2,596 5,622 709 702 - 14,564 33 63 55 98 22 9 - 244 2001-2005 1,828 3,883 1,891 2,963 1,873 438 - 8,666 54 201 182 1117 38 8 - 588 206-2010 1,828 3,883 1,891 2,963 1,873 438 - 8,666 54 201 182 1117 38 8 - 588 206-2010 3,911 11,769 14,139 14,502 3,912 534 - 48,767 5 5 10 62 37 12 126 2013 2,585 12,329 16,247 11,996 459 814 - 44,430 5 50 176 48 - 2 2 276 60 2014 2,585 12,329 16,247 11,996 459 814 - 44,430 5 50 176 48 - 2 2 276 60 2014 1,444 3,5756 7,784 3,529 319 1,115 - 22,646 5 50 176 48 - 2 2 2 766 2014 2,585 12,329 16,247 11,996 459 814 - 44,430 5 5 10 60 9 9 3 849 2015 930 376 1,237 1,454 85 792 - 4,874 5 50 176 48 - 2 1 6 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	2018	-	0	4	48	139	655	1,167				,	-	-	-	-		,	8,581	6,936	-	-	18,526
Humbug Mt. to 40°10' Line (KMZ) alor 12 136 174 604 2,665 1,053 863 9 - 5,516 - 5 - 5 - 1,787 37,814 27,911 10,766 4 - 78,282	2019	-	10	3	103	530	2,430	725	682	256	-	4,739	-	-	-	-	3,805	27,301	12,366	5,070	5	-	48,547
Humbug Mt. to 40°10′ Line (KMZ) KMZ	2020	-	0	4	38	89	2,842	863	1,345	219	-	5,400	-	-	-	-	0	7,714	5,126	4,239	-	-	17,079
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 0 1,081 12,458 32,289 7,650 877 10 - 54,361 1991-1995 - 1 2,752 6,005 4,480 1,559 1,849 653 - 13,312 - 1 3 186,566 17,700 5,744 9,00 2 - 18,580 1996-2000 - 1 1,298 3,637 2,596 5,622 709 702 - 14,564 - 1 3 3 63 55 98 22 99 - 244 2001-2005 - 1 3,868 3,883 1,891 2,963 1,873 438 - 8,566 2006-2010 - 1 1,828 3,883 1,891 4,018 497 233 - 10,923 - 1 5 10 662 365 66 4 1,268 2011 - 1 1,769 14,139 14,502 3,912 534 - 48,767 - 1 5 10 62 37 12 12 12 12 12 12 14 14 14 14 14 14 14 14 14 14 14 14 14	2021 ^{b/}	-	12	136	174	604	2,665	1,053	863	9	-	5,516	-	-	-	-	1,787	37,814	27,911	10,766	4	-	78,282
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Humbug Mt. to	40°10' Lir	ne (KMZ) ^{a/c/}																			
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 1,1298 3,637 2,596 5,622 709 702 - 14,564 333 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 2066-2010 1,828 3,883 1,891 2,963 1,873 438 - 8,566 54 201 182 117 38 8 - 588 201 1 1,268 2011 1,268 2011 1,268 2011 1,268 2011 1 1,268 2011 1 1,769 14,139 14,502 3,912 534 - 48,767 55 10 62 37 12 126 2013 2,585 12,329 16,247 11,996 459 814 - 44,430 65 360 245 6 76 2014 4,413 5,756 7,784 3,259 319 1,115 - 22,646 22,646 13 112 5 1,863 2016 2 1 1 1 1,025 14,502 14,	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
1996-2000 1,298 3,637 2,596 5,622 709 702 - 14,564 333 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 2006-2010 1,828 3,883 1,891 2,963 1,873 438 - 8,566 93 301 662 365 66 4 - 1,268 2011 1,828 3,833 1,891 2,963 1,873 438 - 8,566 93 301 662 365 66 4 - 1,268 2011 1,828 3,833 1,891 2,963 1,873 438 - 8,566 93 301 662 365 66 4 - 1,268 2012 3,911 11,769 14,139 14,502 3,912 534 - 48,767 50 176 48 - 2 2 2 276 2013 2,585 12,329 16,247 11,996 459 814 - 44,430 65 360 245 - 6 6 6 6 6 6 7 6 6 7 6 7 6 7 7 8 8 7 8 7	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
2001-2005 - - 3,369 5,979 3,107 6,313 3,409 469 - 22,646 - - - 54 201 182 117 38 8 - 588 2006-2010 - - 1,828 3,883 1,891 2,963 1,873 438 - 8,566 - - 93 301 662 365 66 4 - 1,268 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 - - 5 10 62 37 12 - 276 2013 - - 2,585 12,329 16,247 11,996 459 814 -	1991-1995	-	-	-	2,752	6,005	4,480		1,849	653	-		-	-	-		8,173	15,356	2,224	900	2	-	18,580
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1996-2000	-	-	-	1,298	,	,	,	709	702	-		-	-	-	33	63	55	98	22	9	-	244
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 5 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 1,454 1,025 1,506 649 582 287 - 5,503 13 122 5 4 6 - 79 2017 105 1,863 1,320 1,583 31 429 - 5,331 5 56 2 23 45 120 2019 325 2,423 1,530 1,177 74 5,5529 186 408 103 697 2020 ^{b/c/} 566 2,518 382 3,466 3,466 18 18	2001-2005	-	-	-	3,369	5,979		6,313	•		-		-	-	-	54			117	38	8	-	
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 1,454 1,025 1,506 649 582 287 - 5,503 29 45 3 2 79 2017 105 1,863 1,320 1,583 31 429 - 5,331 5 566 2,518 382 120 2019 325 2,423 1,530 1,177 74 5,529 186 408 103 697 2020 ^{b/c/} 566 2,518 382 3,466 3,466 186 408 103 18	2006-2010	-	-	-	1,828	3,883		2,963	1,873		-		-	-	-		301				4	-	1,268
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2011	-	-	-	814	970		,	497		-		-	-	-	5	10	62	37	12	-	-	126
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 1,454 1,025 1,506 649 582 287 - 5,503 29 45 3 2 79 2017 506 2,518 382 5,529 186 408 103 186 2019 325 2,423 1,530 1,177 74 - 5,5529 186 408 103 697 2020 ^{b/c/} 566 2,518 382 33,466 34,874 186 408 103 18		-	-	-	- , -	,	,	,	,		-	,	-	-	-	-			48	-		-	
2015 930 376 1,237 1,454 85 792 - 4,874 13 122 5 4 6 - 150 2016 1,454 1,025 1,506 649 582 287 - 5,503 29 45 3 2 79 2017 105 1,863 1,320 1,583 31 429 - 5,331 5 52 23 45 120 2019 325 2,423 1,530 1,177 74 - 5,529 186 408 103 697 2020 ^{b/c/} 566 2,518 382 34,874 3,466 18 18	2013	-	-	-	2,585	12,329	16,247		459	814	-		-	-	-		65		245	-	6	-	676
2016 1,454 1,025 1,506 649 582 287 - 5,503 29 45 3 2 79 2017 105 1,863 1,320 1,583 31 429 - 5,331 5 5,529 5 5,529 186 408 103 697 2019 325 2,423 1,530 1,177 74 - 5,529 186 408 103 697 2020 ^{b/c/} 566 2,518 382 34,666 34,666 188 188	2014	-	-	-	,	5,756	7,784	3,259	319	1,115	-	22,646	-	-	-	22	119	696	9	3	-	-	849
2017 - - - - - - 506 - 506 -<	2015	-	-	-	930	376	1,237	1,454	85	792	-	4,874	-	-	-	-	13	122	5	4	6	-	150
2018 105 1,863 1,320 1,583 31 429 - 5,331 5 52 23 45 120 2019 325 2,423 1,530 1,177 74 5,529 186 408 103 697 2020 ^{b/c/} 566 2,518 382 3,466 1 18 18		-	-	-	1,454	1,025	1,506	649	582	287	-	5,503	-	-	-	-	29	45	3	2	-	-	79
2019 325 2,423 1,530 1,177 74 5,529 186 408 103 697 2020 ^{b/c/} 566 2,518 382 3,466 18 18	2017	-	-	-	-	-	-	-	-		-		-	-	-	-			-	-	-	-	-
2020 ^{b/c/} 566 2,518 382 3,466 18 18	2018	-	-	-	105	1,863	,	,	31	429	-	,	-	-	-	-	52	23	45	-	-	-	
		-	-	-	325	2,423	1,530	1,177	74	-	-	,	-	-	-	-	186	408	103	-	-	-	697
$2021^{\text{b/}} \qquad - \qquad - \qquad - \qquad 276 1,082 178 - \qquad - \qquad - \qquad 1,536 - \qquad - \qquad - \qquad - \qquad 450 130 195 - \qquad - \qquad - \qquad 775$		-	-	-	-	566		382	-	-	-		-	-	-	-		18	-	-	-	-	18
	2021 ^{b/}	-	-	-	-	276	1,082	178	-	-	-	1,536	-	-	-	-	450	130	195	-	-	-	775

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)

1981-1985 5.447 7.266 7.287 7.267 7.287 7.267 7.287 7.267 7.287 7.	Year or Avg.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.			Season		Mar.		May	June	July	Aug.	Sept.	Oct.	Nov.	Season
1981-1985 5.947 7.266 7.287 7.267 7.287 7.267 7.287 7.267 7.287 7.	•					(CHINOOK											COHO)				
1986-1990	40°10′ Line to U.S./Mexico Border ^{c/}																						
1991-1995	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
1996-2000 6 14,184 23,734 17,596 29,070 40,687 17,615 5,878 29,777 982 14,285 - 3 3 11 112 91 59 16 6 223 2000-2000 10 34 105 5,942 7,682 11,114 12,455 2,687 589 349 198 30,698 - 8 8 16 56 271 251 31 11 6188 2011 5,522 1,919 2,434 12,488 9,410 6,794 12,588 - 39,835 - 8 8 10 6 62 21 16 17 - 5 5 218 2012 - 18,786 11,141 12,455 2,687 589 349 198 30,698 - 8 8 10 6 62 21 116 17 - 5 5 218 2012 - 18,786 11,141 17,141 12,455 2,687 589 349 198 30,698 - 8 8 10 6 62 21 116 17 - 5 5 218 2012 - 18,786 11,141 17,141 12,455 2,687 589 349 198 30,698 4 3,698 4	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
2001-2005	1991-1995	484	11,136	21,564	15,561	27,663	,	,	8,925	4,451	159	161,502	0	9	23	260	3,128	5,839	733	142			10,159
2006-2010	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
2011 5,522 1,919 2,434 12,498 9,410 6,794 1,258 - 39,835 8 10 62 116 17 - 5 2 28 2012 18,786 11,146 17,027 23,897 6,897 4,385 2,994 160 84,482 3 3 14 14 - 3 3 - 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 5 4 4 30 163 124 2014 13,924 3,912 2,699 15,235 13,642 6,403 3,073 125 59,013 5 5 4 15 5 5 22,92 2016 3,024 1,889 2,305 5,433 26,241 18,809 4,260 851 0 62,197 3 3 - 4 18 44 445 2017 4,298 2,305 5,433 26,241 18,809 4,260 851 0 62,197 3 3 - 4 18 44 465 2018 16,780 3,163 18,565 20,891 19,965 3,671 468 - 83,503 5 76 4 48 8 9 3 2019 16,780 3,163 18,565 20,891 19,965 3,671 468 - 83,503 2 10 84 215 18 - 4 5 5 2020*** 2,102 2,002 4 10,099 4,002 15,52 2 - 5 4,640 2 10 84 215 18 - 4 5 5 2021*** 7,626 4,184 7,213 20,024 10,099 4,002 15,52 2 - 5 4,640 2 10 84 215 18 - 4 5 5 2020*** 7,626 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 10 23,519 1998-1999 5,630 15,288 26,365 11,939 35,527 57,176 30,621 11,009 4,508 18,508 19,509 23 722 22,857 67,713 12,805 2,319 26 - 10,6474 1999-2000 2 11,347 23,735 19,001 32,850 45,509 24,707 7,326 4,181 678 188,570 8 18 68 2,643 14,925 11,60 663 6 - 29,449 1999-2000 2 11,347 23,735 19,001 32,850 42,851 24,405 4,395 4,405 4,4	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
2012 - 18,766 11,146 17,027 23,897 6,987 4,385 2,094 160 84,482 3 3 14 14 14 - 3 3 - 3 4 2013 2013 - 13,926 11,337 15,729 29,204 8,554 2,167 1,359 87 82,093 1 3 4 86 4 124 2014 2014 - 13,924 3,912 2,699 15,235 13,642 6,403 3,073 125 59,013 4 4 30 163 197 2015 2016 - 3,024 1,893 3,154 8,510 7,435 8,197 1,577 0 33,790 1 25 59,013 5 5 4 15 5 5 2 29 2016 2016 2,030 4,239 1,522 1,1549 7,101 5,933 638 0 33,012 5 5 4 15 5 5 2 29 2016 2017 16,780 3,163 18,565 2,881 19,965 3,671 4,88 9 - 8,750 1 1 2 1,549 7,101 5,933 638 0 33,012 2 1 2 1 15 5 2 353 14 5 4 35 2019 2018 16,780 3,163 18,565 2,881 19,965 3,671 4,88 9 - 8,850 3 2 1 15 5 2 353 14 5 - 5 41 2020**********************************	2006-2010	34	105	5,942	7,682	11,114	12,435	2,667	589	349	196	30,698	-	-	8	56	271	251	31	11	-	-	618
2013	2011	-	-	5,522	1,919	2,434	12,498	9,410	6,794	1,258	-	39,835	-	-	8	10	62	116	17	-	5	-	218
2014 - 13,924 3,912 2,699 15,235 13,642 6,403 3,073 125 59,013 - 1 - 1 4 30 163 1 - 1 - 1 197 2015 - 3,024 1,893 3,154 8,510 7,435 8,197 1,577 0 33,790 - 1 5 4 15 5 - 1 2 29 2016 - 2,030 4,239 1,522 11,549 7,101 5,933 638 0 33,012 - 1 5 5 4 15 5 5 - 1 2 43 2017 - 1 4,298 2,305 5,433 26,241 18,809 4,260 851 0 62,197 - 1 5 5 76 4 8 4 8 - 1 4 8 8 1 20 2018 - 1 16,780 3,935 476 13,058 41,588 13,563 6,784 4,172 - 8,35,593 - 1 5 5 76 4 8 8 - 1 5 2 20 2019 - 1 16,780 3,183 18,665 20,891 19,965 3,671 468 - 83,503 - 1 5 2 115 5 5 2 353 14 5 5 - 541 2020 ^{21 10 1} - 7 7,626 4,184 7,213 20,024 10,069 4,002 1,522 - 54,640 - 1 5 2 10 5 2 20 115 5 2 353 14 5 5 - 541 2020 ^{21 10 1} - 7 7,626 7,239 10,162 19,039 42,513 27,290 9,875 6,070 1,419 136,819 0 1 2 1 1,919 17,153 81,228 46,969 4,158 30 0 151,479 1998-1990 5,630 15,288 26,385 11,939 35,527 57,176 30,621 11,409 4,588 1,319 199,862 0 1 5 56 2,202 35,623 132,177 53,953 6,489 18 0 230,519 1999-1995 484 11,136 21,564 17,908 3,811 58,321 19,472 10,860 5,475 140 179,043 0 9 23 722 22,857 67,713 12,805 2,319 26 - 106,474 2010 34 107 5,943 9,582 9,002 9,970 4,021 2,502 1,099 229 36,286 - 8 8 8 2,63 36 14,925 11,160 663 6 - 29,449 2011 - 0 5,529 2,789 3,565 17,382 14,618 187 18,088 6 5,367 - 8 8 18 5 628 3,746 2,065 6,635 5 - 13,402 2011 - 0 5,529 2,789 3,565 19,281 3,894 23,747 11,088 3,134 168 141,016 - 8 8 8 8 2,643 14,925 11,160 663 6 - 29,449 2013 - 257 18,894 15,879 2,948 38,894 23,747 11,088 3,134 168 141,016 - 8 8 8 8 2,643 14,925 11,160 663 6 6 29,449 2014 - 10 13,956 8,591 9,241 2,959 20,142 8,592 20,142 8,592 3,456 1,041 4,056 - 8 8 18 2,643 14,925 11,160 663 6 6 - 29,449 2015 - 3 2,039 5,24 2,784 13,293 8,442 7,655 1,096 3,823 10 44,165 - 8 - 8 18 8 2,643 14,925 11,660 663 6 - 29,449 2016 - 3 2 2,039 5,24 2,784 13,293 8,442 7,655 1,096 3,823 10 44,165 - 8 - 8 18 8 2,643 14,925 11,660 663 6 - 29,449 2016 - 3 2 2,039 5,821 2,784 13,293 8,442 7,655 1,096 3,823 10 44,165 - 8 - 8 18 8 2,643 14,925 11,660 663 6 - 29,449 2016 - 3 2 2,039 5,821 2,848 48,989 42,747 13,286 44,67	2012	-	-	18,786	11,146	17,027	23,897	6,987	4,385	2,094	160	84,482	-	-	-	3	14	14	-	3	-	-	34
2015 - 3,024 1,893 3,154 8,510 7,435 8,197 1,577 0 33,790 5 5 4 15 5 5 2 29 2016 - 2,030 4,239 1,522 11,549 7,101 5,933 638 0 33,012 5 5 4 15 5 5 2 43 2017 - 4,298 2,305 5,433 26,241 18,680 4,260 851 0 62,197 3 3 - 418 44 465 2018 - 3,935 476 13,058 14,581 3,563 6,784 4,172 - 83,576 0 7,562 11,590 3,163 18,565 20,991 19,965 3,671 468 - 83,503 2 11,55 5 76 4 8 8 4 33 2020½ 7,626 4,184 7,213 20,024 10,069 4,002 1,522 - 54,640 2 10 84 215 18 - 4 - 3 34 2021½ 7,626 4,184 7,213 20,024 10,069 4,002 1,522 - 54,640 2 10 84 215 18 - 4 - 3 34 2021½ 7,626 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 5 6 2,020 36,623 132,177 53,953 6,489 18 0 230,519 1991-1995 484 11,132 21,564 17,908 33,611 58,321 19,472 10,960 5,475 140 179,043 0 9 23 722 22,875 67,713 12,805 2,319 26 - 106,474 1996-2000 2 11,347 23,735 19,001 32,850 45,250 24,70 7,326 4,181 678 168,570 3 3 126 6,841 28,528 8,062 202 25 - 43,830 2011 0 5,529 2,789 3,565 17,382 14,051 8,347 1,088 3,134 168 141,016 8 8 82 2,643 14,925 11,160 663 6 - 29,449 2011 - 0 5,529 2,789 3,565 17,382 14,051 8,347 1,088 3,134 18,144,390 8 8 15 62,8 3,746 2,065 6,635 5 - 13,102 2012 - 2 11,389 1,589 2,453 8,984 2,747 11,088 3,134 188 141,106 8 8 15 62,8 3,746 2,065 6,635 5 - 13,102 2013 - 257 13,882 14,113 2,945 45,982 8,245 4,985 8,345 12,89 14,439 8 14,439 8 14,439 19,244 14,975 6,988 2 - 14,508 2014 - 10 13,956 8,591 9,245 45,982 8,442 7,655 12,99 2,495 4,493 19,416 8 8 15 62,8 3,746 1,99 2,465 2 - 14,508 2015	2013	-	-	13,656	11,337	15,729	29,204	8,554	2,167	1,359	87	82,093	-	-	-	-	34	86	4	-	-	-	124
2016 - 2,030 4,239 1,522 11,549 7,101 5,933 638 0 33,012 35 88 43 2017 4,298 2,305 5,433 26,241 18,809 4,260 8361 2018 - 3,935 476 13,058 41,588 13,563 6,784 4,172 - 83,576 5 76 4 8 4 465 2019 - 16,780 3,163 18,565 20,891 19,965 3,671 468 - 83,503 5 76 4 8 33 2019 16,780 3,163 18,565 20,891 19,965 3,671 468 - 83,503 30 4 7 30 2020167 2,102 9,738 4,077 2,364 29 38,310 2 10 84 215 18 - 4 - 53 2019 7,626 4,184 7,213 20,024 10,069 4,072 1,522 - 54,640 2 10 84 215 18 - 4 34 2020167 7,626 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 5 6 2,020 35,623 132,177 53,953 6,489 18 0 230,519 19991-1995 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 - 10,6474 1999-2000 157 1,769 22,283 20,665 34,090 5,878 29,645 14,243 4,055 427 185,213 3 3 176 6,841 28,528 8,062 202 25 - 43,830 2011 - 0 5,529 2,789 3,565 17,382 14,051 8,347 1,698 6,530 6 8 8 8 2,643 14,955 11,160 63 6 - 29,449 2011 - 0 5,529 2,789 3,565 17,382 14,051 8,347 1,698 6,530 6 8 8 8 2,643 14,955 11,160 63 6 - 29,449 2011 - 2 11 8,894 15,587 29,483 38,894 23,747 11,088 3,134 188 141,016 8 8 8 2,643 14,955 11,160 63 6 - 29,449 2011 - 2 10 13,956 8,591 9,281 25,992 20,142 8,592 4,355 12,59 1,014 1 108 5,944 2,899 2,658 25 - 10,884 2014 - 10 13,956 8,591 9,281 25,992 20,142 8,592 4,355 12,59 1,014 1 108 5,945 30,00 3,94 4,590 2 - 1 15,130 2018 - 0 1,349 3,939 629 15,060 43,663 16,313 7,436 4,655 1,001 6 4,468 3	2014	-	-	13,924	3,912	2,699	15,235	13,642	6,403	3,073	125	59,013	-	-	-	4	30	163	-	-	-	-	197
2017 - 4,298 2,305 5,433 26,241 18,809 4,260 851 0 62,197 3	2015	-	-	3,024	1,893	3,154	8,510	7,435	8,197	1,577	0	33,790	-	-	-	5	4	15	5	-	-	-	29
2018	2016	-	-	2,030	4,239	1,522	11,549	7,101	5,933	638	0	33,012	-	-	-	-	-	35	8	-	-	-	43
2019 - 16,780 3,163 18,565 20,891 19,965 3,671 468 - 83,503 2 1115 52 353 14 5 - 541 2020 2020 7,626 4,184 7,213 20,024 10,069 4,002 1,522 - 54,640 2 10 84 215 18 - 4 34 2021	2017	-	-	4,298	2,305	5,433	26,241	18,809	4,260	851	0	62,197	-	-	-	3	-	418	44	-	-	-	465
2020 2000 20	2018	-	-	3,935	476	13,058	41,588	13,563	6,784	4,172	-	83,576	-	-	-	-	5	76	4	8	-	-	93
Total South of Cape Falcon No. 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 3 22 175 5,218 199 42 9 5,655 2001-2005 157 17,69 22,283 20,665 34,090 57,878 29,645 14,243 4,055 427 185,213 - 3 3 176 6,841 28,528 8,062 202 25 - 43,830 2001-2005 34 107 5,943 9,582 9,202 9,970 4,021 2,502 10,99 229 36,286 - 8 8 88 2,643 14,925 11,160 663 6 229,449 2011 - 0 5,529 2,789 3,565 17,382 14,051 8,347 1,698 6 53,367 - 8 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 8 8 15 628 3,746 2,065 6,635 5 - 13,102 2013 - 257 13,852 14,113 29,455 46,928 32,436 4,297 2,965 87 144,390 1 10 8,799 2,499 2,645 14,640 4 1,095 2,499 2,645 14,508 2014 - 3 3 3,595 2,447 3,797 10,148 9,285 11,096 3,823 0 44,165 5 5 475 11,978 2,567 4,430 28 19,483 2016 - 3 2 2,039 5,821 2,784 13,293 8,442 7,655 1,001 0 41,067 5 5 475 11,978 2,567 4,430 28 19,483 2016 - 3 2 2,039 5,821 2,784 13,293 8,442 7,655 1,001 0 41,067 5 5 475 11,978 2,567 4,430 28 19,483 2016 - 3 3 3,032 2,974 3,797 10,148 9,285 11,096 3,823 0 44,165 5 5 475 11,978 2,567 4,430 28 19,483 2016 - 3 3 3,939 6,557 2,574 2,784 13,293 8,442 7,655 1,001 0 41,067 5 2 4,106 27,761 12,822 5,084 10 - 4,9785 20019 - 1 10 16,783 3,591 21,518 24,851 21,867 4,427 724 - 93,771	2019	-	-	16,780	3,163	18,565	20,891	19,965	3,671	468	-	83,503	-	-	-	2	115	52	353	14	5	-	541
Total South of Cape Falcon 19 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 2006-2010 34 107 5,943 9,582 9,202 9,70 4,021 2,502 1,099 229 36,286 8 88 2,643 14,925 11,160 663 6 29,449 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 1,088 3,134 168 141,016 8 15 628 3,746 2,065 6,635 5 13,102 2014 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 2016 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 15,130 2016 3,336 2,394 4,595 2,6749 1,696 4,685 1,396 4,685 1,396 4,685 1,396 4,685 1,396 4,685 1,396 4,685 1,396 4,685 1,396 4,485 1,396 4,485 1,396 4,485 1,396 4,485 1,396 4,485 1,396 4,485 1,396 4,485 1,396 4,485 1,485 4,485 1,485 4,485 4,485 4,485 4,485 4,485	2020 ^{b/c/}	-	-	-			22,102	9,738	4,077	2,364	29	38,310	-	-	-	-	-	30	-	4	-	-	34
1981-1985	2021 ^{b/}	-	-	7,626	4,184	7,213	20,024	10,069	4,002	1,522	-	54,640	-	-	-	210	84	215	18	-	4	-	531
1981-1985																							
1986-1990				_									_									_	
1991-1995		- , -	,	,	,	,	,	,	- ,	-,-	, -	,		1		,	,	- , -	-,	,			- , -
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2006-2010			,	,	,		,	,	,	,		,	-	-	·							-	
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 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 10 13,956 8,591 9,281 25,992 20,142 8,592 4,325 125 91,014 2 7 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 5 475 11,978 2,567 4,430 28 - 19,483 2016 - 32 2,039 5,821 2,784 13,293 8,442 7,655 1,001 0 41,067 5 475 11,978 2,567 4,430 28 - 19,483 2016 - 0 4,304 2,394 5,572 26,749 19,616 4,852 1,396 0 64,883 3 3 363 6,190 3,984 4,590 15,130 2018 - 0 3,939 629 15,060 43,563 16,313 7,436 4,675 0 91,615 8 8 3,077 8,630 6,944 18,739 2019 - 10 16,783 3,591 21,518 24,851 21,867 4,427 724 - 93,771 2 4,106 27,761 12,822 5,084 10 - 49,785 2020 10 - 0 4 38 655 27,462 10,983 5,422 2,583 29 47,176 0 7,762 5,126 4,243 17,131			,	,	,	,	- ,	-,	, -	,			-	-			- , -	,	,			-	,
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 - 32 2,039 5,821 2,784 13,293 8,442 7,655 1,001 0 41,067 274 1,260 90 4,180 22 - 5,826 2017 - 0 4,304 2,394 5,572 26,749 19,616 4,852 1,396 0 64,883 3 363 6,190 3,984 4,590 15,130 2018 - 0 3,939 629 15,060 43,563 16,313 7,436 4,675 0 91,615 88 3,077 8,630 6,944 18,739 2019 - 10 16,783 3,591 21,518 24,851 21,867 4,427 724 - 93,771 2 4,106 27,761 12,822 5,084 10 - 49,785 2020 ^{b/c/} - 0 4 38 655 27,462 10,983 5,422 2,583 29 47,176 0 7,762 5,126 4,243 17,131		34			,	,	,	,	,	,		,	-	-			,	,	,		-	-	
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 - 32 2,039 5,821 2,784 13,293 8,442 7,655 1,001 0 41,067 274 1,260 90 4,180 22 - 5,826 2017 - 0 4,304 2,394 5,572 26,749 19,616 4,852 1,396 0 64,883 3 363 6,190 3,984 4,590 15,130 2018 - 0 3,939 629 15,060 43,563 16,313 7,436 4,675 0 91,615 88 3,077 8,630 6,944 18,739 2019 - 10 16,783 3,591 21,518 24,851 21,867 4,427 724 - 93,771 2 4,106 27,761 12,822 5,084 10 - 49,785 2020 ^{b/c/} - 0 4 38 655 27,462 10,983 5,422 2,583 29 47,176 0 7,762 5,126 4,243 17,131	2011	-					,	,	,	,		,	-	-	8			,	,	,		-	,
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 - 32 2,039 5,821 2,784 13,293 8,442 7,655 1,001 0 41,067 274 1,260 90 4,180 22 - 5,826 2017 - 0 4,304 2,394 5,572 26,749 19,616 4,852 1,396 0 64,883 3 363 6,190 3,984 4,590 15,130 2018 - 0 3,939 629 15,060 43,563 16,313 7,436 4,675 0 91,615 88 3,077 8,630 6,944 18,739 2019 - 10 16,783 3,591 21,518 24,851 21,867 4,427 724 - 93,771 2 4,106 27,761 12,822 5,084 10 - 49,785 2020 20 - 0 4 38 655 27,462 10,983 5,422 2,583 29 47,176 0 7,762 5,126 4,243 17,131	2012	-		-,	-,	-,	,	,	,	-, -		,	-	-	-	3		,	,	,		-	,
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 - 32 2,039 5,821 2,784 13,293 8,442 7,655 1,001 0 41,067 274 1,260 90 4,180 22 - 5,826 2017 - 0 4,304 2,394 5,572 26,749 19,616 4,852 1,396 0 64,883 3 363 6,190 3,984 4,590 15,130 2018 - 0 3,939 629 15,060 43,563 16,313 7,436 4,675 0 91,615 88 3,077 8,630 6,944 18,739 2019 - 10 16,783 3,591 21,518 24,851 21,867 4,427 724 - 93,771 2 4,106 27,761 12,822 5,084 10 - 49,785 2020 10 - 0 4 38 655 27,462 10,983 5,422 2,583 29 47,176 0 7,762 5,126 4,243 17,131	2013	-		,	,	,	,	,	,	,		,	-	-	-	-		,	,	,		-	,
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$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2016	-	32	,	,	,	,	- /	,	,	0	,	-	-	-	-		,		,	22	-	,
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2017	-	_		,					,			-	-	-	3		,		,	-	-	
- 0 4 38 655 27,462 10,983 5,422 2,583 29 47,176 0 7,762 5,126 4,243 17,131	2018	-	0	3,939		,	,	,	7,436	4,675	0	,	-	-	-	-		,	,	,	-	-	,
	2019	-		16,783		21,518			4,427		-		-	-	-	2	4,106	27,761			10	-	
$2021^{b/}$ - 12 7.762 4.358 8.093 23.771 11.300 4.865 1.531 - 61.692 210 2.321 38.159 28.124 10.766 8 - 79.588	2020 ^{b/c/}	-	0	4			,	,	,	,	29	47,176	-	-	-	-	0	7,762			-	-	
	2021 ^{b/}	-	12	7,762	4,358	8,093	23,771	11,300	4,865	1,531	-	61,692	-	-	-	210	2,321	38,159	28,124	10,766	8		79,588

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

b/ Preliminary.

c/ In 2021, the southern boundary of the KMZ was officially moved five nautical miles north from Horse Mountain to latitude 40°10′ N.

d/ Recreational estimates for California do not include May and June due to restrictions on sampling caused by the COVID-19 pandemic.

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)

(Page 1 of 3)		•					•
Year or Avg.	May	June	July	Aug.	Sept.	Oct.	Season
U.S./Canada Borde	r to Leadbett	<u>ter Pt Non-Indian</u>					
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
2006-2010	406	479	322	274	83	-	1,564
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	647	359	248	186	-	-	1,440
2017	762	606	380	411	121	-	2,280
2018	741	674	422	189	69	_	2,095
2019	361	335	661	191	113	_	1,661
2020	73	136	464	227	19	-	919
2021 ^{b/}	250	458	495	240	119	_	1,562
202.							,
U.S./Canada Borde	r to Leadbett	<u>ter Pt Treaty India</u>	an ^{c/}				
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
2006-2010	77	238	169	191	57	3	732
2011	92	192	152	140	24	1	600
2012	144	269	214	229	104	4	960
2013	279	206	369	583	159	0	1,596
2014	196	295	465	419	152	0	1,527
2015	324	380	389	261	104	0	1,458
2016	204	233	141	90	2	0	670
2017	27	90	317	357	172	0	963
2018	99	255	272	145	110	0	881
2019	65	72	365	276	120	0	898
2020	1	2	29	122	31	0	185
2021 ^{b/}	28	100	135	101	76	0	440
		_	,				
U.S./Canada Bord				a =- ·			40.5-:
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
2006-2010	483	717	491	466	140	3	2,296
2011	698	848	600	348	78	1	2,572
2012	508	902	666	535	302	4	2,913
2013	1,000	704	840	988	242	0	3,774
2014	785	483	862	756	269	0	3,155
2015	1,142	864	880	711	231	0	3,828
2016	851	592	389	276	2	0	2,110
2017	789	696	697	768	293	0	3,243
2018	840	929	694	334	179	0	2,976
2019	426	407	1,026	467	233	0	2,559
2020	74	138	493	349	50	0	1,104
2021 ^{b/}	278	558	630	341	195	0	2,002

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)

(Page 2 or 3)							
Year or Avg.	May	June	July	Aug.	Sept.	Oct.	Season
Leadbetter Pt. to	Cape Falcon - N	Non-Indian					
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
	93	33	114	181	86		472
2001-2005						-	
2006-2010	232	239	102	129	34	-	736
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	149	130	51	83	_	_	413
2017	98	116	26	119	76	_	435
	29	67	18	36	2	_	152
2018							
2019	51	26	109	54	24	-	264
2020	34	37	20	23	8	-	122
2021 ^{b/}	9	18	22	14	15	-	78
U.S./Canada Bor	der to Cape Falo	con - Non-India	n Total				
1981-1985	3,669	305	5,497	3,294	149	1	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
	223	126	158	227	19	_	487
1996-2000							
2001-2005	495	173	470	475	166	-	1,713
2006-2010	638	718	424	403	118	-	2,301
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	796	489	299	269		_	1,853
	860	722	406	530	197	_	2,715
2017							
2018	770	741	440	225	71	-	2,247
2019	412	361	770	245	137	-	1,925
2020	107	173	484	250	27	-	1,041
2021 ^{b/}	259	476	517	254	134	-	1,640
U.S./Canada Bor	der to Cape Falo	con - Treaty Ind	ian Total ^{c/}				
		-		040	440	47	000
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
2006-2010	77	238	169	191	57	3	732
2011	92	192	152	140	24	1	600
2012	144	269	214	229	104	4	960
2013	279	206	369	583	159	0	1,596
2014	196	295	465	419	152	0	1,527
2015	324	380	389	261	104	0	1,458
2016	204	233	141	90	2	0	670
2017	27	90	317	357	172	0	963
2018	99	255	272	145	110	0	881
2019	65	72	365	276	120	0	898
2020	1	2	29	122	31	0	185
2021 ^{b/}	28	100	135	101	76	0	440
2021	20	100	133	101	70	U	44 0

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 Bo	rder to Cape I	Falcon - Total	Treaty Indian	and Non-India	n ^{c/}		
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
2006-2010	715	955	593	595	174	3	3,032
2011	825	1,015	642	375	96	1	2,953
2012	571	1,201	717	562	385	4	3,436
2013	1,111	874	887	1,044	275	0	4,191
2014	1,490	611	1,065	856	343	0	4,365
2015	1,850	978	939	798	356	0	4,921
2016	1,000	722	440	359	2	0	2,523
2017	887	812	723	887	369	0	3,678
2018	869	996	712	370	181	0	3,128
2019	477	433	1,135	521	257	0	2,823
2020	108	175	513	372	58	0	1,226
2021 ^{b/}	287	576	652	355	210	0	2,080

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.

Year or Avg.	May	June	July	Aug.	Sept.	Oct.	andings in numb Season	May	June	July	Aug.	Sept.	Oct.	Season
			С	HINOOK							СОНО			
U.S./Canada B	Border to Lead	better Pt	Non-Indian											
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
2006-2010	5,129	7,439	2,687	2,657	504	-	18,415	-	-	1,672	2,560	887	-	5,119
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	6,434	3,964	3,325	1,962	-	-	15,685	-	-	-	-	-	-	-
2017	13,356	7,246	5,706	5,285	766	-	32,359	-	-	217	719	301	-	1,237
2018	6,653	8,942	5,438	1,683	709	-	23,425	-	-	415	456	388	-	1,259
2019	3,762	3,018	11,394	2,641	1,732	-	22,547	-	-	1,477	1,060	1,201	-	3,738
2020	478	1,175	7,269	2,861	149	-	11,932	-	-	222	314	86	-	622
2021 ^{b/}	2,542	7,202	5,547	3,140	508	-	18,939	-	-	551	1,071	1,625	-	3,247
U.S./Canada B	Border to Lead	better Pt	Treaty India	an ^{c/}										
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
2006-2010	1,382	9,962	4,491	5,907	2,056	10	23,799	4	39	12,304	14,163	5,163	7	31,673
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	19,103	9,310	7,916	2,902	0	51,160	0	7	7,722	36,163	4,376	0	48,268
2014	12,608	17,002	20,643	8,793	2,715	0	61,761	0	30	10,405	39,231	6,369	0	56,035
2015	7,315	23,697	23,110	4,031	786	0	58,939	0	3	1,994	1,307	706	0	4,010
	2,905	13,752	5,129	1,310	5	0	23,101	0	0	29	15	0	1	44
2010	1,253	2,039	15,772	4,605	745	0	24,414	0	0	1,003	7,150	5,197	0	13,350
2016 2017		•	8,486	1,883	459	0	23,903	0	15	1,751	5,512	4,524	0	11,802
2017	1,319	11,756	0,400			-	- /	-	-	,	- ,	,	-	,
2017 2018	,	,	,	,	299	0	18.321	0	0	14.414	33.818	7.273	0	55.505
2017	1,319 809 8	11,756 2,110 23	12,314 622	2,789 1,718	299 66	0 0	18,321 2,437	0 0	0	14,414 587	33,818 10,864	7,273 2,940	0 0	55,505 14,391

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 2 of 4)

Year or Avg.	May	June	July	Aug.	Sept.	Oct.	Season	May	June	July	Aug.	Sept.	Oct.	Season
				HINOOK							СОНО			
U.S./Canada I	Border to Le	adbetter F	Pt Total ^c	<i>l</i> -										
1981-1985	27,345	4,637	23,141	6,007	1,024	198	62,154	283	7,435	110,766	50,478	16,706	54	185,667
1986-1990	33,958	14,990	10,291	5,955	1,250	12	66,445	3	4,256	39,689	63,927	11,054	7	118,930
1991-1995	13,857	11,297	5,082	5,266	1,018	29	36,520	1	1	20,068	36,911	10,220	103	67,200
1996-2000	6,778	8,842	1,252	4,389	1,893	-	23,153	0	0	1,577	14,187	8,610	-	24,375
2001-2005	20,775	20,732	19,159	13,599	3,895	23	78,159	2	3	8,751	20,198	11,125	66	40,079
2006-2010	6,511	17,401	7,178	8,564	2,560	10	42,214	4	39	13,976	16,724	6,050	7	36,792
2011	8,802	18,132	20,776	9,228	756	0	57,694	0	0	3,692	5,683	7,204	0	16,579
2012	14,831	31,067	15,456	21,048	6,992	10	89,394	1	101	3,515	19,906	17,186	0	40,709
2013	22,416	30,951	17,126	16,605	3,592	0	90,690	0	7	9,614	39,927	4,634	0	54,182
2014	25,396	19,559	28,741	14,457	3,335	0	91,488	0	30	13,312	45,281	10,580	0	69,203
2015	20,237	38,105	35,720	13,862	2,303	0	110,227	0	3	2,681	2,305	1,203	0	6,192
2016	9,339	17,716	8,454	3,272	5	0	38,786	0	0	29	15	0	1	44
2017	14,609	9,285	21,478	9,890	1,511	0	56,773	0	0	1,220	7,869	5,498	0	14,587
2018	7,972	20,698	13,924	3,566	1,168	0	47,328	0	15	2,166	5,968	4,912	0	13,061
2019	4,571	5,128	23,708	5,430	2,031	0	40,868	0	0	15,891	34,878	8,474	0	59,243
2020	486	1,198	7,891	4,579	215	0	14,369	0	0	809	11,178	3,026	0	15,013
2021 ^{b/}	2,963	9,346	9,308	4,808	741	0	27,166	0	0	1,590	16,066	12,002	0	29,658
Leadbetter Pt.	to Cape Falco	on - Non-Ind	<u>lian</u>											
1981-1985	11,202	758	1,884	775	107	2	14,728	_	_	48,629	26,289	15,916	-	53,392
1986-1990	4,789	1,264	3,549	2,691	1,702	71	8,566	-	-	18,234	41,121	19,306	304	45,128
1991-1995	1,465	357	134	344	103	_	2,323	-	-	911	12,674	3,937	-	15,906
1996-2000	9	64	-	2,464	89	-	710	-	-	-	7,021	1,043	-	7,542
2001-2005	3,031	1,512	1,802	2,684	599	_	9,388	-	-	1,802	2,877	3,932	-	6,678
2006-2010	2,779	2,930	569	503	61	_	6,842	-	-	2,371	3,926	212	-	6,509
2011	1,529	1,943	115	251	30	_	3,868	-	-	235	172	95	-	502
2012	1,297	7,053	276	149	1,919	-	10,694	-	-	61	37	615	-	713
2013	534	1,062	178	298	433	_	2,505	-	-	67	375	137	-	579
2014	20,242	1,278	2,880	472	290	_	25,162	-	-	2,962	2,392	4,587	-	9,941
2015	9,487	2,177	1,389	1,037	817	_	14,907	-	_	369	582	1,952	-	2,903
2016	1,175	1,089	428	1,025	-	-	3,717	-	_	-	-	-	-	-
2017	1,228	874	124	632	343	_	3,201	-	_	30	355	216	-	601
*	36	337	30	57	4	_	464	-	_	40	85	_	-	125
2018			070	121		_	737		_	1,190	400	81	_	1,671
	156	62	370	121	28	-	131	-		1,100	700	01	-	1,011
2018 2019 2020	156 231	62 168	370 57	101	∠o 11	-	568	-	_	63	64	17	-	144

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
				HINOOK							СОНО			
U.S./Canada B	order to Cape	e Falcon - N	<u>lon-Indian</u>											
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
2006-2010	7,908	10,369	3,255	3,161	565	-	25,257	-	-	4,043	6,487	1,099	-	11,628
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	-	5,085
2016	7,609	5,053	3,753	2,987	-	-	19,402	-	-	-	-	-	-	-
2017	14,584	8,120	5,830	5,917	1,109	-	35,560	-	-	247	1,074	517	-	1,838
2018	6,689	9,279	5,468	1,740	713	-	23,889	-	-	455	541	388	-	1,384
2019	3,918	3,080	11,764	2,762	1,760	-	23,284	-	-	2,667	1,460	1,282	-	5,409
2020	709	1,343	7,326	2,962	160	-	12,500	-	-	285	378	103	-	766
2021 ^{b/}	2,581	7,287	5,675	3,197	523	-	19,263	-	-	626	1,139	1,746	-	3,511
U.S./Canada B	order to Cape	e Falcon - Ti	reaty Indiar	n ^{c/}										
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
2006-2010	1,382	9,962	4,491	5,907	2,056	10	23,799	4	39	12,304	14,163	5,163	7	31,673
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	19,103	9,310	7,916	2,902	0	51,160	0	7	7,722	36,163	4,376	0	48,268
2014	12,608	17,002	20,643	8,793	2,715	0	61,761	0	30	10,405	39,231	6,369	0	56,035
2015	7,315	23,697	23,110	4,031	786	0	58,939	0	3	1,994	1,307	706	0	4,010
2016	2,905	13,752	5,129	1,310	5	0	23,101	0	0	29	15	0	1	44
2017	1,253	2,039	15,772	4,605	745	0	24,414	0	0	1,003	7,150	5,197	0	13,350
2018	1,319	11,756	8,486	1,883	459	0	23,903	0	15	1,751	5,512	4,524	0	11,802
2019	809	2,110	12,314	2,789	299	0	18,321	0	0	14,414	33,818	7,273	0	55,505
2020	8	23	622	1,718	66	0	2,437	0	0	587	10,864	2,940	0	14,391
2021 ^{b/}	421	2,144	3,761	1,668	233	0	8,227	0	0	1,039	14,995	10,377	0	26,411

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
			С	HINOOK							СОНО			
U.S./Canada B	order to Ca	pe Falcon	- Total Tr	eaty Indiar	and Non	-Indian ^{c/}								
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
2006-2010	9,290	20,331	7,747	9,068	2,621	10	49,057	4	39	16,347	20,650	6,262	7	43,301
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	32,013	17,304	16,903	4,025	0	93,195	0	7	9,681	40,302	4,771	0	54,761
2014	45,638	20,837	31,621	14,929	3,625	0	116,650	0	30	16,274	47,673	15,167	0	79,144
2015	29,724	40,282	37,109	14,899	3,120	0	125,134	0	3	3,050	2,887	3,155	0	9,095
2016	10,514	18,805	8,882	4,297	5	0	42,503	0	0	29	15	0	1	44
2017	15,837	10,159	21,602	10,522	1,854	0	59,974	0	0	1,250	8,224	5,714	0	15,188
2018	8,008	21,035	13,954	3,623	1,172	0	47,792	0	15	2,206	6,053	4,912	0	13,186
2019	4,727	5,190	24,078	5,551	2,059	0	41,605	0	0	17,081	35,278	8,555	0	60,914
2020	717	1,366	7,948	4,680	226	0	14,937	0	0	872	11,242	3,043	0	15,157
2021 ^{b/}	3,002	9,431	9,436	4,865	756	0	27,490	0	0	1,665	16,134	12,123	0	29,922

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)

(odd-year averag	es). ^{a/} (Page 1	of 2)		'	<u> </u>		
Year or Avg.	May	June	July	Aug.	Sept.	Oct.	Season
U.S./Canada Bor	der to Leadbe	etter Pt Non-	-Indian				
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
1996-2000	1	2	31	21	0	_	29
2001-2005	2	3	55	22	5	_	84
2006-2010	5	17	101	19	1	_	141
2011	0	0	3	118	93	1	215
2013	0	2	0	101	37	1	141
2015	0	1	20	47	0	0	68
2017	0	0	10	3	0	13	0
2019	0	0	483	0	0	0	483
2021 ^{c/}	0	0	4	29	0	0	33
U.S./Canada Bor	rder to Leadb	etter Pt - Trea	aty Indian ^{b/}				
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
1996-2000	0	0	0	1,573	81	-	1,653
2001-2005	4	0	351	592	78	0	1,025
2006-2010	0	4	379	310	0	0	692
2011	0	6	718	334	16	0	1,074
2013	0	0	89	120	0	0	209
2015	0	6	98	18	0	0	122
2017	0	0	61	134	0	0	195
2019	0	0	243	270	0	0	513
2021 ^{c/}	0	0	17	41	0	0	58
U.S./Canada Bo	order to Lea	adbetter Pt -	· Total ^{b/}				
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
1996-2000	1	2	16	1,583	81	-	1,682
2001-2005	5	3	406	614	81	0	1,109
2006-2010	5	20	479	329	1	0	833
2011	0	6	721	452	109	1	1,289
2013	0	2	89	221	37	1	350
2015	0	7	118	65	0	0	190
2017	0	0	71	137	0	13	195
2019	0	0	726	270	0	0	996
2021°	0	0	21	70	0	0	91
	-	•		. •	v	· ·	0.
Leadbetter Pt. to							
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
1996-2000	0	0	0	0	0	-	0
2001-2005	65	17	31	23	0	-	137
2006-2010	33	0	3	10	4	-	49
2011	0	36	5	8	0	-	49
2013	0	0	0	0	0	-	0
2015	0	0	0	0	0	-	0
2017	0	0	0	0	0	-	0
2019	0	0	0	2	0	-	2
2021 ^{c/}	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 Boi	der to Cape	Falcon - Non-	<u>Indian</u>				
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
1996-2000	1	2	16	11	0	-	29
2001-2005	67	20	86	44	4	-	221
2006-2010	37	17	104	29	5	-	190
2011	0	36	8	126	93	1	264
2013	0	2	0	101	37	1	141
2015	0	1	20	47	0	0	68
2017	0	0	10	3	0	13	0
2019	0	0	483	2	0	0	485
2021 ^{c/}	0	0	4	29	0	0	33
U.S./Canada Boi	rder to Cape	Falcon - Trea	tv Indian ^{b/}				
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
1996-2000	0	0	0	1,573	81	-	1,653
2001-2005	6	0	434	789	115	0	1,344
2006-2010	0	2	314	273	1	0	590
2011	0	6	718	334	16	0	1,074
2013	0	0	89	120	0	0	209
2015	0	6	98	18	0	0	122
2017	0	0	61	134	0	0	195
2019	0	0	243	270	0	0	513
2021 ^{c/}	0	0	17	41	0	0	58
U.S./Canada Bo	order to Car	o Falcon T	otal ^{b/}				
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
1996-2000	1	2	16	1,583	81	-	1,682
2001-2005	70	20	437	636	81	0	1,246
2006-2010	37	20	482	339	5	0	882
2011	0	42	726	460	109	1	1,338
2013	0	2	89	221	37	1	350
2015	0	7	118	65	0	0	190
2017	0	0	71	137	0	13	195
2017	0	0	726	272	0	0	998
2019 2021 ^{c/}	0	0	21	70	0	0	91
				I weeks with clo			Washington

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/ Season totals do not include October treaty troll catches.

c/ Preliminary.

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

TABLE A-27.	U.S./Canada b	order to Cape	Falcon ocear	n recreational t	fishing effort ir	salmon angle	er trips by are	a and month. ^a
Year or Avg.	Apr.	May	June	July	Aug.	Sept.	Oct.	Season ^{b/}
U.S./Canada Bo	order to Leadbe	tter Pt.c/						
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
2006-2010	_	· -	3,920	16,371	20,691	4,671	132	45,002
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	_	· -	· -	17,792	9,391	· -	-	27,183
2017	_	-	468	21,556	15,822	842	_	38,688
2018	_	-	1,249	14,408	17,017	410	_	33,084
2019	-	-	4,254	15,503	13,279	2,482	240	35,758
2020	-	-	1,999	12,654	7,119	3,341	-	25,112
2021 ^{d/}	-	-	3,692	16,784	12,171	4,768	-	37,414
Leadbetter Pt. 1	to Cape Falcon							
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
2006-2010	-	66	805	9,842	23,502	2,662	-	35,970
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	-	-	_	9,586	18,999	-	-	28,586
2017	-	-	975	11,229	19,128	-	-	31,333
2018	_	-	1,575	6,937	13,311	761	-	22,583
2019	-	-	3,730	15,642	23,532	1,700	-	44,604
2020	-	-	696	11,530	-	-	-	12,226
2021 ^{d/}	-	-	1,635	13,923	25,783	-	-	41,341
U.S./Canada E	Border to Cape	Falcon ^{c/}						
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	_	-	0,550	13,543	27,273	7,498	-	45,605
1996-2000	-	_	_	18,152	24,315	5,064	_	43,901
2001-2005	_	2,866	6,440	47,285	57,436	16,642	133	127,222
2006-2010	_	66	4,524	26,213	44,193	6,800	132	80,971
2011	_	-	6,670	24,094	40,950	9,249	16	80,979
2012	_	_	12,272	24,832	31,276	13,763	353	82,497
2012	_	951	13,409	22,173	40,240	9,140	237	86,150
2013	_	1,720	13,614	43,413	53,289	19,471	365	131,872
2014	-	1,710	12,019	40,022	34,155	17,537	300	105,743
2016	-	1,7 10	12,010	27,378	28,390	-	-	55,769
2016	<u>-</u>	-	- 1,444	32,785	34,950	842	-	70,021
2017	- -	-	2,824	32,765 21,345	30,327	042 1,171	-	55,667
	- -	-	2,82 4 7,985	31,145	36,811	4,181	240	80,362
2019 2020	- -	-	2,695	24,183	7,119	3,341	240	37,338
2020 2021 ^{d/}	- -	-	2,695 5,326	30,707	37,953	3,341 4,768	-	78,755
	els for Oregon d	ata are the sur					Washington d	

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.

July Year or Avg. April May June Aug. Sept. Oct. Season^{b/} April May June July Aug. Sept. Oct. Season CHINOOK СОНО U.S./Canada Border to Leadbetter Pt.c/ 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 96,516 790 1,653 12,706 5,373 20,256 19 2,439 58,151 35,746 6,320 45 102,190 1986-1990 1,161 1,911 40 37,985 83,144 148 4,305 3,020 1,549 9,479 6,781 33,461 9,902 1991-1995 215

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)

1001 1000			.,	.,	-,	.,		-,			-,	,	,	-,		,
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
2006-2010	-	-	1,954	5,574	5,552	777	48	13,513	-	-	329	9,237	17,119	4,326	27	30,972
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	-	-	-	7,431	4,520	-	-	11,951	-	-	-	63	38	-	-	101
2017	-	-	250	10,590	3,442	91	-	14,374	-	-	58	8,590	11,454	930	-	21,032
2018	-	-	378	4,908	3,025	34	-	8,344	-	-	574	4,902	15,530	257	-	21,262
2019	-	-	1,610	3,764	1,148	154	164	6,841	-	-	1,097	11,558	13,789	1,714	16	28,174
2020	-	-	602	4,163	1,592	479	-	6,835	-	-	50	4,870	3,895	2,327	-	11,142
2021 ^{d/}	-	-	1,552	7,696	2,098	453	-	11,799	-	-	21	3,864	13,306	7,439	-	24,630
Leadbetter Pt. to Ca	<u>ape Falco</u>															
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
2006-2010	-	17	261	1,132	2,691	176	-	4,123	-	-	306	12,665	27,754	1,793	-	42,037
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	-	-	-	2,741	3,255	-	-	5,997	-	-	-	5,607	13,005	-	-	18,612
2017	-	-	649	2,758	4,164	-	-	7,571	-	-	43	7,973	13,609	-	-	21,625
2018	-	-	575	657	1,003	23	-	2,258	-	-	294	6,072	14,116	93	-	20,575
2019	-	-	341	2,201	1,373	122	-	4,038	-	-	5,359	20,934	25,540	1,642	-	53,475
2020	-	-	219	607	-	-	-	826	-	-	0	12,829	-	-	-	12,829
2021 ^{d/}	-	-	496	1,506	4,013	-	-	6,015	-	-	259	12,107	27,182	-	-	39,548

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
				CHING	ООК							COI	НО			
U.S./Canada Bo	order to Car	pe Falcon ^{c/}														
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	15,453	9,841	1,241	-	27,836	-	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
2006-2010	-	17	2,149	6,706	8,243	917	48	17,637	-	-	558	21,902	44,873	5,760	27	73,008
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	-	-	-	10,172	7,775	-	-	17,947	-	-	-	5,670	13,043	-	-	18,713
2017	-	-	899	13,348	7,607	91	-	21,945	-	-	101	16,563	25,063	930	-	42,657
2018	-	-	953	5,564	4,028	58	-	10,602	-	-	868	10,974	29,646	350	-	41,838
2019	-	-	1,951	5,965	2,522	276	164	10,878	-	-	6,455	32,492	39,329	3,356	16	81,649
2020	-	-	821	4,769	1,592	479	-	7,661	-	-	50	17,699	3,895	2,327	-	23,971
2021 ^{d/}	-	-	2,049	9,202	6,111	453	-	17,814	-	-	280	15,971	40,488	7,439	-	64,177

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. albi

	Upper Saci			Low er Sa	acramento N	latural A	reas ^{c/}		Natural	Area		Sa	cramento l	Hatcheries	3					
Year or	Natural Ar	eas ^{c/d/e/}	Feather	River	Yuba F	∛iver	Americar	n River ^{f/}	Total	s ^{c/}	Colem	an	Feather	r River	Nimbu	us	Hatchery	Totals	Sacrament	o Totals
Average	Adults	Jacks	Adults	Jacks	Adults	Jacks	Adults	Jacks	Adults	Jacks	Adults	Jacks	Adults	Jacks	Adults	Jacks	Adults ^{g/}	Jacks	Adults	Jacks
1981-1985	57,913	22,432	36,252	5,243	12,825	5,146	32,803	5,142	139,793	37,963	11,557	3,734	6,845	884	10,072	2,257	29,832	7,689	169,625	45,651
1986-1990	87,396	17,244	38,709	6,426	9,261	2,444	25,663	3,917	161,029	30,031	11,507	2,288	5,837	1,947	5,685	1,349	23,028	5,584	184,057	35,616
1991-1995	60,151	11,496	32,578	4,355	8,309	2,131	29,804	4,367	130,842	22,350	11,948	2,295	10,537	2,762	6,414	1,447	28,899	6,505	159,741	28,855
1996-2000	153,777	8,383	54,225 h/	6,806	20,233	4,600	62,613	10,061	290,848	29,851	29,965	3,001	13,342	1,497	7,795	1,407	51,102	5,905	341,949	35,756
2001-2005	197,215 ^{i/}	7,600	88,250	7,064	18,461	2,861	107,941	14,198	411,867	31,723	72,122	6,018	18,300	2,507	12,221	4,799	102,643	13,324	514,510	45,047
2006-2010	40,050	2,884	29,544	1,451	5,913	512	10,483	1,035	85,990	5,883	18,528	2,193	9,411	1,522	5,454	648	33,393	4,363	119,383	10,245
2011	20,466	15,096	35,656	11,633	6,917	2,204	14,815	10,422	77,854	39,355	19,312	23,068	15,925	16,691	6,251	6,429	41,488	46,188	119,342	85,543
2012	67,190	7,125	57,507	6,142	6,009	1,722	35,527	3,296	166,233	18,285	77,318	8,198	33,628	8,533	8,250	1,007	119,196	17,738	285,429	36,023
2013	90,119	6,253	145,650	5,559	13,830	1,050	56,036	2,192	305,635	15,054	67,758	2,103	25,152	2,470	8,301	775	101,211	5,348	406,846	20,402
2014	80,407	7,193	55,480	5,241	9,885	1,819	22,895	3,580	168,667	17,833	17,937	903	18,824	4,596	7,048	1,295	43,809	6,794	212,476	24,627
2015	40,696	3,342	18,069	2,497	3,844	2,789	11,895	3,844	74,504	12,472	13,861	1,863	17,700	3,116	7,403	2,419	38,964	7,398	113,468	19,870
2016	10,563	803	34,054	4,727	2,143	1,422	9,537	4,936	56,297	11,888	8,306	225	17,594	2,962	7,502	1,922	33,402	5,109	89,699	16,997
2017	1,526	4,015	8,120	2,414	1,207	441	6,998	2,665	17,851	9,535	1,316	5,080	16,598	8,448	8,564 ^{j/}	2,015 ^{j/}	26,478	15,543	44,329	25,078
2018	18,317	11,998	39,210	6,616	2,140	933	12,022	9,070	71,689	28,617	8,207	5,991	21,084	7,272	4,486	1,726	33,777	14,989	105,466	43,606
2019	53,706	5,203	43,352	8,611	2,677	671	21,894	5,136	121,629	19,621	13,065	1,204	19,731	7,372	9,342	1,954	42,138	10,530	163,767	30,151
2020	36,447	3,747	40,499	2,470	3,801	393	19,422	3,034	100,169	9,644	12,478	1,259	20,340	1,853	5,104	1,160	37,922	4,272	138,091	13,916
2021 ^{k/}	52,320	4,597	9,203	485	3,918	703	7,787	3,445	73,228	9,230	14,555	1,884	9,372	2,146	7,328	3,743	31,255	7,773	104,483	17,003
GOALS	-	-	-	-	-	-	-	-	-	-	12,000 ^{1/}	-	6,000 ^{I/}	-	4,000 ^{I/}	-	22,000 ^{I/}	-	122,000 ^{m/}	-

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

b/ Chinook spaw ning 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/ American River adult and jack ecapement estimates include fish taken at Nimbus Weir, 1979-current. In previous versions of this table, fish taken at Nimbus Weir were included in the Nimbus Fish Hatchery counts.

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

h/ Survey methodology was variable for 1998-99; may not be comparable to other surveys.

i/ Change in 2002 estimation methodology due to extremely high Battle Creek escapement.

i/ Nimbus Fish Hatchery opened three weeks early to collect anticipated stray Chinook originating from Coleman National Fish Hatchery. During this time, 2,886 fish were collected.

k/ Preliminary.

^{//} Current hatchery-specific goals, not PFMC goals.

m/ Sacramento River fall Chinook S_{MSY}.

TABLE B-2. San Joaquin River fall Chinook salmon escapement in numbers of fish. al

					San J	loaquin Na	atural Are	as ^{b/}						Sar	n Joaquin	Hatcherie	es		San Jo	aquin
Year or	Mokelumn	e River	Stanislau	s River	Tuolumn	e River	Merced	River	Other Tribu	ıtaries ^{c/d/}	Tota	als	Mokelum	ne River	Merce	d River	Tota	als	Tota	als
Average	Adults	Jacks	Adults	Jacks	Adults	Jacks	Adults	Jacks	Adults	Jacks	Adults	Jacks	Adults	Jacks	Adults	Jacks	Adults	Jacks	Adults	Jacks
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
1996-2000	2,334	791	3,536	802	7,144	2,160	3,838	873	0	0	16,853	4,626	3,413	1,052	769	525	4,182	1,576	21,035	6,203
2001-2005	3,264	572	4,905	822	3,668	658	4,674	828	148	26	16,659	2,905	5,177	2,392	716	387	5,894	2,780	22,553	5,685
2006-2010	812	183	937	181	293	86	583	101	285	3	2,910	554	1,639	811	93	47	1,731	858	4,641	1,412
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	3,075	1,506	4,050	2,086	42	71	860	387	180	0	8,207	4,050	5,170	3,128	556	642	5,726	3,770	13,933	7,820
2016	1,279	705	5,231	3,961	661	696	1,232	2,099	986	262	9,389	7,723	3,314	3,573	1,995	970	5,309	4,543	14,698	12,266
2017	4,626	1,018	2,225	1,274	690	428	2,349	832	575	95	10,465	3,647	4,651	9,668	602	1,099	5,253	10,767	15,718	14,414
2018	6,456	3,599	2,018	359	734	343	349	529	630	158	10,187	4,988	4,937	2,483	264	639	5,201	3,122	15,388	8,110
2019	3,325	1,042	1,221	283	828	103	1,952	259	435	0	7,761	1,687	5,806	2,697	628	339	6,434	3,036	14,195	4,723
2020	179	422	461	80	240	31	394	32	0	0	1,274	565	2,141	1,302	141	44	2,282	1,346	3,556	1,911
2021 ^{e/}	258	568	1,970	2,374	133	53	290	197	833	0	3,484	3,192	2,116	2,101	57	210	2,173	2,311	5,657	5,503
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 with a jack length cut-off.

c/ Other San Joaquin tributary escapement includes Cosumnes and Calaveras Rivers when surveys were conducted. In some years no survey was conducted due to logistical or environmental limitations.

d/ Calculating jack proportions was 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 was 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.

					er Sacrame	nto River					
	Late	-Fall ^{a/b/c/}		Winte	er ^{c/d/}			Spr	ing		
Year or			RBD	D ^{a/}	Carcass S	Survey	Tributary ^{e/}	Sacrament	o River ^a	Feath	er River
Average	Adults	Jacks	Adults	Jacks	Adults	Jacks	Adults and Jacks ^{h/}	Adults	Jacks	Adults	Jacks
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
2001-2005	19,012	1,258	4,318	3,070	8,527	996	19,499 ^{j/}	439	78 ^{h/}	4,370 ^{k/}	255 [⋈]
2006-2010	11,004	581	3,100	2,631	5,595	164	7,606 ^{j/}	75	7	1,660 ₭	30 ^{k/}
2011	7,129	1,161	I/	I/	637	187	5,547 ^{j/}	I/	I/	1,831 [₭]	138 [⋈]
2012	5,153	909	m/	m/	2,527	144	18,694 ^{j/}	m/	m/	3,510 ₭	228 k/
2013	8,365	644	m/	m/	5,622 n/	462	18,507 ^{j/}	m/	m/	4,247 [⋈]	44 ^{k/}
2014	11,792	1,453	m/	m/	2,688	327	7,127 ^{j/}	m/	m/	2,599 ₺	177 ^k ∕
2015	9,306	134	m/	m/	3,382	57	1,039 ^{j/}	m/	m/	3,333 ₭	53 ^{k/}
2016	4,708	949	m/	m/	924	622	6,458 ^{j/}	m/	m/	1,595 ₭	55 [⋈]
2017	4,466	389	m/	m/	490	485	1,055 ^{j/}	m/	m/	266 [⋈]	314 ^{k/}
2018	2,023	3,189	m/	m/	1,884	754	2,806 ^{j/}	m/	m/	1,870 ₭	240 k/
2019	9,965	1,550	m/	m/	7,570	559	16,145 ^{j/}	m/	m/	3,554 [₭]	313 ^{k/}
2020	5,109	113	m/	m/	6,743	686	1,675 ^{j/}	m/	m/	1,444 ₭	110 ^{k/}
2021°/	3,637	269	m/	m/	10,225	281	5,642 ^{j/}	m/	m/	2,596 k/	47 ^{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 National Fish Hatchery.
- c/ Estimates of late-fall and winter run include Chinook trapped at Keswick Damfor use as broodstock at Coleman or Livingston Stone National Fish hatcheries. Beginning in 2019, winter run estimates also include Chinook that returned to Battle Creek as part of the Coleman National Fish Hatchery captive broodstock "jumpstart" reintroduction effort.
- d/ RBDD and carcass survey estimates represent alternative methods for determining winter run Chinook escapement.
- e/ Natural spaw ning spring run w hich 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 spaw ning surveys and are reported in the fall run natural escapement numbers.
- h/ Jack proportion could not be determined in 2001.
- i/ Primarily number of spawners at Coleman National Fish 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 spaw ning 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 spaw ning 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 National Fish Hatchery for use as o/ Preliminary.

TABLE B-4. Summary of Klamath River fall Chinook salmon estimates in numbers of adults and jacks.

•						Nonlanded				Spaw r	ning Escap	ement			
Year or		Total Inriver	In	nriver Harvest		Fishery	Kla	amath Rive	er	Ti	rinity River			Total	
Average	Category	Run	Indian	Sport	Total	Mortality	Hatchery	Natural	Total	Hatchery	Natural	Total	Hatchery	Natural	Total
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
2001-2005 ^{a/}	Adults	136,848	25,414	7,659	33,074	2,366	23,476	34,971	58,447	15,476	21,375	36,851	38,952	56,346	95,298
	Jacks	7,271	161	1,391	1,552	43	785	2,000	2,785	596	1,894	2,490	1,381	3,894	5,275
2006-2010	Adults	91,113	23,678	3,396	27,074	2,218	12,043	19,498	31,541	9,115	21,166	30,281	21,158	40,663	61,821
0044	Jacks	16,484	337	2,850	3,186	87	1,399	3,986	5,385	1,297	6,528	7,825	2,696	10,514	13,210
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 ^{b/}	Adults	160,396	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 ^{b/}	Adults	77,821	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 ^{b/}	Adults	24,582	5,160	1,310	6,470	486	2,436	10,376	12,812	1,142	3,561	4,703	3,578	13,937	17,515
	Jacks	2,787	160	162	322	17	151	554	705	401	1,340	1,741	552	1,894	2,446
2017	Adults	33,232	1,880	71	1,951	164	7,443	13,832	21,275	3,770	6,072	9,842	11,213	19,904	31,117
	Jacks	20,318	266	42	308	17	3,193	10,621	13,814	1,863	4,316	6,179	5,056	14,937	19,993
2018	Adults	91,060	14,769	4,110	18,879	1,262	11,425	37,505	48,930	7,142	14,847	21,989	18,567	52,352	70,919
	Jacks	10,872	308	2,237	2,545	58	435	3,491	3,926	171	4,172	4,343	606	7,663	8,269
2019 ^{b/}	Adults	37,084	5,989	5,376	11,365	511	3,797	13,528	17,325	1,381	6,494	7,875	5,178	20,022	25,200
20.0	Jacks	9,951	592	2,785	3,377	73	249	2,314	2,563	205	3,732	3,937	454	6,046	6,500
2020	Adults	45,409	5,212	5,123	10,335	558	4,042	11,818	15,860	4,289	14,367	18,656	8,331	26,185	34,516
2020	Jacks	9,077	328	533	861	40	413	929	1,342	2,815	4,019	6,834	3,228	4,948	8,176
2021 ^{b/c/}	Adults	53,954	8,066	2,265	10,331	717	7,012	16,690	23,702	5,838	13,252	19,090	12,850	29,942	42,792
2021	Jacks	10,334	612	2,265	3,009	717 75	7,012 494	3,283	3,777	129	3,339	3,468	623	6,622	7,245
COAL		10,334	012	2,397	3,009	15	494	3,203	3,111	129	ა,აა9	3,408	023	6,622 ≥40,700°	
GOAL	Adults													≥40,700	

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 lchthyophthirius multifillis during the following years: 2014 - 282 fish; 2015 - 124 fish; 2016 - 113 fish; 2019 - 9 fish; 2021 - 113 adults and 6 jacks.

c/ Preliminary.

d/ In December 2011, Amendment 16 to the Salmon Fishery Management Plan w as approved, w hich replaced the 35,000 spaw ning escapement floor w ith an S_{MSY} management objective of 40,700 natural area adult spaw ners. The 35,000 spaw ner floor w as in effect from 1989-2007 and in 2011. In 2008-2010, fisheries were managed for a natural area spaw ning escapement of 40,700 adults under requirements of a rebuilding plan.

e/ Annual escapement goals may be more or less than SMSY in some years due to meeting SACL requirements and de minimis fishing provisions.

TABLE B-5. Estimates of Yurok and Hoopa Valley reservation Indian gillnet Chinook harvest in numbers of fish.

			Spring Run			Fall Run	
Year	Area ^{a/}	Jack	Adult	Total	Jack	Adult	Total
2016	Commercial:Estuary	0	0	0	0	0	0
	Middle Klamath	0	0	0	0	0	0
	Subsistence:Estuary	1	619	620	121	3,185	3,306
	Middle Klamath	1	264	265	7	405	412
	Upper Klamath ^{b/}	1	115	116	14	930	944
	Trinity River	14	679	693	20	751	771
	Total	17	1,677	1,694	162	5,271	5,433
2017	Commercial:Estuary	0	0	0	0	0	0
	Middle Klamath	0	0	0	0	0	0
	Subsistence:Estuary	0	243	243	66	208	274
	Middle Klamath	0	339	339	0	2	2
	Upper Klamath	3	304	307	6	10	16
	Trinity River	8	412	420	194	1,660	1,854
	Total	11	1,298	1,309	266	1,880	2,146
2018	Commercial:Estuary	0	0	0	0	0	0
	Middle Klamath	0	0	0	0	0	0
	Subsistence:Estuary	3	1,109	1,112	86	8,665	8,751
	Middle Klamath	0	62	62	17	1,518	1,535
	Upper Klamath	2	135	137	25	2,261	2,286
	Trinity River	49	481	530	180	2,325	2,505
	Total	54	1,787	1,841	308	14,769	15,077
2019	Commercial:Estuary	0	0	0	23	1,878	1,901
	Middle Klamath	0	0	0	1	9	10
	Subsistence:Estuary	1	36	37	17	1,438	1,455
	Middle Klamath ^{b/}	10	96	106	14	166	180
	Upper Klamath ^{b/}	6	52	58	39	441	480
	Trinity River	316	838	1,154	499	2,065	2,564
	Total	333	1,022	1,355	593	5,997	6,590
	rotar	000	1,022	1,000	000	0,007	0,000
2020 ^{d/}	Commercial:Estuary	0	0	0	0	0	0
	Middle Klamath	0	0	0	0	0	0
	Subsistence:Estuary	5	142	147	85	1,730	1,815
	Middle Klamath	2	35	37	45	727	772
	Upper Klamath	3	78	81	111	1,776	1,887
	Trinity River	5	147	152	87	979	1,066
	Total	15	402	417	328	5,212	5,540
2021 ^{d/}	Commercial:Estuary	0	0	0	0	0	0
	Middle Klamath	0	0	0	0	0	0
	Subsistence:Estuary	NA	NA	NA	17	2,598	2,615
	Middle Klamath	NA	NA	NA	35	708	743
	Upper Klamath	NA	NA	NA	109	2,134	2,243
	Trinity River	135	982	1,117	451	2,626	3,077
	Total	135	982	1,117	612	8,066	8,678

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 by the Yurok Tribe to test for the presence of the parasite *Ichthyophthirius multifiliis*

c/ Harvest includes 20 fall run collected from the Trinity River by the Hoopa Valley Tribe to test for the presence of the d/ Preliminary.

TABLE B-6. Shasta, Scott, and Salmon rivers fall Chinook salmon spawning escapement estimates in numbers of fish.al

•	Shas	ta River	Scot	t River	Salmo	n River
Year	Adults	Jacks	Adults	Jacks	Adults	Jacks
1931-1940 ^{b/}	31,820	10,457	-	-	-	-
1941-1950	6,191	1,817	-	-	-	-
1951-1960	3,608	683	-	-	-	-
1961-1970	12,819	2,899	-	-	-	-
1971-1975	6,297	2,866	-	-	-	-
1976-1980 ^{c/}	6,506	3,194	2,950	1,527	1,467	583
1981-1985 ^{d/}	4,560	1,942	3,373	1,929	1,287	389
1986-1990 ^{e/}	2,403	318	4,010	1,512	3,361	537
1991-1995	3,751	539	4,497	1,032	2,510	552
1996-2000	3,572	726	6,409	355	2,905	189
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	2,754	135	1,376	139	1,032	26
2017	3,287	6,618	2,269	307	1,338	327
2018	18,675	2,017	1,208	71	1,228	285
2019	5,926	78	1,681	409	957	686
2020	3,775	393	812	43	972	122
2021 ^{f/}	5,972	927	1,307	655	1,890	263

a/ Estimates are made from a combination of weir counts, carcass surveys, and redd counts. The methodology can change annually based on environmental conditions, logistical constraints, and/or the expert opinion of regional biologists.

b/ Commercial fishing in low er Klamath River closed by the state after the 1933 season.

c/ Gillnetting resumed in low er 20 miles of Klamath River by Hoopa Valley Indian Reservation fishers in 1976.

d/ Shasta adults include 276 females taken to Iron Gate Hatchery in 1981.

e/ Low water conditions appeared to hinder entry into the Shasta River in 1988.

f/ Preliminary.

TABLE B-7. Summary of California North Coast salmon spawning stock surveys in numbers of fish (adults and jacks combined) or

redd counts. (Page 1 of 2)

redd counts.	(Page 1 of 2 Redw ood	<i>)</i> Mad	Eel River	South Fork	Mattole	Russian				
Run Year or	Creek ^{a/}	River ^{a/b/}	(Mainstem) ^{a/b/}	Eel River ^{a/b/}	River ^{c/}	River ^{d/}				
Ave.			((Redds)					
2000-2005	-	-	-	-		3,839	_			
2005-2006	-	-	-	-	_	2,607				
2006-2007	-	-	-	-	-	3,407				
2007-2008	-	-	-	-	-	2,021				
2008-2009	-	-	-	-	-	1,129				
2009-2010	2,438	-	-	-	-	1,800				
2010-2011	e/	-	-	-	-	2,502				
2011-2012	1,455	-	-	-	-	3,173				
2012-2013	3,401	-	-	-	418	6,730				
2013-2014	3,487	2,169	f/ -	-	988	3,152				
2014-2015	e/	7,489	-	-	535	1,420 g/				
2015-2016	1,839 h/	5,786	-	-	331	3,020 g/				
2016-2017	3,191	7,186	-	-	929	1,062 i/				
2017-2018	4,541	12,667	-	-	2,202	2,093				
2018-2019	2,820	3,825	3,844	3,738	633	1,219				
2019-2020	290	k/	4,231	135	k/	922				
2020-2021	e/	k/	4,632	14	k/	625				
2021-2022 ^{j/}	k/	k/	k/	k/	k/	k/				
СОНО	Redw ood	Humboldt	Freshw ater	South Fork	Ten Mile	Pudding	Noyo	Big	Little	Lagunitas
Run Year or	Creek ^{c/}	Bay ^{c/l/}	Creekm/	Eel Riverb/c/	River ^{n/}	Creek ^{m/}	River ^{n/}	River ^{n/}	River ^{n/}	Watershed ^{o/}
Ave.	(Redds)	(Redds)		(Redds)						(Redds)
1995-2000	-	-	-	-	-	-	-	-	-	196
2000-2005	-	-	1,171	-	-	816	-	-	79	305
2005-2006	-	-	789	-	-	709	1,394	-	14	190
2006-2007	-	-	396	-	-	401	330	-	14	338
2007-2008	-	-	262	-	-	228	259	-	5	148
2008-2009	-	-	399	-	-	50	294	80	4	26
2009-2010	246	194	89	-	190	9	286	134	2	51
2010-2011	574	1,099	455	1,284	395	199	411	160	8	80
2011-2012	540	1,738	624	1,873	1,127	415	228	269	2	130
2012-2013	405	763	318	1,340	440	283	784	519	2	217
2013-2014	705	630	155	939	3	0	723	155	3	188
2014-2015	297	1,632	718	2,069	1,654	539	3,468	1,344	65	140
2015-2016	206	617	449	416	241	135	5,112	744	15	226
2016-2017	e/	522	466	465	336	573	2,196	250	34	158
2017-2018	523	443	535	1,633	1,011	497	2,043	963	30	103
2018-2019	554	922	560	990	1,045	755	1,015	e/	13	306
2019-2020	153	448	298	138	303	551	358	1,198	5	61

TABLE B-7. Summary of California North Coast salmon spawning stock surveys in numbers of fish (adults and jacks combined) or redd counts. (Page 2 of 2)

- a/ Escapement estimates from expanded sonar fish counts.
- b/ Previous versions of this table reported Chinook and coho counts for Cañon, Tomki (Chinook only), and Sprowl creeks, tributaries to the Mad, mainstem Eel, and South Fork Eel rivers, respectively. See the *Review of 2018 Ocean Salmon Fisheries* for these estimates.
- c/ Expanded redd counts from design-based sample of reaches.
- d/ Video counts of combined adults and jacks made at Mirabel Dam. These are minimum counts and are not comparable between years. Accuracy of counts may be affected by environmental conditions.
- e/ No data available.
- f/ Minimum count; sonar installed mid-season.
- g/ Mirabel Dam video counts were unavailable due to construction of a new counting facility. The number recorded is the sum of minimum counts made at two facilities upstream of Mirabel Dam.
- h/ Minimum abundance due to unexpanded, missing data.
- i/ Monitoring at Mirabel Dam was complicated by operational challenges associated with the implementation of a new counting facility.
- j/ Available estimates are incomplete and preliminary; surveys are still in progress at time of publication.
- k/ Estimates not yet available; data analysis in progress.
- I/ Redd surveys conducted in the four largest tributaries to Humboldt Bay: Jacoby Creek, Freshwater Creek, Elk River, and Salmon Creek.
- m/ Escapement estimates from mark-recapture experiments.
- n/ Escapement estimates derived by multiplying expanded redd counts from design-based sample of reaches by annual fish/redd ratios.
- o/ Olema Creek is excluded.

TABLE B-8. Peak spawning counts in index areas for selected south/local migrating Oregon coastal fall Chinook stocks.

	Deep C	reek	Big Emily (Chetco	Creek	Bear	Creek ck River)			
	(PISTOLIN (0.4 m	•	(Cheico (1.0 r		•	mile)	Index (fish per mile		
Year or Avg.	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	58	12	10	2	35	7	
1991-1995	12	9	74	10	16	2	46	10	
1996-2000	51	6	51	4	18	2	54	6	
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	5	1	42	5	27	2	34	4	
2017	9	3	34	7	15	2	26	5	
2018	4	3	16	10	11	7	14	9	
2019	7	3	15	2	1	0	10	2	
2020	28	8	20	11	1	5	22	11	
2021 ^{b/}	18	2	20	5	6	1	20	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		Gold Ray Dam,		a/	Wi	nchester Dam,	Umpqua Rive	er ^{a/}
Avg.	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	8.0	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
1996-2000	6.6	22.5	29.1	2.8	3.6	4.3	7.8	5.2
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	9.6	NA	NA	NA	4.3	4.4	8.7	2.6
2017	10.2	NA	NA	NA	4.0	2.7	6.8	1.1
2018	10.4	NA	NA	NA	3.3	2.0	5.3	2.7
2019	5.4	NA	NA	NA	3.7	2.2	5.8	1.9
2020	3.6	NA	NA	NA	6.2	3.7	9.9	1.9
2021 ^{d/}	4.6	NA	NA	NA	2.3	1.9	4.2	1.0

a/ Jacks included in natural, hatchery, and total counts.

b/ Gold Ray Dam removed October, 2010. Natural estimate derived using relationship of 2004-2010 spaw ning 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.

	Card	cass Counts ^{a/}			ntley Park Pass	
Year or Avg.	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
1996-2000	2,710	122	2,833	51,229	14,389	65,618
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	-	-	-	27,278	16,762	44,040
2017	-	-	-	91,977	24,068	116,045
2018	-	-	-	39,497	23,921	63,418
2019	-	-	-	19,426	17,662	37,088
2020	-	-	-	30,497	16,626	47,123
2021 ^{c/}	-	-	-	48,870	13,679	62,659

a/ Surveys were discontinued in 2005.

 $^{\,}$ b/ $\,$ ln 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.

									River Tr	ibutaries									_	
	Hun	nbug			Nia	gara	Sun	shine	Gr	ant					W.F. M	illicoma	Sal	mon		
	(Neh	alem)	Tilla	amook	(Nest	ucca)	(Sile	etz)	(Yac	luina)	Buck (Alsea)	Siuslaw	(Lake)	(Coos	3) (0.5	(Coo	uille)	Index	Fish Per
Year or	(1.0	mile)	(1.8	mile)	(0.4	mile)	(1.2	mile)	(1.7	mile)	(1.0	mile)	(0.8 r	nile)	mi	le)	(0.8	mile)	M	lile
Average	Adults	Jacks	Adults	Jacks	Adults	Jacks	Adults	Jacks	Adults	Jacks	Adults	Jacks	Adults	Jacks	Adults	Jacks	Adults	Jacks	Adults	Jacks
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
1996-2000						1	73	1	a/	62	56	3	360	14	31	3	110	6	112	4
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	154	2	a/	a/	24	0	162	3	159	9	39	1	224	1	19	0	a/	a/	118	2
2017	132	1	a/	a/	39	1	109	1	126	5	47	4	282	3	20	1	a/	a/	114	2
2018	107	6	a/	a/	11	0	86	2	220	11	31	3	94	5	57	5	a/	a/	92	5
2019	201	2	a/	a/	8	0	48	0	79	2	27	0	46	2	19	1	a/	a/	65	1
2020	348	4	a/	a/	17	0	115	1	233	5	71	3	74	1	47	3	a/	a/	137	3
2021 ^{b/}	120	2	a/	a/	20	0	74	1	133	9	a/	a/	124	1	5	2	a/	a/	85	3

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.

				Tributary Runs							
	Minimum	Low er Rive	r Catch ^{a/}		Willamette						_
Year or	Columbia R.	Non-Indian	•		L. Willamette	Will. Falls					Hatchery
Average	Return ^{b/}	Commercial	Sport	Run Size	Sport Catch	Escapement ^{b/}	Sandy	Cow litz ^{c/}	Lew is c/	Kalama	Escapement ^{d/}
1981-1985	93,220	6,680	1,840	67,700	15,620	35,580	1,940	19,960	4,220	3,740	28,840
1986-1990	123,834	11,980	4,330	103,100	21,140	58,760	2,425	10,691	11,340	1,877	32,460
1991-1995	85,837	3,680	2,300	66,039	18,180	32,580	4,920	6,801	5,870	1,976	23,700
1996-2000	54,552	409	60	43,953	5,060	31,239	3,803	1,797	1,961	787	21,380
2001-2005	137,416	5,080	6,040	104,933	9,940	70,811	7,439	9,721	4,664	3,383	48,866
2006-2010	80,247	1,720	2,880	53,795	8,940	32,982	4,654	5,769	4,190	3,298	29,986
2011	98,605	2,300	2,500	76,549	22,800	43,748	5,721	5,860	1,310	776	31,030
2012	92,142	2,300	3,700	63,037	15,800	35,899	5,038	12,645	1,895	889	32,106
2013	66,729	1,800	1,798	44,880	7,400	27,897	5,700	8,656	1,574	1,014	26,892
2014	69,006	1,300	2,700	49,765	7,900	30,071	5,971	8,957	1,482	1,013	27,783
2015	131,394	2,649	4,266	84,532	13,552	53,088	4,000	23,933	1,006	3,149	52,237
2016	87,976	1,200	2,600	47,225	6,000	30,317	4,179	22,478	473	3,980	31,303
2017	96,060	1,300	1,800	50,774	7,400	34,186	7,803	14,639	2,338	3,515	25,445
2018	62,743	500	1,621	37,441	6,200	24,543	4,838	4,076	3,454	2,371	18,540
2019	37,007	300	239	27,292	4,700	18,882	3,424	1,563	1,047	997	11,271
2020	61,413	312	220	45,965	6,078	33,888	7,782	908	1,874	1,215	21,207
2021 ^{e/}	61,539	262	1,411	41,308	6,473	28,646	5,676	3,478	2,840	1,883	19,974

a/ Includes some upriver origin spring Chinook through 1980. Beginning in 1981, the lower river catch of lower 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 was 30,000 to 35,000. Beginning in 1988, the goal was 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. Lower 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 Damal (Includes Snake River summer Chinook.)

	Minimum	Low er Rive	er Catch ^{c/}	Catch Above Bonneville Dam							
Year or	Columbia	Non-Indian		Bonneville		Treaty	Non-Treaty	Snake River	Escapement ^{h/}	Rock Island	Dam Count
Avg.	R. Return ^{b/}	Commercial	Sport	Dam Count ^{d/}	Sport ^{e/}	Indian ^{f/}	Tribal ^{g/}	Hatchery	Wild	Hatchery	Wild
1981-1985	70,440	1,706	393	68,342	0	3,569	0	7,508	10,791	7,473	4,798
1986-1990	108,167	2,378	1,356	104,433	0	6,957	0	19,701	10,192	9,669	4,891
1991-1995	63,404	511	710	62,183	0	3,745	0	7,260	6,880	7,005	1,702
1996-2000	90,792	81	36	90,675	0	5,359	0	16,816	5,390	5,284	510
2001-2005	269,274	4,941	14,594	249,740	2,331	26,037	30	69,242	27,861	18,319	2,369
2006-2010	176,420	4,769	13,301	156,752	2,615	18,295	3	49,749	15,143	12,893	1,113
2011	221,158	3,930	9,506	205,431	4,516	15,533	0	72,531	24,526	11,084	2,005
2012	203,090	4,821	10,422	186,448	3,597	17,701	1	55,117	25,634	15,289	3,838
2013	123,136	1,853	5,343	112,934	1,413	9,282	8	29,835	14,576	11,524	1,821
2014	242,635	4,098	13,572	224,946	5,627	24,703	37	62,759	32,065	20,203	3,044
2015	288,994	6,818	15,689	265,558	3,101	31,181	58	98,819	22,577	27,830	3,918
2016	187,816	3,508	10,167	172,614	2,480	17,066	35	58,620	16,161	15,929	2,717
2017	115,821	1,083	7,198	107,524	84	8,109	35	32,229	4,425	6,785	1,295
2018	115,081	692	5,868	108,045	1,345	10,892	0	32,338	6,632	6,731	1,163
2019	73,104	304	1,478	71,235	613	4,702	11	19,476	4,140	7,787	1,001
2020	81,300	86	1,381	79,714	878	4,446	8	21,564	8,565	6,220	1,375
2021 ^{i/}	91,756	382	4,088	87,233	1,251	4,423	11	28,906	6,408	9,076	3,253

a/ Chinook formerly managed separately as Snake River summer Chinook are now grouped with all upriver spring Chinook because of overlap in run timing. b/ Includes adult upriver spring chinook and Snake River summer Chinook.

c/ 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 is from estimated miscellaneous fishery-related impacts from commercial shad and test fisheries, Select Area fisheries beginning in 1979, and catch and release mortalities from selective fisheries beginning in 2001. Sport catch, including any release mortalities, is from mainstem and Select Area fisheries downstream of Bonneville Dam.

d/ Spring counting period is January 1-June 15.

e/ Includes mainstem Columbia R. fisheries in Zone 6 (BON-MCN), McNary to Hwy I-395, Ringold sport (2001-2011), plus the Washington lower Snake River sport fishery.

f/ Includes ticketed commercial, over-the-bank sales, and ceremonial and subsistence catch. Spring season commercial fishery closed in 1975, 1976, and from 1978 to 2000. Spring Chinook landed during those years were from the winter season fishery and limited spring Ceremonial & Subsistence harvest. Includes below Bonneville Dam C&S starting in 2008 along with fish taken for tribal use from low er river test fishing.

g/ Mainstem catch. Wanapum tribal fishery.

h/ Escapement estimated at Low er Granite Dam.

i/ Preliminary.

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.)

Chillook desti	ileu iui aleas a	nove politieville	Daili (Exci	dues Shake Nive	i sullillei C	illiouk.)		
	Minimum	Low er Rive	er Catch		<u>Cato</u>	<u>ch above Bonr</u>	<u>neville Dam</u>	<u>Escapement</u>
Year or	Columbia R.	Non-Indian		Bonneville		Treaty	Non-Treaty	Rock Island
Avg.	Return	Commercial ^{b/}	Sport ^{c/}	Dam Count ^{d/}	Sport ^{e/}	Indian ^{f/}	Tribal ^{g/}	Dam Count ^{h/}
1981-1985	16,709	55	0	16,654	-	973	0	10,010
1986-1990	21,036	71	8	20,957	-	902	0	14,563
1991-1995	12,984	30	15	12,939	-	227	0	10,748
1996-2000	17,957	5	29	17,924	-	317	96	13,902
2001-2005	70,287	611	1,264	68,412	265	4,624	2,202	66,711
2006-2010	59,227	2,933	2,872	53,423	518	11,634	1,983	43,946
2011	80,574	5,004	5,576	69,994	389	20,645	1,263	44,432
2012	58,300	1,715	3,281	53,304	296	7,824	3,423	52,184
2013	67,603	1,987	2,058	63,508	324	13,397	3,692	68,380
2014	78,254	2,788	2,385	72,871	453	19,389	3,724	77,982
2015	126,882	4,043	6,152	116,657	786	37,763	10,694	88,691
2016	91,048	3,050	3,706	84,192	565	20,515	4,199	79,253
2017	68,204	47	3,853	64,144	262	16,328	1,736	56,265
2018	42,120	24	1,140	40,906	134	9,498	1,336	38,816
2019	34,619	23	74	34,472	6	5,637	1,431	41,090
2020	65,494	13	1,417	64,064	172	8,410	1,764	70,654
2021 ^{i/}	56,773	0	2,284	54,489	101	11,225	1,654	52,076
GOAL	29,000 ^{j/}							12,143 ^{k/}

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, Snake River summer Chinook have been moved from this table to Table B-13.

- c/ Includes estimated catch and release mortalities from mainstem and Select Area recreational fisheries.
- d/ Counting period June 16-July 31.
- e/ Mainstem catch from Bonneville Dam upstream to Priest Rapids Dam.
- f/ Mainstem catch. Includes ticketed commercial, over-the-bank sales, and ceremonial and subsistence catch. No directed commercial summer Chinook fishery from 1965 to 2003. Landings during those years are bycatch from commercial sockeye fishery. Includes commercial and C&S catch. Includes catch downstream of Bonneville since 2010.
- g/ Mainstem catch. Wanapum and Colville tribal fisheries.
- h/ Summer counting period June 18 to August 17.
- i/ Preliminary.
- j/ Comanager goal established in 2004 associated with regrouping Snake River summer Chinook with Snake River spring Chinook.
- k/ MSY spaw ning escapement objective adopted in 2011 under Amendment 16 based on Chinook Technical Committee Report 99-3.

b/ Mainstem and Select Area Fisheries. 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.

TABLE B-15. Estimates of inriver run size, catch, and escapement in numbers of Columbia River adult lower river hatchery (LRH) stock fall Chinook.^{a/}

	Minimum		Catch			
Year or	Columbia R.	Non-Indian		Treaty -	Esca	pement
Ave.	Return	Commercial ^{b/}	Sport ^{c/}	Indian ^{d/}	Natural ^{e/}	Hatchery ^{f/}
1981-1985	107,163	25,604	4,486	851	37,755	36,846
1986-1990	199,938	93,794	17,420	655	38,774	48,821
1991-1995	55,519	2,871	4,998	238	19,915	27,419
1996-2000	49,017	2,041	5,239	72	17,310	24,319
2001-2005	118,621	9,183	11,804	188	60,838	36,549
2006-2010	66,452	7,634	9,291	148	23,215	26,134
2011	108,961	15,417	17,248	223	28,334	47,735
2012	84,978	16,340	16,362	457	21,556	30,259
2013	104,777	10,578	19,420	574	40,411	33,662
2014	101,906	12,810	16,347	135	33,264	39,333
2015	128,705	15,146	15,142	42	34,588	63,784
2016	81,860	11,050	11,418	78	21,974	37,340
2017	64,627	7,917	8,831	198	19,737	27,929
2018	52,963	5,348	7,417	68	19,093	21,037
2019	48,913	3,046	6,400	0	16,795	22,536
2020	77,853	6,057	8,968	196	25,058	37,336
2021 ^{g/}	73,800	NA	NA	NA	NA	NA
COAL						Hatchery
GOAL						Production

a/ Based on Columbia River fall Chinook database (Preliminary Big Sheets), WDFW, unpublished. Adult Aged fish.

b/ Includes Select Area fisheries.

c/ Includes tributary catches.

d/ Commercial, ceremonial, and subsistence.

e/ Includes Cow litz, Kalama, Toutle, Lew is, and Washougal rivers.

f/ Does not include strays to hatcheries above Bonneville Dam or fish trapped at Bonneville Dam.

g/ Preliminary estimates based on preseason expectations.

TABLE B-16. Estimates of inriver run size, catch, and escapement in numbers of Columbia River adult lower river wild (LRW) stock fall Chinook.^{a/}

	Minimum		Catch			
	Columbia R.	Non-Indian		Treaty	– Escap	pement
Year or Ave.	Return	Commercial ^{b/}	Sport ^{c/}	Indian ^{d/}	Natural ^{e/}	Hatchery
1981-1985	16,287	1,940	1,320	0	12,480	480
1986-1990	32,600	10,689	3,251	60	18,383	181
1991-1995	14,761	2,159	2,433	0	10,101	68
1996-2000	9,545	189	397	0	8,865	94
2001-2005	21,201	2,231	3,041	32	15,801	44
2006-2010	9,586	619	892	0	8,070	5
2011	15,180	674	3,636	0	10,601	269
2012	12,112	1,880	766	0	9,407	59
2013	25,841	2,095	5,071	0	18,675	0
2014	25,774	767	2,107	0	22,900	0
2015	32,403	3,126	2,106	0	27,169	2
2016	13,034	906	2,713	0	9,414	1
2017	7,838	0	1,255	0	6,583	0
2018	8,270	0	1,052	0	7,218	0
2019	16,661	0	1,081	0	15,580	0
2020	35,375	1,221	5,925	0	28,226	3
2021 ^{f/}	20,400	NA	NA	NA	NA	NA
GOAL					5,700 ^{g/}	

a/ Based on Columbia River fall Chinook database (Preliminary Big Sheets), WDFW, unpublished. Adult Aged fish.

b/ Includes Mainstem Select Area fisheries.

c/ Includes tributary catches.

d/ Includes mainstem commercial, ceremonial and subsistence.

e/ Natural escapement includes Sandy and Lewis rivers.

f/ Preliminary estimates based on preseason expectations.

g/ Escapement objective is for North Lew is River, but escapement numbers include other fish. The escapement objective for the North Lew is River was met for all years except 1998, 1999, 2007, 2008, and 2009.

TABLE B-17. Estimates of inriver run size, catch, and escapement in numbers of Columbia River adult Spring Creek Hatchery (SCH) stock fall Chinook.^{a/}

		Low er Rive	er Catch					
Year or	Minimum	Non-Indian		Bonneville	Catch Above	Bonneville Dam	<u>Esca</u>	pement
Ave.	Columbia R.	Commercial ^{b/}	Sport ^{c/}	Dam Countd/	Sport ^{e/}	Treaty Indianf/	Natural ^{g/}	Hatchery ^{h/}
1981-1985	63,342	9,747	580	49,780	c/	24,637	2,711	15,955
1986-1990	16,673	2,920	769	10,200	133	6,080	1,500	4,600
1991-1995	30,192	2,067	1,133	25,564	126	11,360	1,460	9,700
1996-2000	30,278	659	1,682	27,180	306	14,824	3,213	8,071
2001-2005	148,523	6,540	4,626	137,108	629	51,618	11,955	52,389
2006-2010	63,213	5,169	1,454	54,307	408	28,563	3,302	21,694
2011	70,096	12,196	802	53,655	440	28,801	10,283	17,092
2012	56,947	7,983	3,067	44,076	319	14,223	5,063	26,255
2013	86,707	15,823	3,087	62,525	113	29,746	10,074	16,307
2014	127,000	22,813	4,753	81,030	783	54,740	16,655	24,112
2015	166,370	22,767	8,309	111,900	360	67,922	22,319	43,246
2016	44,554	8,745	1,834	31,663	543	19,256	5,064	9,037
2017	48,227	4,949	5,266	38,012	707	21,332	1,547	12,443
2018	28,861	2,786	2,603	23,472	33	10,581	336	12,512
2019	28,953	1,537	1,888	25,424	624	10,790	1,606	11,763
2020	52,688	8,033	1,624	42,959	101	18,389	1,018	15,429
2021 ^{i/}	49,800	NA	NA	NA	NA	NA	NA	NA
GOAL								7,000 ^{j/}

a/ Based on Columbia River fall Chinook database (Preliminary Big Sheets), WDFW, unpublished. Adult Aged fish. This stock may also be referred to as Bonneville Pool Hatchery (BPH).

b/ Includes Select Area fisheries.

c/ Includes Bouy 10, Mainstem, and tributary catch downstream of Bonneville Dam. Includes estimates for release mortalities. 1970-1988 catch includes upriver catch.

d/ Fall counting period begins August 1.

e/ Includes mainstem and Zone 6 tributary catch. 1970-1988 catch included in low er river sport fisheries.

f/ Includes mainstem commercial, ands ceremonial and subsistance catch.

g/ Includes White Salmon, Klickitat, and Little White Salmon rivers.

h/ Does not include strays to hatcheries below Bonneville Dam. Includes fall Chinook tules trapped at Bonneville Dam, 1986-1994 and 1998.

i/ Preliminary estimates based on in-season run updates.

j/ Escapement goal was changed from 8,200 fish to 7,000 fish, or 4,000 females, in 1994.

TABLE B-18. 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/}

	Minimum	Low er Riv	er Catch		Above Bo	nneville Catch		
	Columbia R.	Non-Indian		Bonneville			Esca	<u>ipement</u>
Year or Ave.	Return	Commercial ^{b/}	Sport ^{c/}	Dam Count	Sport ^{d/}	Treaty Indiane/	Natural ^{f/}	Hatchery ^{g/}
1982-1985	10,275	1,675	100	4,925	c/	1,875	0	3,450
1986-1990	60,894	26,547	2,041	24,780	581	16,288	4,253	9,194
1991-1995	32,352	4,151	958	19,360	664	6,014	7,327	10,631
1996-2000	48,787	2,994	3,110	34,120	1,897	9,475	14,052	11,059
2001-2005	111,515	10,532	8,612	68,642	2,791	23,112	24,372	23,405
2006-2010	71,266	6,764	2,641	39,363	2,386	20,511	8,419	21,920
2011	87,262	7,596	7,232	58,775	963	27,569	12,399	24,923
2012	63,363	5,841	3,850	44,306	7,490	14,804	12,860	17,052
2013	243,508	16,947	10,875	187,748	16,508	52,261	65,999	58,045
2014	203,734	20,902	9,527	154,971	16,874	74,477	34,996	34,075
2015	170,620	14,536	11,910	123,722	14,037	56,405	31,305	30,744
2016	88,299	9,460	4,526	59,300	9,476	28,184	19,290	15,806
2017	47,367	1,087	5,914	33,820	5,347	18,598	6,261	7,750
2018	36,009	440	951	27,972	7,623	14,858	5,646	6,354
2019	58,140	1,457	2,275	54,380	5,109	14,978	15,924	16,636
2020	101,928	7,026	7,184	85,101	8,325	31,937	12,357	17,216
2021 ^{h/}	42,300	NA	NA	NA	NA	NA	NA	NA

a/ Based on Columbia River fall Chinook database (Preliminary Big Sheets), WDFW, unpublished. Adult Aged fish. The MCB stock includes Bonneville upriver brights (BUBs) and Pool upriver brights (PUBs). A portion of the BUB stock includes lower river brights (LRBs) that spawn naturally downstream of Bonneville Dam. In 2013, hatchery production of BUBs was discontinued and production shifted to PUB. Since 2018, the MCB stock has consisted of PUB stock and the minor LCB component.

b/ Mainstem and Select Areas downstream of Bonneville Dam.

c/ Mainstem and tributary downstream of Bonneville Dam. 1982-88 includes catch from upriver sport.

d/ Mainstem and tributary betw een Bonneville and McNary dam (Zone 6). 1982-88 catch from upriver sport included in low e river sport catch.

e/ Mainstem and tributary betw een Bonneville and McNary dam (Zone 6). Includes commercial, ceremonial, and subsistence catch.

f/ Includes Little White Salmon, Klickitat, and Umatilla rivers.

g/ Includes Little White Salmon, Bonneville, Umatilla, and Klickitat hatcheries.

h/ Preliminary estimates based on in-season run updates.

TABLE B-19. 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/}

								Esc	apement		
	Minimum	Low er Rive	er Catch		Above Bonne	eville Catch	Deschutes River			Total L.	SRW
Year or	Columbia	Non-Indian		Bonneville		Treaty	above/below	McNary Dam	Upper	Granite Dam	L. Granite
Ave.	R. Return	Commercial ^{b/}	Sport ^{c/}	Dam Count	Sport ^{d/}	Indian ^{e/}	Sheares Falls ^{f/}	Count ^{g/}	Columbia ^{h/}	Count	Dam Counti/
1981-1985	111,873	13,880	3,020	94,120	c/	26,700	5,551	51,042	NA	585	450
1986-1990	291,407	61,499	11,169	222,337	5,454	100,379	7,081	107,252	NA	690	289
1991-1995	105,302	5,000	1,151	99,028	3,945	20,813	7,342	61,362	NA	903	473
1996-2000	153,790	2,720	6,052	145,362	4,803	36,318	11,745	69,929	58,513	2,349	759
2001-2005	305,482	11,837	11,611	282,285	10,484	46,846	13,274	146,873	108,019	11,830	4,008
2006-2010	215,741	8,860	8,322	182,503	8,005	44,232	7,985	99,937	65,037	18,371	5,063
2011	322,233	22,215	19,641	280,377	14,531	80,288	17,117	161,191	93,510	25,248	8,778
2012	294,947	16,895	23,033	255,420	16,778	61,422	17,624	173,472	94,925	34,688	12,797
2013	784,116	47,636	34,181	702,503	33,224	162,964	18,068	454,991	305,445	56,565	21,124
2014	684,228	53,296	30,262	599,580	32,504	153,685	17,933	410,786	233,934	60,687	14,172
2015	795,915	38,375	48,015	706,440	40,516	159,717	17,074	396,580	323,276	59,300	16,212
2016	406,572	32,608	24,904	348,990	21,812	89,840	11,628	239,791	151,373	34,714	9,772
2017	297,123	12,671	32,654	266,283	14,770	77,280	4,943	156,927	96,096	26,430	6,966
2018	149,044	3,344	10,515	134,076	9,207	30,491	4,553	100,801	58,540	16,904	6,133
2019	212,238	3,824	9,760	198,636	14,544	40,795	20,815	128,862	77,880	15,777	6,558
2020	299,336	11,506	14,834	272,996	16,185	57,591	8,792	186,097	98,401	24,558	8,069
2021 ^{j/}	293,900	NA	NA	NA	NA	NA	NA	172,259	102,616	31,358	NA
GOAL								60,000 ^{k/}	39,625 ^{1/}		

a/ Based on Columbia River fall Chinook database (Preliminary Big Sheets), WDFW, unpublished. Does not include hatchery URB Chinook reared and released below McNary Dam. Adult Aged fish except for McNary, Ice Harbor and Total Lower Granite Dam Counts which are based on adult-sized passage.

b/ Includes, Mainstem, Select Areas, and test fishing.

c/ Includes Bouy 10, Mainstem, and Select Areas. 1971-1988 includes above Bonneville sport catch.

d/ Includes tributary and mainstem catch between Bonneville and Priest Rapids dams and Hanford Reach. Does not include Snake Basin sport harvest. 1971-1988 above Bonneville sport catch included in Lower River sport catch.

e/ Includes Mainstem Commercial and C&S, plus Deschutes Subsistence.

f/ Deschutes esc. time series revised in 2010 to match Deschutes R. Chinook Spaw ner Esc. Goal using U.S. v. OR Tech. Advisory Comm. Data (Sharma et al. 2009).

g/ Conting period August 9-December 31. Data from Fish Passage Center. Does not separate out any MCB fish that stray above McNary.

h/ Upper Columbia escapement only: Yakima River, Hanford Reach, and Priest Rapids Dam count.

i/ Snake River wild; adjusted for stray hatchery fish. Includes wild fish hauled to Lyons Ferry Hatchery.

i/ Preliminary estimates based on in-season run update.

k/ The U.S. v. Oregon parties managed for a McNary Damesc. of 60,000 beginning in 2008. Starting in 1994, inriver fisheries were managed for ESA consultation standards.

I/ MSY spaw ning escapement objective adoped in FMP Amendment 16 in 2011.

TABLE B-20. Estimates of minimum inriver run size and catch in numbers of adult spring, summer, and fall Chinook from the Columbia River al . (Page 1 of 3)

Columbia Rive	Low er River Catch				Above Bonneville Catch			Minimum
	Minimum						Non-	escapement
	Columbia R.	Non-Indian		Bonneville		Treaty	Treaty	(natural and
Year or Ave.	Return	Commercial	Sport	Dam Count	Sport	Indian	Tribal	hatchery)
			Sp	oring Chinook ^t	o/			
1981-1985	163,660	8,386	2,233	68,342	=	3,569	-	59,410
1986-1990	232,001	14,358	5,685	104,433	=	6,957	-	76,913
1991-1995	149,241	4,191	3,010	62,183	-	3,745	-	46,547
1996-2000	145,344	490	96	90,675	_	5,359	_	49,380
2001-2005	406,690	10,021	20,634	249,740	2,331	26,037	30	166,658
2006-2010	256,667	6,489	16,181	156,752	2,615	18,295	3	108,884
2011	319,763	6,230	12,006	205,431	4,516	15,533	0	141,176
2012	295,232	7,121	14,122	186,448	3,597	17,701	1	131,984
2013	189,865	3,653	7,141	112,934	1,413	9,282	8	84,648
2014	311,641	5,398	16,272	224,946	5,627	24,703	37	145,854
2015	420,388	9,467	19,955	265,558	3,101	31,181	58	205,38
2016	275,792	4,708	12,767	172,614	2,480	17,066	35	124,730
2017	211,881	2,383	8,998	107,524	84	8,109	35	70,179
2018	177,824	1,192	7,489	108,045	1,345	10,892	0	65,40
2019	110,111	604	1,717	71,235	613	4,702	11	43,67
2020	142,713	398	1,601	79,714	878	4,446	8	58,93
2021 ^{e/}	153,295	644	5,499	87,233	1,251	4,423	11	67,617
			Sui	mmer Chinook	, c/			
1981-1985	16,709	55	0	16,654	<u>-</u>	973	_	10,010
1986-1990	21,036	71	8	20,957	_	902	_	14,56
1991-1995	12,984	30	15	12,939	-	227	_	10,74
1996-2000	17,957	5	29	17,924	-	317	96	13,90
2001-2005	70,287	611	1,264	68,412	265	4,624	2,202	66,71
2006-2010	59,227	2,933	2,872	53,423	518	11,634	1,983	43,94
2011	80,574	5,004	5,576	69,994	389	20,645	1,263	44,43
2012	58,300	1,715	3,281	53,304	296	7,824	3,423	52,18
2013	67,603	1,987	2,058	63,508	324	13,397	3,692	68,38
2014	78,254	2,788	2,385	72,871	453	19,389	3,724	77,98
2015	126,882	4,043	6,152	116,657	786	37,763	10,694	88,69
2016	91,048	3,050	3,706	84,192	565	20,515	4,199	79,25
2017	68,204	47	3,853	64,144	262	16,328	1,736	56,26
2018	42,120	24	1,140	40,906	134	9,498	1,336	38,81
2019	34,619	23	74	34,472	6	5,637	1,431	41,09
2020	65,494	13	1,417	64,064	172	8,410	1,764	70,65
2021 ^{e/}	56,773	0	2,284	54,489	101	11,225	1,654	52,076

TABLE B-20. Estimates of minimum inriver run size and catch in numbers of adult spring, summer, and fall Chinook from the Columbia River^{a/}. (Page 2 of 3)

								Minimum
	Minimum	Low er River	Catch		Abo	<u>ve Bonneville</u>	<u>Catch</u>	escapement
	Columbia R.	Non-Indian		Bonneville		Treaty	Non-Treaty	(natural and
Year or Ave.	Return	Commercial	Sport	Dam Count	Sport	Indian	Tribal	hatchery)
				Fall Chinook ^{d/}				
1981-1985	306,886	52,511	9,486	147,840	NA	53,688	NA	115,123
1986-1990	601,513	195,448	34,650	257,317	2,467	123,462	NA	133,477
1991-1995	238,127	15,421	10,673	143,952	4,735	38,424	NA	94,866
1996-2000	291,417	8,604	16,480	206,662	7,006	60,689	NA	112,780
2001-2005	705,342	40,323	39,694	488,034	13,904	121,796	NA	358,476
2006-2010	426,258	29,046	22,599	276,173	10,799	93,454	NA	204,154
2011	603,732	58,098	48,559	392,807	15,934	136,882	NA	287,511
2012	512,347	48,939	47,078	343,802	24,587	90,907	NA	269,748
2013	1,244,949	93,079	72,635	952,776	49,845	245,544	NA	623,251
2014	1,142,641	110,588	62,997	835,581	50,161	283,037	NA	517,889
2015	1,294,013	93,950	85,482	942,062	54,913	284,087	NA	652,807
2016	634,319	62,769	45,395	439,953	31,831	137,358	NA	315,641
2017	465,182	26,624	53,920	338,115	20,824	117,408	NA	209,719
2018	275,147	11,918	22,538	185,520	16,863	55,998	NA	152,193
2019	364,905	9,864	21,404	278,440	20,277	66,563	NA	215,312
2020	567,180	33,843	38,535	401,056	24,611	108,113	NA	268,394
2021 ^{e/}	480,200	NA	NA	NA	NA	NA	NA	NA
				Total Chinook				
1981-1985	487,255	60,952	11,719	232,836	NA	58,231	NA	184,543
1986-1990	854,550	209,878	40,343	382,707	2,467	131,321	NA	224,953
1991-1995	400,352	19,641	13,698	219,074	4,735	42,396	NA	152,161
1996-2000	454,718	9,099	16,604	315,261	7,006	66,365	96	176,062
2001-2005	1,182,320	50,955	61,593	806,186	16,499	152,456	2,232	591,844
2006-2010	742,152	38,468	41,653	486,347	13,932	123,383	1,986	356,984
2011	1,004,069	69,332	66,141	668,232	20,839	173,060	1,263	473,119
2012	865,879	57,775	64,480	583,554	28,480	116,432	3,424	453,916
2013	1,502,417	98,719	81,833	1,129,218	51,582	268,223	3,700	776,279
2014	1,532,537	118,774	81,654	1,133,398	56,241	327,129	3,761	741,725
2015	1,841,283	107,460	111,589	1,324,277	58,800	353,031	10,752	946,879
2016	1,001,159	70,527	61,867	696,759	34,877	174,939	4,234	519,624
2017	745,267	29,054	66,771	509,783	21,170	141,845	1,771	336,163
2018	495,091	13,134	31,167	334,471	18,342	76,388	1,336	256,413
2019	509,635	10,491	23,195	384,147	20,896	76,902	1,442	300,077
2020	775,387	34,254	41,553	544,834	25,661	120,969	1,772	397,979
2021 ^{e/}	690,268	NA	NA	NA	NA	NA	NA	NA

TABLE B-20. Estimates of minimum inriver run size and catch in numbers of adult spring, summer, and fall Chinook from the Columbia River^{al}. (Page 3 of 3)

- a/ As reported in Appendix B tables. Spring Chinook data in tables B-12 and B-13, Summer Chinook data in B-14, Fall Chinook data in Tables B-15-19.
- b/ Includes low er river, Willamette, and upriver spring Chinook, which also includes Snake River summer Chinook. Excludes Select Area spring Chinook.
- c/ Upper Columbia Summer Chinook destined for areas upstream of the Snake River.
- d/ Includes LRH,LRW,SCH,MCB and URB stocks. Excludes Select Area Brights (SAB).
- e/ Preliminary.

TABLE B-21. Estimates of minimum inriver run size, catch, and escapement in thousands of adult coho entering the Columbia River.^{a/}

			Below Bonneville Dam				Above Bonneville Dam			
	Minimum	Lov	wer River Ca	tch	Low er Rive	er Escapement	Mainstem			
Year or	Inriver Run	_	Recre	eational		Tributary Dam	Bonneville	Commercial	Zone 6	
Average	Size	Commercial	Buoy 10	Mainstem ^{b/}	Hatchery ^{c/}	Counts ^{d/}	Dam Counts ^{e/}	Treaty Catch	Escapement ^{f/}	
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	
1996-2000	259.4	63.4	11.7	16.0	126.6	2.4	42.5	2.3	40.3	
2001-2005	639.1	177.6	42.9	30.6	221.9	6.4	134.5	5.6	128.9	
2006-2010	501.2	72.9	15.4	29.7	208.5	16.1	135.5	10.7	124.8	
2011	378.0	62.3	7.6	18.0	108.3	8.7	146.5	33.3	113.2	
2012	152.4	17.1	7.4	4.7	41.9	9.1	55.0	6.4	48.6	
2013	252.7	48.4	7.6	10.7	81.9	21.6	59.6	8.8	50.8	
2014	1,019.4	237.3	57.7	52.2	292.2	32.2	279.7	39.2	240.5	
2015	169.5	31.1	36.9	7.9	43.4	4.6	37.4	2.3	35.1	
2016	203.6	31.4	9.2	10.8	84.3	4.7	42.0	5.3	36.7	
2017	235.9	37.8	18.8	11.1	60.0	12.3	75.9	7.0	68.9	
2018	137.2	11.4	6.8	3.9	43.9	6.0	40.9	3.6	37.3	
2019	212.4	21.3	22.8	7.3	50.9	12.3	74.0	3.9	70.0	
2020	338.6	45.1	7.1	13.9	86.5	23.7	121.5	11.9	109.6	
2021g/	665.6	112.1	37.0	26.0	160.8	35.0	243.6	23.2	220.4	
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.

g/ Preliminary.

TABLE B-22. Estimated catch and effort in the Buoy 10 fishery.al

		Catc	h ^{b/}	
Year	Angler Trips	Chinook	Coho	Catch Per Trip
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
1996-2000	45,171	7,256	11,682	0.40
2001-2005	84,634	14,754	42,952	0.60
2006-2010	46,864	5,316	15,345	0.40
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	94,950	17,780	9,182	0.28
2017	93,547	28,398	18,834	0.50
2018	67,318	11,620	6,761	0.27
2019	76,977	11,274	22,775	0.44
2020	72,443	14,633	7,064	0.30
2021 ^{f/}	105,865	20,789	37,031	0.55

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	Non-local Stocks	Termina		Spaw r	ning Escapement	
Average	Gillnet Catch ^{a/}	Gillnet	Sport ^{b/d}	Natural ^{c/}	Hatchery	Terminal Run Size ^{d/}
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
1996-2000	-	12,449	2,182	2,564	9,168	26,363
2001-2005	76	6,604	3,323	2,288	15,588	27,803
2006-2010 ^{e/}	81	6,996	3,810	2,807	18,779	32,392
2011 ^{e/}	778	18,129	8,348	3,811	21,838	52,126
2012 ^{e/}	932	8,762	5,933	2,677	14,134	31,506
2013 ^{e/}	1,080	12,886	5,815	1,904	14,483	35,088
2014 ^e	1,178	12,838	7,368	2,075	18,367	40,648
2015 ^{e/}	1,159	3,681	12,146	2,824	26,584	45,235
2016 ^{e/}	713	2,429	7,869	1,888	12,897	25,083
2017 ^{e/}	405	2,537	6,949	3,147	19,937	32,570
2018 ^{e/}	347	1,187	4,649	2,847	18,265	26,948
2019 ^{e/}	247	1,299	3,885	2,894	13,349	21,428
2020 ^{e/f/}	100	647	3,774	3,585	29,798	37,804
2021 ^{e/f/}	506	3,552	NA	NA	NA	NA
GOAL				3,393 ^{g/}	9,800 ^{h/}	

a/ Non-local gillnet is catch prior to Aug. 16. In 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 commercial fishery.

b/ Adults. Sport catch since 1991 includes marine areas within Willapa Bay (e.g., Washaw ay Beach).

c/ Escapement estimates after 1984 are based on revised spawning habitat estimates. Natural = adult returns assumed to be from natural origin parents.

d/ Does not include catch of non-local stocks.

e/ To calculate total gillnet catch, combine Non-local Stocks Gillnet Catch (column 1) and Terminal Catch Gillnet (column 2).

f/ Preliminary.

g/ MSY spawning escapement objective established in FMP Amendment 16; WDFW goal is 4,350.

h/ WDFW goal; not an FMP goal.

TABLE B-24. Willapa Bay coho terminal run size, catch, and spawning escapement in numbers of fish.

	Termina		Spaw ning		
Year or Average	Gillnet	Sport ^{a/}	Natural ^{b/}	Hatchery ^{c/}	Terminal Run Sized/
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
1996-2000	13,756	2,065	21,167	22,531	59,519
2001-2005	44,656	4,695	51,114	49,171	149,635
2005-2010	29,765	2,901	37,277	16,952	86,896
2011	47,985	5,717	31,737	22,022	107,461
2012	25,783	5,052	20,412	14,609	65,856
2013	11,560	4,225	26,303	13,490	55,578
2014	77,475	21,221	59,569	83,059	241,324
2015	1,926	11,106	17,086	21,297	51,415
2016	19,324	5,239	30,667	21,868	77,098
2017	4,615	3,200	11,379	6,745	25,939
2018	7,253	2,182	17,228	13,973	40,636
2019	8,200	4,014	15,115	23,995	51,324
2020 ^{e/}	15,260	3,680	16,476	38,591	74,007
2021 ^{e/}	24,810	NA	NA	NA	NA
GOAL			17,200 ^{f/}	6,100 ^{f/}	

a/ Adults. Sport catch since 1991 includes marine areas within Williapa Bay (e.g., Washaw ay Beach).

b/ Natural spaw ning 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 spawing hatchery fish.

c/ Hatchery rack number includes fish released upstream until 2009.

d/ Does not include natural spaw ning 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)

			Termin	al Catch				
	Early Non-	Non-Indian	Treaty Indian	Chehalis Tribal		Spaw ning	Escapement	Terminal
Year or Average	local Catch	Gillnet	Gillnet	Gillnet	Sport ^{a/}	Natural ^{b/}	Hatchery ^{c/}	Run Size ^{d/}
SPRING Chinook								
1981-1985	-	-	-	57	5	924	-	963
1986-1990	-	-	e/	143	6	1,875	-	2,024
1991-1995	-	-	0	94	15	1,566	-	1,675
1996-2000	-	-	36	165	100	3,146	-	3,447
2001-2005	-	-	46	249	132	2,905	-	3,332
2006-2010	-	-	6	91	36	1,751	-	1,884
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	-	-	32	156	36	1,841	-	2,065
2016	-	-	7	104	19	926	-	1,056
2017 ^{g/}	-	-	1	6	0	1,384	-	1,391
2018 ^{g/}	-	-	0	26	7	493	-	526
2019 ^{g/}	-	-	0	1	0	983	-	984
2020 ^{g/}	-	-	0	1	0	2,828	-	2,829
2021 ^{g/}	-	-	0	1	0	2,573	-	2,574
GOAL						1,400		

TABLE B-25. Grays Harbor Chinook terminal catch, spawning escapement, and run size in numbers of fish. (Page 2 of 2)

			Termin	al Catch				
	Early Non-	Non-Indian	Treaty Indian	Chehalis Tribal		Spaw ning	Escapement	Terminal
Year or Average	local Catch	Gillnet ^{j/}	Gillnet	Gillnet	Sport ^{a/}	Natural ^{b/}	Hatchery ^{c/}	Run Size ^{d/}
FALL Chinook								
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
1991-1995	206	5,000	7,750	901	3,794	14,276	3,006	34,728
1996-2000	170	1,048	4,010	74	2,977	14,134	2,184	24,426
2001-2005	8	684	2,291	10	2,687	18,534	761	24,968
2006-2010	0	887	2,795	4	1,238	14,677	868	20,469
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	12,503	701	19,800
2014	0	73	5,094	2	1,124	11,893	1,676	19,862
2015	0	166	10,496	0	3,644	17,305	2,182	33,793
2016	0	36	2,060	2	2,837	11,248	990	17,173
2017 ^{g/}	0	107	3,578	0	2,781	17,145	2,404	26,015
2018 ^{g/}	0	78	2,608	0	3,685	20,741	1,225	28,337
2019 ^{g/}	0	98	2,374	0	1,734	14,880	1,295	20,381
2020 ^{g/}	0	58	3,688	0	1,454	20,879	1,049	27,128
2021 ^{g/}	0	104	2,408	0	NA	NA	1,823	NA
GOAL				-		13,326 ^{i/}	-	

a/ Age-3 and older.

b/ Age-3 and older, including hatchery fish spawning naturally.

c/ Includes fish taken from the spaw ning grounds for broodstock.

d/ Minimum estimate due to incomplete estimates of river recreational catch. Does not include non-local catch.

e/ Few er than 50 fish.

f/ In 1996 and 1997 WDFW not able to differentiate spaw ning time and believes this includes fall Chinook.

g/ Preliminary.

h/ 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; i/ November 2014: Council adopted new spaw ning escapement objective. The SMSY estimate of 13,326 w as accepted as an escapement goal by the Pacific Salmon Commission, PFMC and the co-managers. Previous objectives used for preseason planning i/ Includes non-harvest mortalities.

TABLE B-26. Grays Harbor coho terminal catch, spawning escapement, and run size estimates in numbers of fish.

		Termina	al Catch						
Year or	Non-Indian	Treaty	Chehalis		Spaw ning E	scapement ^{b/}	Te	rminal Run Siz	ze ^{c/}
Average	Gillnet	Indian Gillnet	Tribal Gillnet	Sport ^{a/}	Natural	Hatchery	Natural	Hatchery	Total ^{d/}
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
1996-2000	3,535	18,701	635	6,829	38,467	27,673	42,897	53,683	96,580
2001-2005	5,006	16,527	1,155	13,349	74,821	60,708	82,110	90,248	172,358
2006-2010	2,952	16,298	1,233	7,722	49,680	36,486	56,882	58,202	115,083
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	105,039	59,840	140,428	134,341	274,769
2015	1,540	12,544	610	8,172	21,278	9,646	28,953	24,825	53,778
2016	232	2,063	891	3,868	38,595	24,464	33,284	36,248	69,532
2017	1,170	10,554	955	10,721	26,907	22,617	36,260	36,646	72,906
2018	802	8,950	177	4,087	49,622	16,199	57,980	22,043	80,023
2019	2,000	8,207	0	13,666	30,468	14,089	36,012	17,479	53,491
2020 ^{e/}	1,014	6,541	0	6,538	23,814	14,392	30,099	21,923	52,022
2021 ^{e/}	1,504	13,888	180	NA	NA	NA	NA	NA	NA
GOAL					35,400 ^{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 Pacific Fisheries Management Council adopted a new SMSY of 24,426 under FMP Amendment 16 as a biological reference point used to develop status determination critieria consistent with the Magnusun-Stevens Act. Previously, the conservation objective of 35,400 listed in the Pacific Coast Salmon FMP was used to assess overfished status. The natural spawning escapement goal remains 35,400.

TABLE B-27. Treaty Indian gillnet catch of Chinook, chum, and sockeve salmon in t

Year or Average	Spring/Summer Chinook ^{a/}	Fall Chinook ^{a/}	Chum	Sockeye
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
1996-2000	29	4,446	1,536	1,458
2001-2005	60	6,848	2,220	12,235
2006-2010	19	4,566	1,280	661
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	41	5,137	7,294	4,312
2017	59	6,813	2,986	3,524
2018	1	4,420	3,852	3
2019	0	5,232	1,677	0
2020	0	10,778	778	1
2021 ^{b/}	5	6,818	2,928	953

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.

	Terminal Catch ^{a/}									
Year or		Ceremonia	ıl	Esca	pement	Te	Terminal Run Size			
Average	Gillnet	&	River Sport	Natural		Natural	Hatchery	Total		
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		
1996-2000	9,617			8,067	7,566	12,608	12,353	24,961		
2001-2005	21,600			9,262	16,945	15,147	32,368	47,515		
2006-2010	28,624	1,039	1,043	12,723	13,223	23,776	32,166	55,942		
2011	38,431	1,481	1,570	5,814	2,738	23,538	24,474	48,012		
2012	19,166	656	798	10,018	5,176	21,299	14,171	35,470		
2013	20,477	942	1,047	2,973	1,834	12,240	14,209	26,449		
2014	50,299	2,061	2,268	29,720	16,024	52,606	46,326	98,932		
2015	9,556	541	802	11,631	7,346	16,760	13,083	29,843		
2016	37,258	1,360	1,522	10,523	14,778	25,347	38,904	64,251		
2017	33,842	1,333	1,544	29,566	18,252	46,430	37,555	83,985		
2018	12,084	508	549	17,276	8,151	24,132	14,113	38,245		
2019	4,348	259	355	13,969	6,919	16,662	9,022	25,684		
2020	17,567	736	971	12,037	8,944	26,265	22,431	48,696		
2021 ^{b/}	14,617	NA	NA	NA	NA	NA	NA	NA		
GOAL				Ha	tchery Product	tion				

a/ Includes dip-in fish destined for other river systems.

b/ Includes Treaty and Non-treaty regulated fisheries.

TABLE B-29. Estimated inriver run size, catch, and escapement of Queets River spring/summer Chinook in numbers of fish.

	Terminal Catch							
Year or		Ceremonial &		Esca	pement	Te	rminal Run Siz	ze ^{c/}
Average	Gillnet		River Sport ^{a/}	Natural ^{b/}	Hatchery	Natural	Hatchery	Total
1981-1985	243	20	27	890	52	1,164	74	1,209
1986-1990	646	46	67	1,527	-	2,287	-	2,287
1991-1995	64	5	10	610	-	689	-	690
1996-2000	36	17	70	486	-	559	-	559
2001-2005	-	13	-	475	-	488	-	488
2006-2010	-	3	-	348	-	352	-	352
2011	-	0	-	373	-	378	-	378
2012	-	0	-	760	-	769	-	769
2013	-	<10	-	520	-	526	-	526
2014 ^{d/}	20	<10	-	377	-	402	-	402
2015 ^{d/}	23	<10	-	532	-	561	-	561
2016 ^{d/}	21	<10	-	704	-	733	-	733
2017 ^{d/}	25	<10	-	825	-	860	-	860
2018	3	<10	-	484	-	492	-	492
2019	1	<5	-	322	-	327	-	327
2020 ^{e/}	24	<5	-	342	-	379	-	379
2021 ^{e/}	NA	<5	-	NA	-	NA	-	NA
GOAL				700 ^{d/}				

a/ River catch of adults.

b/ Natural escapement includes hatchery strays.

c/ Minimum. Terminal run managed at 30 percent exploitation rate of inriver run size.

d/ A fishery targeting early fall coho at the tail end of August in weeks 33 and 34 caught a number of early Chinook.

e/ Preliminary.

TABLE B-30. Estimated inriver run size, catch, and escapement of Queets River fall Chinook in numbers of fish.

_		Terminal Catch	1				_
		Ceremonial &		_Escapement_		rminal Run Size	e
Average	Gillnet	Subsistence	River Sport ^{a/}	Natural ^{b/}	Natural c/	Indicator ^{d/}	Total
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
1996-2000	1,006	20	188	3,324	4,092	567	4,659
2001-2005	1,690	82	279	4,077	4,505	1,610	6,115
2006-2010	1,195	59	103	3,037	3,489	911	4,400
2011	2,327	85	417	3,857	4,724	1,782	6,506
2012	2,722	84	302	3,706	5,551	927	6,478
2013	1,943	60	369	2,582	3,790	899	4,689
2014	1,142	70	117	3,806	3,023	2,097	5,120
2015	1,335	102	583	5,483	5,089	2,395	7,483
2016	859	55	9	3,035	3,166	778	3,944
2017	1,551	58	20	2,822	3,522	897	4,419
2018	860	42	10	2,207	2,391	724	3,115
2019	1,387	56	218	2,663	3,709	611	4,320
2020 ^{e/}	2,784	85	114	3,459	6,076	520	6,596
2021 ^{e/}	1,537	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 fish of natural origin and hatchery origin (indicator stock) on the spawning grounds. 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.

_		Terminal Catch	l ^{a/}							
Year or		Ceremonial &			Escapement ^{c/}			Terminal Ru	n Size ^{c/}	
Average	Gillnet	Subsistence	River Sportb/	Natural	Supplemental	Hatchery	Natural	Supplemental	Hatchery	Total ^{d/}
1981-1985	2,385	20	104	5,460	-	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 ^{e/}	4,420	211	273	4,945	1,025	3,455	5,981	1,169	6,928	13,843
1996-2000	7,114	509	173	5,502	1,275	3,643	6,243	1,813	8,496	16,189
2001-2005 ^{e/f/}	15,903	1,044	942	12,345	977	5,512	15,723	1,368	17,995	35,086
2006-2010 ^{f/}	11,875	790	517	7,061	0	6,568	10,679	0	13,623	24,303
2011	16,641	1,229	1,491	8,588	0	12,887	13,477	0	20,190	33,668
2012	6,118	370	527	4,285	0	1,090	7,712	0	3,289	11,001
2013	4,519	522	1,285	5,684	0	9,680	8,019	0	11,801	19,820
2014	15,481	1,148	1,625	7,558	0	12,271	10,501	0	23,210	33,711
2015	2,268	215	300	2,028	0	3,315	2,201	0	5,296	7,496
2016	6,822	564	440	5,156	0	6,985	5,653	0	12,956	18,608
2017	7,583	669	111	5,232	0	9,947	6,469	0	15,381	21,851
2018	3,308	241	184	2,631	0	2,261	2,968	0	3,504	6,472
2019	2,567	365	639	1,700	0	8,597	3,083	0	10,438	13,521
2020	9,171	797	1,140	4,181	0	8,841	4,618	0	17,480	22,098
2021 ^{g/}	5,467	NA	NA	NA	0	NA	NA	NA	NA	NA
GOAL				5,800-14,50	0					

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 w as included in natural escapement and run size.

f/ In 2004, 2005 and 2006 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.

					Catch ^{a/}							
Year or		Gillnet		Ceremo	Ceremonial & Subsistence		_	Esca	pement	Te	rminal Run S	ize
Average	Natural	Hatchery	Total	Natural	Hatchery	Total	River Sport ^{b/}	Natural	Hatchery	Natural	Hatchery	Total
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
1996-2000	NA	NA	285			33	192	1,181	23	1,631	96	1,727
2001-2005	NA	NA	348			30	159	1,566	0	1,976	115	2,091
2006-2010	25	139	366	4	14	32	54	819	0	910	330	1,240
2011	51	25	76	7	3	10	22	827	0	885	50	935
2012	135	263	398	9	11	20	36	915	1	1,059	311	1,370
2013	117	415	532	6	17	23	65	750	0	873	497	1,370
2014	67	264	331	8	20	28	0	744	0	819	284	1,103
2015	17	55	72	9	5	14	0	1,070	0	1,096	60	1,156
2016	4	2	6	10	16	26	0	1,144	0	1,158	18	1,176
2017	7	39	46	8	12	20	0	1,364	0	1,379	51	1,430
2018	15	43	58			34	18	793	0	808	61	869
2019	9	12	21	2	0	2	0	766	0	777	12	789
2020	0	0	0	0	4	4	0	1,248	0	1,248	4	1,252
2021 ^{c/}	64	88	152	6	5	11	NA	NA	0	NA	NA	NA
GOAL								900 ^{d/}				

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); begining in 2008, all Chinook must be marked with a healed adipose fin clip. Sport fishery closed to retention of wild adult spring/summer Chinook through August 31in 2001, 2002, and every year since 2008.

c/ Preliminary.

d/ Minimum. Terminal run managed at 31 percent harvest rate of inriver run size.

TABLE B-33. Estimated inriver run size, catch, and escapement for Hoh River fall Chinook in numbers of fish.

		Terminal Catch	1					
Year or		Ceremonial &		Escap	ement		Γerminal Run Size	•
Average	Gillnet	Subsistence	River Sporta/	Natural ^{b/}	Hatchery	Natural ^{b/}	Hatchery	Total
1981-1985	849	36	59	2,745	20	3,684	100	3,764
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
1996-2000	759	29	303	2,545	0	3,611	25	3,636
2001-2005	942	30	316	3,217	31	4,350	155	4,505
2006-2010	560	12	221	2,154	0	2,925	22	2,947
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	1,683	10	477	1,269	0	3,297	142	3,439
2014	658	10	144	1,933	0	2,664	81	2,745
2015	493	11	198	1,795	0	2,439	58	2,497
2016	137	3	47	2,831	0	3,012	6	3,018
2017 ^{c/}	518	20	223	1,808	0	2,547	22	2,569
2018 ^{c/}	139	0	94	2,478	0	2,708	3	2,711
2019 ^{c/}	768	0	297	1,552	0	2,586	31	2,617
2020 ^{c/}	1,128	0	205	2,273	0	3,606	10	3,616
2021 ^{c/}	1,158	0	NA	NA	0	NA	NA	NA
GOAL				1,200 ^{d/}				

a/ Recreational catch of age-3 and older fish.

b/ Includes fish taken for hatchery brood stock.

c/ Preliminary.

d/ 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.

		Terminal Catch	a/					
Year or		Ceremonial &		Escap	pement	-	Γerminal Run Siz	Э
Average	Gillnet	Subsistence	River Sportb/	Natural ^{c/}	Hatchery	Natural ^{c/}	Hatchery	Total
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
1996-2000 ^{d/}	1,069	28	171	4,406	0	5,518	159	5,678
2001-2005 ^{e/}	2,796	28	451	7,094	831	8,931	1,437	10,368
2006-2010	2,358	15	327	4,328	13	6,650	379	7,028
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	4,830	20	1,093	2,899	0	8,609	233	8,842
2014	3,879	20	432	4,565	0	8,656	240	8,896
2015	579	10	253	1,794	0	2,609	27	2,636
2016	297	2	40	5,009	0	5,324	24	5,348
2017 ^{f/}	1,766	20	885	4,478	0	6,981	168	7,149
2018 ^{f/}	560	0	408	2,463	0	3,395	36	3,431
2019 ^{f/}	1,485	1	1,403	2,445	0	5,164	170	5,334
2020 ^{f/}	2,324	0	863	2,840	0	5,924	103	6,027
2021 ^{f/}	1,564	0	NA	NA	0	NA	NA	NA
GOAL				2,000 to 5,00	00			

a/ Includes dip-in fish from other river systems.

b/ Recreational catch of adults (coho over 20 inches).

c/ Natural escapement and run sizes estimate include fish taken for hatchery brood stock.

d/ In 1997: Recreational fishermen were limited to Chinook only. Release of adult coho required. Tribal net fishery used large mesh to minimize coho impacts.

e/ In 2002: 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.

		Terminal Catch	1					
Year or		Ceremonial &		Esca	pement		Terminal Run Size	
Average	Gillnet	Subsistence ^{a/}	River Sportb/	Natural ^{c/}	Hatchery ^{d/}	Natural ^{c/}	Hatchery ^{d/}	Total
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
1996-2000	213	50	239	1,072	299	1,272	585	1,857
2001-2005	296	41	377	1,083	925	1,220	1,498	2,717
2006-2010	706	14	229	693	887	793	1,737	2,530
2011	599	41	659	587	696	823	1,759	2,582
2012	880	20	640	785	437	881	1,881	2,762
2013	1,204	0	803	968	528	1,123	2,380	3,503
2014	714	0	481	625	342	832	1,330	2,162
2015	1,075	0	556	783	505	995	1,924	2,919
2016	1,374	15	480	871	745	1,142	2,343	3,485
2017	1,239	60	929	1,097	521	1,362	2,484	3,846
2018	1,426	10	820	990	602	1,203	2,645	3,848
2019	1,671	35	405	1,442	823	1,590	2,786	4,376
2020	801	0	479	935	742	1,075	1,882	2,957
2021 ^{e/}	695	10	564	748	813	822	2,008	2,830
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.

		Terminal Catch	1					
Year or		Ceremonial &		Escap	ement	-	Terminal Run Size	•
Average	Gillnet	Subsistence ^{a/}	River Sportb/	Natural ^{c/}	Hatchery ^{d/}	Natural ^{c/}	Hatchery ^{d/}	Total
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
1996-2000	831	90	338	5,307	0	6,566	0	6,566
2001-2005	1,602	80	547	5,768	0	8,196	13	8,209
2006-2010	1,710	0	265	4,017	0	5,980	16	5,996
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	3,901	0	6,877	49	6,926
2014	4,213	0	423	2,782	0	7,322	96	7,418
2015	2,387	0	868	3,440	0	6,676	19	6,695
2016	1,328	0	29	3,654	0	5,005	6	5,011
2017	3,999	0	396	3,604	0	7,957	42	7,999
2018	2,042	8	735	3,937	0	6,707	15	6,722
2019 ^{e/}	1,532	0	859	7,765	0	10,151	5	10,156
2020 ^{e/}	1,627	0	757	8,672	0	11,054	2	11,056
2021 ^{e/}	716	2	784	3,873	0	5,372	3	5,375
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)

		Terminal Catch ^a						
Year or		Ceremonial &		Escap	ement		erminal Run Size	
Average	Gillnet	Subsistence ^{b/}	River Sport ^{c/}	Natural ^{d/}	Hatchery ^{e/}	Natural ^{d/}	Hatchery ^{e/}	Total
				SUMMER COHO)			
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
1996-2000	1,213	50	173	638	3,574	830	4,817	5,648
2001-2005	4,040	40	379	993	7,436	1,897	10,992	12,888
2006-2010	1,644	0	166	748	4,552	1,265	5,846	7,111
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	4,299	0	934	688	5,085	2,320	8,686	11,006
2015	444	0	274	668	4,570	876	5,080	5,956
2016	2,462	0	144	772	2,116	1,669	3,825	5,494
2017	4,443	0	845	688	7,245	1,640	11,581	13,221
2018	1,711	0	669	233	624	1,060	2,177	3,237
2019	619	18	87	499	815	855	1,183	2,038
2020	610	0	507	932	3,719	1,025	4,743	5,768
2021 ^{g/}	51	0	NA	380	3,728	385	3,774	4,159
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)

		Terminal Catch ^a						
Year or		Ceremonial &		Escape	ement	Т	erminal Run Size	
Average	Gillnet	Subsistence ^{b/}	River Sport ^{c/}	Natural ^{d/}	Hatchery ^{e/}	Natural ^{d/}	Hatchery ^{e/}	Total
				FALL COHO				
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
1996-2000 ^{f/}	8,407	100	1,336	11,009	11,515	14,596	17,783	32,379
2001-2005	21,801	50	38 ^{f/}	4,623	2,645	5,021	2,791	7,812
2006-2010	19,978	4	1,957	7,222	13,734	16,948	25,947	42,895
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	4,370	7,072	5,111	18,125	11,039	29,164
2014	27,427	0	5,736	7,425	12,389	23,528	29,449	52,977
2015	5,291	0	2,706	2,571	3,595	6,978	7,185	14,163
2016	5,678	0	326	9,630	16,332	11,676	20,290	31,966
2017	15,629	0	2,599	7,474	18,299	13,034	30,967	44,001
2018	3,840	7	1,129	6,091	9,762	8,202	12,627	20,829
2019	3,151	0	2,444	6,852	4,712	9,713	7,446	17,159
2020	1,815	0	1,331	7,695	12,832	8,776	14,897	23,673
2021 ^{g/}	1,585	7	1,352	8,321	9,856	9,496	11,625	21,121
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/ In 1997 river sport: 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.

		Terminal Catch	1					
Year or		Ceremonial &		Esca	pement	Terminal Run Size		
Average	Gillnet	Subsistence	River Sporta/	Natural ^{b/}	Supplemental	Natural ^{b/}	Supplemental	Total
1991-1995	-	-	5	362	432	362	432	795
1996-2000	-	-	6	507	753	507	753	1,260
2001-2005	-	-	-	286	533	286	533	819
2006-2010	-	-	-	178	447	178	447	625
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	-	-	-	1,500	1,377	1,500	1,377	2,877
2016	-	-	-	651	673	651	673	1,324
2017	-	-	-	913	275	913	275	1,188
2018	-	-	-	1,943	236	1,943	236	2,179
2019	-	-	-	1,551	264	1,551	264	1,815
2020	_	-	-	1,839	283	1,839	283	2,122
2021 ^{c/}	-	-	-	NA	NA	NA	NA	NA
GOAL				850 ^{d/}	200 ^{e/}			

a/ River recreational catch of age-3 and older fish.

b/ Includes both natural-origin and hatchery-origin chinook that spaw ned in the gravel when they returned to the Hoko.

c/ Preliminary.

d/ Goal in terms of naturally spawning fish and includes supplementation production.

e/ Comanagers goal. Not an FMP goal.

TABLE B-39.	Puget Sound co	ommercial net a	nd troll fishery salı	Puget Sound commercial net and troll fishery salmon catches in numbers of fish.al (Page 1 of 2)								
Average	Fishery	Chinook	Coho	Pink ^{b/}	Chum	Sockeye						
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						
2006-2010 ^{c/}	Non-Indian	7,373	13,607	598,177	543,723	199,553						
	Treaty Indian	100,537	221,880	450,665	610,022	365,078						
	Total	107,910	235,487	1,048,842	1,153,746	564,632						
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	104,479	298,503	2,703,304	818,691	31,063						
	Total	113,668	328,080	5,896,948	1,727,941	38,062						
2014 ^{c/}	Non-Indian	4,343	11,815	29	543,192	234,200						
	Treaty Indian	59,469	191,166	703	626,919	497,829						
	Total	63,812	202,981	732	1,170,111	732,029						

TABLE B-39. Puget Sound commercial net and troll fishery salmon catches in numbers of fish. al (Page 2 of 2)

Year or	Fishery	Chinook	Coho	Pink ^{b/}	Chum	Sockeye
2015 ^{c/}	Non-Indian	3,367	4,777	398,670	559,632	16,906
	Treaty Indian	65,758	47,118	580,679	618,446	56,055
	Total	69,125	51,895	979,349	1,178,078	72,961
2016 ^{c/}	Non-Indian	6,604	14,328	-	444,586	-
	Treaty Indian	73,152	259,957	88	552,012	21,224
	Total	79,756	274,285	88	996,598	21,224
2017 ^{c/}	Non-Indian	12,065	11,763	17,852	713,535	-
	Treaty Indian	136,419	191,254	124,347	702,227	18,957
	Total	148,484	203,017	142,199	1,415,762	18,957
2018 ^{c/}	Non-Indian	13,700	9,645	3	388,943	397,671
	Treaty Indian	105,904	241,778	107	463,316	618,909
	Total	119,604	251,423	110	852,259	1,016,580
2019 ^{c/}	Non-Indian	9,509	2,980	92,790	135,230	-
	Treaty Indian	106,332	90,339	238,951	149,185	9,468
	Total	115,841	93,319	331,741	284,415	9,468
2020 ^{c/}	Non-Indian	9,286	6,652	0	103,069	-
	Treaty Indian	45,948	197,020	5	172,249	3,392
	Total	55,234	203,672	5	275,318	3,392
2021 ^{c/}	Non-Indian	7,316	11,964	155,754	85,089	-
	Treaty Indian	77,499	301,863	274,895	243,744	5,341
	Total	84,815	313,827	430,649	328,833	5,341

a/ Data do not reflect treaty Indian allocations. Includes U.S. and Canadian-origin salmon and fish caught in test fisheries. Includes tribal commercial, cermonial, subsistence and taken home catch.

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
1996-2000	42,205	81,844	11,849
2001-2005	31,024	98,832	65,866
2006-2010	33,868	41,881	50,040
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	29,168	142,669	198,931
2016	30,195	4,983	10
2017	44,040	36,240	11,555
2018	51,518	73,069	14
2019 ^{c/}	38,854	62,450	53,338
2020 ^{c/}	28,837	97,981	28
2021	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 4)

Year or		nmercial Net Cato		spawning escapem Spa	ients in numbers d aw ning Escapeme			et Sound Chinook et Sound Run Siz	
Average	Hatchery	Natural ^{b/}	Total	Hatchery	Natural ^{b/}	Total	Hatchery	Natural ^{b/}	Total
<u> </u>				•	luan de Fuca		· ·		
1981-1985	58	129	187	811	1,450	2,261	869	1,579	2,448
1986-1990	257	330	587	2,372	3,401	5,774	2,629	3,732	6,361
1991-1995	91	89	180	1,110	1,606	2,715	1,201	1,695	2,896
1996-2000	9	22	31	1,229	2,207	3,435	1,238	2,228	3,466
2001-2005	5	11	16	1,471	2,640	4,110	1,476	2,650	4,126
2006-2010	10	12	21	1,366	1,802	3,169	1,376	1,814	3,190
2011	12	9	21	2,264	1,837	4,101	2,276	1,846	4,122
2012	9	12	21	1,854	2,377	4,231	1,863	2,389	4,252
2013	11	11	22	3,104	3,266	6,370	3,115	3,277	6,392
2014	32	37	69	3,207	3,649	6,856	3,239	3,686	6,925
2015	36	38	74	3,364	3,893	7,257	3,400	3,931	7,331
2016	1	3	4	1,768	2,697	4,465	1,769	2,700	4,469
2017	1	2	3	2,179	2,798	4,977	2,180	2,800	4,980
2018	22	36	58	3,932	6,279	10,211	3,954	6,315	10,269
2019	6	10	16	2,996	7,385	10,381	3,002	7,395	10,397
2020 ^{f/}	0	0	0	1,786	3,640	5,426	1,786	3,640	5,426
2021	NA	NA	NA	NA	NA	NA	NA	NA	NA
GOAL						5,300			
				Nooksa	ck-Samish				
1981-1985	54,087	33,729	87,816	16,083	6,575	22,658	70,170	40,304	110,474
1986-1990	38,045	26,421	64,465	10,729	4,113	14,841	48,773	30,533	79,306
1991-1995	19,306	2,934	22,241	8,646	1,041	9,686	27,952	3,975	31,927
1996-2000	21,605	6,533	28,138	8,263	2,957	11,219	29,868	9,490	39,358
2001-2005	11,165	18,851	30,015	3,909	7,429	11,338	15,074	26,280	41,353
2006-2010	15,572	8,687	24,259	6,793	3,628	10,421	22,365	12,315	34,680
2011	29,765	2,141	31,906	8,495	669	9,164	38,260	2,809	41,070
2012	31,721	4,052	35,772	6,635	941	7,576	38,356	4,992	43,348
2013	28,207	1,733	29,940	8,720	621	9,341	36,927	2,354	39,281
2014	18,299	1,066	19,366	12,437	773	13,210	30,736	1,840	32,576
2015	16,124	1,163	17,287	6,162	592	6,754	22,286	1,755	24,041
2016	15,290	1,049	16,339	4,666	336	5,002	19,956	1,385	21,341
2017	18,699	1,673	20,372	5,389	520	5,909	24,088	2,193	26,281
2018	12,974	1,657	14,631	8,306	713	9,019	21,280	2,370	23,650
2019	9,942	831	10,774	7,470	293	7,763	17,412	1,124	18,537
2020 ^{f/}	11,227	3,336	14,562	6,111	1,560	7,671	17,338	4,896	22,233
2021	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. at (Page 2 of 4)

Year or	Com	nmercial Net Cato	hes	Sp	aw ning Escapeme	ent	Pug	et Sound Run Siz	e ^{c/}
Average	Hatchery	Natural ^{b/}	Total	Hatchery	Natural ^{b/}	Total	Hatchery	Natural ^{b/}	Total
				S	kagit				
1981-1985	599	9,200	9,798	787	11,109	11,896	1,385	20,309	21,694
1986-1990	259	4,134	4,394	815	12,398	13,213	1,075	16,532	17,607
1991-1995	477	1,651	2,128	2,402	6,280	8,682	2,879	7,930	10,810
1996-2000	11	498	509	316	10,390	10,705	327	10,887	11,214
2001-2005	12	809	821	221	17,503	17,725	233	18,312	18,545
2006-2010	41	2,719	2,759	210	11,742	11,952	251	14,460	14,711
2011	44	3,669	3,713	67	5,537	5,604	111	9,206	9,317
2012	11	1,934	1,945	82	13,818	13,900	93	15,752	15,845
2013	14	2,120	2,134	73	10,882	10,955	87	13,002	13,089
2014	14	1,577	1,591	94	10,457	10,551	108	12,034	12,142
2015	10	1,452	1,462	91	13,314	13,405	101	14,766	14,867
2016	8	1,831	1,839	81	19,290	19,371	89	21,121	21,210
2017	11	1,583	1,595	91	12,579	12,670	102	14,162	14,265
2018	11	1,406	1,417	86	10,903	10,989	97	12,309	12,406
2019	10	1,297	1,307	90	11,810	11,900	100	13,107	13,207
2020 ^{f/}	16	2,461	2,477	73	10,944	11,017	89	13,405	13,494
2021	NA	NA	NA	NA	NA	NA	NA	NA	NA
GOAL					14,900				
				Hoo	d Canal ^d				
1981-1985	7,870	731	8,601	4,786	1,037	5,823	12,656	1,769	14,424
1986-1990	15,242	714	15,956	7,699	390	8,089	22,941	1,104	24,045
1991-1995	2,730	145	2,874	4,915	440	5,355	7,645	584	8,229
1996-2000	4,118	30	4,148	11,915	649	12,564	16,033	679	16,712
2001-2005	22,277	180	22,457	16,678	976	17,653	38,954	1,156	40,110
2006-2010	26,620	139	26,759	16,231	347	16,578	42,850	486	43,336
2011	42,542	34	42,576	26,510	366	26,876	69,052	400	69,452
2012	66,925	94	67,019	29,652	609	30,261	96,577	703	97,280
2013	50,441	98	50,539	25,421	931	26,352	75,863	1,029	76,891
2014	17,968	61	18,030	14,414	304	14,718	32,383	365	32,748
2015	26,650	83	26,733	13,164	405	13,569	39,814	488	40,302
2016	38,924	96	39,020	30,130	547	30,677	69,054	643	69,697
2017	57,601	430	58,031	51,632	1,347	52,979	109,232	1,778	111,010
2018	44,104	54	44,159	30,978	213	31,191	75,082	267	75,350
2019	47,878	213	48,091	17,725	347	18,072	65,603	560	66,163
2020 ^{f/}	26,023	60	26,083	6,686	72	6,758	32,709	132	32,841
2021	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. at (Page 3 of 4)

Year or	Com	nmercial Net Cato	hes	Sp	aw ning Escapem	ent	Pug	et Sound Run Siz	:e ^{c/}
Average	Hatchery	Natural ^{b/}	Total	Hatchery	Natural ^{b/}	Total	Hatchery	Natural ^{b/}	Total
				Stillaguam is	h-Snohomish ^{e/}				
1981-1985	3,289	7,476	10,765	1,990	4,830	6,821	5,279	12,307	17,585
1986-1990	3,829	3,797	7,626	1,187	5,469	6,656	5,016	9,266	14,282
1991-1995	4,796	1,383	6,179	2,581	4,375	6,957	7,377	5,758	13,135
1996-2000	7,285	4,385	11,671	8,246	4,585	12,831	15,531	8,971	24,502
2001-2005	3,715	4,482	8,197	4,756	7,981	12,737	8,471	12,464	20,934
2006-2010	4,392	176	4,568	6,432	4,945	11,377	10,824	5,121	15,945
2011	4,584	88	4,672	5,256	1,862	7,118	9,840	1,949	11,790
2012	705	27	732	9,201	4,382	13,583	9,906	4,410	14,315
2013	2,684	89	2,773	6,280	3,607	9,887	8,964	3,697	12,660
2014	2,295	51	2,346	6,539	2,639	9,178	8,834	2,690	11,524
2015	1,055	1,892	2,948	4,977	2,822	7,799	6,032	4,714	10,747
2016	2,953	4,632	7,585	10,166	4,154	14,320	13,119	8,786	21,905
2017	12,812	200	13,011	9,347	4,823	14,170	22,159	5,023	27,181
2018	11,097	202	11,299	6,486	3,325	9,811	17,583	3,527	21,110
2019	9,972	73	10,045	6,703	1,236	7,939	16,675	1,309	17,984
2020 ^{f/}	4,176	151	4,327	6,163	2,887	9,050	10,339	3,038	13,377
2021	NA	NA	NA	NA	NA	NA	NA	NA	NA
GOAL					7,300				
				South Pւ	ıget Sound ^{g∕}				
1981-1985	22,448	9,251	31,699	22,693	5,596	28,289	45,141	14,846	59,987
1986-1990	29,902	21,423	51,325	37,152	18,298	55,450	67,054	39,721	106,775
1991-1995	23,467	12,265	35,732	31,383	13,797	45,180	54,850	26,062	80,912
1996-2000	17,640	10,461	28,101	37,008	24,827	61,835	54,648	35,288	89,936
2001-2005	28,791	11,489	40,280	50,473	21,070	71,543	79,265	32,559	111,823
2006-2010	50,485	7,451	57,935	60,552	9,795	70,347	111,036	17,245	128,282
2011	34,409	4,076	38,485	47,096	7,249	54,345	81,505	11,325	92,830
2012	30,026	3,352	33,378	44,598	12,133	56,731	74,624	15,485	90,109
2013	29,522	9,822	39,344	52,083	6,838	58,921	81,605	16,660	98,265
2014	12,880	3,239	16,118	27,382	4,207	31,589	40,262	7,445	47,707
2015	12,554	4,375	16,929	34,554	7,051	41,606	47,108	11,427	58,535
2016	13,228	5,778	19,006	66,510	9,724	76,234	79,737	15,502	95,240
2017	48,098	7,414	55,512	95,559	13,220	108,779	143,657	20,634	164,291
2018	40,601	9,903	50,504	63,428	10,426	73,854	104,029	20,329	124,358
2019	32,285	12,507	44,792	51,736	7,147	58,883	84,021	19,654	103,675
2020 ^{f/}	18,007	7,099	25,106	37,321	6,383	43,704	55,328	13,482	68,810
2021	NA	NA	NA	NA	NA NA	NA	NA	NA	NA
GOAL				•		NA NA		1	

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 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/ Natural escapement includes NORs and supplementation origin fish in the Mid Hood Canal management unit streams. Escapement management objectives in the Skokomish River are for total river spaw ners (HOR & NOR) and are not comparable to the natural escapement column in this table. NOR/HOR breakout of Skokomish R spaw ners from prior to mass adipose clipping (pre-2010) are based on the average pHOS from after mass adipose clipping (2010-2017).
- e/ Since 1999, numbers include Tulalip hatchery returns, which are not added into escapement since no broodstock is taken at the hatchery.
- f/ Preliminary
- g/ Includes the following stock groups: miscellaneous Area 10 Seattle, Lake Washington, Green-Duw amish, miscellaneous Area 10E Port Orchard, Puyallup, miscellaneous Area 13 south Puget Sound, Chambers Creek, Nisqually, miscellaneous Area 13A Minter Creek, Deschutes, miscellaneous Area 13B streams.

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/} (I	(Page 1	10	of 4	1)
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Year or		mercial Net Catch		awning escapements Spa	aw ning Escapem		a naturar r uget oour	Terminal Run Size	
Average	Hatchery ^{b/}	Natural	Total	Hatchery ^{b/}	Natural	Total	Hatchery ^{b/}	Natural	Total
				Strait of	Juan de Fuca				
1981-1985	19,362	527	19,889	9,440	4,660	14,100	28,802	5,187	33,989
1986-1990	9,012	125	9,138	3,013	5,940	8,953	12,025	6,065	18,091
1991-1995	2,635	23	2,658	4,230	4,396	8,626	6,865	4,419	11,284
1996-2000	4,262	797	5,058	10,174	13,053	23,227	15,398	14,087	29,484
2001-2005	6,112	994	7,106	13,141	20,929	34,071	21,417	22,352	43,770
2006-2010	2,948	15	2,963	4,343	9,740	14,083	7,752	9,757	17,509
2011	5,607	1	5,608	11,056	10,731	21,787	18,808	10,732	29,540
2012	5,281	3	5,284	7,945	11,020	18,965	14,119	11,023	25,142
2013	2,057	42	2,099	6,765	8,458	15,223	10,260	8,500	18,760
2014	3,195	28	3,223	3,686	11,488	15,174	7,345	11,516	18,861
2015	298	34	332	1,018	3,859	4,877	1,619	3,893	5,512
2016	3,931	16	3,947	4,103	8,435	12,538	8,672	8,451	17,123
2017	4,842	9	4,851	5,763	5,530	11,293	11,635	5,539	17,174
2018 ^{d/}	3,313	1	3,314	2,042	5,470	7,512	5,567	5,471	11,038
2019 ^{d/}	1,200	11	1,211	1,666	4,625	6,291	3,505	4,636	8,141
2020 ^{d/}	3,473	3	3,476	8,704	8,548	17,252	12,466	8,551	21,017
2021	NA	NA	NA	NA	NA	NA	NA	NA	NA
GOAL					7,000-11,000				
				Nooks	ack-Sam is h				
1981-1985	121,448	17,429	138,877	24,420	7,200	31,620	145,868	24,629	170,497
1986-1990	140,733	21,761	162,494	21,087	7,420	28,507	161,821	29,181	191,002
1991-1995	48,056	13,872	61,928	17,793	10,320	28,113	65,849	24,192	90,042
1996-2000	36,169	5,272	41,441	36,920	7,611	44,530	75,056	13,577	88,633
2001-2005	43,483	15,589	59,072	35,805	15,712	51,517	80,456	32,263	112,720
2006-2010	29,808	12,896	42,708	9,469	7,896	17,365	39,657	20,943	60,600
2011	53,796	15,611	69,407	15,283	2,228	17,511	70,543	17,906	88,449
2012	32,842	26,291	59,133	16,370	9,600	25,970	51,699	36,095	87,794
2013	38,628	51,180	89,808	18,209	20,494	38,703	58,726	72,968	131,694
2014	20,038	8,616	28,654	16,117	5,455	21,572	37,189	14,118	51,307
2015	9,129	5,914	15,043	23,891	1,359	25,250	35,833	7,507	43,340
2016	37,734	5,301	43,035	11,818	7,212	19,030	50,295	12,513	62,808
2017	25,772	1,814	27,586	13,309	3,257	16,566	39,894	5,071	44,965
2018 ^{d/}	35,030	19,267	54,297	11,826	7,622	19,448	50,809	27,880	78,689
2019 ^{d/}	17,417	10,174	27,591	16,570	16,162	32,732	35,475	27,453	62,928
2020 ^{d/}	22,982	12,153	35,135	7,064	6,490	13,554	31,028	19,114	50,142
2021	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	Com	mercial Net Catch	ies ^{c/}	Spa	aw ning Escapem	ent		Terminal Run Size	p ^{c/}
Average	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	3,860	18,569	22,429	13,512	77,441	90,953	18,326	101,705	120,031
2006-2010	1,584	11,579	13,163	7,606	38,858	46,464	9,684	53,152	62,836
2011	4,184	17,500	21,684	9,488	43,916	53,404	14,887	67,043	81,930
2012	2,056	17,524	19,580	10,833	92,687	103,520	13,650	117,699	131,349
2013	4,721	21,812	26,533	14,996	85,751	100,747	22,194	121,659	143,853
2014	2,657	11,563	14,220	8,242	24,820	33,062	11,996	42,140	54,136
2015	808	2,188	2,996	2,108	5,794	7,902	4,232	12,939	17,171
2016	908	4,660	5,568	11,394	35,822	47,216	13,134	43,097	56,231
2017	263	780	1,043	6,831	20,184	27,015	7,094	20,964	28,058
2018 ^{d/}	3,002	10,258	13,260	9,960	19,047	29,007	14,489	32,866	47,355
2019 ^{d/}	1,898	2,646	4,544	10,228	14,246	24,474	15,862	22,103	37,965
2020 ^{d/}	3,048	11,417	14,465	24,135	23,808	47,943	31,912	39,890	71,802
2021	NA	NA	NA	NA	NA	NA	NA	NA	NA
GOAL					14,875-25,000				
				Но	od Canal				
1981-1985	39,340	18,310	57,650	20,329	22,280	42,609	59,669	40,590	100,259
1986-1990	45,708	18,991	64,699	15,099	17,940	33,039	60,807	36,931	97,738
1991-1995	13,553	454	14,007	15,032	29,808	44,840	28,585	30,262	58,847
1996-2000	5,973	6,837	12,810	23,077	55,401	78,478	30,124	62,953	93,077
2001-2005	21,042	22,249	43,291	35,237	103,851	139,089	66,893	130,781	197,674
2006-2010	37,548	11,478	49,026	10,634	20,458	31,092	51,465	33,757	85,222
2011	58,757	15,735	74,492	20,586	24,389	44,975	87,819	42,405	130,224
2012	63,078	28,341	91,419	16,900	45,921	62,821	87,946	77,378	165,324
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 ^{e/}	4,755	3,303	8,058	9,593	26,926	36,519	16,498	31,213	47,711
2016	45,692	6,079	51,771	17,301	24,313	41,614	68,537	31,729	100,266
2017	35,070	5,276	40,346	15,396	23,871	39,267	54,251	30,280	84,531
2018 ^{d/}	30,208	4,428	34,636	8,596	7,512	16,108	41,851	12,086	53,937
2019 ^{d/}	6,029	2,100	8,129	12,939	7,884	20,823	21,387	10,428	31,815
2020 ^{d/}	19,391	1,628	21,019	20,488	16,832	37,320	45,271	19,572	64,843
2021	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. at (Page 3 of 4)

Year or	Com	mercial Net Catch	nes ^{c/}	Spa	aw ning Escapem	nent		Terminal Run Size	e ^{c/}
Average	Hatchery ^{b/}	Natural	Total	Hatchery ^{b/}	Natural	Total	Hatchery ^{b/}	Natural	Total
				Still	aguam is h				
1981-1985	1,923	11,014	12,937	1,080	13,200	14,280	3,003	24,214	27,217
1986-1990	0	18,931	18,931	0	15,600	15,600	0	34,531	34,531
1991-1995	28	3,012	3,040	108	13,720	13,828	136	16,732	16,868
1996-2000	4	1,210	1,214	34	16,537	16,571	45	18,790	18,835
2001-2005	10	3,996	4,006	71	47,628	47,699	85	53,446	53,531
2006-2010	8	2,358	2,365	61	19,514	19,575	74	23,086	23,160
2011	16	5,310	5,326	155	49,991	50,146	180	58,188	58,368
2012	78	6,843	6,921	101	45,156	45,257	249	56,091	56,340
2013	73	5,057	5,130	0	60,387	60,387	133	70,597	70,730
2014	30	5,620	5,650	180	35,829	36,009	233	44,182	44,415
2015	0	447	447	0	2,914	2,914	0	4,773	4,773
2016	0	2,152	2,152	0	13,048	13,048	0	15,206	15,206
2017	1	795	796	11	6,099	6,110	12	6,894	6,906
2018 ^{d/}	0	2,906	2,906	0	23,937	23,937	0	28,970	28,970
2019 ^{d/}	0	514	514	0	12,887	12,887	0	14,333	14,333
2020 ^{d/}	0	1,204	1,204	0	21,555	21,555	0	23,232	23,232
2021	NA	NA	NA	NA	NA	NA	NA	NA	NA
GOAL					6,100-10,000				
				Sn	ohomish				
1981-1985	18,050	36,538	54,587	11,860	74,800	86,660	29,910	111,338	141,247
1986-1990	58,543	67,956	126,499	26,134	94,800	120,934	84,677	162,756	247,433
1991-1995	40,677	18,363	59,040	23,462	84,000	107,462	64,139	102,363	166,502
1996-2000	31,614	4,869	36,483	21,260	82,711	103,971	55,016	95,218	150,234
2001-2005	34,568	16,999	51,568	18,279	193,476	211,755	55,068	221,664	276,732
2006-2010	14,037	10,461	24,498	6,473	75,521	81,994	21,030	90,670	111,700
2011	8,069	7,947	16,016	8,375	111,374	119,749	17,210	129,235	146,445
2012	34,605	15,020	49,625	13,354	130,637	143,991	48,572	160,553	209,125
2013	37,929	10,176	48,105	10,277	125,870	136,147	49,591	156,856	206,447
2014	34,103	6,932	41,035	13,641	46,244	59,885	50,809	58,740	109,549
2015	5,462	2,207	7,669	3,945	12,804	16,749	10,026	23,571	33,597
2016	66,452	7,478	73,930	9,201	44,141	53,342	75,658	52,834	128,492
017	42,154	2,597	44,751	6,371	18,195	24,566	49,163	22,922	72,085
2018 ^{d/}	16,225	6,859	23,084	5,528	58,135	63,663	23,388	71,121	94,509
2019 ^{d/}	3,452	1,252	4,704	5,524	40,314	45,838	9,558	43,036	52,594
2020 ^{d/}	14,060	1,946	16,006	9,929	42,675	52,604	24,461	44,621	69,082
2021	NA	NA	NA	NA	NA	NA	NA	NA	NA
GOAL					31,000-50,000 ^{f/}				

TABLE B-42. Puget Sound commercial net fishery catches and spaw ning escapements in numbers of fish for hatchery and natural Puget Sound coho stocks. at (Page 4 of 4)

Year or	Com	mercial Net Catc	hes ^{c/}	Spa	w ning Escapen	ent		Terminal Run Size	e ^{c/}
Average	Hatchery ^{b/}	Natural	Total	Hatchery ^{b/}	Natural	Total	Hatchery ^{b/}	Natural	Total
				South I	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	119,234	40,241	159,475	114,492	33,690	148,182	250,219	81,366	331,585
2006-2010	74,330	20,150	94,479	47,422	20,893	68,315	130,776	47,441	178,217
2011	31,583	11,106	42,689	45,721	36,567	82,288	86,625	59,779	146,404
2012	95,993	37,202	133,195	77,409	60,078	137,487	191,398	118,303	309,701
2013	68,652	16,570	85,222	59,791	30,746	90,537	146,275	66,946	213,221
2014	44,269	10,537	54,806	51,459	20,766	72,225	105,929	39,447	145,376
2015	7,404	3,697	11,101	18,994	16,408	35,402	34,297	29,926	64,223
2016	57,799	19,690	77,489	94,259	37,387	131,646	154,355	57,838	212,193
2017	52,466	21,477	73,943	48,710	26,555	75,265	124,170	53,280	177,450
2018 ^{d/}	78,228	30,628	108,856	72,264	21,421	93,685	165,081	62,689	227,770
2019 ^{d/}	31,714	11,088	42,802	66,484	23,064	89,548	111,900	45,127	157,027
2020 ^{d/}	73,573	24,770	98,343	67,685	18,215	85,900	152,380	53,225	205,606
2021	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.

e/ 2015 Hood Canal terminal run size is defined as the run to terminal marine areas; spaw ning escapement plus sport and commercial net catch (inriver and terminal fishery catch). Prior to 1997, estimates are Puget Sound run size, which is defined as the run available to Puget Sound net fisheries; spaw ning escapement plus commercial net catch (inriver, terminal, and pre-terminal Puget Sound net fishery catch), including fish caught in Puget Sound troll and recreational fisheries.

f/ In June 2018, NMFS published an overfished designation for Snohomish natural coho. The co-managers will increase the MSY escapement goal of 50,000 by 10%, to 55,000, until rebuilt status is achieved and may adjust escapement thresholds and exploitation rate limits annually, as described in the FMP, to promote rebuilding of the stock while allowing limited fisheries to occur.

b/ Includes estimated off-station returns and secondary wild stocks.

c/ Terminal run size is defined as the run to terminal marine areas; spaw ning escapement plus sport and commercial net catch (inriver and terminal fishery catch). Prior to 1997, estimates are Puget Sound run size, which is defined as the run available to Puget Sound net fisheries; spaw ning 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	Com	mercial Net Cato	hes	Spa	w ning Escape	ement		et Sound Run	Size ^{c/}
Average	Hatchery ^{b/}	Natural	Total	Hatchery ^{b/}	Natural	Total	Hatchery ^{b/}	Natural	Total
(odd year)									
				Strait of Jus	an de Fuca				
1981-1989	1	507	507	9	5,175	5,185	10	5,681	5,692
1991-1999	2	426	428	34	6,421	6,455	36	6,847	6,883
2001	4	718	722	470	80,950	81,420	474	81,668	82,142
2003	0	346	346	0	15,149	15,149	0	15,495	15,495
2005	0	103	103	0	8,669	8,669	0	8,772	8,772
2007	0	131	131	0	6,252	6,252	0	6,383	6,383
2009	0	2,684	2,684	0	41,534	41,534	0	44,218	44,218
2011	0	2,013	2,013	0	27,616	27,616	0	29,629	29,629
2013	8	20,597	20,605	157	409,959	410,116	165	430,556	430,721
2015	0	18,485	18,485	0	337,724	337,724	0	356,209	356,209
2017	1	565	566	46	17,755	17,801	47	18,320	18,367
2019 ^{g/}	1	939	940	59	48,341	48,400	60	49,280	49,340
2021	NA	NA	NA	NA	NA	NA	NA	NA	NA
GOAL ^{d/}				1	Not Agreed Up	on			
				Nooksack	≀-Samish				
1981-1989	40	14,458	14,458	0	54,201	54,441	40	68,659	39,499
1991-1999	3	9,779	9,782	89	84,206	84,295	92	93,985	174,077
2001	215	14,584	14,799	3,714	226,001	229,715	3,929	240,585	244,514
2003	304	3,177	3,481	7,264	51,012	58,276	7,568	54,189	61,757
2005	589	2,095	2,684	1,791	3,719	5,510	2,380	5,814	8,194
2007	15	1,006	1,021	276	9,302	9,578	291	10,308	10,599
2009	248	6,229	6,477	2,097	45,120	47,217	2,345	51,349	53,694
2011	49	12,483	12,532	285	53,852	54,137	334	66,335	66,669
2013	61	103,864	103,925	284	224,002	224,286	345	327,866	328,211
2015	25	88,620	88,645	90	247,358	247,448	115	335,978	336,093
2017	0	11,445	11,445	0	24,012	24,012	0	35,457	35,457
2019 ^{g/}	0	17,722	17,722	0	50,024	50,024	0	67,746	67,746
2021	NA	NA	NA	NA	NA	NA	NA	NA	NA
GOAL ^{d/}					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. at (Page 2 of 4)

Year or	Com	mercial Net Cato	ches	Sp	aw ning Escap	ement	Pu	get Sound Run	Size ^{c/}
Average	Hatchery ^{b/}	Natural	Total	Hatchery ^{b/}	Natural	Total	Hatchery ^{b/}	Natural	Total
(odd-year)									
					agit				
1981-1989	319	316,772	317,093	393	455,052	455,445	711	771,825	772,538
1991-1999	0	247,256	247,256	0	423,600	423,600	0	670,856	670,856
2001	0	305,081	305,081	0	894,061	894,061	0	1,199,142	1,199,142
2003	0	309,851	309,851	0	567,080	567,080	0	876,931	876,931
2005	0	25,191	25,191	0	60,000	60,000	0	85,191	85,191
2007	0	14,723	14,723	0	300,000	300,000	0	314,723	314,723
2009	0	478,121	478,121	0	1,160,000	1,160,000	0	1,638,121	1,638,121
2011	0	470,769	470,769	0	560,000	560,000	0	1,030,769	1,030,769
2013	0	720,639	720,639	0	900,000	900,000	0	1,620,639	1,620,639
2015	0	121,662	121,662	0	290,000	290,000	0	411,662	411,662
2017	0	6,816	6,816	0	110,000	110,000	0	116,816	116,816
2019 ^{g/}	0	9,172	9,172	0	300,000	300,000	0	309,172	309,172
2021	NA	NA	NA	NA	NA	NA	NA	NA	NA
GOAL ^{d/}					330,000				
				Hood	Canal				
1981-1989	2,252	9,729	11,981	2,814	43,809	46,623	5,066	53,538	58,604
1991-1999	1,243	4,075	5,318	13,719	41,287	55,005	14,962	45,362	60,324
2001	4,401	5,956	10,357	71,539	98,338	169,877	75,940	104,294	180,234
2003	2,060	3,272	5,332	25,217	37,531	62,748	27,277	40,803	68,080
2005	401	691	1,092	14,107	17,481	31,588	14,508	18,172	32,680
2007	261	1,722	1,983	4,406	29,001	33,407	4,667	30,723	35,390
2009	3,552	893	4,445	22,455	11,093	33,548	26,007	11,986	37,993
2011	5,441	1,375	6,816	17,792	15,122	32,914	23,233	16,497	39,730
2013	2,159	12,379	14,538	4,904	195,601	200,505	7,063	207,980	215,043
2015	650	43,983	44,633	5,948	595,679	601,627	6,598	639,662	646,260
2017	957	2,387	3,397	2,544	32,988	35,532	3,554	35,375	38,929
2019 ^{g/}	3,162	2,727	5,889	9,608	59,249	68,857	12,770	61,976	74,746
2021	NA	NA	NA	NA	NA	NA	NA	NA	NA
GOAL ^{d/}				Not A	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 _	Con	nmercial Net Ca	ches	Sp	aw ning Escap	ement	Pu Pu	get Sound Rur	n Size ^{c/}
Average	b/			h/			b/		
(odd-year)	Hatchery ^{b/}	Natural	Total	Hatchery ^{b/}	Natural	Total	Hatchery ^{b/}	Natural	Total
4004 4000	70	454 500	454.045	Stillaguam is			070	405.007	100 111
1981-1989	76	154,539	154,615	201	271,328	271,529	276	425,867	426,144
1991-1999	39	71,055	71,094	122	286,650	286,772	160	357,706	357,866
2001	0	199,908	199,908	0	1,847,648	1,847,648	0	2,047,556	2,047,556
2003	0	288,985	288,985	0	1,577,001	1,577,001	0	1,865,986	1,865,986
2005	0	66,615	66,615	0	600,124	600,124	0	666,739	666,739
2007	0	132,876	132,876	0	1,383,591	1,383,591	0	1,516,467	1,516,467
2009	0	849,860	849,860	0	2,882,373	2,882,373	0	3,732,233	3,732,233
2011	0	627,735	627,735	0	612,903	612,903	0	1,240,638	1,240,638
2013	0	1,281,642	1,281,642	0	2,153,569	2,153,569	0	3,435,211	3,435,211
2015	0	212,357	212,357	0	480,674	480,674	0	693,031	693,031
2017	0	15,088	15,088	0	78,953	78,953	0	94,041	94,041
2019 ^{g/}	3	34,320	34,324	92	651,275	651,367	95	685,595	685,691
2021	NA	NA	NA	NA	NA	NA	NA	NA	NA
GOAL ^{d/} - Still					155,000				
GOAL ^{d/} - Sno	ohomish				120,000				
					get Sound				
1981-1989	651	17,149	17,800	282	32,803	33,085	933	49,952	50,885
1991-1999 ^e	88	3,847	3,935	90	10,483	10,573	178	14,330	14,508
2001 ^{e/f/}	0	3,128	3,128	0	26,692	26,692	0	29,820	29,820
2003 ^{e/f/}	0	30,795	30,795	0	391,702	391,702	0	422,497	422,497
2005 ^{e/f/}	0	55,263	55,263	0	1,087,906	1,087,906	0	1,143,169	1,143,169
2007 ^{e/f/}	0	84,180	84,180	0	1,218,896	1,218,896	0	1,303,076	1,303,076
2009 ^{e/f/}	0	695,324	695,324	0	4,091,283	4,091,283	0	4,786,607	4,786,607
2011 ^{f/}	0	500,308	500,308	0	2,422,575	2,422,575	0	2,922,883	2,922,883
2013 ^{f/}	40	546,139	546,179	6	2,172,795	2,172,801	46	2,718,934	2,718,980
2015 ^{f/}	66	285,504	285,570	115	941,673	941,788	181	1,227,177	1,227,358
2017 ^{f/}	0	31,293	31,293	2	175,952	175,954	2	207,245	207,247
2019 ^{g/}	0	109,833	109,833	18	1,643,786	1,643,804	18	1,753,619	1,753,637
2021	NA	NA	NA	NA	NA	NA	NA	NA	NA
GOAL ^{d/}					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 fisheries; spawning escapement plus Puget Sound fishery catch. Includes fish caught by treaty net fisheries and non-Indian commercial and recreational fisheries inside Puget Sound.
- d/ State-Tribal comanager goal; the only Council goal is for a total Puget Sound pink salmon spaw ning escapement of 900,000 natural spaw ners.
- e/ Nisqually escapement estimate incomplete.
- f/ Green river returns included in run reconstruction.
- g/ Preliminary.

TABLE B-44. Puget Sound spring Chinook spawning escapement estimates in numbers of adult fish.

				Sto	ck			_
	Ska	git	NF No	oksack	SF Noc	ksack ^{a/}	White	
							River	Quilcene
Year or Average	Hatchery ^{b/}	Natural	Hatchery ^{b/}	Natural ^{c/d/}	Hatchery	Natural ^{c/d/}	Hatchery ^{e/}	Hatchery ^{f/}
1981-1985	49	1,408	0	152	3	17	70	149
1986-1990	161	1,826	0	235	28	30	408	125
1991-1995	815	907	770	266	22	22	1,065	19
1996-2000	1,448	934	2,011	717	24	10	2,008	7
2001-2005	2,028	1,317	4,226	2,510	40	03	2,763	0
2006-2010	1,430	1,264	936	1,568	45	56	3,971	0
2011	1,301	825	1,404	865	47	70	3,151	0
2012	1,579	2,774	1,215	758	50	08	3,819	0
2013	1,256	2,010	2,297	1,346	24	13	6,541	0
2014	1,109	1,608	1,998	1,398	20	08	2,131	0
2015	1,836	1,409	2,994	1,717	13	35	2,893	0
2016	2,441	2,445	1,806	1,141	65	54	6,585	0
2017	3,325	2,850	2,301	2,016	98	31	9,986	0
2018	2,333	2,376	2,171	1,791	1,3	341	6,530	0
2019 ^{g/}	1,825	1,131	1,468	880	1,504	579	5,108	0
2020 ^{g/}	1,888	1,449	1,577	NA	NA	NA	4,974	0
2021 ^{g/}	3,201	1,602	5,085	NA	NA	NA	6,379	0
GOAL		2,000				•		

a/ Beginning in 2019, data were available to independently account for hatchery and natural spawning escapement. Prior to 2019, natural and hatchery spawning escapement are combined.

b/ Hatchery escapement estimates include all rack returns (retained and released).

c/ Natural escapement estimates based on carcass counts expanded by a 3.48 multiplier developed from 5 years of redd count-based estimates. Most natural spawners are hatchery fish spawning in the wild.

d/ Nooksack basin co-managers updated spaw ning ground escapements to report "Total Basin Escapement" for each Spring Chinook stock starting with Run Year 2016.

e/ Estimate includes adult returns to Hupp Springs, White R. Hatchery, and Buckley Trap. Data from 1999 - 2017 were updated using new "agreed-to" methodology for estimating unsampled portions of Spring Chinook back to Buckley Trap with Fall/Unknown origin fish removed from the estimate.

f/ Program discontinued.

g/ Preliminary.

APPENDIX C: HISTORICAL RECORD OF OCEAN SALMON FISHERY REGULATIONS AND CHRONOLOGY OF 2021 EVENTS

List of Tables

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TABLE C-1. Summary of actual California commercial salmon seasons in state and federal (EEZ) waters. at (Page 1 of 3)

		Seasons		_	Minin		
		All-Salmon-	ΑII	Number of	Size Lin	nit (in.)	_
Year	Area	Except-Coho	Salmon	Days	Chinook	Coho	Other Restrictions
2016	OR/CA Border to Humboldt South Jetty	Sept. 9-13, 16-20,	-	15	28	-	1,000 Chinook quota; 20 Chinook per vessel per day
		23-27					landing limit.
	Horse Mt. to Pt. Arena	June 13-30	_	18	27	_	
	I loi se Mil. to Ft. Al ella	Aug. 3-27	-	25	27	-	
		Sept. 1-30	_	30	27	_	All fish caught in the area must be landed north of Pt.
		Сор.: 1 00		00	2,		Arena during Sept. When the KMZ fishery is open, all fismust be landed south of Horse Mt.
	Pt. Arena to Pigeon Pt.	May 6-31	_	26	27	_	
	Tarasia to rigodiri t	June 13-30	_	18	27	_	
		Aug. 3-28	-	26	27	_	
		Sept. 1-30	-	30	26	-	All fish caught in the area must be landed south of Pt.
		·					Arena during Sept.
	Pt. Reyes to Pt. San Pedro	Oct. 3-7, 10-14	-	10	26	-	All fish must be landed between Pt. Arena and Pigeon Pduring Oct.
	Pigeon Pt. to U.S./Mexico Border	May 1-June 30	-	61	27	-	•
2017	OR/CA Border to Humboldt South Jetty	Closed	-	-	-	-	
	Horse Mt. to Pt. Arena	Sept. 1-5, 8-12, 15-19, 22-26, 29-30	-	22	27	-	3,000 Chinook quota; 60 Chinook per vessel per open period landing limit. All fish caught in the area must be
		22-20, 29-30					landed between the OR/CA border and Pt. Arena.
	Pt. Arena to Pigeon Pt.	Aug. 1-29	_	29	27	_	anded between the Civen border and it. Alena.
	Tarasia to rigodiri t	Sept. 1-30	_	30	26	_	All fish caught in the area must be landed south of Pt.
		оори г оо					Arena during Sept., unless the Fort Bragg commercial quota has been met and that fishery has closed for at least 24 hours.
	Pt. Reyes to Pt. San Pedro	Oct. 2-6, 9-13	-	10	26	-	All fish must be landed between Pt. Arena and Pigeon F during Oct.
	Pigeon Pt. to U.S./Mexico Border	May 1-June 30	-	61	27	-	Ŭ

TABLE C-1. Summary of actual California commercial salmon seasons in state and Federal (EEZ) waters. (Page 2 of 3)

		Seasons			Minir	num	
		All-Salmon-	ΑШ	Number of	Size Lir	nit (in.)	
Year	Area	Except-Coho	Salmon	Days	Chinook	Coho	Other Restrictions
2018	OR/CA Border to Humboldt South Jetty	May 1-29	-	21	26	-	Open 5 days per w eek (FriTue.). Chinook quotas: 3,600
		June 1-July 31	-	45	26	-	in May, 6,650 in June, 6,612 in July, and 9,423 in Aug.
		Aug. 3-31	-	21	26	-	Chinook landing and possession limits per vessel per day:
		Ü					20 during May 1- July 19, 40 July 20-31, and 50 in Aug.
	Horse Mt. to Pt. Arena	July 26-31	-	6	26	-	All fish caught in the area must be landed north of Pt.
		Aug. 3-29	-	27	26	-	Arena during Sept. When the KMZ fishery is open, all fish
		Sept. 1-30	-	30	26	-	must be landed south of Horse Mt.
	Pt. A rena to Pigeon Pt.	July 26-31	-	6	26	-	All fish caught in the area must be landed south of Pt.
		Aug. 3-29	-	27	26	-	Arena during Sept. When the KMZ fishery is open, all fish
		Sept. 1-30	-	30	26	-	must be landed south of Horse Mt.
	Pt. Reyes to Pt. San Pedro	Oct. 1-5, 8-12	-	10	26	-	Open 5 days per w eek (MonFri.). All salmon caught in
							this area must be landed between Point Arena and Pigeon Point.
	Pigeon Pt. to U.S./Mexico Border	May 1-7	-	7	26	-	When the KMZ fishery is open, all fish must be landed
		June 19-30	-	12	26	-	south of Horse Mt.
2019	OR/CA Border to Humboldt South Jetty	June 1-30	_	22	27	-	Open 5 days per w eek (FriTue.). Chinook quotas: 2,500
		July 1-30	-	22	27	-	in June, 3,997 in July, and 4,293 in Aug. Chinook landing
		Aug. 2-5, 12-31	-	18	27	-	and possession limits per vessel per day: 20 through July 16, 50 July 19-Aug. 5, and 15 Aug. 12-31.
	Horse Mt. to Pt. Arena	June 4-30	_	27	27	_	When the KMZ fishery is open, all fish must be landed
		July 11-31	-	21	27	-	south of Horse Mt.
		Aug. 1-28	-	28	27	-	
	Pt. A rena to Pigeon Pt.	May 16-31	_	16	27	_	When the KMZ fishery is open, all fish must be landed
	Tit Titolia to Tigoti Ti	June 4-30	-	27	27	_	south of Horse Mt.
		July 11-31	-	21	27	-	
		Aug. 1-28	-	28	27	-	
		Sept. 1-30	-	30	27	-	
	Pt. Reyes to Pt. San Pedro	Oct. 1-4, 7-11, 14-15	-	11	27	-	Open 5 days per w eek (MonFri.). All salmon caught in this area must be landed between Point Arena and Pigeon Point.
	Pigeon Pt. to U.S./Mexico Border	May 1-31,	_	31	27	_	When the KMZ fishery is open, all fish must be landed
		June 4-30,	-	27	27	-	south of Horse Mt.
		July 11-31	_	21	27	_	

TABLE C-1. Summary of actual California commercial salmon seasons in state and Federal (EEZ) waters. (Page 3 of 3)

•		Seasons			Minir	num	
		All-Salmon-	All	Number of	Size Lir	nit (in.)	
Year	Area	Except-Coho	Salmon	Days	Chinook	Coho	Other Restrictions
2020	OR/CA Border to Humboldt South Jetty	Closed	-	-	-	-	
	Horse Mt. to Pt. Arena	Aug. 1-10	-	10	27	-	All salmon must be landed in CA and north of Point Arena.
		Sept. 1-30	-	30	27	-	
	Pt. Arena to Pigeon Pt.	May 6-12, 18-31	-	21	27	-	During September, all salmon must be landed south of
		June 1-6, 14-30	-	23	27	-	Point Arena.
		July 13-31	-	19	27	-	
		Aug. 1-28	-	28	27	-	
		Sept. 1-30	-	30	26	-	
	Pt. Reyes to Pt. San Pedro	Oct. 1-2, 5-9, 12-15	-	11	26	-	Open 5 days per w eek (MonFri.). All salmon caught in this area must be landed betw een Point Arena and Pigeon Point.
	Pigeon Pt. to U.S./Mexico Border	May 1-12, 18-31	-	26	27	-	
	9	June 1-6, 14-30	-	23	27	-	
		July 13-31	-	19	27	-	
		Aug. 1-28	-	28	27	-	
2021ª	OR/CA Border to Humboldt South Jetty	Closed	-	-	-	-	
	40°10′ line to Pt. Arena	Aug. 1-17	-	17	27	_	All salmon must be landed in CA and north of Point Arena.
		Sept. 1-30	-	30	27	-	
	Pt. Arena to Pigeon Pt.	June 16-30	_	15	27	-	During September, all salmon must be landed south of
	Ç	July 17-22	-	6	27	-	Point Arena.
		Aug. 1-17	-	17	27	-	
		Sept. 1-30	-	30	26	-	
	Pt. Reyes to Pt. San Pedro	Oct. 1, 4-8, 11-15	-	11	26	-	Open 5 days per w eek (MonFri.). All salmon caught in this area must be landed betw een Point Arena and Pigeon Point.
	Pigeon Pt. to U.S./Mexico Border	May 1-12, 20-27	-	20	27	-	
	ŭ	June 16-30	-	15	27	-	
		July 17-22	-	6	27	-	
		Aug. 1-17	_	17	27	_	

a/ For recent year detailed regulations and inseason adjustments, see Tables I-1 and C-9.

b/ In 2021, the southern boundary of the KMZ was officially moved five nautical miles north from Horse Mountain to latitude 40°10' N.

TABLE C-2. Summary of actual California recreational ocean salmon regulations ^{a/} (Page 1 of 2)

					Minimum Siz	e Limit (in.)	
Y ear	Area	Season	Days	Bag Limit	Chinook	Coho	Other Restrictions
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	-	
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	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	-	

TABLE C-2. Summary of actual California recreational ocean salmon regulations. a/ (Page 2 of 2)

	-	-			Minimum Siz	e Limit (in.)	
Year	Area	Season	Days	Bag Limit	Chinook	Coho	Other Restrictions
2017	OR/CA Border to Horse Mt.	Closed	-	-	-	-	
	Horse Mt. to Pt. Arena	Apr. 1-May 31	61	2	20	-	
		Aug. 15-Nov. 12	90	2	20	-	
	Pt. Arena to Pigeon Pt.	Apr. 1-30	30	2	24	-	
		May 15-Oct. 31	170	2	20	-	
	Pigeon Pt. to Pt. Sur	Apr. 1-July 15	106	2	24	-	
	Pt. Sur to U.S./Mexico Border	Apr. 1-May 31	61	2	24	-	
2018	OR/CA Border to Horse Mt.	June 1-Sept. 3	95	2	20	-	
	Horse Mt. to Pt. Arena	June 17-Oct. 31	137	2	20	-	
	Pt. Arena to Pigeon Pt.	June 17-Oct. 31	137	2	20	-	
	Pigeon Pt. to U.S./Mexico Border	Apr. 7-July 2	87	2	24	-	
2019	OR/CA Border to Horse Mt.	May 25-Sept. 2	101	2	20	-	
	Horse Mt. to Pt. Arena	Apr. 13-30, May 18-Oct. 31	185	2	20	-	
	Pt. Arena to Pigeon Pt.	Apr. 13-30	18	2	24	-	
		May 18-Oct. 31	167	2	20	-	
	Pigeon Pt. to U.S./Mexico Border	Apr. 6-Aug. 28	145	2	24	-	
2020	OR/CA Border to Horse Mt.	June 6-Aug. 9	65	2	20	-	
	Horse Mt. to Pt. Arena	May 1-Nov. 8	192	2	20	-	
	Pt. Arena to Pigeon Pt.	May 1-Nov. 8	192	2	20	-	
	Pigeon Pt. to U.S./Mexico Border	May 1-Oct. 4	157	2	24	-	
2021 ^{a/t}	OR/CA Border to 40°10′ line	June 29-Aug. 1	34	2	20	-	
	40°10′ line to Pt. Arena	June 29-Oct. 31	125	2	20	-	
	Pt. Arena to Pigeon Pt.	June 26-Oct. 31	128	2	20	-	
	Pigeon Pt. to U.S./Mexico Border	Apr. 3-May 15	43	2	24	-	
		May 16-Sept. 30	138	2	20	-	

a/ For detailed regulations and inseason adjustments, see Tables I-3 and C-9.

b/ In 2021, the southern boundary of the KMZ was officially moved five nautical miles north from Horse Mountain to latitude 40°10′ N.

TABLE C-3. Summary of actual Oregon commercial salmon seasons in state and federal (EEZ) waters. al (Page 1 of 5)

		Seasons			Minir	num	
		All-Salmon-		Number of	Size Lir	nit (in.)	
Year	Area	Except-Coho	All Salmon	Days	Chinook	Coho	Other Restrictions
2016	WA/OR Border to Cape Falcon	May 1-3, 6-31	-	23	28	-	5 days per w eek, FriTues. 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	-	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.
	Cape Falcon to Humbug Mt.	Apr. 8-May 31	-	54	28	_	
	2-F - 1	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 w eek (ThursWed.) and only open shoreward of the 40 fathom regulatory line in October.
	Cape Blanco to Humbug Mt. River Area)	(⊟k 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. 8-30	=	23	28	-	
	(Oregon KMZ)	May 1-31	-	31	28	-	
		June 5-10,15-30	-	22	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 Chinook quota; 5 Chinook per day per vessel landing limit through Oct. 25, 10 thereafter; landings restricted to Brookings.

TABLE C-3. Summary of actual Oregon commercial salmon seasons in state and Federal (EEZ) waters. (Page 2 of 5)

		Season	s	_	Minir		
		All-Salmon-		Number of	Size Lir	nit (in.)	
Year	Area	Except-Coho	All Salmon	Days	Chinook	Coho	Other Restrictions
2017	WA/OR Border to Cape Falcon	May 1-June 30	-	61	28	-	27,000 Chinook quota (capped at 9,000 south of Leadbetter Point).
		-	July 1-4	4	28	16	
		-	July 7-18, July 21-Sept. 19	71	28	16	5 days per w eek, FriTues. through July 18; 7 days a w eek thereafter. Landing and possession limits: 75 Chinook and 10 marked coho per vessel per open period through July 19, then 150 Chinook and 10 marked coho thereafter.
	Cape Falcon to Florence South Jetty	Apr. 15-May 31	_	47	28	_	
	Super allegate to the state of the state of the	June 7-12, 15-30		22	28		
		July 8-31	-	24	28	-	
		•	-	61	28	-	4E Chinaala nan waasal nan landing wask (Thurs Mad)
		Sept. 1-Oct. 31	-	01	28	-	45 Chinook per vessel per landing week (ThursWed.) and only open shoreward of the 40 fathom regulatory line.
	Florence South Jetty to Humbug Mt.	Closed	-	-	-	-	
	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 (Oregon KMZ)	Closed	-	-	-	-	
	Tw in Rocks to OR/CA Border Inside 3 nm (Chetco River Area)	Oct. 9-13, 16-17, 26-27	-	9	28	-	300 Chinook quota; 5 Chinook per day per vessel landing limit; landings restricted to Brookings.
2018	WA/OR Border to Cape Falcon	May 1-June 30	-	61	28	-	16,500 Chinook quota (capped at 4,600 south of Leadbetter Point). 50 Chinook per vessel per landing w eek (ThursWed.) through May 30, 100 Chinook per vessel per landing w eek (ThursWed.) thereafter.
		-	July 1-Sept. 19	81	28	16	Quota: 11,000 Chinook (capped at 1,300 south of Leadbetter Point), and 4,600 marked coho. Landing and possession limits per vessel per landing w eek (ThursWed.): 50 Chinook and 10 marked coho through July 25, 75 Chinook and 10 marked coho July 26-Aug. 22, 85 Chinook and 10 marked coho during Aug. 23-29, and 85 Chinook and 25 marked coho thereafter.

TABLE C-3. Summary of actual Oregon commercial salmon seasons in state and Federal (EEZ) waters. (Page 3 of 5)

		Seasons			Minir	mum	
		All-Salmon-		Number of	Size Lir	mit (in.)	
Year	Area	Except-Coho	All Salmon	Days	Chinook	Coho	Other Restrictions
2018	Cape Falcon to Humbug Mt.	May 4-14, and 19-31	-	24	28	-	Beginning September 1 no more than 50 Chinook allow ed
cont.		June 4-12, and 16-30	-	24	28	-	per vessel per landing w eek (ThursWed.); and only open
		July 5-12, and 16-31	-	24	28	-	shorew ard of the 40 fathom management line beginning
		Aug. 3-7, 13-17, and 25-29	-	15	28	-	October 1.
		Sept. 1-Oct. 31	-	61	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. 10 Chinook per day vessel limit. Landings restricted to Port Orford.
	Humbug Mt. to OR/CA Border	May 4-14, 19-31	-	24	28	-	Chinook Quotas: 1,500 in June, 1,975 in July, and 1,430
	(Oregon Klamath Mangement Zone,	June 4-12	-	9	28	-	in August. Beginning June 4 - landing and possession limit
	OR KMZ)	July 5-12, 16-31	-	24	28	_	per vessel per w eek (ThursWed.): 50 Chinook through
	- ,	Aug. 3-7, 13-17, 25-29	-	15	28	_	Aug. 12, and 80 Chinook thereafter.
		Sept. 1-Oct. 31	-	61	28	-	
	Tw in Rocks to OR/CA Border Inside 3 nm (Chetco River Area)	Oct. 8-12, 15-23	-	14	28	-	5 Chinook per day per vessel landing limit; landings restricted to Brookings.
2019	WA/OR Border to Cape Falcon	May 6-June 28	-	54	28	-	Quota: 13,200 Chinook (capped at 1,800 south of Leadbetter Point). Landing and possession limit: 100 Chinook per vessel May 6-15; 50 Chinook per vessel per landing week (ThursWeds.) thereafter.
		-	July 1-Sept. 30	92	28	16	Quota: 19,257 Chinook and 30,400 marked coho. Landing and possession limits per vessel per landing w eek (ThursWed.): 150 marked coho through July 18, 125 Chinook and 150 marked coho July 19-Aug. 15, 160 Chinook and 150 marked coho thereafter.

TABLE C-3. Summary of actual Oregon commercial salmon seasons in state and Federal (EEZ) waters. (Page 4 of 5)

	_	Seaso	ons	_	Minir	num	
	_	All-Salmon-		Number of	Size Lir	nit (in.)	
Year	Area	Except-Coho	All Salmon	Days	Chinook	Coho	Other Restrictions
2019	Cape Falcon to Humbug Mt.	Apr. 20-30	-	11	28	-	Beginning September 1 no more than 75 Chinook allow ed
cont.		May 6-30,	-	24	28	-	per vessel per landing w eek (ThursWed.).
		June 1-Aug. 29	=	90	28	-	
		Sept. 1-Oct. 31	-	61	28	-	
	Humbug Mt. to OR/CA Border	Apr. 20-30	-	10	28	-	Chinook Quotas: 3,200 in June, 4,495 in July, and 4,330
	(Oregon Klamath Mangement Zone,	May 6-30	-	26	28	-	in August. Landing and possession limit per vessel per
	OR KMZ)	June 1-July 31	-	61	28	-	w eek (ThursWed.): 50 Chinook June 1- July 3, and 125
		Aug. 1-29	-	29	28	-	Chinook thereafter.
2020	WA/OR Border to Cape Falcon	May 6-June 28	-	54	28	-	Quota: 13,820 Chinook (capped at 3,770 south of Leadbetter Point). Landing and possession limit: 75 Chinook per vessel per landing week (ThursWeds.).
		-	July 1-Sept. 30	92	28	16	Quota: 13,820 Chinook (increased to 25,499 after remaining spring quota rolled forward) and 2,000 marked coho. Landing and possession limit: 10 coho per vessel per landing week (ThursWeds.).
	Cape Falcon to Humbug Mt.	Apr. 20-30	=	11	28	-	Beginning September 1 no more than 75 Chinook allow ed
		May 1-5, 26-31	-	11	28	-	per vessel per landing w eek (ThursWed.).
		June 4-Aug. 25	-	83	28	-	
		Sept. 1-Oct. 31	-	61	28	-	
	Humbug Mt. to OR/CA Border	Apr. 20-30	-	11	28	-	Chinook Quotas: 700 in June and 630 in July. Landing
	(Oregon Klamath Mangement Zone,	May 1-5, 26-31	-	11	28	-	and possession limit per vessel per w eek (ThursWed.):
	OR KMZ)	June 4-July 31	-	58	28	-	40 Chinook. All vessels fishing in this area during June and July, must land and deliver all salmon within this area or into Port Orford within 24 hours of any closure of this fishery and prior to fishing outside of this area. Prior to June 4, all salmon caught in this area must be landed and delivered in the State of Oregon.

TABLE C-3. Summary of actual Oregon commercial salmon seasons in state and Federal (EEZ) waters. (Page 5 of 5)

		Season	s	_	Minir	num	
		All-Salmon-		Number of	Size Lir	nit (in.)	
Year	Area	Except-Coho	All Salmon	Days	Chinook	Coho	Other Restrictions
2021 ^{a/}	WA/OR Border to Cape Falcon	May 1-June 29	-	60	27	-	Quota: 15,375 Chinook (capped at 4,195 south of Leadbetter Point). Landing and possession limit: 75 Chinook per vessel per landing week (ThursWeds.) through June 2, 100 Chinook thereafter.
		-	July 1-Sept. 30	92	27	16	Quota: 16,931 Chinook (includes 5,557 transfer from spring) and 5,000 marked coho. Landing and possession limits per vessel per landing week (ThursWed.): 20 marked coho through Sept. 2 and increased to 50 thereafter.
	Cape Falcon to Heceta Bank line	Mar. 20-Apr. 30	-	42	28	-	
	Cape Falcon to Humbug Mt.	May 1-5, 10-21, 26-31	-	23	28	_	Beginning September 1 no more than 75 Chinook allow ed
		June 5-7, 12-14, 19-21, 26-28	-	12	28	-	per vessel per landing w eek (ThursWed.).
		Sept. 1-Oct. 31	-	61	28	-	
	Cape Falcon to Humbug Mt.	-	July 5-7, 12-14, 19-21, 26-28;	12	28	16	Quota: 10,000 marked coho. Landing and possession limit of 20 coho per vessel per w eek (ThursWed). Coho
		-	Aug. 1-4, 8-10, 15-17	10	28	16	retained must not exceed a 1:1 ratio with retained Chinook and must be landed at the same time.
	Humbug Mt. to OR/CA Border	Mar. 20-Apr. 30	<u>-</u>	42	28	-	Chinook Quotas: 300 in June and 216 in July (includes 16
	(Oregon Klamath Mangement Zone,	May 1-5, 10-21, 26-31	-	23	28	-	Chinook transferred from June quota to July). Landing
	OR KMZ)	June 1-16	-	16	28	-	and possession limit per vessel per w eek (ThursWed.):
		July 1-31	-	31	28	-	20 Chinook during June and July 22-31, and 10 Chinook during July 1-21. All vessels fishing in this area during June and July, must land and deliver all salmon within this area or into Port Orford within 24 hours of any closure of this fishery and prior to fishing outside of this area. Prior to June 1, all salmon caught in this area must be landed and delivered in the State of Oregon.

a/ For detailed regulations and inseason adjustments, see Tables I-1 and C-9.

TABLE C-4. Summary of actual Oregon recreational ocean salmon regulations. al (Page 1 of 5)

				,	Minimum Siz	ze Limit (in.)	
Year	Area ^{a/}	Season	Days	Bag Limit	Chinook	Coho ^{b/}	Other Restrictions ^{c/}
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 w eek. 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 w eek. All salmon; unmarked coho retention allow ed. Remaining coho quota converted to impact neutral quota of 15,300.
	Cape Falcon to Humbug Mt.	Mar. 15-June 26, Aug. 10- Sept. 3, 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.: (Ek R. Area see footnote a/)	Nov. 1-30	30	2	24	-	Two Chinook daily, one of w hich can be unmarked; no more than 10 unmarked per season in aggregate w ith 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	-	Tw o Chinook daily, one of w hich can be unmarked; no more than five unmarked per season.

TABLE C-4. Summary of actual Oregon recreational ocean salmon regulations. (Page 2 of 5)

				_	Minimum Siz	e Limit (in.)	_
Year	Area ^{a/}	Season	Days	Bag Limit	Chinook	Coho ^{b/}	Other Restrictions ^{c/}
2016	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 quotafrom Leadbetter Point, WA to Cape Falcon. No more than 1 Chinook through Aug. 15.
	Cape Falcon to Humbug Mt.	Mar. 15-June 24, Aug. 8- Sept. 2, 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	28	2	24	16	All salmon; 7,500 non-mark-selective coho quota.
	Cape Blanco to Humbug Mt.: (Elk R. Area see footnote a/)	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. Floras Ck. and New R.
	Humbug Mt. to OR/CA Border	May 28-June 24, Sept. 3-5	31	2	24	_	All salmon except coho.
	J	June 25-Aug. 7	44	2	24	16	All salmon. Shared 26,000 marked coho quota with Cape Falcon to Humbug Mt. fishery.
	Twin 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.
2017	WA/OR Border to Cape Falcon	June 24-Aug. 22	60	2	24	16	All salmon. 13,200 Chinook guideline and 22,527 marked coho quota from Leadbetter Point, WA to Cape Falcon. No more than 1 Chinook.
	Cape Falcon to Humbug Mt.	Mar. 15-June 23, Aug. 1-Sept. 1, Sept. 8-Oct. 31	187	2	24	-	All salmon except coho. In Oct., only open shorew ard of the 40 fathom line.
		June 24-July 31	38	2	24	16	All salmon; 18,000 marked coho quota.
		Sept. 2-7	6	2	24	16	All salmon; 7,900 non-mark-selective coho quota.

TABLE C-4. Summary of actual Oregon recreational ocean salmon regulations. (Page 3 of 5)

					Minimum Siz	ze Limit (in.)	
Year	Area ^{a/}	Season	Days	Bag Limit	Chinook	Coho ^{b/}	Other Restrictions ^{c/}
2017 (cont.)	Cape Blanco to Humbug Mt.: (Elk R. Area, see footnote a/)	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., Floras Ck. and New R.
	Humbug Mt. to OR/CA Border	Closed	-	-	-	-	
	Twin Rocks to OR/CA Border Inside 3 nm (Chetco River Area)	Oct. 7-8, 14-15	4	1	28	-	One Chinook daily.
2018	WA/OR Border to Cape Falcon	June 23-Aug.12, Sept. 2-3	53	2	24	16	8,000 Chinook guideline and 21,000 marked coho quota. Two salmon daily, no more than one Chinook through Aug. 12, then any two salmon daily thereafter.
	Cape Falcon to Humbug Mt.	Mar. 15-June 29, Sept. 4-6, 9-13, 16-20, Sept. 22-Oct. 31,	160	2	24	-	In Oct., only open shoreward of the 40 fathom line.
		June 30-Sept. 3,	66	2	24	16	35,000 marked coho quota.
		Sept. 7-8,14-15, 21	5	2	24	16	7,600 non-mark-selective coho quota.
	Cape Blanco to Humbug Mt.: (Elk R. Area, see footnote a/)	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., Floras Ck. and New R.
	Humbug Mt. to OR/CA Border (Oregon KMZ)	May 19-Aug. 26	100	2	24	-	
	Chetco River Terminal Area: Tw in Rocks to OR/CA Border Inside 3 nm	Oct. 6-7, 13-14	4	1	28	-	One Chinook daily.

TABLE C-4. Summary of actual Oregon recreational ocean salmon regulations. (Page 4 of 5)

	-	-		•	Minimum Siz	ze Limit (in.)	
Year	Area ^{a/}	Season	Days	Bag Limit	Chinook	Coho ^{b/}	Other Restrictions ^{c/}
2019	WA/OR Border to Cape Falcon	June 22-Sept. 30	101	2	24	16	Subarea guideline of 7,150 Chinook and 79,800 marked coho quota. Daily limit includes only one Chinook.
	Cape Falcon to Humbug Mt.	Mar. 15-June 21, Aug. 26-30, Sept. 2-5, 9-12, Sept. 30-Oct. 31	148	2	24	-	
	Cape Falcon to OR/CA Border	June 22-Aug. 25	65	2	24	16	90,000 marked coho quota.
	Cape Falcon to Humbug Mt.	Aug. 31-Sept. 1, Sept. 6-8, 13-15, 20-29	18	2	24	16	15,640 non-mark-selective coho quota. (increased from 9,000 after remaining marked coho quota rolled forw ard on impact neutral basis).
	Humbug Mt. to OR/CA Border (Oregon KMZ)	May 25-June 21, Aug. 26-Sept. 2	36	2	24	-	
2020	WA/OR Border to Cape Falcon	June 20-28	9	1	22	_	Subarea guideline of 7,000 Chinook and 13,250
	·	June 29-July 26	28	2	22	16	marked coho quota. Daily limit beginning June 29 includes two salmon per day and only one Chinook.
	Cape Falcon to Humbug Mt.	Mar. 15-June 26, Aug. 17-31,	119	2	24	-	
		Sept. 1-3, 6-30	28	2 2	24	-	
		Oct. 1-31	31	_	24	-	
	Cape Falcon to Humbug Mt.	June 27-Aug. 16	51	2	24	16	22,000 marked coho quota.
	Cape Falcon to Humbug Mt.	Sept.4-5	2	2	24	16	4,650 non-mark-selective coho quota.
	Humbug Mt. to OR/CA Border (Oregon KMZ)	June 20-Aug. 7	49	2	24	-	

					Minimum Siz	e Limit (in.)	_
Year	Area ^{a/}	Season	Days	Bag Limit	Chinook	Coho ^{b/}	Other Restrictions ^{c/}
2021 ^{d/}	WA/OR Border to Cape Falcon	June 19-Aug. 29	72	2	22	16	7,200 Chinook guideline, 42,400 coho quota. Daily limit through June 26 includes only one salmon and no coho. Daily limit beginning June 27 includes two salmon per day and only one Chinook.
	Cape Falcon to Humbug Mt.	Mar. 15-June 11, Aug. 29-31,	92	2	24	-	
		Sept. 1-9, 13-16	13	2	24	-	
		Oct. 1-31	31	2	24	-	
	Cape Falcon to Humbug Mt.	June 12-Aug. 28	78	2	24	16	120,000 marked coho quota shared with the Humbug Mt to OR/CA border fishery.
	Cape Falcon to Humbug Mt.	Sept.10-12, 17-30	17	2	24	16	20,230 non-mark-selective coho quota.
	Humbug Mt. to OR/CA Border	June 12-18	7	2	-	16	120,000 marked coho quota shared with the
	(Oregon KMZ)	June 19- Aug. 15	58	2	24	16	Humbug Mt to OR/CA border fishery.
	, ,	Aug. 16-28	13	2	_	16	,

a/ Elk River area is 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.

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 w eek unless otherw ise 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)

	_	Seasons All-Salmon-			Minin	num	
		All-Salmon-		Number of	Size Lin		_
Year	Area	Except-Coho	All Salmon	Days	Chinook	Coho	Other Restrictions
2015	U.S./Canada Border to	Area 1					
	WA/OR Border	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 w eek, no landing limits.
		Area 3					
		May 1-June 30 May 1-16		16	28	_	Cover days per week no landing limits
		Area 4	-	10	20	-	Seven days per week, no landing limits.
		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,	25	28	16	75 Chinook and 50 marked coho per open period vessel limit.
			24-28, July 31-				
			Aug.4, Aug 7-11.				
		-	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 lin
			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,	30	28	16	60 Chinook and 50 marked coho per open period vessel limit.
			24-28, July 31-				
			Aug.4, Aug 7-11				
		-	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 limi
			·· · · · · · · · · · · · · · · · ·	•		. •	22 22 Par. Par. Par. Par. Par. Par. Par.

TABLE C-5. Summary of actual Washington commercial salmon seasons in state and federal (EEZ) waters. (Page 2 of 5)

		Season	S		Minim	num	
		All-Salmon-		Number of	Size Lin	nit (in.)	
ear/	Area	Except-Coho	All Salmon	Days	Chinook	Coho	Other Restrictions
016	U.S./Canada Border to	Areas 1 & 2					
	WA/OR Border	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 wk. 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.

TABLE C-5. Summary of actual Washington commercial salmon seasons in state and federal (EEZ) waters. (Page 3 of 5)

		Seasons All-Salmon-			Minin	num	
	_	All-Salmon-		Number of	Size Lin	nit (in.)	_
Year	Area	Except-Coho	All Salmon	Days	Chinook	Coho	Other Restrictions
2017	U.S./Canada Border to	Areas 1 & 2					
	WA/OR Border	May 1-June 30	-	61	28	-	
		=	July 1-4	4	28	16	75 Chinook and 10 marked coho per vessel per open period.
		=	July 7-20	10	28	16	75 Chinook and 10 marked coho per vessel per open period (5 days per
							w k. Fri-Tues).
		-	July 21-Sept. 19	61	28	16	150 Chinook and 10 marked coho per vessel per calendar w eek.
		Areas 3 & 4					
		May 1-June 20	-	51	28	-	60 Chinook per vessel per open period.
		June 21-30	-	10	28	-	
		-	July 1-4	4	28	16	60 Chinook and 10 marked coho per vessel per open period.
		-	July 7-20	10	28	16	60 Chinook and 10 marked coho marked per vessel per open period (5
							days per wk. Fri-Tues).
		-	July 21-Aug. 20	31	28	16	75 Chinook and 10 marked coho per vessel per open period (5 days per wk. Fri-Tues).
		-	Aug. 21- Sept. 19	30	28	16	100 Chinook and 10 marked coho per vessel per calendar w eek.
2018	U.S./Canada Border to	Area 1					
	WA/OR Border	May 1-June 30	-	61	28	-	Chinook landing and possession limit per vessel per landing week (Thurs
							Weds.): 50 through May 30, and 100 thereafter.
		=	July 1- Sept. 19	81	28	16	Landing and possession limit per vessel per landing w eek (Thurs
							Weds.): 50 Chinook and 10 marked coho through Aug. 22, 85 Chinook ar
							10 marked coho Aug. 23-29, and 85 Chinook and 25 marked coho thereafter.
		Area 2					
		May 1-June 30	-	61	28	_	Chinook landing and possession limit per vessel per landing week (Thurs
		,					Weds.): 100 through May 30, and 200 thereafter.
		-	July 1- Sept. 19	81	28	16	Landing and possession limit per vessel per landing w eek (ThursWeds.): 10 marked coho through Aug. 29, and 25 thereafter.
		Areas 3 & 4					,
		May 1-27		27	28	_	50 Chinook per vessel per landing w eek (ThursWeds.).
		May 31-June 4	-	5	28	-	35 Chinook per vessel per landing week (Thursweds.).
		June 8-11	- -	4	20	-	30 Chinook per vessel per open period
		Julie 0-11	July 1- Sept. 19	81	28	- 16	Landing and possession limit per vessel per landing w eek (Thurs
		-	July 1- Зерг. 19	01	20	10	Weds.): 50 Chinook and 10 marked coho through July 25, 75 Chinook and 10 marked coho July 26-Aug. 1. 50 Chinook and 10 marked coho Aug. 22, 85 Chinook and 10 marked coho Aug. 23-29, and 85 Chinook and 25 marked coho thereafter.

TABLE C-5. Summary of actual Washington commercial salmon seasons in state and federal (EEZ) waters. (Page 4 of 5)

		Seasons			Minin	num	
		All-Salmon-		Number of	Size Lin	nit (in.)	_
Year	Area	Except-Coho	All Salmon	Days	Chinook	Coho	Other Restrictions
2019	U.S./Canada Border to WA/OR Border.	Area 1 (Col. R. subarea) May 6-June 28	-	54	28	-	Landing and possession limit: 100 Chinook per vessel May 6-15, 50 Chinook per vessel per landing w eek (ThursWeds.) thereafter.
	AREA QUOTAS: Spring (May-June) Chinook quota:13,200, capped at 1,800 in Area 1 (Col.R.) and 5,000 in	-	July 1-Sept. 30	92	28	16	Landing and possession limits per vessel per landing week (ThursWed.): 150 marked coho through July 18, 125 Chinook and 150 marked coho July 19-Aug. 15, 160 Chinook and 150 marked coho thereafter.
	Areas 3 & 4 (LaPush	Area 2 (Wesport subarea)					
	and Neah Bay). Summer (July-Sept.) Quota: 19,527 Chinook	May 6-June 28	-	54	28	-	
	and 30,400 marked coho.	-	July 1- Sept. 30	92	28	16	Landing and possession limits per vessel per landing week (ThursWed.): 150 marked coho through July 18, 125 Chinook and 150 marked coho July 19-Aug. 15, 160 Chinook and 150 marked coho thereafter.
		Area 3 (LaPush) & Are	a 4 (Neah Bav)				
		May 6-15,	-	10	28	-	100 Chinook per vessel for the open period.
		May 16-June 19,	-	35	28	-	50 Chinook per vessel per landing w eek (ThursWeds.).
		June 24-28	-	5	28	-	20 Chinook per vessel for the open period.
			July 1-Sept. 30	92	28	16	Landing and possession limits per vessel per landing w eek (ThursWed.): 150 marked coho through July 18, 125 Chinook and 150 marked coho July 19-Aug. 15, 160 Chinook and 150 marked coho thereafter.
2020	U.S./Canada Border to	Area 1 (Col. R. subarea)					
	WA/OR Border.	May 6-June 28	-	54	28	=	Landing and possession limit per vessel per landing week (ThursWeds.): 75 Chinook.
	AREA QUOTAS: Spring (May-June)	-	July 1-Sept. 30	92	28	16	Landing and possession limits per vessel per landing week (ThursWed.): 10 marked coho.
	Chinook quota:13,820,	Area 2 (Wesport subarea)					
	capped at 3,770 in Area 1 and 5,100 in Areas 3	May 6-June 28	-	54	28	-	
	& 4 Summer (July-Sept.)	-	July 1- Sept. 30	92	28	16	Landing and possession limits per vessel per landing week (Thurs Wed.): 10 marked coho.
	Quota: 25,499 Chinook and 2,000 marked coho.	Area 3 (La Push) & Are May 6-June 28	a 4 (Neah Bay) -	54	28	-	Landing and possession limit per vessel per landing week (ThursWeds.): 75 Chinook.

TABLE C-5. Summary of actual Washington commercial salmon seasons in state and federal (EEZ) waters. (Page 5 of 5)

	Seasons	S	_	Minimum		
•	All-Salmon-		Number of	Number of Size Limit (in.)		_
Area	Except-Coho	All Salmon	Days	Chinook	Coho	Other Restrictions
U.S./Canada Border to	Area 1 (Col. R. subarea)					
WA/OR Border.	May 1-June 29	-	60	27	-	Landing and possession limit per vessel per landing week (ThursWeds.): 75 Chinook through June 2, 100 Chinook thereafter.
AREA QUOTAS:	1	July 1-Sept. 30	92	27	16	Landing and possession limits per vessel per landing week (Thurs
Spring (May-June)	-	July 1-3ept. 30	92	21	10	Wed.): 20 marked coho through Sept. 2 and increased to 50 thereafter
						wed.). 20 marked conditiough Sept. 2 and increased to 50 thereafter
Chinook quota:15,375,						
capped at 4,195 in Area 1 and 5,680 in Areas 3	Area 2 (Wesport subarea)					
& 4	May 1-June 29	=	60	27	_	
	•					
Summer (July-Sept.)	-	July 1- Sept. 30	92	27	16	Landing and possession limits per vessel per landing week (Thurs
Quota: 16,931 Chinook		, ,				Wed.): 20 marked coho through Sept. 2 and increased to 50 thereafte
(includes 5,557 transfer						,
from spring) and 5,000	Area 3 (La Push) & Ar	oa 4 (Neah Ray)				
marked coho.	May 1-June 29	ea + (Nearr Day)	60	27		Landing and possession limit per vessel per landing w eek (Thurs
	iviay 1-June 29	-	00	21	-	Weds.): 75 Chinook through June 2, 100 Chinook thereafter.
		July 1-Sept. 30	92	27	16	Landing and possession limits per vessel per landing week (ThursWed.): 20 marked coho through Sept. 2 and increased to 50 thereafte

a/ 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 4)

				_		ze Limit (in.)	
r	Area	Season	Days	Bag Limit	Chinook	Coho ^{a/}	Other Restrictions
5	U.S./Canada Border to Queets R. WA	May 15-16, 22-23,	18	2	24	-	Coastwide quota: 10,000 marked Chinook.
	(Neah Bay and La Push subareas)	May 30-June 12					
	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	June 13-Sept 3	83	2	24	16	Seven days per week. All salmon; two fish per day. Chinook allowed June 24-July 27, Aug. 14-15 and after Aug. 20, Chinook retention prohibited July 28- Aug. 13 a Aug. 16-20.
	commercial fishery.	Sept 4-10	7	2	24	16	Seven days per w eek. All salmon except Chinook; unmarked coho retention allow ed. Remaining coho quo converted to impact neutral quota of 4,100.
		Sept 11-30	20	2	24	16	Seven days per w eek. All salmon except Chinook; two fish per day. 1,700 mark-selective coho quota transfe from the commercial fishery.
	Cape Alava to Queets River 3,610 coho quota and 2,735 Chinook	June 13-Sept. 3	83	2	24	16	Seven days per week. All salmon; two fish per day; J 24-Sept. 30 limited to one Chinook.
	guideline.	Sept. 4-30	27	2	24	16	Seven days per w eek. All salmon; two fish per day, o one Chinook, unmarked coho retention allow ed. Remain coho quota converted to quota of 625.
	48°00' N. Lat. to 47°50' N. Lat.	Oct. 1-11	11	2	24	16	Seven days per w eek. Tw o salmon per day. Quotas of 100 Chinook and 100 coho.
	Queets River to Leadbetter Point 52,840 coho quota and 28,320	June 13-Sept. 3	83	2	24	16	Seven days per w eek. All salmon; two fish per day, n more than one Chinook June 13-Aug.14.
	Chinook guideline.	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	June 13-Sept. 3	83	2	24	16	Seven days per week. All salmon; two fish per day, n more than one Chinook June 13-Aug.28.
	Chinook guideline.	Sept. 4-30	27	2	24	16	Seven days per w eek. All salmon; unmarked coho retention allow ed. Remaining coho quota converted to impact neutral quota of 15,300.

TABLE C-6. Summary of actual Washington recreational ocean salmon regulations. (Page 2 of 4)

	,			<u> </u>	Minimum Siz	ze Limit (in.)	
Year	Area	Season	Days	Bag Limit	Chinook	Coho ^{a/}	Other Restrictions
2016	U.S./Canada Border to Cape Alava (Neah Bay subarea)	July 1- Aug. 21	52	2	24	-	All salmon except coho. Chinook guideline: 6,200
	Cape Alava to Queets R. (La Push subarea)	July 1- Aug. 21	52	2	24	-	All salmon except coho. Chinook guideline: 2,000
	Queets R. to Leadbetter Pt. WA	July 1-22	22	1	24	-	All salmon except coho. Chinook guideline: 16,600
	(Westport subarea)	July 23-Aug. 21	30	2	24	-	
	Leadbetter Pt. WA to Cape Falcon OR (Columbia River subarea)	July 1- Aug. 27	58	2	24	16	All salmon. 10,200 Chinook guideline, 18,900 coho quota. Daily bag limit allow's only 1 Chinook through Aug 15.
2017	U.S./Canada Border to Cape Alava (Neah Bay subarea)	June 24-Sept. 4	73	2	24	16	All salmon. 7,900 Chinook guideline, 3,970 coho quota. Two fish daily.
	Cape Alava to Queets R. (La Push subarea)	June 24-Sept. 4	73	2	24	16	All salmon. 2,500 Chinook guideline, 1,490 coho quota. Two fish daily.
	Queets R. to Leadbetter Pt. WA (Westport subarea)	July 1-Aug.22	53	2	24	16	All salmon. 21,400 Chinook guideline, 17,113 coho quota. Two salmon daily, no more than one Chinook through July 21, then any two salmon daily thereafter.
	Leadbetter Pt. WA to Cape Falcon OR (Columbia River subarea)	June 24-Aug.22	60	2	24	16	All salmon. 13,200 Chinook guideline, 22,527 coho quota. Two salmon daily, no more than one Chinook.
2018 ^{c/}	U.S./Canada Border to Cape Alava (Neah Bay subarea)	June 23-Aug 12	51	2	24	16	3,024 Chinook guideline, 5,370 coho quota. Daily limit includes only one Chinook through July 13.
	Cape Alava to Queets R. (La Push subarea)	June 23-Sept. 3	73	2	24	16	1,500 Chinook guideline, 1,090 coho quota.
	Queets R. to Leadbetter Pt. WA (Westport subarea)	July 1-Sept. 3	51	2	24	16	13,100 Chinook guideline, 15,540 coho quota. Open five days per w eek (SunThurs.), through Aug.23, then seven days per w eek thereafter. Daily limit includes only one Chinook through Aug. 23.
	Leadbetter Pt. WA to Cape Falcon OR (Columbia River subarea)	June 23-Aug.12, Sept. 2-3	53	2	24	16	8,000 Chinook guideline, 21,000 coho quota. Daily limit includes only one Chinook through Aug. 12.

TABLE C-6. Summary of actual Washington recreational ocean salmon regulations. (Page 3 of 4)

	,			<u> </u>	Minimum Siz	ze Limit (in.)	
Year	Area	Season	Days	Bag Limit	Chinook	Coho ^{a/}	Other Restrictions
2019	U.S./Canada Border to Cape Alava WA (Neah Bay subarea)	June 22-Sept. 30	101	2	24	16	5,200 Chinook guideline, 16,600 coho quota. Daily limit includes only one Chinook July 8-13. No Chinook retention allow ed thereafter.
	Cape Alava to Queets R. (La Push subarea)	June 22-Sept. 30	101	2	24	16	1,100 Chinook guideline, 4,050 coho quota. Daily limit includes only one Chinook beginning July 15.
	48°00' N. Lat. to 47°50' N. Lat.	Oct. 1-13	13	2	24	16	100 Chinook guideline, 100 coho quota.
	Queets R. to Leadbetter Pt. WA (Westport subarea)	June 22-Sept. 30	101	2	24	16	12,700 Chinook guideline, 59,050 coho quota. Daily limit includes only one Chinook through Aug. 9.
	Leadbetter Pt. WA to Cape Falcon OR (Columbia River subarea)	June 22-Sept. 30	101	2	24	16	7,150 Chinook guideline, 79,800 coho quota. Daily limit includes only one Chinook.
2020	U.S./Canada Border to Cape Alava WA (Neah Bay subarea)	June 20-Aug. 7	49	2	24	16	5,600 Chinook guideline, 2,988 coho quota. Daily limit through June 28 includes only one salmon and no coho.
	Cape Alava to Queets R. (La Push subarea)	June 20-Sept. 30	103	2	24	16	1,300 Chinook guideline, 462 coho quota. Daily limit through June 28 includes only one salmon and no coho.
	Queets R. to Leadbetter Pt. WA (Westport subarea)	June 20-Sept. 30	103	2	22	16	12,460 Chinook guideline, 9,800 coho quota. Daily limit through June 28 includes only one salmon and no coho. Daily limit beginning June 29 includes two salmon per day; only one Chinook through Sept. 3. Closed Fridays and Saturdays through Sept. 3.
	Leadbetter Pt. WA to Cape Falcon OR (Columbia River subarea)	June 20-July 26	37	2	22	16	7,000 Chinook guideline, 13,250 coho quota. Daily limit through June 28 includes only one salmon and no coho. Daily limit beginning June 29 includes two salmon per day and only one Chinook.

TABLE C-6. Summary of actual Washington recreational ocean salmon regulations. (Page 4 of 4)

					Minimum Siz	ze Limit (in.)	
Year	Area	Season	Days	Bag Limit	Chinook	Coho ^{a/}	Other Restrictions
2021 ^{b/}	U.S./Canada Border to Cape Alava WA (Neah Bay subarea)	June 19-Sept. 15	89	2	24	16	5,825 Chinook guideline, 5,730 coho quota. Daily limit through July 3 includes only one salmon and no coho. Daily limit beginning July 24 includes two salmon per day and only one Chinook.
	Cape Alava to Queets R. (La Push subarea)	June 19-Sept. 3	77	2	24	16	1,300 Chinook guideline, 1,430 coho quota. Daily limit through July 3 includes two salmon and no coho.
	Queets R. to Leadbetter Pt. WA (Westport subarea)	June 19-Sept. 7	71	2	22	16	12,925 Chinook guideline, 20,440 coho quota. Daily limit through June 26 includes only one salmon and no coho. Daily limit beginning June 27 includes two salmon per day; only one Chinook through Aug. 20. Closed Fridays and Saturdays through Aug. 5
	Leadbetter Pt. WA to Cape Falcon OR (Columbia River subarea)	June 19-Aug. 29	72	2	22	16	7,200 Chinook guideline, 42,400 coho quota. Daily limit through June 26 includes only one salmon and no coho. Daily limit beginning June 27 includes two salmon per day and only one Chinook.

a/ Mark-selective coho fishery unless otherwise noted; all retained coho must be marked with a healed adipose fin clip.

b/ For detailed regulations and inseason adjustments, see Tables I-1 and C-9.

TABLE C-7. Summary of actual Washington treaty Indian ocean and Area 4B troll salmon seasons. ^{a/} (Page 1 of 7)

-		asons	,	Minir		
	All-Salmon-		Number of	Size Lir	nit (in.)	_
Tribe/Area	Except-Coho	All Salmon	Days	Chinook	Coho	Other Restrictions
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 w aters	_	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 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;	17	24	16	20 Chinook per vessel per open period
	_	28-Sept 2	.,	4	10	20 Chinicol poi vedder per open period
	_	Sept. 3-9	7	24	16	25 Chinook per vessel per open period
	-	Sept. 10-15	6	47	10	40 Chinook per vessel per open period
	-	Nov. 1-Dec. 31	61	22	16	40 Orimicoli per vesser per operi period
S'Klallam	-	140V. 1-Dec. 31	01	~~	10	
Area 4B inside w aters		Jan. 1-Apr. 15	105	22	16	
Alea 4D IIISIUC W aldIS	- May 1-June 30	Jan. 1-Apr. 13	61	24	-	
	iviay i-Julie 30	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. (Page 2 of 7)

		Sea	sons		Minir	num	
		All-Salmon-		Number of	Size Lir	nit (in.)	
Year	Tribe/Area	Except-Coho	All Salmon	Days	Chinook	Coho	Other Restrictions
2016	Quinault, 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
	Quinault	-	July 1-Aug. 31	62	24	16	No coho retention
	Makah						
	North of 48°02'15" N. Lat.	May 1-June 4	-	35	24	-	Area closure: Sw iftsure
	(Norw egian Memorial) and east of	June 5-30	-	26	24	-	All Areas Open
	125°44'00" W. Long.	-	July 1-Aug. 6	37	24	16	No coho retention; Gear restriction plugs only
	-	-	Aug. 7-31	25	-	-	No coho retention; No gear restrictions
	Area 4B (inside w aters)	-	Jan. 1-Apr. 15	105	22	16	
	(Tootosh line east to Sieku R.)	May 1-June 30	-	61	24	-	
		-	July 1-Aug. 6	37	24	16	No coho retention; Gear restriction plugs only
		-	Aug. 7-31	25	24	-	No coho retention; No gear restrictions
		-	Nov. 1-Dec. 31	61	22	16	
	S'Klallam/Area 4B	-	Jan. 1-Apr. 15	105	22	16	
	(Tootosh line east to Sieku R.)	May 1-June 30	-	61	24	-	
	·	-	July 1-Aug. 31	62	24	16	No coho retention
		-	Nov. 1-Dec. 31	61	22	16	

TABLE C-7. Summary of actual Washington treaty Indian ocean and Area 4B troll salmon seasons. (Page 3 of 7)

		Sea	sons	_	Minir	num	
		All-Salmon-		Number of	Size Lir	nit (in.)	_
ear/	Tribe/Area	Except-Coho	All Salmon	Days	Chinook	Coho	Other Restrictions
017	Quinault, Quileute, and Hoh						
	Cape Alava to Point Chehalis	May 1-June 30	-	61	24	-	
		-	July 1-Sept. 15	77	24	16	
	Makah						
	North of 48°02'15" N. Lat.	May 1-June 30	-	61	24	-	
	(Norw egian Memorial) and east of	-	July 1- Aug. 14	45	24	16	
	125°44'00" W. Long.	-	Aug. 15-21	7	24	16	100 coho per vessel per w eek
		-	Aug. 22-31	10	24	16	175 coho per vessel per w eek
		-	Sept. 1-8	8	24	16	50 coho per vessel per w eek
		-	Sept. 9-10	2	24	16	75 coho per vessel per w eek
		-	Sept. 11-14	4	24	16	100 coho per vessel per w eek
	Area 4B (inside w aters)	-	Jan. 1-Apr. 15	105	22	16	
	(Tootosh line east to Sieku R.)	May 1-June 30	-	61	24	-	
		-	July 1- Aug. 14	45	24	16	
		-	Aug. 15-21	7	24	16	100 coho per vessel per w eek
		-	Aug. 22-31	10	24	16	175 coho per vessel per w eek
		-	Sept. 1-8	8	24	16	50 coho per vessel per w eek
		-	Sept. 9-10	2	24	16	75 coho per vessel per w eek
		-	Sept. 11-14	4	24	16	100 coho per vessel per w eek
		-	Nov. 1-Dec. 31	61	22	16	
	S'Klallam/Area 4B	-	Jan. 1-Apr. 15	105	22	16	
	(Tootosh line east to Sieku R.)	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. (Page 4 of 7)

		Sea	sons		Minir	num	
		All-Salmon-		Number of	Size Lir	nit (in.)	
'ear	Tribe/Area	Except-Coho	All Salmon	Days	Chinook	Coho	Other Restrictions
018	Quinault, Quileute, and Hoh						
	Cape Alava to Point Chehalis	May 1-June 30	-	61	24	-	
		-	July 1-Sept. 15	77	24	16	
	Makah						
	North of 48°02'15" N. Lat.	May 1-June 30	-	61	24	-	
	(Norw egian Memorial) and east of	-	July 1- Aug. 14	45	24	16	
	125°44'00" W. Long.	-	Aug. 15-21	7	24	16	100 coho per vessel per w eek
		-	Aug. 22-26	5	24	16	250 coho per vessel per w eek
		-	Aug. 27-Sept. 2	7	24	16	300 coho per vessel per w eek
		-	Sept. 3	1	24	16	
		-	Sept. 4-8	5	24	16	100 coho per vessel per w eek
		-	Sept 9-15	5	24	16	200 coho per vessel per w eek
	Area 4B (inside w aters)	-	Jan. 1-Apr. 15	105	22	16	
	(Tootosh line east to Sieku R.)	May 1-June 30	-	61	24	-	
		-	July 1- Aug. 14	45	24	16	
		-	Aug. 15-21	7	24	16	100 coho per vessel per w eek
		-	Aug. 22-26	5	24	16	250 coho per vessel per w eek
		-	Aug. 27-Sept. 2	7	24	16	300 coho per vessel per w eek
		-	Sept. 3	1	24	16	
		-	Sept. 4-8	5	24	16	100 coho per vessel per w eek
			Sept 9-15	5	24	16	200 coho per vessel per w eek
	S'Klallam/Area 4B	-	Jan. 1-Apr. 15	105	22	16	
	(Tootosh line east to Sieku R.)	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. (Page 5 of 7)

		Sea	sons	_	Minir	num	
		All-Salmon-		Number of	Size Lir	nit (in.)	
ear	Tribe/Area	Except-Coho	All Salmon	Days	Chinook	Coho	Other Restrictions
19	Quinault, Quileute, and Hoh						
	Cape Alava to Point Chehalis	May 1-June 30	-	61	24	-	
		-	July 1-Aug. 28	59	24	16	
			Aug 31-Sept 13	14	24	16	
	Makah						
	North of 48°02'15" N. Lat.	May 1-June 30	-	61	24	-	
	(Norw egian Memorial) and east of	-	July 1- Aug. 27	58	24	16	
	125°44'00" W. Long.	-	Aug. 31 - Sept. 6	7	24	16	125 coho per vessel per week
		-	Sept. 7-11	5	24	16	140 coho per vessel per week
		-	Sept. 12-13	2	24	16	50 coho per vessel per w eek
	Area 4B (inside waters)	-	Jan. 1-Apr. 15	105	22	16	
	(Tootosh line east to Sieku R.)	May 1-June 30	-	61	24	-	
		-	July 1- Aug. 27	58	24	16	
		-	Aug. 31 - Sept. 6	7	24	16	125 coho per vessel per week
		-	Sept. 7-11	5	24	16	140 coho per vessel per week
		-	Sept. 12-13	2	24	16	50 coho per vessel per w eek
	S'Klallam/Area 4B	-	Jan. 1-Apr. 15	105	22	16	
	(Tootosh line east to Sieku R.)	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. (Page 6 of 7)

		Sea	asons	_	Minir	num	
		All-Salmon-		Number of	Size Lir	nit (in.)	_
ear	Tribe/Area	Except-Coho	All Salmon	Days	Chinook	Coho	Other Restrictions
020	Quinault, Quileute, and Hoh						
	Cape Alava to Point Chehalis	May 1-June 30	_	61	24	_	
		-	July 1 - Sept. 15	77	24	16	
	Makah		, ,				
	North of 48°02'15" N. Lat.	May 1-June 30	-	61	24	-	Fishery closed due to Makah's COVID-19 safety regulation
	(Norw egian Memorial) and east of	· -	July 1- July 23	23	24	16	Fishery closed due to Makah's COVID-19 safety regulation
	125°44'00" W. Long.	-	July 24 - 28	5	24	16	Fishery opened on July 24; no landing limits
	-	-	July 29 - Aug. 4	7	24	16	150 coho per vessel per w eek
		-	Aug. 6 - 12	7	24	16	150 coho per vessel per w eek
			Aug. 14 - 19	6	24	16	200 coho per vessel per w eek
			Aug. 20 -25	6	24	16	200 coho per vessel per w eek
			Aug. 26 - Sept. 1	7	24	16	250 coho per vessel per w eek
			Sept. 3 - 15	13	24	16	125 coho per vessel per w eek
	Area 4B (inside w aters)	-	Jan. 1-Apr. 15	105	22	16	
	(Tootosh line east to Sieku R.)	May 1-June 30	-	61	24	-	Fishery closed due to Makah's COVID-19 safety regulation
		-	July 1- July 23	23	24	16	Fishery closed due to Makah's COVID-19 safety regulation
		-	July 24 - 28	5	24	16	Fishery opened on July 24; no landing limits
		-	July 29 - Aug 4	7	24	16	150 coho per vessel per w eek
		-	Aug 6 - 12	7	24	16	150 coho per vessel per w eek
		-	Aug 14 - 19	6	24	16	200 coho per vessel per w eek
		-	Aug 20 -25	6	24	16	200 coho per vessel per w eek
		-	Aug 26 - Sept 1	7	24	16	250 coho per vessel per w eek
		-	Sept 3 - 15	13	24	16	125 coho per vessel per w eek
	S'Klallam/Area 4B	-	Jan. 1-Apr. 15	105	22	16	
	(Tootosh line east to Sieku R.)	May 1-June 30	-	61	24	-	
	·	-	July 1-Sept. 15	77	24	16	

TABLE C-7. Summary of actual Washington treaty Indian ocean and Area 4B troll salmon seasons. (Page 7 of 7)

		Sea	asons		Minin	num	
		All-Salmon-		Number of	Size Lin	nit (in.)	
Year	Tribe/Area	Except-Coho	All Salmon	Days	Chinook	Coho	Other Restrictions
		-	Nov. 1-Dec. 31	61	22	16	
2021 ^a	Quinault, Quileute, and Hoh						
	Cape Alava to Point Chehalis	May 1-June 30	-	61	24	-	
		-	July 1 - Sept. 15	77	24	16	Quinault closed their treaty troll fishery on September 13
	Makah						
	North of 48°02'15" N. Lat.	May 1-June 30	-	61	24	-	
	(Norw egian Memorial) and east of	-	July 1- August 13	44	24	16	
	125°44'00" W. Long.	-	August 16 - 19	4	24	16	250 coho per vessel per open period
		-	August 21 - 26	6	24	16	300 coho per vessel per open period
		-	August 28 - Sept 3	6	24	16	350 coho per vessel per open period
			September 4 - 9	6	24	16	50 coho per vessel per open period
			September 11 - 15	5	24	16	30 coho per vessel per open period
	Area 4B (inside w aters)	-	Jan. 1-Apr. 15	105	22	16	
	(Tootosh line east to Sieku R.)	May 1-June 30	-	61	24	-	
		-	July 1- August 13	44	24	16	
		-	August 16 - 19	4	24	16	250 coho per vessel per open period
		-	August 21 - 26	6	24	16	300 coho per vessel per open period
		-	August 28 - Sept 3	6	24	16	350 coho per vessel per open period
		-	September 4 - 9	6	24	16	50 coho per vessel per open period
		-	September 11 - 15	5	24	16	30 coho per vessel per open period
	S'Klallam/Area 4B	-	Jan. 1-Apr. 15	105	22	16	
	(Tootosh line east to Sieku R.)	May 1-June 30	-	61	24	-	
	•	· -	July 1-Sept. 15	77	24	16	
		-	Nov. 1-Dec. 31	61	22	16	

a/ For detailed regulatations 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 3)

	Chinook				Coho							
			Catch Quota				Catch Quota					
		Treaty	Non-Indian			Treaty	Non-Indian	·				
Year	Critical Stocks	Indian	Commercial	Sport	Critical Stocks	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	-	114.0	88.0	Queets and Skagit ^{b/}	-	164.0	318.0				
	stocks											
1984	Low er Columbia River and Spring Creek	8.3	16.7	10.3	Grays Harbor	38.5	24.8	50.2				
	Hatchery tules											
1985	Columbia River Spring Creek Hatchery tules	10.5	47.5°	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	Low er Columbia River Hatchery tules	31.2	37.5	37.5	Queets and Skagit	90.0	105.0	245.0				
1991	Low er Columbia River Hatchery tules	33.0	40.0	40.0	Hood Canal and Skagit	80.0	87.0	233.0				
1992	Columbia River Low er River and Spring Creek	33.0	47.0	33.0	Hood Canal and Stillaguamish	68.0	19.0	141.0				
	Hatchery tules, and Snake River falls				•							
1993	Columbia River Low er River and Spring Creek	33.0	35.0	25.0	Skagit	90.0	47.5	202.5				
	Hatchery tules, and Snake River falls				· ·							
1994	Columbia River Lower River Hatchery tules and	16.4	0.0	0.0	Washington coastal and Puget Sound	0.0	0.0	0.0				
	Snake River falls				Ç Ç							
1995	Columbia River Lower River Hatchery tules and	12.0	0.0	0.0	Washington coastal and Puget Sound	30.0	25.0	75.0				
	Snake River falls				Ç Ç							
1996	Columbia River Lower River Hatchery tules and	11.0	0.0	0.0	Washington coastal and Puget Sound	30.0	20.8	62.2				
	Snake River falls				ů ů							
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 Low er 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 (Lew is River)	30.0	28.5	21.5	Queets, Strait of Juan de Fuca, and Oregon Coast	38.5	20.0	110 ^{g/}				
	,				Natural							

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 3)

	Chinook				Coho							
			Catch Quota				Catch Quota					
		Treaty Non-Indian				Treaty	Non-Indian					
Year	Critical Stocks	Indian	Commercial	Sport	Critical Stocks	Indian	Commercial	Sport				
2000	Columbia River Low er River Wild (Lew is 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 Lower River natural tules	37.0	30.0	30.0	Oregon Coast Natural	90.0	75.0 ^{g/}	225.0g/				
2002	Columbia River Lower River natural tules	60.0	82.5	67.5	Oregon Coast Natural	60.0	5.0 ^{g/i/}	115.0 ^{g/i/}				
2003	Columbia River Low er River natural tules and Snake River Fall	60.0	64.4	59.6	Oregon Coast Natural	90.0	75.0 ^{g/}	225.0 ^{g/}				
2004	Columbia River Lower River natural tules and Snake River Fall	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/}				
2005	Snake River Fall	48.0	43.3	43.3	Interior Fraser (B.C.) and Skagit River	50.0	23.2 ^{g/}	121.8 ^{g/}				
2006	Columbia River Low er River natural tules 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 Low er River natural tules 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 Low er 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 Low er River natural tules	55.0	56.0	61.0 ^{j/}	Low er Columbia River, Strait of Juan de Fuca, and Interior Fraser Natural	41.5	12.8 ^{g/}	67.2 ^{g/}				
2011	Columbia River Low er River natural tules	41.0	30.9	33.7 ^{j/}	Low er Columbia River and Interior Fraser Natural	42.0	12.8 ^{g/}	67.2 ^{g/}				
2012	Columbia River Lower River natural tules	55.0	47.4	51.5 ^{j/}	Low er Columbia River and Interior Fraser Natural	47.5	11.8 ^{g/}	71.2 ^{g/}				
2013	Columbia River Lower River natural tules	52.5	44.0	48.0 ^{j/}	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 ^{j/}	Low er Columbia River and Interior Fraser Natural	57.5	35.2 ^{g/}	184.8 ^{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 3 of 3)

	Chinook				Coho						
			Catch Quota				Catch Quota				
		Treaty	Non-Indian			Treaty	Non-Indian				
Year	Critical Stocks	Indian	Commercial	Sport	Critical Stocks	Indian	Commercial	Sport			
2015	Columbia River natural tules and Puget Sound	60.0	67.0	64.0 ^{j/}	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	Low er Columbia River, Queets River and Interior Fraser Natural coho.	0.0	0.0	18.9 ^{g/}			
2017	Columbia River natural tules and Puget Sound	40.0	45.0	45.0	Low er Columbia River, Queets River and Interior Fraser Natural coho.	12.5	5.6 ^{g/}	42.0 ^{g/}			
2018	Columbia River natural tules and Puget Sound	40.0	27.5	27.5	Low er Columbia River, Grays Harbor, Queets River and Interior Fraser Natural coho.	12.5	5.6 ^{g/}	42.0 ^{g/}			
2019	Columbia River natural tules and Puget Sound	35.0	26.3	26.3	Low er Columbia River, Grays Harbor, Queets River and Interior Fraser Natural coho.	55.0	30.4 ^{g/}	159.6 ^{g/}			
2020	Columbia River natural tules and Puget Sound	35.0	27.6	26.4	Low er Columbia River, Grays Harbor, Queets River and Interior Fraser Natural coho.	16.5	2.0 ^{g/}	26.5 ^{g/}			
2021	Columbia River natural tules and Puget Sound	40.0	30.8	27.3	Low er Columbia River, Grays Harbor, Queets River and Interior Fraser Natural coho.	26.5	5.0 ^{g/}	70.0 ^{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, which are listed as endangered under the Oregon State-ESA. The FMP objective for OCN coho was 15 percent.

^{//} 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).

GENERAL MANAGEMENT AND INSEASON ACTIONS FOR TRIBAL COMMERCIAL FISHERIES

- January 1: The all-salmon treaty troll fisheries open in Area 4B for the Makah and S'Klallam Tribes through April 15.
- May 1: The all-salmon-except-coho treaty troll fisheries open through the earlier of June 30 or attainment of the seasonal sub-quota of 20,000 Chinook.
 - The tribal fisheries for the Quinault, Quileute, Hoh, and S'Klallam Tribes operate within their respective usual and accustomed areas within Marine Areas 2, 3, 4 and 4B. Makah fishery (Area 4 and 4B) closed due to Makah's COVID-19 safety regulations.
- July 1: The all-salmon treaty troll fisheries open through the earlier of September 15 or attainment of the 26,500 coho quota or the seasonal sub-quota of 20,000 Chinook.
 - The tribal fisheries for the Quinault, Quileute, Makah, Hoh, and S'Klallam Tribes operate within their respective usual and accustomed areas within Marine Areas 2, 3, 4 and 4B.
- August 12: Inseason action. The Makah Tribe's all-salmon-except-coho fishery landing limits adjusted throughout the remainder of season.
- September 13: Inseason action. Quinault treaty troll salmon fishery closed September 13 (prior to the scheduled closure date of September 15).
- September 15: Quileute, Hoh, Makah, and S'Klallam treaty troll salmon fisheries close as scheduled.
- November 1: The all-salmon treaty troll fisheries open in Area 4B for the S'Klallam Tribes through December 31.

GENERAL MANAGEMENT AND INSEASON ACTIONS FOR NON-TRIBAL FISHERIES

- February 26: National Marine Fisheries Service (NMFS) provides the Council with a <u>letter</u> outlining the 2021 management guidance for stocks listed under the Endangered Species Act (ESA) and stocks of concern.
- March 2: An <u>update</u> to the guidance letter was provided by NMFS clarifying the exploitation rate for the Oregon Coast Natural coho south central sub-aggregate was limited to no more than 30 percent, rather than the 15 percent reported for all three sub-aggregates in the original guidance letter.
- March 10: Commercial ocean salmon fisheries south of Cape Falcon, OR, that were previously scheduled to open during March 15 through May 15, 2021 (84 FR 27317) were modified or cancelled. The fisheries affected were:
 - Effective March 11. Inseason action #1. The boundary for commercial fishery from Cape Falcon, OR, to Humbug Mt., OR was modified by dividing the area consistent with the Northern Oregon and Central Oregon port analysis areas at the Heceta Bank Line (43°58′00" N. Latitude). The boundaries of the resulting sub-areas are Cape Falcon, OR, to the Heceta Bank Line and the Heceta Bank Line to Humbug Mountain, OR.
 - Effective March 15. Inseason action #2. The commercial ocean salmon fishery from Cape Falcon, OR, to the Heceta Bank Line previously scheduled to open March 15 was delayed until March 20.
 - Effective March 15. Inseason action #3. The commercial ocean salmon fishery in the area from Heceta Bank Line to Humbug Mt., OR, previously scheduled to open March 15 was delayed until additional review at April Council meeting.
 - Effective March 15. Inseason action #4. The commercial ocean salmon fishery in the OR KMZ
 (Humbug Mt., OR, to the OR/CA border) previously scheduled to open March 15 was delayed until
 March 20.
 - Effective May 1. Inseason action #5. The commercial ocean salmon fishery in the CA KMZ (OR/CA border to the Humboldt South Jetty, CA), previously scheduled to be open May 1- 31, was closed.
 - Effective April 15: Inseason action #6. The commercial fishery in the Fort Bragg management area (40°10′00" N. Latitude near Cape Mendocino, CA, to Point Arena, CA), previously scheduled to be open April 15 was delayed.
 - Effective May 1. Inseason action #7. The recreational ocean salmon fishery in the CA KMZ (OR/CA border to 40°10′00" N. Latitude near Cape Mendocino, CA) previously scheduled to open May 1 was closed.

- Effective April 3. Inseason action #8. The recreational fishery in the **Fort Bragg** management area (40°10′00" N. Latitude near Cape Mendocino, CA, to Point Arena, CA) previously scheduled to open April 3 was closed.
- Effective April 3. Inseason action #9. The recreational fishery in the **San Francisco** management area (Point Arena, CA, to Pigeon Point, CA) previously scheduled to open April 3 was closed.
- March 15: The recreational ocean salmon fishery from **Cape Falcon, OR to Humbug Mt, OR** opened as scheduled through October 31 with specific restrictions for marked and unmarked salmon during the season.
- March 16: North of Cape Falcon Salmon Forum meets online to initiate consideration of recommendations for treaty Indian and non-Indian salmon management alternatives.
- March 20: The commercial ocean salmon fishery from **Cape Falcon, OR to the Heceta Bank Line** opened; scheduled through April 30.
- March 20: The commercial ocean salmon fishery in the **OR KMZ** Subarea (Humbug Mt., OR, to the OR/CA border) opened.
- March 23-24: Council holds public hearings on proposed 2021 management alternatives. One meeting was held online for each of the three coastal states (WA, OR, and CA).
- March 31: North of Cape Falcon (NOF) Salmon Forum meets online to further consider recommendations for treaty Indian and non-Indian salmon management alternatives.
- April 3: The recreational ocean salmon fishery in the **Monterey** management area (Pigeon Point, CA to U.S./Mexico border) opens as scheduled through September 30.
- April 15: Commercial ocean salmon fisheries south of Cape Falcon, OR previously scheduled to open during March 15 through May 15 (84 FR 27317) were modified or cancelled. The fisheries affected were:
 - Effective April 15. Inseason action #10. The commercial ocean salmon fishery in the area from Cape Falcon, OR to the Heceta Bank Line was closed during May 6-9, and scheduled to be open from March 20 through May 5, and May 10-15.
 - Effective April 15. Inseason action #11 superseded inseason action #3. The commercial ocean salmon fishery in the area from the **Heceta Bank Line to Humbug Mt.**, **OR** was scheduled the area to be open May 1-5 and May 10-15.
 - Effective April 15. Inseason action #12. The commercial ocean salmon fishery in the OR KMZ
 (Humbug Mt., OR to the OR/CA border) was closed during May 6-9 and scheduled to be open from
 March 20 to May 5 and May 10-15.
 - Effective April 15. Inseason action #13. The commercial ocean salmon fishery in the San Francisco management area (Point Arena, CA to Pigeon Point, CA) previously scheduled to open May 1 was scheduled to be open June 16-30.
 - Effective April 15. Inseason action #14. The commercial ocean salmon fishery in the **Monterey** management area (Pigeon Point, CA to the U.S./Mexico border) previously scheduled to open May 1- 12 and May 18-30, was scheduled to be open May 1-12.
- April 20: The commercial ocean salmon fishery in the **North of Falcon** management area (U.S./Canada border to Cape Falcon, OR) were modified as follows:
 - Effective April 20. Inseason action #15. The Chinook salmon minimum size limit was modified from 28 inches total length to 27 inches total length.
 - Effective April 20. Inseason action #16. Chinook catch guidelines and subarea catch limits were revised for fisheries scheduled to open May 1. The Spring (May-June) Chinook guideline increased from 13,820 to 15,375, no more than 5,680 of which may be caught in the area between the U.S./Canada border and the Queets River, and no more than 4,195 of which may be caught in the Columbia River subarea (Leadbetter Pt. to Cape Falcon).
- April 20: The commercial ocean salmon fishery from **Cape Falcon**, **OR to Humbug Mt.**, **OR** opened intermittently; scheduled through October 31.

- April 20: The commercial ocean salmon fishery in the **OR KMZ** Subarea (Humbug Mt., OR to the OR/CA border) opened intermittently; scheduled through July 31.
- May 1: The commercial salmon fisheries in the **North of Falcon** management area (U.S./Canada border to Cape Falcon, OR) opened for the spring season; scheduled through June 29.
- May 1: The commercial ocean salmon fishery in the **Monterey** management area (Pigeon Point, CA to U.S./Mexico border) opened intermittently; scheduled through August 17.
- May 14: Final Rule for the 2021 annual salmon management measure is published on the Federal Register (86 FR 26425) and corrected on May 26 (86 FR 28293)
- May 16: The commercial ocean salmon fisheries from **Cape Falcon**, **OR to Humbug Mt.**, **OR** remained open intermittently through August and all of September and October.
- June 3: Effective June 3. Inseason action #17. For the commercial ocean salmon fishery north of Cape Falcon in the area between the U.S./Canada border and the Queets River and the Columbia River subarea (Leadbetter Pt., WA to Cape Falcon, OR) the Chinook salmon landing limit per vessel per landing week (Thurs.-Wed.) in May-June was increased from 75 Chinook to 100 Chinook.
- June 12: The recreational fishery from **Cape Falcon, OR to Humbug Mt.** allows retention of marked coho in the daily bag limit; scheduled through August 28 or attainment of 120,000 marked coho quota. The marked coho quota also applies to the concurrent openings in the OR KMZ (Humbug Mountain, OR to the OR/CA border).
- June 12: The recreational fishery in the **OR KMZ** Subarea (Humbug Mt., OR to the OR/CA border) opened through June 18 for all salmon except Chinook, including only marked coho.
- June 16: Effective June 16. Inseason action #18. The commercial ocean salmon fishery in the **OR KMZ** (Humbug Mt., OR to the OR/CA border) closed through June 30 due to anticipated attainment of the June quota.
- June 16: The commercial ocean salmon fishery in the **San Francisco** management area (Point Arena, CA to Pigeon Point, CA) opened intermittently through August 17 and all of September.
- June 19: The recreational fishery in the **North of Falcon** management area (U.S./Canada border to Cape Falcon, OR) opened; scheduled to close September 15. Various subarea restrictions apply.
- June 19: The recreational fishery in the **OR KMZ** (Humbug Mt., OR to the OR/CA border) opened through August 15 for all salmon including only marked coho. The marked coho quota also applies to the concurrent openings in the recreational fishery from Cape Falcon, OR to Humbug Mt.
- June 25: Effective July 1. Inseason action #19. Retention of halibut caught incidental to the commercial ocean salmon fishery (U.S./Canada border to U.S./Mexico border) is extended past June 30 with the same landing and possession limits set preseason (no more than 1 Pacific halibut per each 2 Chinook salmon, expect one Pacific halibut may be landed without meeting the ratio requirement, and no more than 35 halibut may be landed per trip) on dates that the commercial salmon troll fishery is open.
- June 25: Effective July 1. Inseason actions. For the commercial ocean salmon fishery **OR KMZ** Subarea (Humbug Mt., OR to the OR/CA border):
 - Inseason action #20. The July Chinook quota was increased from 200 Chinook to 216 Chinook salmon. This is the result of an impact-neutral rollover of unutilized June quota in the Oregon KMZ.
 - Inseason action #21. The landing and possession limit per vessel per landing week (Thurs.-Wed.) was reduced from 20 Chinook to 10 Chinook.
- June 26: The recreational ocean salmon fishery in the **San Francisco** management area (Point Arena, CA to Pigeon Point, CA) opened; scheduled through October 31.
- June 29: The recreational ocean salmon fishery in the **CA KMZ** (OR/CA border to 40°10′00" N. Latitude near Cape Mendocino, CA) opened; scheduled through August 1.
- June 29: The recreational ocean salmon fishery in the Fort Bragg management area (40°10′00" N. Latitude near Cape Mendocino, CA to Point Arena, CA) opened; scheduled through October 31.

- July 1: The commercial salmon fishery in the **North of Falcon** management area (U.S./Canada border to Cape Falcon, OR) opened for the summer season and scheduled to continue through September 30.
- July 1: The commercial ocean salmon fishery in the **OR KMZ** Subarea (Humbug Mt., OR to the OR/CA border) opened as scheduled through July 31 or attainment of July Chinook quota.
- July 20: Effective: July 24. Inseason action #22. For the recreational ocean salmon fishery north of Cape Falcon in the **Neah Bay subarea** (U.S./Canada border to Cape Alava, WA), the daily bag limit was modified from two salmon to two salmon, only one of which may be a Chinook.
- July 20: Effective: July 20. Inseason action #23. For the commercial ocean salmon troll fishery in the **North of Falcon** management area (U.S./Canada border to Cape Falcon, OR) the Chinook guideline for the summer season (July-Sept.) was increased from 15,375 Chinook to 16,931 Chinook through an impact-neutral rollover of unutilized guideline from the Spring (May-June) commercial salmon troll fishery in the same area.
- July 22: Effective: July 22. Inseason action #24. For the commercial ocean salmon fishery in **OR KMZ** Subarea (Humbug Mt., OR to the OR/CA border) the landing and possession limit per vessel per landing week (Thursday-Wednesday) was increased from 10 Chinook to 20 Chinook.
- August 1: The commercial ocean salmon fishery from fishery in the **Fort Bragg** management area (40°10′00" N. Latitude near Cape Mendocino, CA, to Point Arena, CA) opened; scheduled through August 17 and September 1-30.
- August 3: Effective August 6. Inseason action #25. For the recreational ocean salmon fishery north of Cape Falcon in the **Westport subarea** (Queets River to Leadbetter Pt.) the open fishing days per calendar week were increased from five days to seven days.
- August 16: The recreational fishery in the **OR KMZ** (Humbug Mt., OR to the OR/CA border) opened through August 28 for all salmon except Chinook, including only marked coho. The marked coho quota also applies to the concurrent openings in the recreational fishery from Cape Falcon, OR to Humbug Mt.
- August 20: Effective August 21. Inseason action #26. For the recreational ocean salmon fishery north of Cape Falcon in the **Westport subarea** (Queets River to Leadbetter Pt.) the daily bag limit was modified from two salmon per day no more than one of which may be a Chinook, to two salmon per day.
- August 26: Effective August 30. Inseason action #27. The recreational ocean salmon fishery north of Cape Falcon in the **Columbia River subarea** (Leadbetter Pt. to Cape Falcon) previously scheduled to be open through September 15, was closed due to anticipated attainment of the coho guota and Chinook guideline.
- September 2: Effective September 4. Inseason action #28. The recreational ocean salmon fishery north of Cape Falcon in the **La Push subarea** (Cape Alava to Queets River) previously scheduled to be open through September 15, was closed due to anticipated attainment of the coho quota.
- September 2: Effective September 8. Inseason action #29. The recreational ocean salmon fishery north of Cape Falcon in the **Westport subarea** (Queets River to Leadbetter Pt.) previously scheduled to be open through September 15 was closed due to anticipated attainment of the coho quota.
- September 2: Effective September 3. Inseason action #30. For the commercial ocean salmon fishery in the **North**of Falcon management area (U.S./Canada border to Cape Falcon, OR) the coho landing and possession limit per vessel per landing week (Thurs.-Wed.) was increased from 20 marked coho to 50 marked coho.
- September 10: The recreational fishery from **Cape Falcon, OR to Humbug Mt., OR** allows retention of non-marked coho in the daily bag limit; scheduled for three days per week (Fri.-Sun.) through September or attainment of the 14,000 non-marked coho quota.
- September 14: Effective September 14. Inseason action #31. For the recreational ocean fishery from **Cape Falcon**, **OR to Humbug Mt**, **OR**, the coho salmon quota increased from 14,000 to 20,230 through an impact neutral rollover of unused quota from the mark selective recreational fishery in the area from Cape Falcon to the OR/CA border that occurred during June through August.

- September 14: Effective September 17. Inseason action #32. The recreational fishery from Cape Falcon, OR to Humbug Mt., OR previously scheduled to allow non-marked coho retention three days per week (Fri.-Sun.) through September or attainment of 14,000 non-marked coho quota, was modified to allow non-marked coho retention seven days per week through September or attainment of the 20,230 non-marked coho quota.
- October 1: The commercial ocean salmon Fall Area Target Zone fishery from Point Reyes, CA to Point San Pedro, CA opened October 1, 4-8, and 11-15.

ACTUAL NON-TRIBAL COMMERCIAL SEASONS

- March 20: **Cape Falcon, OR to Heceta Bank Line** (43°58′00" N. Latitude) all-salmon-except-coho fishery open through April 30. All vessels fishing in the area must land their salmon in the State of Oregon.
- March 20: **OR KMZ** (Humbug Mountain, OR to the OR/CA border) all-salmon-except-coho fishery open March 20-May 5, May 10-21, May 26-31, June 1-16, and July 1-31. Chinook Quotas: 300 in June 213 in July (July quota increased from 200 inseason). Landing and possession limit per vessel per week (Thurs.-Wed.): 20 Chinook through June, 10 Chinook July 1-21, and 20 Chinook in July 22-31. Prior to June 1 all vessels fishing in the area must land their salmon in the State of Oregon. During June and July, Oregon state regulations require fishers to notify ODFW within one hour of landing and prior to transport away from the port of landing. Inseason action for early closure in June and to increase the July quota.
- May 1: U.S./Canada border to Cape Falcon, OR all-salmon-except-coho fishery opens until the earlier of June 29 or attainment of 15,375 preseason Chinook guideline, no more than 5,680 of which may be caught in the area between the U.S./Canada border and the Queets River, and no more than 4,195 of which may be caught in the area between Leadbetter Pt. and Cape Falcon. In the area between Leadbetter Pt. and Cape Falcon, the landing and possession limit is 75 Chinook per vessel per landing week (Thurs.-Wed.) through June 2 and 100 Chinook through June 29. Inseason action to modify landing limit.
- May 1: Cape Falcon, OR to Humbug Mountain, OR all-salmon-except-coho fishery open May 1-5, May 10-21, May 26-31, June 5-7, June 12-14, June 19-21, June 26-28, and September 1-October 31. Beginning September 1, no more than 75 Chinook allowed per vessel per landing week (Thurs.-Wed.). All vessels fishing in the area must land their salmon in the State of Oregon.
 - All salmon fishery open July 5-7, July 12-14, July 19-21, July 26-28, August 1-4, August 8-10, and August 15-17. All retained coho must be marked with a healed adipose fin clip. If the coho quota for the combined area from Cape Falcon to Humbug Mt. of 10,000 marked coho is met, then the season continues for all salmon except coho on the remaining open days. Salmon trollers may take and retain or possess on board a fishing vessel no more than 20 coho per vessel per week (Thurs.-Wed.). All coho retained, possessed on a vessel, and landed must not exceed a 1:1 ratio with Chinook salmon that are retained and landed at the same time.
- May 1: **Monterey** management area (Pigeon Point, CA to U.S./Mexico border) all-salmon-except-coho fishery open May 1-12, May 20-27, June 16-30, July 17-22, and August 1-17. Chinook minimum size limit of 27 inches total length. All fish must be landed in California.
- June 16: **San Francisco** management area (Point Arena, CA to Pigeon Point, CA) all-salmon-except-coho fishery open June 16-30, July 17-22, August 1-17, and September 1-30. Chinook minimum size limit of 27 inches total length through August, then 26 inches thereafter. All salmon must be landed in California. During September, all salmon must be landed south of Point Arena.
- July 1: **U.S./Canada border to Cape Falcon, OR** all-salmon fishery opens until the earlier of September 30 or attainment of 16,931 inseason Chinook guideline (15,375 preseason) or 5,000 marked coho quota. Landing and possession limit of 20 marked coho per vessel per landing week (Thurs.-Wed.) through September 2, then 50 marked coho thereafter. No chum retention north of Cape Alava, WA in August, and September. Inseason action to increase the Chinook quota (roll over from Spring fishery); increase coho landing limit.

ACTUAL NON-TRIBAL COMMERCIAL SEASONS (continued)

- August 1: Fort Bragg management area (40°10′00" N. Latitude near cape Mendocino to Point Arena, CA) all-salmon except coho fishery open August 1-17 and September 1-30. Chinook minimum size limit of 27 inches total length. All salmon must be landed in California and north of Point Arena, CA.
- October 1: **Point Reyes, CA to Point San Pedro, CA** all-salmon-except-coho fishery open October 1, October 4-8, and October 11-15. Chinook minimum size limit of 26 inches total length. All salmon caught in this area must be landed between Point Arena, CA and Pigeon Point, CA.

ACTUAL RECREATIONAL SEASONS

- March 15: Cape Falcon, OR to Humbug Mountain, OR, all-salmon-except-coho fishery open March 15-June 11, August 29-September 9, September 13-16, and October 1-31, two salmon daily, Chinook minimum size limit: 24-inches total length.
- April 3: **Monterey** management area (Pigeon Point, CA to U.S./Mexico Border), all-salmon-except-coho fishery open April 3-September 30, two salmon daily, Chinook minimum size limit: 24-inches total length through May 15, 20-inches thereafter.
- June 12: **Oregon KMZ** (Humbug Mountain, OR to OR/CA Border), all-salmon-except-Chinook fishery open June 12-18 and August 16-28. All-salmon fishery open June 19-August 15, with a quota of 120,000 marked coho, two salmon per day, all retained coho must be marked with a healed adipose fin clip. Minimum size limit is 24 inches for Chinook and 16 inches for coho. Coho quota applies to fisheries in the area from Cape Falcon, OR to the OR/CA Border through August.
- June 12: Cape Falcon, OR to Humbug Mountain, OR, all-salmon mark-selective-coho fishery open June 12-August 28 with a quota of 120,000 marked coho, two salmon per day, all retained coho must be marked with a healed adipose fin clip. Minimum size limit is 24 inches for Chinook and 16 inches for coho. Coho quota applies to fisheries in the area from Cape Falcon, OR to the OR/CA Border through August.
- June 19: **Neah Bay Subarea** (U.S./Canada border to Cape Alava, WA), all-salmon-except coho fishery open June 19-July 3, one salmon daily. All-salmon fishery open July 4-September 15, subarea quota of 5,730 marked coho and a subarea guideline of 5,825 Chinook, two salmon daily through July 23, then two salmon daily only one of which may be a Chinook thereafter; beginning August 1 no chum retention, and no Chinook retention east of the Bonilla-Tatoosh line during Council managed ocean fishery. All retained coho must be marked with a healed adipose fin clip. Minimum size limits (total length): 24 inches for Chinook and 16 inches for coho. Inseason action to change the daily bag limit.
- June 19: La Push Subarea (Cape Alava, WA to Queets River, WA), all-salmon-except coho fishery open June 19-July 3, two salmon daily. All-salmon fishery open July 4-September 3, subarea quota of 1,430 marked coho and a subarea guideline of 1,300 Chinook, two salmon daily, beginning August 1 no chum retention. All retained coho must be marked with a healed adipose fin clip. Minimum size limits (total length): 24 inches for Chinook and 16 inches for coho. Inseason action for early closure.
- June 19: **Westport Subarea** (Queets River, WA to Leadbetter Point, WA), all-salmon-except coho fishery open June 19-26, one salmon daily. All-salmon fishery open June 27-September 7, subarea quota of 20,440 marked coho and a subarea guideline of 12,925 Chinook, open five days per week (Sun.-Thurs.) through August 5, and 7 days per week thereafter; two salmon daily, no more than one of which may be a Chinook through August 20 then two salmon daily. For all open periods: All retained coho must be marked with a healed adipose fin clip. Minimum size limits (total length): 22 inches for Chinook and 16 inches for coho. Grays Harbor Control Zone closed beginning August 9. Inseason action to increase days open per week, modify the daily bag limit, and early closure.
- June 19: **Columbia River Subarea** (Leadbetter Point, WA to Cape Falcon, OR), all-salmon-except coho fishery open June 19-26, one salmon daily. All-salmon fishery open June 27-August 29, subarea quota of 42,400 marked coho and a subarea guideline of 7,200 Chinook, two salmon per day, no more than one of which may be a Chinook. For all open periods: All retained coho must be marked with a healed adipose fin clip. Minimum size limits (total length): 22 inches for Chinook and 16 inches for coho. Columbia Control Zone closed. Inseason action for early closure.
- June 26: **San Francisco** management area (Point Arena, CA to Pigeon Point, CA) all-salmon-except-coho fishery open June 26-October 31, two salmon daily. Chinook minimum size limit: 20-inches total length.
- June 29: **California KMZ** (OR/CA Border to 40°10′00" N. Latitude near Cape Mendocino, CA) all-salmon-except-coho fishery open June 29-August 1, two salmon daily. Chinook minimum size limit: 20-inches total length. Klamath Control Zone closed in August.

TABLE C-9. 2021 sequence of events in ocean salmon fishery management. al (Page 7 of 7)

ACTUAL RECREATIONAL SEASONS (continued)

- June 29: **Fort Bragg** management area (40°10′00" N. Latitude near Cape Mendocino, CA to Point Arena, CA), all-salmon-except-coho fishery open June 29-October 31, two salmon daily. Chinook minimum size limit: 20-inches total length.
- September 10: Cape Falcon, OR to Humbug Mountain, OR all-salmon non-mark-selective coho fishery open September 10-12 and September 17-30. 14,000 coho quota adjusted inseason to 20,230 coho. Two salmon daily. Minimum size limits (total length): 24 inches for Chinook and 16 inches for coho. Inseason action for an impact neutral rollover of unused quota from the June August mark selective recreational fishery in the area from Cape Falcon to the Oregon/California border that occurred June-August, and to open 7 days per week beginning September 17.

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. NMFS inseason actions are results of conference calls between state, federal and tribal fishery managers.

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							CO	НО		
Crescent City	<u>/</u>													
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	-	-	-	-	-	-
2006-2010	-	-	-	-	-	13.7	-	13.7	-	-	-	-	-	-
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	-	-	-	-	-	14.3	-	14.3	-	-	-	-	-	-
2017	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2018	-	8.6	9.7	9.5	9.8	-	-	9.6	-	-	-	-	-	-
2019	-	-	8.3	9.1	9.2	-	-	9.2	-	-	-	-	-	-
2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Eureka</u>														
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	-	-	-	-	-	-
2006-2010	-	-	-	-	-	12.3	-	12.3	-	-	-	-	-	-
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	-	-	-	_	-	11.9	-	11.9	-	_	-	-	_	_
2017	-	-	-	_	-	-	-	_	-	-	-	-	_	_
2018	-	7.1	8.3	10.6	10.1	-	-	9.4	_	-	-	-	-	-
2019	_	-	7.9	9.2	8.9	_	_	8.5	_	_	_	_	_	_
2020	_	_	-	-	-	_	_	-	_	_	_	_	_	_
2021					_			_						

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							CO	НО		
Fort Bragg														
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	-	-	-	-	-	-
2006-2010	12.5	-	-	15.8	15.2	14.4	-	15.6	-	-	-	-	-	-
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	-	-	10.5	-	11.2	12.1	-	10.8	-	-	-	-	-	-
2017	-	-	-	-	-	10.5	-	10.5	-	-	-	-	-	-
2018	-	-	-	12.6	10.3	10.0	-	11.6	-	-	-	-	-	-
2019	-	-	8.2	8.7	10.7	-	-	9.1	-	-	-	-	-	-
2020	-	-	-	-	13.6	10.3	-	13.2	-	-	-	-	-	-
2021 ^{b/}	-	-	-	-	11.5	10.7	-	11.4	-	-	-	-	-	-
San Francisc	0													
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	-	-	-	-	-	_
2006-2010	_	11.4	_	14.4	14.3	17.2	18.5	14.3	-	-	-	-	-	_
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	_	9.6	10.0	-	12.9	11.5	12.5	12.0	-	-	-	-	-	_
2017	-	-	_	-	11.8	11.9	12.5	11.8	_	-	-	_	_	_
2018	_	-	-	12.4	12.0	12.1	12.1	12.1	-	-	-	-	-	_
2019	_	8.4	8.7	10.3	10.5	12.5	12.8	9.7	-	-	-	-	-	_
2020	_	10.5	10.3	10.0	11.9	11.3	13.4	10.5	_	-	-	-	-	_
2021 ^{b/}			11.1	11.2	12.8	13.3	14.5	11.5						

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							CC	НО		
<u>Monterey</u>														
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	-	-	-	-	-	-
2006-2010	-	13.2	12.9	14.7	13.7	16.7	-	13.6	-	-	-	-	-	-
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	-	9.6	10.8	-	-	-	-	9.9	-	-	-	-	-	-
2017	-	10.5	12.8	-	-	-	-	11.8	-	-	-	-	-	-
2018	-	11.1	13.2	-	-	-	-	12.7	-	-	-	-	-	-
2019	-	9.1	9.9	10.9	-	-	-	9.6	-	-	-	-	-	-
2020	-	12.2	12.3	13.3	12.6	-	-	12.3	-	-	-	-	-	-
2021 ^{b/}	-	10.8	13.3	14.6	13.4	-	-	11.1	-	-	-	-	-	-
Total States	vide ^{a/}													
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	-	-	-	-	-	-
2006-2010	12.5	12.3	12.9	14.6	14.7	15.0	18.5	14.5	-	-	-	-	-	-
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	-	9.6	10.6	-	12.5	11.6	12.5	11.2	-	-	-	-	-	-
2017	-	10.5	12.8	-	11.8	11.6	12.5	11.8	-	-	-	-	-	-
2018	-	10.5	12.6	12.2	11.4	12.0	12.1	11.9	-	-	-	-	-	-
2019	_	9.0	9.1	10.3	10.4	12.5	12.8	9.6	-	-	_	_	_	-
2020	-	11.6	10.6	10.1	12.1	11.2	13.4	10.8	-	-	-	-	-	-
2021 ^{b/}	_	10.8	11.2	11.7	11.8	12.7	14.5	11.4	-	-	_	_	_	-

a/ Total statewide and season averages includes minor landings from Oregon prior to 2005.

b/ Preliminary.

TABLE D-2.	Oregon monthly	v troll Chinook	and coho average	dressed weights (po	ounds).

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
2001-2005	10.2	10.3	10.8	10.3	10.5	10.7	9.8	10.3	13.8	13.2	10.5
2006-2010	-	13.4	11.9	12.7	13.2	13.1	13.6	16.9	14.9	14.0	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	-	11.7	11.5	11.4	12.6	13.1	13.1	14.4	12.6	-	12.3
2017	-	13.8	11.4	11.8	12.1	13.3	12.6	13.0	11.1	-	12.1
2018	-	-	11.0	11.6	12.3	11.6	11.6	13.1	12.3	-	11.8
2019	-	9.7	10.1	11.0	10.8	10.6	11.0	11.3	-	-	10.8
2020	-	13.0	13.3	13.4	14.8	15.1	14.3	12.6	-	-	14.1
2021 ^{a/}	11.8	11.7	11.4	11.8	11.9	12.0	12.6	11.6	-	-	11.8
						СОНО					
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
2001-2005	-	-	-	-	5.3	6.9	7.2	-	-	-	5.6
2006-2010	-	-	-	-	5.6	7.4	8.9	-	-	-	7.2
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	-	-	-	-	-	-	-	-	-	-	-
2017	-	-	-	-	5.4	5.8	6.3	-	-	-	6.0
2018	-	-	-	-	5.7	6.8	6.9	-	-	-	6.6
2019	-	-	-	-	4.6	5.1	5.1	-	-	-	4.7
2020	-	-	-	-	4.9	6.4	7.3	-	-	-	5.8
2021 ^{a/}	-	-	-	-	5.6	5.9	5.9	-	-	-	5.8

a/ Preliminary.

TABLE D-3. Washington monthly troll Chinook and coho salmon average dressed weights (pounds).^{a/}

_	M	ay	Ju	ne	Jı	ıly	Au	ıg.	Se	ept.	O	ct	Sea	son
•	Treaty	Non-	Treaty	Non-										
Year	Indian ^{b/}	Indian												
							CHINO	OK						
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°/	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	8.4	11.2	8.5	12.0	7.1	12.3	8.4	11.0	7.5	10.7	-	-	8.5	11.5
2001-2005	9.5	11.3	10.7	12.6	13.5	15.0	14.2	15.4	11.9	13.6	-	-	11.4	13.2
2006-2010	8.0	11.3	8.1	12.0	9.8	14.4	10.4	14.6	7.4	13.3	-	-	8.7	12.4
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	10.9	13.6	11.9	14.7	8.6	11.9	-	-	9.5	11.8
2013	7.6	9.6	7.9	10.5	12.1	12.4	13.1	13.0	10.5	12.2	-	-	9.3	11.2
2014	8.3	10.9	9.9	12.6	12.0	13.1	11.1	13.4	9.1	12.8	-	-	10.1	12.0
2015	7.6	9.8	8.1	10.9	12.7	12.6	12.4	12.3	12.5	13.1	-	-	9.9	11.3
2016	7.7	10.2	9.7	11.6	9.7	13.2	8.6	13.3	9.8	_	_	-	9.3	11.6
2017	5.8	9.3	6.3	10.0	8.5	10.8	9.3	12.0	7.8	12.3	_	-	8.1	10.2
2018	6.1	9.4	6.5	10.7	9.1	11.2	8.6	13.0	7.1	13.5	-	-	7.5	10.8
2019	7.3	10.7	11.2	12.1	9.4	13.8	10.8	14.5	10.3	14.4	-	-	9.7	13.2
2020	10.8	10.4	10.4	11.8	13.2	13.5	13.1	14.2	10.0	13.4	-	-	11.5	13.3
2021	7.9	9.5	6.6	11.5	7.3	12.7	10.2	13.8	8.7	12.3	-	-	8.1	12.0
							COHO)						
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
2001-2005	7.0	-	4.8	-	5.1	6.4	6.3	6.4	6.1	7.1	-	-	5.9	6.3
2006-2010	5.5	-	4.0	-	5.6	5.8	6.6	7.3	7.5	8.6	-	-	6.6	7.1
2011	-	-	-	-	5.2	5.2	5.8	5.9	5.9	6.3	-	-	5.7	5.6
2012	5.0	-	9.6	-	5.0	4.2	5.3	5.2	5.2	6.2	-	-	5.2	5.4
2013	-	-	9.4	-	4.5	4.5	4.9	5.4	7.0	6.5	-	-	5.1	5.2
2014	-	-	6.0	-	5.4	5.0	5.6	5.6	5.9	6.3	-	-	5.6	5.7
2015	-	-	7.0	-	5.3	4.9	5.0	5.4	4.6	5.6	-	-	5.1	5.4
2016	_	_	-	_	7.3	_	8.0	-	-	_	_	-	7.6	_
2017	_	_	-	_	5.2	5.0	6.1	6.8	6.0	7.3	_	-	6.0	6.5
2018	_	_	_	_	5.3	5.3	5.9	6.9	6.1	7.5	_	_	5.9	6.7
2019	_	_	_	_	5.0	5.0	4.9	5.6	5.8	6.2	_	_	5.1	5.6
2020	_	_	_	_	5.8	5.2	5.9	6.5	6.8	9.0	_	_	6.2	6.5
2021	_	_	_	_	4.4	5.3	5.2	6.1	5.7	6.6	_	_	5.1	6.2

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 b/ Season totals include additional winter treaty Indian troll.

c/ In 1994-1996 the non-Indian fishery for Chinook w as 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/}

					Nominal	Real
	Dressed	Nominal			Average	Average
	Pounds	Exvessel	Vessels	Vessels	Exvessel	Exvessel
	Landed	Value	Landing	w ith	Value/Vessel	Value/Vessel
Year	(thousands)	(\$ thousands)	Salmon	Permits	(dollars)	(2021 dollars)
1960	6,221	3,339	1,365	-	2,446	17,399
1961-1965	8,463	4,536	1,713	-	2,652	18,195
1966-1970	7,316	4,350	2,101	-	2,084	12,498
1971-1975	7,977	6,713	2,759	-	2,409	11,153
1976-1980	7,052	13,318	4,315	-	3,102	10,178
1981-1985	4,799	11,499	3,243	4,658	3,542	8,269
1986-1990	8,360	21,641	2,449	3,523	8,735	17,548
1991-1995	3,523	7,478	1,244	2,754	6,149	10,481
1996-2000	4,037	6,813	783	1,940	8,820	13,749
2001	2,409	4,773	689	1,650	6,927	10,269
2002	5,008	7,776	708	1,586	10,982	16,030
2003	6,392	12,181	584	1,521	20,858	29,854
2004	6,230	17,895	741	1,511	24,150	33,663
2005	4,347	12,913	680	1,477	18,990	25,665
2006	1,043	5,350	477	1,408	11,216	14,705
2007	1,525	7,902	601	1,390	13,149	16,785
2008	-	-	-	1,306	-	-
2009	-	-	-	1,281	-	-
2010	228	1,246	215	1,239	5,794	7,125
2011	992	5,133	464	1,188	11,062	13,327
2012	2,530	13,521	616	1,172	21,950	25,959
2013	3,793	23,632	671	1,163	35,219	40,935
2014	2,253	12,521	653	1,135	19,175	21,878
2015	1,188	8,347	587	1,131	14,219	16,063
2016	615	5,312	438	1,105	12,129	13,565
2017	497	4,925	400	1,083	12,312	13,514
2018	930	7,932	456	1,072	17,396	18,648
2019	2,604	17,209	571	1,053	30,138	31,740
2020	1,928	14,408	473	1,032	30,461	31,698
2021 ^{b/}	2,294	18,480	486	1,026	38,026	38,026

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. at

registered vest		oroidi odililon landing			Nominal Average	Real Average
	Dressed Pounds	Nominal Exvessel	Vessels	Vessels	Exvessel	Exvessel
	Landed	Value	Landing	w ith	Value/Vessel	Value/Vessel
Year	(thousands)	(\$ thousands)	Salmon	Permits	(dollars)	(2021 dollars)
1974	-	7,937	2,253	-	3,523	15,261
1975	-	5,808	2,304	-	2,521	9,994
1976-1980 ^{b/}	6,679	8,185	3,875	4,314	2,112	5,913
1981-1985 ^{c/d/}	2,969	5,774	2,050	2,993	2,817	6,108
1986-1990	5,688	6,641	1,557	2,528	4,265	7,927
1991-1995 ^{e/}	1,265	3,294	476	1,465	6,920	11,395
1996-2000	1,428	3,063	399	1,062	7,677	11,636
2001 ^{f/}	2,949	4,721	449	1,175	10,515	15,587
2002 ^{f/}	3,498	5,391	468	1,175	11,519	16,813
2003 ^{f/}	3,681	7,222	494	1,178	14,620	20,926
2004 ^{f/}	2,920	9,919	595	1,181	16,670	23,237
2005 ^{f/}	2,691	8,503	565	1,168	15,050	20,340
2006 ^{f/}	499	2,701	357	1,127	7,565	9,918
2007	565	2,822	436	1,009	6,473	8,263
2008	70	494	138	1,092	3,579	4,483
2009	146	345	225	1,062	1,531	1,906
2010	513	2,791	370	1,021	7,543	9,276
2011	404	2,401	304	1,003	7,899	9,517
2012	745	4,271	369	990	11,576	13,690
2013	1,293	7,611	399	977	19,075	22,171
2014	2,639	14,760	493	977	29,938	34,158
2015	1,200	7,334	488	980	15,028	16,977
2016	518	4,261	313	972	13,613	15,226
2017	267	2,129	176	956	12,099	13,280
2018	289	2,442	230	946	10,618	11,383
2019	320	2,103	218	924	9,645	10,158
2020	183	1,524	174	905	8,756	9,221
2021 ^{g/}	232	2,249	186	875	12,091	12,091

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 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 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/}

		ang commercial sai			Nominal	
	Dressed	Nominal			Average	Real Average
	Pounds	Exvessel	Vessels	Vessels	Exvessel	Exvessel
	Landed	Value	Landing	w ith	Value/Vessel	Value/Vessel
Year	(thousands)	(\$ thousands)	Salmon	Permits	(dollars)	(2021 dollars)
1978	4,746	10,025	3,041	3,291	3,297	10,897
1979	5,262	15,091	2,778	3,068	5,432	16,581
1980	3,398	7,114	2,626	2,797	2,709	7,584
1981-1985 ^{b/c/}	1,433	3,225	1,675	2,233	1,696	4,046
1986-1990	752	1,670	913	1,349	1,997	3,981
1991-1995 ^{d/e/f/g/}	345	834	397	586	1,607	2,789
1996-2000 ^{h/i/j/}	126	197	54	270	4,188	6,511
2001	290	383	57	169	6,718	9,958
2002	679	758	75	165	10,102	14,745
2003	875	991	82	163	12,087	17,300
2004	594	1,185	86	160	13,779	19,206
2005	481	1,290	91	158	14,170	19,152
2006	231	1,045	84	158	12,440	16,310
2007	217	953	79	158	12,062	15,398
2008	114	709	86	158	8,244	10,326
2009	291	1,169	97	158	12,051	14,999
2010	537	3,115	116	158	26,856	33,027
2011	339	1,687	112	158	15,066	18,151
2012	452	2,358	105	158	22,457	26,559
2013	481	2,838	108	157	26,275	30,539
2014	551	2,709	116	156	23,351	26,642
2015	640	3,448	122	153	28,266	31,931
2016	201	1,606	107	151	15,009	16,787
2017	343	2,919	108	155	27,031	29,669
2018	263	2,350	108	155	21,759	23,326
2019	322	1,925	88	155	21,878	23,041
2020	168	1,173	60	153	19,555	20,594
2021	233	2,043	76	153	26,882	26,882

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

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. al (Page 1 of 5)

		Vessels		Average	Catch ^{c/}	
	Longth		Doroant of	Pounds Per	Total	Doro ont o
	Length	N b/	Percent of		Total	Percent of
ear 21 ^{d/}	Category (feet)	Number ^{b/}	Total	Vessel	(pounds)	Total
21"	<20	27	6%	862	23,280	1%
	21-25	98	20%	1,355	132,811	6%
	26-30	81	17%	2,062	166,983	7%
	31-35	93	19%	4,447	413,583	18%
	36-40	69	14%	6,123	422,475	18%
	41-45	67	14%	9,082	608,509	27%
	46-50	34	7%	11,064	376,163	16%
	51-55	11	2%	9,190	101,085	4%
	>56	6	_ 1%	8,198	49,186	. 2%
	TOTAL	486		4,720	2,294,075	
20	<20	28	6%	806	22,576	1%
	21-25	101	21%	1,400	141,397	7%
	26-30	78	16%	2,084	162,544	8%
	31-35	92	19%	3,934	361,968	19%
	36-40	72	15%	5,288	380,705	20%
	41-45	60	13%	8,586	515,168	27%
	46-50	26	5%	8,877	230,810	12%
	51-55	10	2%	8,270	82,697	4%
	>56	6	1%	4,943	29,658	2%
	TOTAL	473	_	4,075	1,927,523	•
019	<20	33	6%	1,328	43,810	2%
	21-25	117	20%	2,335	273,231	10%
	26-30	90	16%	2,388	214,925	8%
	31-35	108	19%	5,125	553,545	21%
	36-40	91	16%	5,996	545,629	21%
	41-45	77	13%	7,606	585,693	22%
	46-50	38	7%	7,319	278,136	11%
	51-55	10	2%	7,425	74,247	3%
	>56	7	1%	5,015	35,102	1%
	TOTAL	571	_	4,561	2,604,318	•
18	<20	25	5%	543	13,572	1%
	21-25	100	22%	913	91,294	10%
	26-30	74	16%	1,538	113,826	12%
	31-35	99	22%	1,804	178,642	19%
	36-40	70	15%	3,210	224,704	24%
	41-45	56	12%	4,464	249,986	27%
	46-50	24	5%	1,817	43,610	5%
	51-55	8	2%	1,832	14,652	2%
	>56	e/	e/	e/	e/	e/
	TOTAL	456	_	2,040	930,286	
4-	-00	0.1	22/		40.000	
17	<20	31	8%	442	13,693	3%
	21-25	95	24%	764	72,575	15%
	26-30	68	17%	919	62,491	13%
	31-35	90	23%	1,292	116,305	23%
	36-40	58	15%	1,900	110,225	22%
	41-45	35	9%	2,408	84,275	17%
	46-50	18	5%	1,991	35,836	7%
	51-55	5	1%	395	1,976	0%
	>56	e/	_ e/	e/	e/	. e/
	TOTAL	400		1,243	497,376	

TABLE D-7. California salmon troll boat-size catch statistics in pounds of dressed salmon. al (Page 2 of 5)

_		Vessels			Catch ^{c/}	
Year	Length	Number ^{b/}	Percent of	Average	Total	Percent of
2016	<20	20	5%	924	18,480	3%
	21-25	96	22%	821	78,851	13%
	26-30	78	18%	1,108	86,397	14%
	31-35	102	23%	1,426	145,463	24%
	36-40	74	17%	1,963	145,229	24%
	41-45	37	8%	2,557	94,623	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	438	_	1,405	615,326	•
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	_ 170	2,024	1,188,040	. 270
0044	-00	20	C0/	554	04.000	40/
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 TOTAL	653	_ 1%	3,958 3,451	31,660 2,253,329	. 1%
	101/12	000		0, 10 1	2,200,020	
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	. 170
	IOIAL	010		4,100	2,000,004	

TABLE D-7. California salmon troll boat-size catch statistics in pounds of dressed salmon. al (Page 3 of 5)

		Vessels			Catch ^{c/}	
				Average	+	
/ o = ::	Length	Number ^{b/}	Percent of	Pounds Per	Total	Percent of
<u>′ear</u> :011	Category (feet)		Total	Vessel	(pounds)	Total 1%
UII	<20	27	6% 10%	252	6,795	
	21-25	86	19%	733	63,062	6% 70/
	26-30	79 01	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	
010	<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	
009	<20	-	-	-	-	-
	21-25 26-30	-	-	-	-	-
	31-35	-		-	-	
	36-40	_	_	-	-	_
	41-45	-	-	-	-	-
	46-50	-	-	-	-	-
	51-55	-	-	-	-	-
	>56 TOTAL					
2008	<20	_	_	_	_	_
.000	21-25	_	_	_	_	_
	26-30	_	_	_	_	_
	31-35	-	-	-	-	-
	36-40	-	-	-	-	-
	41-45	-	-	-	-	-
	46-50 51-55	-	-	-	-	-
	>56	-	-	-	-	_
	TOTAL	-	-	-	-	•
007	<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. al (Page 4 of 5)

		Vessels			Catch ^{c/}	
			_	Average	_	_
	Length	F./	Percent of	Pounds Per	Total	Percent of
Year	Category (feet)	Number ^{b/}	Total	Vessel	(pounds)	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%

TABLE D-7. California salmon troll boat-size catch statistics in pounds of dressed salmon. al (Page 5 of 5)

		Vessels			Catch ^{c/}	
				Average		
	Length		Percent of	Pounds Per	Total	Percent of
Year	Category (feet)	Number ^{b/}	Total	Vessel	(pounds)	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	•

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/ Few er than three vessels. Values combined with nearest category to preserve confidentiality.

TABLE D-8.	 Oregon salmon troll boat-size catch statistics in pounds of 	of dressed salmon.	(Page 1 of 5)

		Vessels		<u> </u>	Catch	
	Length		Percent of	Average Per	Total	Percent of
'ear	Category (feet)	Number ^{a/}	Total	Boat (pounds)	(pounds)	Total
021 ^{b/}	<20	-	-	-	_	-
	20-29	56	32%	653	36,545	16%
	30-39	50	29%	1,480	73,990	32%
	40-49	66	38%	1,493	98,567	43%
	>50	14	8%	1,516	21,229	9%
	TOTAL	186	-	1,238	230,331	-
000	.00					
020	<20	-	-	-	-	470/
	20-29	45 50	26%	682	30,702	17%
	30-39	53	30%	1,134	60,090	33%
	40-49	60	34%	1,337	80,207	44%
	>50	16	- 9%	679	10,856	. 6%
	TOTAL	174		1,045	181,855	
019	<20	4	2%	399	1,595	0%
	20-29	51	23%	732	37,329	12%
	30-39	62	28%	1,771	109,820	34%
	40-49	81	37%	1,810	146,585	46%
	>50	20	9%	1,229	24,575	8%
	TOTAL	218		1,467	319,904	
.018	<20	6	3%		1,559	1%
.010	20-29	54	23%	488	26,370	9%
	30-39	72	31%	1,513	108,943	38%
	40-49	81	35%	1,646	133,332	46%
	>50	17	7%	1,059	17,999	6%
	TOTAL	230	_	1,253	288,203	. 070
017	<20	-	-	-	-	-
	20-29	40	23%	615	24,605	9%
	30-39	56	32%	1,793	100,416	38%
	40-49	68	39%	1,954	132,872	50%
	>50	12	7%	748	8,981	3%
	TOTAL	176		1,516	266,874	
016	<20 20-29	- 74	-	-	-	- 9%
		74 06	24%	664	49,106	
	30-39	96 120	31%	1,546	148,422	29%
	40-49	120	38%	2,371	284,563	55% 7%
	>50	24	8%	1,489	35,744	

TABLE D-8. Oregon salmon troll boat-size catch statistics in pounds of dressed salmon. (Page 2 of 5)

		Vessels			Catch	
Year	Length	Number ^{a/}	Percent of	Average Per	Total	Percent of
2015	<20	4	1%	1,066	4,265	3%
	20-29	102	21%	1,094	111,553	9%
	30-39	156	32%	2,133	332,726	28%
	40-49	174	36%	3,395	590,784	50%
	>50	51	_ 10%	2,874	146,575	12%
	TOTAL	487		2,435	1,185,903	
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	<u>-</u>
2013	<20	4	1%	1,215	4,858	0%
	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	. 070
2012	<20	c/	c/	c/	c/	c/
2012	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	_ 070	2,019	745,163	. 070
	IOIAL	309		2,019	745,105	
2011	<20	3	1%	1,157	3,472	1%
	20-29	80	26%	602	48,146	12%
	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	•
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%
	200					

TABLE D-8. Oregon salmon troll boat-size catch statistics in pounds of dressed salmon. (Page 3 of 5)

_		Vessels			Catch	
Year	Length	Number ^{a/}	Percent of	Average Per	Total	Percent of
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	
800	<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	-
007	<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	
006	<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	•
005	<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	
004	<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	•

TABLE D-8. Oregon salmon troll boat-size catch statistics in pounds of dressed salmon. (Page 4 of 5)

_		Vessels			Catch	
Year	Length	Number ^{a/}	Percent of	Average Per	Total	Percent of
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	•
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	-

TABLE D-8. Oregon salmon troll boat-size catch statistics in pounds of dressed salmon. (Page 5 of 5)

		Vessels			Catch	
Year	Length	Number ^{a/}	Percent of	Average Per	Total	Percent of
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	
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	•

a/ Number of boats includes only those with at least one landing containing troll-caught salmon.

b/ Preliminary

c/ Few er than three vessels. Values combined with next category below to preserve confidentiality.

TARLE D_Q	Washington non-Indian	salmon troll boat-size catch	statistics in nounds of	dressed salmon a/b/	(Page 1 of 3)

	Length	Vessels	Percent of	Average	Catch Total	Percent of
Year	-	Number ^{c/}	Total	Pounds Per		Total
	Category (feet)				(pounds)	
2021	<25	3	4%	52	155	0%
	25-36	19	25%	2,807	53,340	21%
	>36	54	71%	3,634	196,253	79%
	Unknow n	0	_ 0%	0	0	0%
	TOTAL	76		3,286	249,748	
2020	<25	e/	e/	e/	e/	e/
	25-36	15	25%	1,954	29,311	17%
	>36	42	70%	3,274	137,525	82%
	Unknow n	3	5%	485	1,454	1%
	TOTAL	60		2,805	168,290	
2019	<25	4	5%	253	1,012	0%
2010	25-36	22	25%	2,906	63,935	20%
	>36	62	70%	4,165	258,243	80%
	Unknow n	0	0%	-, 100	-	0%
	TOTAL	88	_ 070	3,673	323,190	070
0010	0.5	_	- 24			404
2018	<25	5	5%	615	3,077	1%
	25-36	25	25%	2,284	57,104	22%
	>36	72	71%	2,812	202,448	77%
	Unknow n	0	_ 0%	<u> </u>		0%
	TOTAL	102		2,575	262,629	
2017	<25	6	6%	1,666	9,995	3%
	25-36	24	22%	3,114	74,729	22%
	>36	78	72%	3,315	258,577	75%
	Unknow n	e/	e/	e/	e/	e/
	TOTAL	108		3,179	343,301	
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	81	66%	5,273	427,116	67%
	Unknow n	e/	e/	e/	e/	e/
	TOTAL	122	_	5,252	640,713	
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%

TABLE D-9. Washington non-Indian salmon troll boat-size catch statistics in pounds of dressed salmon. alb/ (Page 2 of 3)

	-	Vessels		Catch				
	1		D (Average	T. ()	D 1 1		
	Length		Percent of	Pounds Per	Total	Percent of		
'ear	Category (feet)	Number ^{c/}	Total	Vessel	(pounds)	Total		
012	<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			
011	<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			
010	<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	070		
200			5 0/			40.		
009	<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 TOTAL	97	-	3,012	292,186	-		
	IOIAL	91		3,012	292,100			
800	<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			
007	<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%		
	Unknow n	0	-	2,007	140,100	-		
	TOTAL	79	_	2,759	217,934			
006	<25	3	4%	2,398	7,194	3%		
000	25-36	24	29%			21%		
	>36			1,983	47,593			
		57	68%	3,103	176,873	76%		
	Unknow n	e/ 84	_ e/	e/	e/	e/		
	TOTAL	84		2,758	231,660			
005	<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%		
	Unknow n	e/	e/	e/	e/	e/		
	TOTAL	91		5,281	480,570			
004	<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%		
	Unknow n	e/	e/	e/	e/	e/		
	TOTAL	86	_	6,913	594,512			
003	<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%		
			0370	12,7 10	013,010	1170		
	Unknow n	0						

TABLE D-9. Washington non-Indian salmon troll boat-size catch statistics in pounds of dressed salmon. (Page 3 of 3)

		Vessels			Catch	
				Average		
	Length		Percent of	Pounds Per	Total	Percent of
Year	Category (feet)	Number ^{c/}	Total	Vessel	(pounds)	Total
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%
	Unknow n	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%
	Unknow n	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%
	Unknow n	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%
	Unknow n	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%
	Unknow n	e/	e/	e/	e/	e/
	TOTAL	23		3,547	81,591	
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%
	Unknow n	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%
	Unknow n	7	8%	1,861	13,029	15%
	TOTAL	90	=	988	88,959	

 $[\]hbox{a/ All values in this table are based on preliminary information available at the start of each year's review\,.}$

b/ Includes 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/ Few er than three vessels. Values combined with nearest category to preserve confidentiality.

TABLE D-10. Preliminary 2021 California salmon landings (in pounds of dressed salmon) and exvessel values by vessel size categories and port from Crescent City to Morro Bay south.

	Length	Number of	Total Dressed	Total Exvessel	Percent Exvesse Value Landed
Port	Category (feet)	Deliveries	Pounds Landed	Value (dollars)	in Port
Crescent City	<26	-	-	-	-
•	26-36	-	-	-	-
	>36	12	25,901	138,322	100%
	TOTAL	12	25,901	138,322	_
Eureka	<26	-	-	-	-
	26-36	8	5,794	38,474	16%
	>36	34	33,348	206,927	84%
	TOTAL	42	39,142	245,401	_
Shelter Cove	<26	22	1,319	8,073	52%
	26-36	6	1361	7429	48%
	>36	-	-	-	-
	TOTAL	28	2,680	15,502	_
Fort Bragg ^{a/}	<26	29	8,880	63,537	2%
00	26-36	169	131,996	920,940	25%
	>36	251	420,148	2,760,209	74%
	TOTAL	449	561,024	3,744,686	_
Bodega Bay	<26	166	46,136	373,071	7%
	26-36	303	181,340	1,380,836	27%
	>36	365	457,112	3,380,152	66%
	TOTAL	834	684,588	5,134,059	_
San Francisco	<26	127	8,890	98,393	4%
	26-36	169	60,913	491,804	21%
	>36	216	211,428	1,731,227	75%
	TOTAL	512	281,231	2,321,424	_
Half Moon Bay	<26	15	2,856	29,611	1%
i ali Moon bay	26-36	143	75,535	761,368	25%
	>36	307	237,386	2,275,195	74%
	TOTAL	465	315,777	3,066,174	
Santa Cruz	<26	295	26,209	264,925	14%
Janta Oruz	26-36	179	52,002	514,994	27%
	>36	190	108,700	1,150,363	60%
	TOTAL	664	186,911	1,930,282	_
Moss Landing	<26	243	24,404	226,716	25%
1000 Landing	26-36	259	35,201	330,509	36%
	>36	103	39,553	363,267	39%
	TOTAL	605	99,158	920,492	_
Monterey	<26	215	23,347	206,284	43%
worterey	26-36	215 104	23,347 18,600	206,284 177,040	43% 37%
	26-36 >36	47	11,368	98,192	20%
	TOTAL	366	53,315	481,516	_ 2070
Morro Pour south	- 20	02	14.054	15F 400	200/
Morro Bay south	<26	93	14,051 17,825	155,103	32% 41%
	26-36 >36	92	17,825	196,571	41%
	- 30 _	48	12,476	130,922	_ 27%

a/ Fort Bragg includes minor landings made in Mendocino County areas.

TABLE D-11. Preliminary 2021 Washington non-Indian troll salmon landings (in pounds of dressed salmon) and exvessel

value by vessel size category and port area.

	Length					Percent Exvesse
	Category	Number of	Number of Boat	Total Dressed	Total Exvessel	Value
Port Area	(feet)	Boats	Days Fished	Pounds Landed	Value (dollars)	Landed in Port
Neah Bay ^{d/}	<25	-	-	-	-	-
	25-36	3	22	3,581	23,960	-
	>36	12	181	28,572	208,119	-
	Unknow n	-	-	-		-
	TOTAL	15	203	32,153	232,079	
La Push ^{d/}	<25	-	-	-	-	-
	25-36	-	-	-	-	-
	>36	6	62	9,503	69,330	100%
	Unknow n	-	-	-	-	-
	TOTAL	6	62	9,503	69,330	
Vestport	<25	c/	c/	c/	c/	c/
	25-36	17	359	40,739	319,145	21%
	>36	36	718	135,207	1,172,515	79%
	Unknow n	-	-	-	-	-
	TOTAL	53	1,077	175,946	1,491,659	
w aco	<25	-	-	-	-	-
	25-36	c/	c/	c/	c/	c/
	>36	9	55	5,426	38,290	100%
	Unknow n	-	-	-		-
	TOTAL	9	55	5,426	38,290	
Puget Sound ^{d/}	<25	c/	c/	c/	c/	c/
	25-36	c/	c/	c/	c/	c/
	>36	8	81	10,395	74,640	100%
	Unknow n	-	-	-	-	-
	TOTAL	8	81	10,395	74,640	-

a/ Includes pink salmon landings.

b/ Total pounds and exvessel values reported in this table may be less than are reported in other tables of the Review.

c/ Few er than three vessels. Values combined with next category to preserve confidentiality.

d/ The port of Neah Bay was partially closed to public access in 2021 due to the COVID-19 pandemic. Vessels were allowed to land in the Puget Sound ports of Sekiu and Port Angeles by emergency rule.

TABLE D-12. California number of vessels landing 50 percent and 90 percent of total pounds of salmon troll catch by year.

50 Percent of Pounds Landed 90 Percent of Pounds Landed 90 Percent of Pounds Landed

		50 Percent of P	50 Percent of Pounds Landed 90 Percent of Pounds			
Year or						
Ave.	Total Vessels	Number of Vessels	Percent of Fleet	Number of Vessels	Percent of Fleet	
1978-1980	4,750	449	9.4%	1,799	37.9%	
1981-1985	3,243	328	10.1%	1,257	38.8%	
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	438	61	13.9%	215	49.1%	
2017	400	52	13.0%	193	48.3%	
2018	456	56	12.3%	219	48.0%	
2019	571	89	15.6%	286	50.1%	
2020	473	65	13.7%	212	44.8%	
2021 ^{a/}	486	62	12.8%	219	45.1%	

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/}

		50% of Pour	nds Landed	90% of Pounds Landed		
Year or						
Ave.	Total Vessels	Number of Vessels	Percent of Fleet	Number of Vessels	Percent of Fleet	
1974-1975	1,947	328	16.8%	1,043	53.6%	
1976-1980	3,205	433	13.5%	1,491	46.5%	
1981-1985	2,531	259	10.2%	914	36.1%	
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	487	75	15.4%	250	51.3%	
2016	313	36	11.5%	134	42.8%	
2017	176	22	12.5%	81	46.0%	
2018	230	27	11.7%	104	45.2%	
2019	218	31	14.2%	105	48.2%	
2020	174	20	11.5%	72	41.4%	
2021 ^{b/}	186	18	9.7%	71	38.2%	

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, 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. $^{\rm a/}$

		50% of Fis	h Landed	90% of Fish Landed			
Year or							
Ave.	Total Vessels	Number of Vessels	Percent of Fleet	Number of Vessels	Percent of Fleet		
1978-1980	2,815	227	8.1%	956	34.0%		
1981-1985	1,676	126	7.5%	509	30.4%		
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%		
2017	108	25	23.1%	70	64.8%		
2018	102	24	23.5%	66	64.7%		
2019	88	16	18.2%	47	53.4%		
2020	60	11	18.3%	32	53.3%		
2020	76	16	21.1%	46	60.5%		

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 2021 California, Oregon, and Washington troll fleet by home state and salmon landings and exvessel value.^{a/}

	Number of				Total Value	
Home State	Vessels	Percent	Landings (Pounds)	Percent	(Dollars)	Percent
•			CALIFORNIA			
California	459	94%	2,046,675	89%	16,502,654	89%
Oregon	10	2%	126,487	6%	1,006,448	5%
Washington	11	2%	84,777	4%	697,058	4%
Unknow n/Other	6	_ 1%	36,137	2%	274,294	1%
TOTAL	486		2,294,076		18,480,454	_
			OREGON			
Oregon	157	84%	187,815	81%	1,832,378	82%
California	8	4%	13,718	6%	112,491	5%
Washington	18	10%	29,511	13%	299,310	13%
Unknow n/Other	3	2%	338	0%	3,333	0%
TOTAL	186	_	231,382	•	2,247,512	
			WASHINGTON			
Washington	63	83%	191,967	77%	1,535,472	75%
Oregon	8	11%	51,530	21%	452,681	22%
California	4	5%	5,870	2%	53,410	3%
Unknow n/Other	1	1%	381	0%	1,419	0%
TOTAL	76	_	249,748	_	2,042,981	

a/ Pink salmon included in Oregon and Washington.

TABLE D-16. Vessels landing salmon in California by vessel length and skipper's state of residence.

								Home	State	ea/						
Year or	Cali	fornia (lei	ngth)		Or	egon (le	ength)		Was	shington	(length	1)	To	otal (lengtl	n) ^{b/}	Grand
Ave.	<26	26-36	>36	Subtotal	<26	26-36	>36	Subtotal	<26	26-36	>36	Subtotal	<26	26-36	>36	Total ^c /
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	143	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	114	173	132	419	0	2	2	4	1	1	7	9	116	180	142	438
2017	124	152	106	382	1	1	3	5	1	1	5	7	126	158	116	400
2018	124	164	145	433	0	5	5	10	0	1	8	9	125	173	158	456
2019	147	188	199	534	1	5	12	18	0	3	9	12	150	198	223	571
2020	127	163	160	450	1	1	6	8	0	3	6	9	129	170	174	473
2021e/	124	166	169	459	1	1	8	10	0	4	7	11	125	174	187	486

a/ "Home state" refers to the declared state of residence of vessel skipper, w ho, 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 or				
Ave.	Oregon	California	Washington	Other/Unknow n
1977-1980	82.6%	7.0%	9.7%	0.8%
1981-1985	84.1%	4.9%	9.8%	1.2%
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	70.1%	12.9%	13.9%	3.1%
2016	76.4%	6.6%	14.1%	2.9%
2017	74.4%	8.0%	12.5%	5.1%
2018	77.4%	9.1%	10.0%	3.5%
2019	77.7%	8.2%	10.0%	4.1%
2020	82.3%	4.6%	11.4%	1.7%
2021 ^{a/}	84.4%	4.3%	9.7%	1.6%

a/ Preliminary.

TABLE D-18. Percentages of vessels landing non-Indian troll salmon in Washington by license holder's state of residence.

Year or Ave.	Washington	Oregon	California	Alaska	Other/Unknow n
1978-1980	91.8%	4.0%	0.3%	0.3%	3.6%
1981-1985	93.1%	3.0%	0.3%	0.1%	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%
2017	86.1%	10.2%	1.9%	0.0%	1.9%
2018	85.3%	11.8%	0.0%	0.0%	2.9%
2019	85.2%	11.4%	1.1%	0.0%	2.3%
2020	83.3%	10.0%	0.0%	0.0%	6.7%
2021	82.9%	10.5%	5.3%	0.0%	1.3%

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.

	Port Area						
Year	Activity Level ^{a/}	Monterey	San Francisco	Fort Bragg	Eureka	Crescent City	Total
2021 ^{b/}	Active	9	39	5	2	0	55
	Casual	12	35	2	8	3	60
	TOTAL	21	74	7	10	3	115
2020	Active	1	36	1	2	0	40
	Casual	9	40	7	10	1	67
	TOTAL	10	76	8	12	1	107
2019	Active	8	39	6	6	0	59
	Casual _	7	35	4	8	2	56
	TOTAL	15	74	10	14	2	115
2018	Active	0	53	8	4	0	65
	Casual	11	34	5	10	2	62
	TOTAL	11	87	13	14	2	127
2017	Active	0	37	0	-	-	37
	Casual _	11	32	13	-	-	56
	TOTAL	11	69	13	-	-	93
2016	Active	0	28	5	5	0	38
	Casual	12	41	11	5	2	71
	TOTAL	12	69	16	10	2	109
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

a/ Active vessels landed more than 100 salmon; casual vessels landed 100 salmon or less.

b/ Preliminary.

TABLE D-20		oats licensed in Oregon.	14/ 11 / 5 11 /	011 01 : 5 : 1 :
Year or		Oregon Resident License	Washington Resident	Other State Resident
Ave.	Charter Boats ^{a/}	Holders	License Holders	License Holders
1980-1985	232	201	30	2
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	NA	NA	NA	NA
2014	64	60	4	0
2015	69	46	6	17
2016	69	41	8	20
2017	72	42	8	22
2018	66	37	9	20
2019	71	42	9	20
2020	NA NA	NA	NA	NA NA
2021	NA NA	NA.	NA.	NA NA

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 reinstituted 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.

TABLE D-21. Number of salmon charter boats lie	censed in Washington ((including Puget Sound).
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TABLE D-21.	Number of Licenses	Washington Resident	Other State Resident	. Souria).
Year		_		Ruybaak
1975-1980 ^{a/}	lssued 494	License Holders 427	License Holders 52	Buyback 16
1981-1985	378	353	25	17
	308	286	25 22	15
1986 1987		269	11	15
	280	268	13	-
1988	281			-
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	142	138	4	0
2017	142	139	3	0
2018	142	139	3	0
2019	142	139	3	0
2020	142	139	3	0
2021 ^{b/}	142	139	3	0
	at year maratarium in aff			-

a/ 1977 - First year moratorium in effect.

b/ Preliminary.

TABLE D-22. Price index.a/

Year	Price Index
1981	39.1
1982	41.5
1983	43.1
1984	44.7
1985	46.1
1986	47.0
1987	48.2
1988	49.9
1989	51.9
1990	53.8
1991	55.6
1992	56.9
1993	58.2
1994	59.5
1995	60.7
1996	61.8
1997	62.9
1998	63.6
1999	64.5
2000	66.0
2001	67.5
2002	68.5
2003	69.9
2004	71.7
2005	74.0
2006	76.3
2007	78.3
2008	79.8
2009	80.3
2010	81.3
2011	83.0
2012	84.6
2013	86.0
2014	87.6
2015	88.5
2016	89.4
2017	91.1
2018	93.3
2019	95.0
2020	96.1
2021	100.0

a/ Based on gross domestic product implicit price deflator calculated from NIPA Tables 1.1.5 and 1.1.6. https://apps.bea.gov/iTable/iTable.cfm.