

SALMON TECHNICAL TEAM REPORT 2:
PRELIMINARY ANALYSIS OF TENTATIVE
2022 OCEAN SALMON FISHERY MANAGEMENT MEASURES

PFMC
04/11/22

TABLE 1. 2022 Commercial troll management measures for non-Indian ocean salmon fisheries – STT analyzed. (Page 1 of 9)

A. SEASON DESCRIPTIONS	
North of Cape Falcon	
Supplemental Management Information	
<p>1. Overall non-Indian TAC: 54,000 Chinook and 200,000 coho marked with a healed adipose fin clip (marked).</p> <p>2. Non-Indian commercial troll TAC: 27,000 Chinook and 32,000 marked coho.</p> <p>3. For fisheries scheduled prior to May 16, 2022: See 2021 management measures, which are subject to inseason action and the 2022 season description described below.</p>	
<i>Model run: Coho-2226, Chin-2522</i>	
<ul style="list-style-type: none"> • May 1-15; • May 16 through the earlier of June 29, or 18,000 Chinook. No more than 6,040 of which may be caught in the area between the U.S./Canada border and the Queets River, and no more than 4,840 of which may be caught in the area between Leadbetter Pt. and Cape Falcon (C.8). <p>Open seven days per week (C.1).</p> <p>In the area between the U.S./Canada border and the Queets River the landing and possession limit is 80 Chinook per vessel per landing week (Thurs.-Wed.) (C.1, C.6).</p> <p>In the area between Leadbetter Pt. and Cape Falcon the landing and possession limit is 80 Chinook per vessel per landing week (Thurs.-Wed.) (C.1, C.6).</p> <p>All salmon, except coho (C.4, C.7). Chinook minimum size limit of 27 inches total length (B). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3).</p> <p>When it is estimated that approximately 50% of the overall Chinook quota or any Chinook subarea guideline has been landed, inseason action may be considered to ensure the quota and subarea guidelines are not exceeded.</p> <p>In 2023, the season will open May 1 consistent with all preseason regulations in place in this area and subareas during May 16-June 29, 2022, including subarea salmon guidelines and quotas and weekly vessel limits except as described below for vessels fishing or in possession of salmon north of Leadbetter Point. This opening could be modified following Council review at its March and/or April 2023 meetings.</p>	
<p>U.S./Canada Border to Cape Falcon</p> <ul style="list-style-type: none"> • July 1 through the earlier of September 30, or 9,000 Chinook or 32,000 coho (C.8). <p>Open seven days per week. All salmon. Chinook minimum size limit of 27 inches total length. Coho minimum size limit of 16 inches total length (B, C.1). All coho must be marked with a healed adipose fin clip (C.8.d). No chum retention north of Cape Alava, Washington beginning August 1 (C.4, C.7). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3).</p> <p>Landing and possession limit of 150 marked coho per vessel per landing week (Thurs.-Wed.) (C.1).</p> <p>When it is estimated that approximately 50% of the overall Chinook quota or any Chinook subarea guideline has been landed, inseason action may be considered to ensure the quota and subarea guidelines are not exceeded.</p>	
<p>For all commercial troll fisheries north of Cape Falcon:</p> <p>Mandatory closed areas include: Salmon troll Yelloweye Rockfish Conservation Area, Cape Flattery and Columbia Control Zones, and beginning August 8, Grays Harbor Control Zone (C.5).</p> <p>Vessels must land and deliver their salmon within 24 hours of any closure of this fishery.</p> <p>Vessels may not land fish east of the Sekiu River or east of the Megler-Astoria bridge.</p> <p>Vessels fishing or in possession of salmon <u>north</u> of Leadbetter Point must land and deliver all species of fish in a Washington port and must possess a Washington troll and/or salmon delivery license. <u>For delivery to Washington ports south of Leadbetter Point</u>, vessels must notify the Washington Department of Fish and Wildlife at 360-249-1215 prior to crossing the Leadbetter Point line with area fished, total Chinook, coho, and halibut catch aboard, and destination with approximate time of delivery. During any single trip, only one side of the Leadbetter Point line may be fished (C.11).</p> <p>Vessels fishing or in possession of salmon while fishing <u>south</u> of Leadbetter Point must land and deliver all species of fish within the area and south of Leadbetter Point, except that Oregon permitted vessels may also land all species of fish in Garibaldi, Oregon. All Chinook caught north of Cape Falcon and being delivered by boat to Garibaldi must meet the minimum legal total length of 28 inches for Chinook for south of Cape Falcon seasons unless the season in waters off Garibaldi have been closed for Chinook retention for more than 48 hours (C.1.).</p> <p><i>(Continued next page)</i></p>	

TABLE 1. 2022 Commercial troll management measures for non-Indian ocean salmon fisheries – STT analyzed. (Page 2 of 9)

A. SEASON DESCRIPTIONS
North of Cape Falcon
<p>For all commercial troll fisheries north of Cape Falcon: <i>(continued)</i></p> <p>Under state law, vessels must report their catch on a state fish receiving ticket. Oregon State regulations require all fishers landing salmon into Oregon from any fishery between Leadbetter Point, Washington and Cape Falcon, Oregon to notify ODFW within one hour of delivery or prior to transport away from the port of landing by either calling 541-857-2546 or sending notification via e-mail to nfalcon.trollreport@odfw.oregon.gov. Notification shall include vessel name and number, number of salmon by species, port of landing and location of delivery, and estimated time of delivery. Inseason actions may modify harvest guidelines in later fisheries to achieve or prevent exceeding the overall allowable troll harvest impacts (C.8).</p> <p>Vessels in possession of salmon <u>north of the Queets River</u> may not cross the Queets River line without first notifying WDFW at 360-249-1215 with area fished, total Chinook, coho and halibut catch aboard, and destination. Vessels in possession of salmon <u>south of the Queets River</u> may not cross the Queets River line without first notifying WDFW at 360-249-1215 with area fished, total Chinook, coho and halibut catch aboard, and destination. (C.11). Inseason actions may modify harvest guidelines in later fisheries to achieve or prevent exceeding the overall allowable troll harvest impacts (C.8).</p>

TABLE 1. 2022 Commercial troll management measures for non-Indian ocean salmon fisheries – STT analyzed. (Page 3 of 9)
A. SEASON DESCRIPTIONS
South of Cape Falcon
Supplemental Management Information
<ol style="list-style-type: none"> 1. Sacramento River fall Chinook spawning escapement of 198,694 hatchery and natural area adults. 2. Sacramento Index exploitation rate of 49.9%. 3. Klamath River recreational fishery allocation: 2,119 adult Klamath River fall Chinook. 4. Klamath tribal allocation: 9,434 adult Klamath River fall Chinook. 5. CA/OR share of Klamath River fall Chinook commercial ocean harvest: 65.5% / 34.5%. 6. Overall commercial troll coho TAC: NA. 7. Fisheries may need to be adjusted to meet NMFS ESA consultation standards, FMP requirements, other management objectives, or upon receipt of new allocation recommendations from the California Fish and Game Commission. 8. For fisheries scheduled prior to May 16, 2022, see 2021 management measures, which are subject to inseason action and the 2022 season description described below.
<p>Cape Falcon to Heceta Bank line</p> <ul style="list-style-type: none"> • March 15-May 15; • May 21-31; • June 1-12, 18-30; • July 5-9, 17-21, 25-31; • August 4-11; • September 1-4, 11-14; • October 1-31 (C.9.a). <p>Open seven days per week . All salmon except coho. (C.4, C.7). Chinook minimum size limit of 28 inches total length (B, C.1). All vessels fishing in the area must land their salmon in the State of Oregon. See gear restrictions and definitions (C.2, C.3). Beginning September 1, no more than 100 Chinook allowed per vessel per landing week (Thurs.-Wed.).</p> <ul style="list-style-type: none"> • Mark-selective coho fishery open July 5-9, 17-21, 25-31, and August 4-11, or until a Cape Falcon to Humbug Mt. quota of 10,000 marked coho is met. 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. <p>All salmon, all retained coho must be marked with a healed adipose fin clip (C.4, C.7). Coho minimum size limit of 16 inches total length, and Chinook minimum size limit of 28 inches total length (B, C.1). All vessels fishing in the area must land their salmon in the State of Oregon. See gear restrictions and definitions (C.2, C.3).</p> <p>Salmon trollers may take and retain or possess on board a fishing vessel no more than 30 coho per vessel per open period. 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.</p> <p>In 2023, the season will open March 15 for all salmon except coho. Chinook minimum size limit of 28 inches total length. Gear restrictions same as in 2022. This opening could be modified following Council review at its March 2023 meeting.</p>
<p>Heceta Bank Line to Humbug Mt.</p> <ul style="list-style-type: none"> • May 1-15; • May 21-31; • August 4-11; • September 1-4, 11-14; • October 1-31 (C.9.a). <p>Open seven days per week. All salmon except coho. (C.4, C.7). Chinook minimum size limit of 28 inches total length (B, C.1). All vessels fishing in the area must land their salmon in the State of Oregon. See gear restrictions and definitions (C.2, C.3). Beginning September 1, no more than 100 Chinook allowed per vessel per landing week (Thurs.-Wed.).</p> <ul style="list-style-type: none"> • Mark-selective coho fishery open August 4-11; or Cape Falcon to Humbug Mt. quota of 10,000 marked coho. 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. <p>All salmon, all retained coho must be marked with a healed adipose fin clip (C.4, C.7). Coho minimum size limit of 16 inches total length, and Chinook minimum size limit of 28 inches total length (B, C.1). All vessels fishing in the area must land their salmon in the State of Oregon. See gear restrictions and definitions (C.2, C.3).</p> <p>Salmon trollers may take and retain or possess on board a fishing vessel no more than 30 coho per vessel per open period. 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.</p> <p>In 2023, the season will open March 15 for all salmon except coho. Chinook minimum size limit of 28 inches total length. Gear restrictions same as in 2022. This opening could be modified following Council review at its March 2023 meeting.</p>

TABLE 1. 2022 Commercial troll management measures for non-Indian ocean salmon fisheries – STT analyzed. (Page 4 of 9)

A. SEASON DESCRIPTIONS
South of Cape Falcon
<p>Humbug Mt. to OR/CA Border (Oregon KMZ)</p> <ul style="list-style-type: none"> • March 15-April 30; • June 1-30, or the earlier of 800 Chinook quota; • July 1-31, or the earlier of 400 Chinook quota; • August 1-28, or the earlier of 250 Chinook quota (C.9.a). <p>Open seven days per week (Thurs.-Wed.). All salmon except coho (C.4, C.7). Chinook minimum size limit of 28 inches total length (B, C.1). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3). Prior to June 1, all salmon caught in this area must be landed and delivered in the State of Oregon.</p> <p>June 1-August 28 weekly landing and possession limit of 50 Chinook per vessel per week (Thurs.-Wed.).</p> <p>Any remaining portion of Chinook quotas may be transferred inseason on an impact neutral basis to the next open quota period (C.8.b).</p> <p>All vessels fishing in this area during June, July, and August 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.</p> <p>For all quota managed seasons, Oregon state regulations require fishers to notify ODFW within one hour of landing and prior to transport away from the port of landing by calling 541-857-2538 or sending notification via e-mail to kmzor.trollreport@odfw.oregon.gov, with vessel name and number, number of salmon by species, location of delivery, and estimated time of delivery.</p> <p>In 2023, the season will open March 15 for all salmon except coho. Chinook minimum size limit of 28 inches total length. Gear restrictions same as in 2022. This opening could be modified following Council review at its March 2023 meeting.</p>
<p>OR/CA Border to Humboldt South Jetty (California KMZ)</p> <ul style="list-style-type: none"> • Closed. <p>In 2023, the season will open May 1 through the earlier of May 31, or a 3,000 Chinook quota. Chinook minimum size limit of 27 inches total length (B, C.1). Landing and possession limit of 20 Chinook per vessel per day (C.8.f). Open five days per week (Fri.-Tue.). All salmon except coho (C.4, C.7). Any remaining portion of Chinook quotas may be transferred inseason on an impact neutral basis to the next open quota period (C.8.b). All fish caught in this area must be landed within the area, within 24 hours of any closure of the fishery (C.6), and prior to fishing outside the area (C.10). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3). Klamath Control Zone closed (C.5.e). See California State regulations for an additional closure adjacent to the Smith River. This opening could be modified following Council review at its March or April 2023 meetings.</p>
<p>Humboldt South Jetty to Latitude 40°10' N</p> <ul style="list-style-type: none"> • Closed. <p>When the fishery is closed between the OR/CA border and Humbug Mountain and open to the south, vessels with fish on board caught in the open area off California may seek temporary mooring in Brookings, Oregon prior to landing in California only if such vessels first notify the Chetco River Coast Guard Station via VHF channel 22A between the hours of 0500 and 2200 and provide the vessel name, number of fish on board, and estimated time of arrival (C.6).</p>

TABLE 1. 2022 Commercial troll management measures for non-Indian ocean salmon fisheries – STT analyzed. (Page 5 of 9)

A. SEASON DESCRIPTIONS
<p>Latitude 40°10' N. to Point Arena (Fort Bragg)</p> <ul style="list-style-type: none"> • July 8-12, 21-25; • August 3-12; (C.9.b). <p>Open seven days per week. All salmon except coho (C.4, C.7). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3). Chinook minimum size limit of 27 inches total length (B, C.1).</p> <p>All salmon must be landed in California and north of Point Arena (C.6, C.11).</p> <p>In 2023, the season will open April 16 for all salmon except coho (C.4, C.7). Chinook minimum size limit of 27 inches total length (B, C.1). Gear restrictions same as in 2022 (C.2, C.3). This opening could be modified following Council review at its March 2023 meeting.</p>
<p>Pt. Arena to Pigeon Pt. (San Francisco)</p> <ul style="list-style-type: none"> • July 8-12, 21-25; • August 3-12; • September 1-30 (C.9.b). <p>Open seven days per week. All salmon except coho (C.4, C.7). Chinook minimum size limit of 27 inches total length through August, then 26 inches thereafter (B, C.1). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3).</p> <p>All salmon must be landed in California (C.6).</p> <p>During September, all salmon must be landed south of Point Arena (C.6, C.11).</p> <p>In 2023, the season will open May 1 for all salmon except coho (C.4, C.7). Chinook minimum size limit of 27 inches total length (B, C.1). Gear restrictions same as in 2022 (C.2, C.3). This opening could be modified following Council review at its March or April 2023 meeting.</p> <p>Point Reyes to Point San Pedro (Fall Area Target Zone)</p> <ul style="list-style-type: none"> • October 3-7, 10-14. <p>Open five days per week (Mon.-Fri.). All salmon except coho (C.4, C.7). Chinook minimum size limit of 26 inches total length (B, C.1). All salmon caught in this area must be landed between Point Arena and Pigeon Point (C.6, C.11). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3).</p>
<p>Pigeon Point to U.S./Mexico Border (Monterey)</p> <ul style="list-style-type: none"> • May 1-5, 10-15, 20-24; • June 1-12; • July 8-12, 21-25; • August 3-12 (C.9.b). <p>Open seven days per week. All salmon except coho (C.4, C.7). Chinook minimum size limit of 27 inches total length (B, C.1). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3). All salmon must be landed in California (C.6). All salmon caught in this area in the month of May must be landed within 24 hours of any closure of the fishery (C.6). During the months of May and June, all salmon caught in this area must be landed south of Point Arena (C.11).</p> <p>In 2023, the season will open May 1 for all salmon except coho (C.4, C.7). Chinook minimum size limit of 27 inches total length (B, C.1). Gear restrictions same as in 2022 (C.2, C.3). This opening could be modified following Council review at its March or April 2023 meeting.</p>
<p>California State regulations require all salmon be made available to a CDFW representative for sampling immediately at port of landing. Any person in possession of a salmon with a missing adipose fin, upon request by an authorized agent or employee of the CDFW, shall immediately relinquish the head of the salmon to the State (California Fish and Game Code §8226).</p>

TABLE 1. 2022 Commercial troll management Alternatives for non-Indian ocean salmon fisheries – STT analyzed. (Page 6 of 9)

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

Area (when open)	Chinook		Coho		Pink
	Total Length	Head-off	Total Length	Head-off	
North of Cape Falcon	27	20.5	16	12	None
Cape Falcon to Humbug Mt.	28	21.5	16	12	None
Humbug Mt. to OR/CA Border	28	21.5	-	-	None
OR/CA Border to Humboldt South Jetty	-	-	-	-	-
Latitude 40°10' N. to Pt. Arena	27	20.5	-	-	27
Pt. Arena to Pigeon Pt. through August	27	20.5	-	-	27
Pt. Arena to Pigeon Pt. September-October	26	19.5	-	-	26
Pigeon Pt. to U.S./Mexico Border	27	20.5	-	-	27

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS

C.1. Compliance with Minimum Size or Other Special Restrictions: All salmon on board a vessel must meet the minimum size, landing/possession limit, or other special requirements for the area being fished and the area in which they are landed if the area is open or has been closed less than 48 hours for that species of salmon. Salmon may be landed in an area that has been closed for a species of salmon more than 48 hours only if they meet the minimum size, landing/possession limit, or other special requirements for the area in which they were caught. Salmon may not be filleted prior to landing.

Any person who is required to report a salmon landing by applicable state law must include on the state landing receipt for that landing both the number and weight of salmon landed by species. States may require fish landing/receiving tickets be kept on board the vessel for 90 days or more after landing to account for all previous salmon landings.

C.2. Gear Restrictions:

- Salmon may be taken only by hook and line using single point, single shank, barbless hooks.
- Cape Falcon, Oregon, to the OR/CA border: No more than 4 spreads are allowed per line.
- OR/CA border to U.S./Mexico border: No more than 6 lines are allowed per vessel, and barbless circle hooks are required when fishing with bait by any means other than trolling.

C.3. Gear Definitions:

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

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

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

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

C.4. Vessel Operation in Closed Areas with Salmon on Board:

- Except as provided under C.4.b below, it is unlawful for a vessel to have troll or recreational gear in the water while in any area closed to fishing for a certain species of salmon, while possessing that species of salmon; however, fishing for species other than salmon is not prohibited if the area is open for such species, and no salmon are in possession.
- When Genetic Stock Identification (GSI) samples will be collected in an area closed to commercial salmon fishing, the scientific research permit holder shall notify NOAA OLE, USCG, CDFW, WDFW, ODFW, and OSP at least 24 hours prior to sampling and provide the following information: the vessel name, date, location and time collection activities will be done. Any vessel collecting GSI samples in a closed area shall not possess any salmon other than those from which GSI samples are being collected. Salmon caught for collection of GSI samples must be immediately released in good condition after collection of samples.

TABLE 1. 2022 Commercial troll management Alternatives for non-Indian ocean salmon fisheries – STT analyzed. (Page 7 of 9)

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

C.5. Control Zone Definitions:

- a. *Cape Flattery Control Zone* - The area from Cape Flattery (48°23'00" N. lat.) to the northern boundary of the U.S. EEZ; and the area from Cape Flattery south to Cape Alava (48°10'00" N. lat.) and east of 125°05'00" W. long.
- b. *Mandatory Yelloweye Rockfish Conservation Area* – The area in Washington Marine Catch Area 3 from 48°00.00' N. lat.; 125°14.00' W. long. to 48°02.00' N. lat.; 125°14.00' W. long. to 48°02.00' N. lat.; 125°16.50' W. long. to 48°00.00' N. lat.; 125°16.50' W. long. and connecting back to 48°00.00' N. lat.; 125°14.00' W. long.
- c. *Grays Harbor Control Zone* - The area defined by a line drawn from the Westport Lighthouse (46° 53'18" N. lat., 124° 07'01" W. long.) to Buoy #2 (46° 52'42" N. lat., 124°12'42" W. long.) to Buoy #3 (46° 55'00" N. lat., 124°14'48" W. long.) to the Grays Harbor north jetty (46° 55'36" N. lat., 124°10'51" W. long.).
- d. *Columbia Control Zone* - An area at the Columbia River mouth, bounded on the west by a line running northeast/southwest between the red lighted Buoy #4 (46°13'35" N. lat., 124°06'50" W. long.) and the green lighted Buoy #7 (46°15'09" N. lat., 124°06'16" W. long.); on the east, by the Buoy #10 line which bears north/south at 357° true from the south jetty at 46°14'00" N. lat., 124°03'07" W. long. to its intersection with the north jetty; on the north, by a line running northeast/southwest between the green lighted Buoy #7 to the tip of the north jetty (46°15'48" N. lat., 124°05'20" W. long.), and then along the north jetty to the point of intersection with the Buoy #10 line; and, on the south, by a line running northeast/southwest between the red lighted Buoy #4 and tip of the south jetty (46°14'03" N. lat., 124°04'05" W. long.), and then along the south jetty to the point of intersection with the Buoy #10 line.
- e. *Klamath Control Zone* - The ocean area at the Klamath River mouth bounded on the north by 41°38'48" N. lat. (approximately 6 nautical miles north of the Klamath River mouth); on the west by 124°23'00" W. long. (approximately 12 nautical miles off shore); and on the south by 41°26'48" N. lat. (approximately 6 nautical miles south of the Klamath River mouth).
- f. Waypoints for the 40 fathom regulatory line from Cape Falcon to Humbug Mt. (50 CFR 660.71 (k) (12)-(70), when in place.

45°46.00' N. lat., 124°04.49' W. long.;	44°41.68' N. lat., 124°15.38' W. long.;	43°17.96' N. lat., 124°28.81' W. long.;
45°44.34' N. lat., 124°05.09' W. long.;	44°34.87' N. lat., 124°15.80' W. long.;	43°16.75' N. lat., 124°28.42' W. long.;
45°40.64' N. lat., 124°04.90' W. long.;	44°33.74' N. lat., 124°14.44' W. long.;	43°13.97' N. lat., 124°31.99' W. long.;
45°33.00' N. lat., 124°04.46' W. long.;	44°27.66' N. lat., 124°16.99' W. long.;	43°13.72' N. lat., 124°33.25' W. long.;
45°32.27' N. lat., 124°04.74' W. long.;	44°19.13' N. lat., 124°19.22' W. long.;	43°12.26' N. lat., 124°34.16' W. long.;
45°29.26' N. lat., 124°04.22' W. long.;	44°15.35' N. lat., 124°17.38' W. long.;	43°10.96' N. lat., 124°32.33' W. long.;
45°20.25' N. lat., 124°04.67' W. long.;	44°14.38' N. lat., 124°17.78' W. long.;	43°05.65' N. lat., 124°31.52' W. long.;
45°19.99' N. lat., 124°04.62' W. long.;	44°12.80' N. lat., 124°17.18' W. long.;	42°59.66' N. lat., 124°32.58' W. long.;
45°17.50' N. lat., 124°04.91' W. long.;	44°09.23' N. lat., 124°15.96' W. long.;	42°54.97' N. lat., 124°36.99' W. long.;
45°11.29' N. lat., 124°05.20' W. long.;	44°08.38' N. lat., 124°16.79' W. long.;	42°53.81' N. lat., 124°38.57' W. long.;
45°05.80' N. lat., 124°05.40' W. long.;	44°08.30' N. lat., 124°16.75' W. long.;	42°50.00' N. lat., 124°39.68' W. long.;
45°05.08' N. lat., 124°05.93' W. long.;	44°01.18' N. lat., 124°15.42' W. long.;	42°49.13' N. lat., 124°39.70' W. long.;
45°03.83' N. lat., 124°06.47' W. long.;	43°51.61' N. lat., 124°14.68' W. long.;	42°46.47' N. lat., 124°38.89' W. long.;
45°01.70' N. lat., 124°06.53' W. long.;	43°42.66' N. lat., 124°15.46' W. long.;	42°45.74' N. lat., 124°38.86' W. long.;
44°58.75' N. lat., 124°07.14' W. long.;	43°40.49' N. lat., 124°15.74' W. long.;	42°44.79' N. lat., 124°37.96' W. long.;
44°51.28' N. lat., 124°10.21' W. long.;	43°38.77' N. lat., 124°15.64' W. long.;	42°45.01' N. lat., 124°36.39' W. long.;
44°49.49' N. lat., 124°10.90' W. long.;	43°34.52' N. lat., 124°16.73' W. long.;	42°44.14' N. lat., 124°35.17' W. long.;
44°44.96' N. lat., 124°14.39' W. long.;	43°28.82' N. lat., 124°19.52' W. long.;	42°42.14' N. lat., 124°32.82' W. long.;
44°43.44' N. lat., 124°14.78' W. long.;	43°23.91' N. lat., 124°24.28' W. long.;	42°40.50' N. lat., 124°31.98' W. long.;
44°42.26' N. lat., 124°13.81' W. long.;	43°20.83' N. lat., 124°26.63' W. long.;	

- C.6. **Notification When Unsafe Conditions Prevent Compliance with Regulations:** If prevented by unsafe weather conditions or mechanical problems from meeting special management area landing restrictions, vessels must notify the U.S. Coast Guard and receive acknowledgment of such notification prior to leaving the area. This notification shall include the name of the vessel, port where delivery will be made, approximate number of salmon (by species) on board, the estimated time of arrival, and the specific reason the vessel is not able to meet special management area landing restrictions.

In addition to contacting the U.S. Coast Guard, vessels fishing south of the Oregon/California border must notify CDFW within one hour of leaving the management area by calling 800-889-8346 and providing the same information as reported to the U.S. Coast Guard. All salmon must be offloaded within 24 hours of reaching port.

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

C.7. Incidental Halibut Harvest: License applications for incidental harvest for halibut during commercial salmon fishing must be obtained from IPHC.

- a. During the 2022 salmon troll season, incidental harvest is authorized only during April, May, and June, and after June 30 if quota remains and if announced on the NMFS hotline (phone: 800-662-9825 or 206-526-6667). WDFW, ODFW, and CDFW will monitor landings. If the landings are projected to exceed the IPHC's preseason allocation or the total Area 2A non-Indian commercial halibut allocation, NMFS will take inseason action to prohibit retention of halibut in the non-Indian salmon troll fishery.
- b. Through May 15, 2022, consistent with regulations adopted in April 2021, license holders may land no more than 1 Pacific halibut per each 2 Chinook, except one Pacific halibut may be landed without meeting the ratio requirement, and no more than 35 halibut may be landed per trip.
- c. Beginning May 16, 2022, through the end of the 2022 salmon troll fishery, and beginning April 1, 2023, until modified through inseason action or superseded by the 2023 management measures, license holders may land or possess no more than one Pacific halibut per two Chinook, except one Pacific halibut may be possessed or landed without meeting the ratio requirement, and no more than 35 halibut may be possessed or landed per trip. Pacific halibut retained must be no less than 32 inches in total length (with head on).
- d. Incidental Pacific halibut catch regulations in the commercial salmon troll fishery adopted for 2022, prior to any 2022 inseason action, will be in effect when incidental Pacific halibut retention opens on April 1, 2023, unless otherwise modified by inseason action at the March 2023 Council meeting.
- e. "C-shaped" yelloweye rockfish conservation area is an area to be voluntarily avoided for salmon trolling. NMFS and the Council request salmon trollers voluntarily avoid this area in order to protect yelloweye rockfish. The area is defined in the Pacific Council Halibut Catch Sharing Plan in the North Coast subarea (Washington marine area 3), with the following coordinates in the order listed:
 - 48°18' N. lat.; 125°18' W. long.;
 - 48°18' N. lat.; 124°59' W. long.;
 - 48°11' N. lat.; 124°59' W. long.;
 - 48°11' N. lat.; 125°11' W. long.;
 - 48°04' N. lat.; 125°11' W. long.;
 - 48°04' N. lat.; 124°59' W. long.;
 - 48°00' N. lat.; 124°59' W. long.;
 - 48°00' N. lat.; 125°18' W. long.;
 - and connecting back to 48°18' N. lat.; 125°18' W. long.

C.8. Inseason Management: In addition to standard inseason actions or modifications already noted under the season description, the following inseason guidance is provided to NMFS:

- a. Chinook remaining from the May through June non-Indian commercial troll harvest guideline north of Cape Falcon may be transferred to the July through September harvest guideline if the transfer would not result in exceeding preseason impact expectations on any stocks.
- b. Chinook remaining from May, June, and/or July non-Indian commercial troll quotas in the Oregon or California KMZ may be transferred to the Chinook quota for the next open period if the transfer would not result in exceeding preseason impact expectations on any stocks.
- c. NMFS may transfer salmon between the recreational and commercial fisheries north of Cape Falcon if there is agreement among the areas' representatives on the Salmon Advisory Subpanel (SAS), and if the transfer would not result in exceeding preseason impact expectations on any stocks.
- d. The Council will consider inseason recommendations for special regulations for any experimental fisheries annually in March; proposals must meet Council protocol and be received in November the year prior..
- e. If retention of unmarked coho (adipose fin intact) is permitted by inseason action, the allowable coho quota will be adjusted to ensure preseason projected impacts on all stocks is not exceeded.
- f. Landing limits may be modified inseason to sustain season length and keep harvest within overall quotas.

TABLE 1. 2022 Commercial troll management Alternatives for non-Indian ocean salmon fisheries – STT analyzed. (Page 9 of 9)

- C.9. State Waters Fisheries: Consistent with Council management objectives:
- The State of Oregon may establish additional late-season fisheries in state waters.
 - The State of California may establish limited fisheries in selected state waters.
 - Check state regulations for details
- C.10. For the purposes of California Fish and Game Code, Section 8232.5, the definition of the Klamath Management Zone (KMZ) for the ocean salmon season shall be that area from Humbug Mountain, Oregon, to Latitude 40°10' N.
- C.11. Latitudes for geographical reference of major landmarks along the west coast. Majority of information from source: 2020 West Coast federal salmon regulations.
<https://www.fisheries.noaa.gov/action/fisheries-west-coast-states-west-coast-salmon-fisheries-2021-management-measures>

Cape Flattery, WA	48°23'00" N lat.	Humboldt South Jetty, CA	40°45'53" N lat.
Cape Alava, WA	48°10'00" N lat.	40°10' line (near Cape Mendocino, CA)	40°10'00" N lat
Queets River, WA	47°31'42" N lat.	Horse Mountain, CA	40°05'00" N lat.
Leadbetter Point, WA	46°38'10" N lat.	Point Arena, CA	38°57'30" N lat.
Cape Falcon, OR	45°46'00" N lat.	Point Reyes, CA	37°59'44" N lat.
South end Heceta Bank line, OR	43°58'00" N lat.	Point San Pedro, CA	37°35'40" N lat.
Humbug Mountain, OR	42°40'30" N lat.	Pigeon Point, CA	37°11'00" N lat.
Oregon-California border	42°00'00" N lat.	Point Sur, CA	36°18'00" N lat.
		Point Conception, CA	34°27'00" N lat.

TABLE 2. 2022 Recreational management measures for non-Indian ocean salmon fisheries – STT analyzed. (Page 1 of 5)

A. SEASON DESCRIPTIONS	
North of Cape Falcon	
Supplemental Management Information	
<p>1. Overall non-Indian TAC: 54,000 Chinook and 200,000 coho marked with a healed adipose fin clip (marked).</p> <p>2. Recreational TAC: 27,000 Chinook and 168,000 marked coho; all retained coho must be marked.</p> <p>3. Buoy 10 fishery opens August 1 with an expected landed catch of 55,000 marked coho in August and September.</p>	
<p>U.S./Canada Border to Cape Alava (Neah Bay Subarea)</p> <ul style="list-style-type: none"> June 18 through earlier of September 30, or 17,470 marked coho subarea quota, with a subarea guideline of 6,110 Chinook (C.5). <p>Open seven days per week. All salmon, except no chum beginning August 1; two salmon per day. All coho must be marked with a healed adipose fin clip (C.1). Chinook minimum size limit of 24 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <p>Beginning August 1, Chinook non-retention east of the Bonilla-Tatoosh line (C.4.a) during Council managed ocean fishery.</p> <p>Inseason management may be used to sustain season length and keep harvest within the overall Chinook and coho recreational TACs for north of Cape Falcon (C.5).</p>	
<p>Cape Alava to Queets River (La Push Subarea)</p> <ul style="list-style-type: none"> June 18 through earlier of September 30, or 4,370 marked coho subarea quota, with a subarea guideline of 995 Chinook (C.5). <p>Open seven days per week. All salmon, except no chum beginning August 1; two salmon per day. All coho must be marked with a healed adipose fin clip (C.1). See gear restrictions and definitions (C.2, C.3). Chinook minimum size limit of 24 inches total length (B).</p> <p>Inseason management may be used to sustain season length and keep harvest within the overall Chinook and coho recreational TACs for north of Cape Falcon (C.5).</p> <ul style="list-style-type: none"> October 5 through earlier of October 8, or 125 Chinook quota (C.5) in the area north of 47°50'00" N. lat. and south of 48°00'00" N. lat. <p>Open seven days per week. Chinook only, 2 Chinook per day. See gear restrictions and definitions (C.2, C.3). Chinook minimum size limit of 24 inches total length (B, C.1).</p>	
<p>Queets River to Leadbetter Point (Westport Subarea)</p> <ul style="list-style-type: none"> July 2 through earlier of September 30, or 62,160 marked coho subarea quota, with a subarea guideline of 12,070 Chinook (C.5). <p>Open seven days per week. All salmon; two salmon per day, no more than one of which may be a Chinook. All coho must be marked with a healed adipose fin clip (C.1). See gear restrictions and definitions (C.2, C.3). Chinook minimum size limit of 22 inches total length (B).</p> <p>Grays Harbor Control Zone closed beginning August 8 (C.4.b). Inseason management may be used to sustain season length and keep harvest within the overall Chinook and coho recreational TACs for north of Cape Falcon (C.5).</p>	
<p>Leadbetter Point to Cape Falcon (Columbia River Subarea)</p> <ul style="list-style-type: none"> June 25 through earlier of September 30, or 84,000 marked coho subarea quota, with a subarea guideline of 7,700 Chinook (C.5). <p>Open seven days per week. All salmon; two salmon per day, no more than one of which may be a Chinook. All coho must be marked with a healed adipose fin clip (C.1). See gear restrictions and definitions (C.2, C.3). Chinook minimum size limit of 22 inches total length (B).</p> <p>Columbia Control Zone closed (C.4.c). Inseason management may be used to sustain season length and keep harvest within the overall Chinook and coho recreational TACs for north of Cape Falcon (C.5).</p>	

TABLE 2. 2022 Recreational management measures for non-Indian ocean salmon fisheries – STT analyzed. (Page 2 of 5)
South of Cape Falcon
Supplemental Management Information
<ol style="list-style-type: none"> 1. Sacramento River fall Chinook spawning escapement of 198,694 hatchery and natural area adults. 2. Sacramento Index exploitation rate of 49.9%. 3. Klamath River recreational fishery allocation: 2,119 adult Klamath River fall Chinook. 4. Klamath tribal allocation: 9,434 adult Klamath River fall Chinook. 5. Overall recreational coho TAC: 100,000 coho marked with a healed adipose fin clip (marked), and 17,000 coho in the non-mark-selective coho fishery. 6. Fisheries may need to be adjusted to meet NMFS ESA consultation standards, FMP requirements, other management objectives, or upon receipt of new allocation recommendations from the CFGC. 7. For fisheries scheduled prior to May 16, 2022, see 2021 management measures, which are subject to inseason action and the 2022 season description described below.
A. SEASON DESCRIPTIONS
South of Cape Falcon
<p>Cape Falcon to Humbug Mt.</p> <ul style="list-style-type: none"> • March 15-May 15; • May 16-October 31 (C.6). <p>Open seven days per week. All salmon except coho, except as provided below during the all-salmon mark-selective coho fishery and the non-mark-selective coho fishery (C.5), two fish per day (C.1). Chinook minimum size limit of 24 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2023, the season will open March 15 for all salmon except coho, two salmon per day (C.1). Chinook minimum size limit of 24 inches total length (B); and the same gear restrictions as in 2022 (C.2, C.3). This opening could be modified following Council review at its March 2023 meeting.</p>
<p>Cape Falcon to OR/CA Border.</p> <p>All-salmon mark-selective coho fishery:</p> <ul style="list-style-type: none"> • June 18 through the earlier of August 21, or 100,000 marked coho quota (C.6). <p>Open seven days per week. Cape Falcon to Humbug Mt.: All salmon two salmon per day. Humbug Mt. to OR/CA Border: June 18-24, all salmon except Chinook, two salmon per day; and June 25-August 21 or coho quota, all salmon, two salmon per day. All retained coho must be marked with a healed adipose fin clip. See minimum size limits (B). See gear restrictions and definitions (C.2, C.3).</p> <p>Any remainder of the mark-selective coho quota may be transferred inseason on an impact neutral basis to the non-selective coho quota from Cape Falcon to Humbug Mountain (C.5).</p> <p>Cape Falcon to Humbug Mt.</p> <p>Non-mark-selective coho fishery:</p> <ul style="list-style-type: none"> • September 3 through the earlier of September 30, or 17,000 non-mark-selective coho quota (C.6). Open days may be modified inseason. <p>Open seven days per week. All salmon, two salmon per day (C.1). See minimum size limits (B). See gear restrictions and definitions (C.2, C.3).</p>
<p>Humbug Mt. to OR/CA Border (Oregon KMZ)</p> <ul style="list-style-type: none"> • June 25-August 21 (C.6). <p>Open seven days per week. All salmon except coho, except as listed above for the mark-selective coho fishery From Cape Falcon to the OR/CA Border (June 18-August 21). Two salmon per day (C.1). Chinook minimum size limit of 24 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p>
<p>For Recreational Fisheries from Cape Falcon to Humbug Mt.: Fishing in the Stonewall Bank yelloweye rockfish conservation area restricted to trolling only on days the all depth recreational halibut fishery is open (call the halibut fishing hotline 1-800-662-9825 for specific dates) (C.3.b, C.4.d).</p>

TABLE 2. 2022 Recreational management measures for non-Indian ocean salmon fisheries – STT analyzed. (Page 3 of 5)	
A. SEASON DESCRIPTIONS	
<p>OR/CA Border to latitude 40°10' N. (California KMZ)</p> <ul style="list-style-type: none"> • May 1-May 15; • May 16-31; • August 1-September 5 (C.6). <p>Open seven days per week. All salmon except coho, two salmon per day (C.1). Chinook minimum size limit of 20 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <p>Klamath Control Zone closed in August (C.4.e). See California State regulations for additional closures adjacent to the Smith, Eel, and Klamath Rivers.</p> <p>In 2023, season opens May 1 for all salmon except coho, two salmon per day (C.1). Chinook minimum size limit of 20 inches total length (B); and the same gear restrictions as in 2022 (C.2, C.3). This opening could be modified following Council review at its March or April 2023 meeting.</p>	
<p>Latitude 40°10' N. to Point Arena (Fort Bragg)</p> <ul style="list-style-type: none"> • May 1-15; • May 16-July 4; • July 22-September 5 (C.6). <p>Open seven days per week. All salmon except coho, two salmon per day (C.1). Chinook minimum size limit of 20 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2023, season opens April 1 for all salmon except coho, two salmon per day (C.1). Chinook minimum size limit of 20 inches total length (B); and the same gear restrictions as in 2022 (C.2, C.3). This opening could be modified following Council review at its March 2023 meeting.</p>	
<p>Point Arena to Pigeon Point (San Francisco)</p> <ul style="list-style-type: none"> • April 2-May 15 (C.6). <p>Open seven days per week. All salmon except coho, two salmon per day (C.1). Chinook minimum size limit of 24 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <ul style="list-style-type: none"> • May 16-31; • June 23-October 31 (C.6). <p>Open seven days per week. All salmon except coho, two salmon per day (C.1). Chinook minimum size limit of 20 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2023, season opens April 1 for all salmon except coho, two salmon per day (C.1). Chinook minimum size limit of 24 inches total length (B); and the same gear restrictions as in 2022 (C.2, C.3). This opening could be modified following Council review at its March 2023 meeting.</p>	
<p>Pigeon Point to U.S./Mexico Border (Monterey)</p> <ul style="list-style-type: none"> • April 2-May 15 (C.6). <p>Open seven days per week. All salmon except coho, two salmon per day (C.1). Chinook minimum size limit of 24 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <ul style="list-style-type: none"> • May 16-October 2 (C.6). <p>Open seven days per week. All salmon except coho, two salmon per day (C.1). Chinook minimum size limit 20 inches total length. See gear restrictions and definitions (C.2, C.3).</p> <p>In 2023, season opens April 1 for all salmon except coho, two salmon per day (C.1). Chinook minimum size limit of 24 inches total length (B); and the same gear restrictions as in 2022 (C.2, C.3). This opening could be modified following Council review at its March 2023 meeting.</p>	
<p>California State regulations require all salmon be made available to a CDFW representative for sampling immediately at port of landing. Any person in possession of a salmon with a missing adipose fin, upon request by an authorized agent or employee of the CDFW, shall immediately relinquish the head of the salmon to the State (California Code of Regulations Title 14 Section 1.73).</p>	

TABLE 2. 2022 Recreational management measures for non-Indian ocean salmon fisheries – STT analyzed. (Page 4 of 5)

B. MINIMUM SIZE (Inches) (See C.1)			
Area (when open)	Chinook	Coho	Pink
North of Cape Falcon (Westport and Columbia River)	22	16	None
North of Cape Falcon (Neah Bay and La Push)	24	16	None
Cape Falcon to Humbug Mt.	24	16	None
Humbug Mt. to OR/CA Border	24	16	None
OR/CA Border to Pt. Arena	20	-	20
Pt. Arena to Pigeon Pt. through May 15	24	-	24
Pt. Arena to Pigeon Pt. beginning May 16	20	-	20
Pigeon Pt. to U.S./Mexico Border through May 15	24	-	24
Pigeon Pt. to U.S./Mexico Border beginning May 16	20	-	20

C.1. Compliance with Minimum Size and Other Special Restrictions: All salmon on board a vessel must meet the minimum size or other special requirements for the area being fished and the area in which they are landed if that area is open. Salmon may be landed in an area that is closed only if they meet the minimum size or other special requirements for the area in which they were caught. Salmon may not be filleted prior to landing.

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

C.2. Gear Restrictions: Salmon may be taken only by hook and line using barbless hooks. All persons fishing for salmon, and all persons fishing from a boat with salmon on board must meet the gear restrictions listed below for specific areas or seasons.

- a. *U.S./Canada Border to Pt. Conception, California:* No more than one rod may be used per angler; and no more than two single point, single shank, barbless hooks are required for all fishing gear.
- b. *Latitude 40°10' N. to Pt. Conception, California:* Single point, single shank, barbless circle hooks (see gear definitions below) are required when fishing with bait by any means other than trolling, and no more than two such hooks shall be used. When angling with two hooks, the distance between the hooks must not exceed five inches when measured from the top of the eye of the top hook to the inner base of the curve of the lower hook, and both hooks must be permanently tied in place (hard tied). Circle hooks are not required when artificial lures are used without bait.

C.3. Gear Definitions:

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

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

C.4. Control Zone Definitions:

- a. *The Bonilla-Tatoosh Line:* A line running from the western end of Cape Flattery to Tatoosh Island Lighthouse (48°23'30" N. lat., 124°44'12" W. long.) to the buoy adjacent to Duntze Rock (48°24'37" N. lat., 124°44'37" W. long.), then in a straight line to Bonilla Pt. (48°35'39" N. lat., 124°42'58" W. long.) on Vancouver Island, British Columbia.
- b. *Grays Harbor Control Zone* - The area defined by a line drawn from the Westport Lighthouse (46° 53'18" N. lat., 124° 07'01" W. long.) to Buoy #2 (46° 52'42" N. lat., 124°12'42" W. long.) to Buoy #3 (46° 55'00" N. lat., 124°14'48" W. long.) to the Grays Harbor north jetty (46° 55'36" N. lat., 124°10'51" W. long.).
- c. *Columbia Control Zone:* An area at the Columbia River mouth, bounded on the west by a line running northeast/southwest between the red lighted Buoy #4 (46°13'35" N. lat., 124°06'50" W. long.) and the green lighted Buoy #7 (46°15'09" N. lat., 124°06'16" W. long.); on the east, by the Buoy #10 line which bears north/south at 357° true from the south jetty at 46°14'00" N. lat., 124°03'07" W. long. to its intersection with the north jetty; on the north, by a line running northeast/southwest between the green lighted Buoy #7 to the tip of the north jetty (46°15'48" N. lat., 124°05'20" W. long. and then along the north jetty to the point of intersection with the Buoy #10 line; and on the south, by a line running northeast/southwest between the red lighted Buoy #4 and tip of the south jetty (46°14'03" N. lat., 124°04'05" W. long.), and then along the south jetty to the point of intersection with the Buoy #10 line.
- d. *Stonewall Bank Yelloweye Rockfish Conservation Area:* The area defined by the following coordinates in the order listed:
 44°37.46' N. lat.; 124°24.92' W. long.
 44°37.46' N. lat.; 124°23.63' W. long.
 44°28.71' N. lat.; 124°21.80' W. long.
 44°28.71' N. lat.; 124°24.10' W. long.
 44°31.42' N. lat.; 124°25.47' W. long.
 and connecting back to 44°37.46' N. lat.; 124°24.92' W. long.
- e. *Klamath Control Zone:* The ocean area at the Klamath River mouth bounded on the north by 41°38'48" N. lat. (approximately 6 nautical miles north of the Klamath River mouth); on the west by 124°23'00" W. long. (approximately 12 nautical miles offshore); and, on the south by 41°26'48" N. lat. (approximately 6 nautical miles south of the Klamath River mouth).

C.5. Inseason Management: Regulatory modifications may become necessary inseason to meet preseason management objectives such as quotas, harvest guidelines, and season duration. In addition to standard inseason actions or modifications already noted under the season description, the following inseason guidance is provided to NMFS:

- a. Actions could include modifications to bag limits, or days open to fishing, and extensions or reductions in areas open to fishing.
- b. Coho may be transferred inseason among recreational subareas north of Cape Falcon to help meet the recreational season duration objectives (for each subarea) after conferring with representatives of the affected ports and the Council's SAS recreational representatives north of Cape Falcon, and if the transfer would not result in exceeding preseason impact expectations on any stocks.
- c. Chinook and coho may be transferred between the recreational and commercial fisheries north of Cape Falcon if there is agreement among the representatives of the SAS, and if the transfer would not result in exceeding preseason impact expectations on any stocks.
- d. Fishery managers may consider inseason action modifying regulations restricting retention of unmarked (adipose fin intact) coho. To remain consistent with preseason expectations, any inseason action shall consider, if significant, the difference between observed and preseason forecasted (adipose-clipped) mark rates. Such a consideration may also include a change in bag limit of two salmon, no more than one of which may be a coho.
- e. Marked coho remaining from the Cape Falcon to OR/CA Border. recreational mark-selective coho quota may be transferred inseason to the Cape Falcon to Humbug Mt. non-mark-selective recreational fishery if the transfer would not result in exceeding preseason impact expectations on any stocks.

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

TABLE 3. 2022 Treaty Indian troll management Alternatives for ocean salmon fisheries – STT Analyzed. (Page 1 of 2)

A. SEASON ALTERNATIVE DESCRIPTIONS	
Supplemental Management Information	
<p>1. Overall Treaty-Indian TAC: 40,000 Chinook and 52,000 coho.</p> <p>2. Overall Chinook and/or coho TACs may need to be reduced or fisheries adjusted to meet NMFS ESA guidance, FMP requirements, upon conclusion of negotiations in the North of Falcon forum, or upon receipt of preseason catch and abundance expectations for Canadian and Alaskan fisheries.</p> <p>3. In 2023, the season will open May 1, consistent with all preseason regulations in place for Treaty Indian Troll fisheries during May 16-June 30, 2022. All catch in May 2023 applies against the 2023 Treaty Indian Troll fisheries quota. This opening could be modified following Council review at its March and/or April 2023 meetings.</p>	
<ul style="list-style-type: none"> May 1 through the earlier of June 30 or 20,000 Chinook quota. <p>All salmon may be retained except coho. If the Chinook quota is exceeded, the excess will be deducted from the later all-salmon season (C.5). See size limit (B) and other restrictions (C).</p> <ul style="list-style-type: none"> July 1 through the earlier of September 15, or 20,000 Chinook quota or 52,000 coho quota <p>All salmon. See size limit (B) and other restrictions (C).</p>	

B. MINIMUM LENGTH (TOTAL INCHES)

Area (when open)	Chinook		Coho		Pink
	Total Length	Head-off	Total Length	Head-off	
North of Cape Falcon	24.0 (61.0 cm)	18.0 (45.7 cm)	16.0 (40.6 cm)	12.0 (30.5 cm)	None

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS

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

S'KLALLAM - Washington State Statistical Area 4B (defined to include those waters of Puget Sound easterly of a line projected from the Bonilla Point light on Vancouver Island to the Tatoosh Island light, thence to the most westerly point on Cape Flattery and westerly of a line projected true north from the fishing boundary marker at the mouth of the Sekiu River [WAC 220-301-030]).

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

QUILEUTE - A polygon commencing at Cape Alava, located at latitude 48°10'00" north, longitude 124°43'56.9" west; then proceeding west approximately forty nautical miles at that latitude to a northwestern point located at latitude 48°10'00" north, longitude 125°44'00" west; then proceeding in a southeasterly direction mirroring the coastline at a distance no farther than forty nautical miles from the mainland Pacific coast shoreline at any line of latitude, to a southwestern point at latitude 47°31'42" north, longitude 125°20'26" west; then proceeding east along that line of latitude to the Pacific coast shoreline at latitude 47°31'42" north, longitude 124°21'9.0" west.

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

QUINULT - A polygon commencing at the Pacific coast shoreline near Destruction Island, located at latitude 47°40'06" north, longitude 124°23'51.362" west; then proceeding west approximately thirty nautical miles at that latitude to a northwestern point located at latitude 47°40'06" north, longitude 125°08'30" west; then proceeding in a southeasterly direction mirroring the coastline no farther than thirty nautical miles from the mainland Pacific coast shoreline at any line of latitude, to a southwestern point at latitude 46°53'18" north, longitude 124°53'53" west; then proceeding east along that line of latitude to the Pacific coast shoreline at latitude 46°53'18" north, longitude 124°7'36.6" west.

C.2. Gear restrictions

- Single point, single shank, barbless hooks are required in all fisheries.
- No more than eight fixed lines per boat.
- No more than four hand-held lines per person in the Makah area fishery (Washington State Statistical Area 4B and that portion of the FMA north of 48°02'15" N. lat. (Norwegian Memorial) and east of 125°44'00" W. long.)

C.3. Quotas

- The quotas include troll catches by the S'Klallam and Makah Tribes in Washington State Statistical Area 4B from May 1 through September 15.
- The Quileute Tribe may continue a ceremonial and subsistence fishery during the time frame of October 1 through October 15 in the same manner as in 2004-2015. Fish taken during this fishery are to be counted against treaty troll quotas established for the 2022 season (estimated harvest during the October ceremonial and subsistence fishery: 20 Chinook; 40 coho).

C.4. Area Closures

- a. The area within a six nautical mile radius of the mouths of the Queets River (47°31'42" N. lat.) and the Hoh River (47°45'12" N. lat.) will be closed to commercial fishing.
- b. A closure within two nautical miles of the mouth of the Quinault River (47°21'00" N. lat.) may be enacted by the Quinault Nation and/or the State of Washington and will not adversely affect the Secretary of Commerce's management regime.

C.5. Inseason Management: In addition to standard inseason actions or modifications already noted under the season description, the following inseason guidance is provided to NMFS:

- a. Chinook remaining from the May through June treaty-Indian ocean troll harvest guideline north of Cape Falcon may be transferred to the July through September harvest guideline on a fishery impact equivalent basis.

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2022 ocean fishery Alternatives - STT analyzed^{a/} (Page 1 of 5)

Key Stock/Criteria	2022 PROJECTED	Criteria	Spawner Objective or Other Comparative Standard as Noted ^{b/}
CHINOOK	CHINOOK		CHINOOK
SRKW PREY ABUNDANCE:			
North of Falcon	1,372.9	≥ 966.0	Oct 1 starting abundance of age 3+ Chinook from U.S./Canada Border to Cape Falcon
Oregon Coast	1,080.6	NA	Oct 1 starting abundance of age 3+ Chinook from Cape Falcon to Horse Mt.
California Coast	515.8	NA	Oct 1 starting abundance of age 3+ Chinook south of Horse Mt.
Southwest WCVI	715.6	NA	Oct 1 starting abundance of age 3+ Chinook off Southwest Vancouver Island
Salish Sea	706.7	NA	Oct 1 starting abundance of age 3+ Chinook in the Salish Sea
PUGET SOUND:			
Elwha Summer/Fall	5.7%	≤ 10.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
Dungeness Spring	5.5%	≤ 10.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
Mid-Hood Canal Summer/Fall	15.9%	TBD	Preterminal Southern U.S. exploitation rate. Discussions are ongoing between WA state and tribal co-managers and NMFS regarding conservation standard for 2022.
Skokomish Summer/Fall	54.2%	≤ 50.0%	Total exploitation rate (NMFS ESA consultation standard).
Nooksack Spring	13.7%	≤ 10.9%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
	1.21	≤ 1.00	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Skagit Summer/Fall	21.4%	≤ 15.0%	Southern U.S. exploitation rate. Discussions are ongoing between WA state and tribal co-managers and NMFS regarding rates higher than 15% SUS for 2022, should projected escapement exceed low abundance thresholds.
	–	≤ 0.95	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
Skagit Spring	22.4%	≤ 36.0%	Total exploitation rate (NMFS ESA consultation standard).
	–	≤ 0.95	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
Stillaguamish Summer/Fall	13.9%	≤ 9.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
	0.96	≤ 1.00	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Snohomish Summer/Fall	7.7%	≤ 8.3%	Southern U.S. exploitation rate limit under critical abundance forecast for 2022 (NMFS ESA consultation standard).
	0.78	≤ 1.00	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Lake Washington Summer/Fall	0.708	≥ 0.500	Natural spawning escapement in the Cedar River (NMFS ESA consultation standard).
Green River Summer/Fall	3.808	≥ 2.744	Natural spawning escapement in the Green River (NMFS ESA consultation standard).
White River Spring	16.8%	≤ 22.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
Puyallup Summer/Fall	2.416	TBD	Natural spawning escapement in the Puyallup River. Discussions are ongoing between WA state and tribal co-managers and NMFS regarding conservation standard for 2022.
Nisqually River Summer/Fall	48.4%	≤ 47.0%	Total exploitation rate, (NMFS ESA consultation standard). Up to an additional 2% ER may be added to facilitate inriver selective gear studies after meeting base criteria during final preseason modeling.
Puget Sound Spring	2.0%	≤ 3.0%	Exploitation rate in PFMC fisheries (NMFS ESA consultation standard).
Puget Sound Summer/Fall	5.4%	≤ 6.0%	Exploitation rate in PFMC fisheries (NMFS ESA consultation standard).

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2022 ocean fishery management measures - STT Analyzed.^{a/} (Page 2 of 5)

Key Stock/Criteria	Alt I	2022 Criteria	Spawner Objective or Other Comparative Standard as Noted ^{b/}
CHINOOK	CHINOOK		CHINOOK
<u>WASHINGTON COAST:</u>			
Hoko Fall	0.735	0.85 FMP MSY spawning escapement objective.	
	2.1%	≤ 10.0% Calendar year exploitation rate ISBM obligation. Compliance assessed postseason by the PSC.	
Quillayute Fall	>3.0	3.0 FMP MSY spawning escapement objective.	
	--	≤ 0.85 ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.	
Hoh Fall	>1.2	1.2 FMP MSY spawning escapement objective.	
	--	≤ 0.85 ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.	
Queets Fall	>2.5	2.5 FMP MSY spawning escapement objective.	
	--	≤ 0.85 ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.	
Grays Harbor Fall	>13.3	13.3 FMP MSY spawning escapement objective.	
	--	≤ 0.85 ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.	
<u>COLUMBIA RIVER:</u>			
Columbia Upriver Brights	229.6	74.0 Minimum ocean escapement to attain 40.0 adults over McNary Dam, with normal distribution and no mainstem harvest. The management goal has been increased to 60.0 by Columbia River managers.	
Mid-Columbia Brights	78.6	14.9 Minimum ocean escapement to attain 7.9 for Little White Salmon egg-take, assuming average conversion and no mainstem harvest.	
Columbia Lower River Hatchery Tules	73.6	25.0 Minimum ocean escapement to attain 14.8 adults for hatchery egg-take, with average conversion and no lower river mainstem or tributary harvest.	
Columbia Lower River Natural Tules (threatened)	38.0%	≤ 38.0% Total adult equivalent fishery exploitation rate (2022 NMFS ESA guidance).	
Columbia Lower River Wild ^{el} (threatened)	10.9	6.9 Minimum ocean escapement to attain MSY spawner goal of 5.7 for N. Lewis River fall Chinook (NMFS ESA consultation standard).	
Spring Creek Hatchery Tules	92.0	8.2 Minimum ocean escapement to attain 6.0 adults for Spring Creek Hatchery egg-take, assuming average conversion and no mainstem harvest.	
Upper Columbia River Summer	56.3	29.0 Aggregate escapement to mouth of Columbia River.	
Snake River Fall (threatened) SRFI	53.2%	≤ 70.0% Of 1988-1993 base period exploitation rate for all ocean fisheries (NMFS ESA consultation standard).	

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2022 ocean fishery management measures - STT Analyzed.^{a/} (Page 3 of 5)

Key Stock/Criteria	Alt I	2022 Criteria	Spawner Objective or Other Comparative Standard as Noted ^{b/}
CHINOOK	CHINOOK		CHINOOK
OREGON COAST:			
Nehalem Fall	--	≤ 0.85	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
Siletz Fall	--	≤ 0.85	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
Siuslaw Fall	--	≤ 0.85	ISBM obligation applicable, escapement goal not expected to be met. Compliance assessed postseason by the PSC.
South Umpqua	--	≤ 0.85	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Coquille	--	≤ 0.85	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
CALIFORNIA:			
Klamath River Fall	38.180	≥ 38.180	2022 minimum natural area adult escapement (FMP control rule).
Federally recognized tribal harvest	50.0%	50.0%	Equals 9.4 (thousand) adult fish for Yurok and Hoopa Valley tribal fisheries.
Exploitation (spawner reduction) rate	25.0%	≤ 25.0%	FMP control rule.
Adult river mouth return	66.8	NA	Total adults in thousands.
Age-4 ocean harvest rate	10.0%	≤ 10.0%	NMFS guidance.
KMZ sport fishery share	6.8%		
River recreational fishery share	22.5%	NA	Equals 2.1 thousand adult fish for recreational inriver fisheries.
Sacramento River Winter (endangered)	15.2%	≤ 20.0%	Age-3 ocean impact rate in fisheries south of Pt. Arena. In addition, the following season restrictions apply: <u>Recreational</u> - Pt. Arena to Pigeon Pt. between the first Saturday in April and the second Sunday in November; Pigeon Pt. to the U.S./Mexico border between the first Saturday in April and the first Sunday in October. Minimum size limit ≥ 20 inches total length. <u>Commercial</u> - Pt. Arena to the U.S./Mexico border between May 1 and September 30, except Pt. Reyes to Pt. San Pedro between October 1 and 15 (Monday-Friday). Minimum size limit ≥ 26 inches total length (NMFS 2022 ESA Guidance).
Sacramento River Fall	198,694	≥ 180,000	2022 minimum hatchery and natural area adult escapement (Council Guidance).
Sacramento Index Exploitation Rate	49.9%	≤ 69.2%	FMP control rule.
Ocean commercial impacts	91.9		Includes fall (Sept-Dec) 2021 impacts (5.7 thousand SRFC).
Ocean recreational impacts	73.5		Includes fall (Sept-Dec) 2021 impacts (3.3 thousand SRFC).
River recreational impacts	32.3		Equals 16.4% of the total harvest.

Key Stock/Criteria	PROJECTED	2022 Criteria	Spawner Objective or Other Comparative Standard as Noted ^{b/}
COHO	COHO		COHO
Interior Fraser (Thompson River)	9.4%(4.8%)	≤ 10.0%	2022 Southern U.S. exploitation rate ceiling; PSC coho agreement.
Skagit	44.5%(4.5%)	≤ 60.0%	2022 total exploitation rate ceiling; FMP matrix ^{d/}
Stillaguamish	36.5%(3.2%)	≤ 50.0%	2022 total exploitation rate ceiling; FMP matrix ^{d/}
Snohomish	34.1%(3.2%)	≤ 40.0%	2022 total exploitation rate ceiling; FMP matrix ^{d/}
Hood Canal	44.5%(4.9%)	≤ 45.0%	2022 total exploitation rate ceiling; FMP matrix ^{d/}
Strait of Juan de Fuca	11.1%(3.9%)	≤ 20.0%	2022 total exploitation rate ceiling; FMP matrix ^{d/}
Quillayute Fall	11.7	6.3	FMP MSY adult spawner estimate. Value depicted is ocean escapement.
	16.8%	≤ 50%	PST total exploitation rate constraint for 2022. ^{d/f/}
Hoh	3.9	2.0	FMP MSY adult spawner estimate. Value depicted is ocean escapement.
	29.4%	≤ 58%	PST total exploitation rate constraint for 2022. ^{d/f/}
Queets Wild	15.4	5.8	FMP MSY adult spawner estimate. Value depicted is ocean escapement.
	35.7%	≤ 65%	FMP total exploitation rate constraint (MFMT). ^{d/f/}
Grays Harbor	118.7	35.4	FMP MSP natural area adult spawner estimate. Value depicted is ocean escapement.
	28.5%	≤ 65%	FMP total exploitation rate constraint (MFMT). ^{d/f/}
Willapa Bay	43.3	17.2	FMP MSY natural area adult spawner estimate. Value depicted is ocean escapement.
Lower Columbia River Natural (threatened)	17.5%	≤23.0%	Total marine and mainstem Columbia R. fishery exploitation rate (2022 NMFS ESA guidance). Value depicted is marine ER before Buoy 10.
Upper Columbia ^{c/}	63.3%	≥ 50%	Minimum percentage of the run to Bonneville Dam.
Columbia River Hatchery Early	379.3	77.2	Minimum ocean escapement to attain hatchery egg-take goal of 21.7 early adult coho, with average conversion and no mainstem or tributary fisheries.
Columbia River Hatchery Late	241.3	9.7	Minimum ocean escapement to attain hatchery egg-take goal of 6.4 late adult coho, with average conversion and no mainstem or tributary fisheries.
Oregon Coastal Natural	15.0%	≤ 15.0%	Marine and freshwater fishery exploitation rate (NMFS ESA consultation standard).
Southern Oregon/Northern California Coast (threatened)		≤ 13.0%	Marine fishery exploitation rate for R/K hatchery coho (NMFS ESA consultation standard).
Trinity Natural	13.5%	≤ 16.0%	total exploitation rate ceiling
Klamath Natural	8.7%	≤ 15.0%	total exploitation rate ceiling
Rogue Natural	7.8%	≤ 15.0%	total exploitation rate ceiling
Other Natural	2.9%	≤ 15.0%	total exploitation rate ceiling

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2022 ocean fishery management measures - STT Analyzed.^{a/} (Page 5 of 5)

a/ Reflects 2022 fisheries and abundance estimates.

b/ ISBM obligation is assessed as a proportion of the 2009-2015 average calendar year exploitation rate. Ocean escapement is the number of salmon escaping ocean fisheries and entering freshwater with the following clarifications. Ocean escapement for Puget Sound stocks is the estimated number of salmon entering Area 4B that are available to U.S. net fisheries in Puget Sound and spawner escapement after impacts from the Canadian, U.S. ocean, and Puget Sound troll and recreational fisheries have been deducted. Numbers in parentheses represent Council area ERs for Puget Sound coho stocks. For Columbia River early and late coho stocks, ocean escapement represents the number of coho after the Buoy 10 fishery. Exploitation rates for LCN coho, OCN coho, SONCC coho, and LCR Tule Chinook represent marine and freshwater impacts. Values reported for Klamath River fall Chinook, Grays Harbor coho, and Willapa Bay coho are natural area adult spawners. Values reported for Sacramento River fall Chinook are hatchery and natural area adult spawners.

c/ Includes projected impacts of inriver fisheries that have not yet been shaped.

d/ Annual management objectives may be different than FMP goals and are subject to agreement between WDFW and the treaty tribes under U.S. District Court orders. It is anticipated that fishery management will be adjusted by state and tribal comanagers during the preseason planning process to comply with stock management objectives.

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

f/ Management criteria depicted represent the lower of the FMP and PST Southern Coho Management Plan ER constraints in a given year (see Table III-5 in most recent Preseason Report I). PST ER constraints represent an approximation of the maximum ER associated with achieving the escapement goal. Per the provisions of the PST Southern Coho Management Plan, Parties may request increases to management unit specific ER caps, so long as it occurs prior to March 31 in a given year.

TABLE 7. Expected coastwide lower Columbia Natural (LCN) Oregon coastal natural (OCN) and Rogue/Klamath (RK) coho, and Lower Columbia River (LCR) tule Chinook exploitation rates by fishery for 2022 ocean fisheries management Alternatives -STT analyzed (Page 1 of 2).

Fishery	Exploitation Rate (Percent)		
	LCN Coho	OCN Coho	LCR Tule Chinook
SOUTHEAST ALASKA	0.0%	0.0%	2.9%
BRITISH COLUMBIA	0.1%	0.3%	13.0%
PUGET SOUND/STRAIT	0.1%	0.0%	0.4%
NORTH OF CAPE FALCON			
Treaty Indian Ocean Troll	2.1%	0.5%	2.2%
Recreational	5.0%	0.9%	3.0%
Non-Indian Troll	1.6%	0.3%	4.1%
SOUTH OF CAPE FALCON			
Recreational:			0.6%
Cape Falcon to Humbug Mt.	3.8%	7.6%	-
Humbug Mt. to OR/CA border (KMZ)	0.0%	0.2%	-
OR/CA border to Latitude 40°10' N. (KMZ)	0.0%	0.2%	-
Fort Bragg	0.0%	0.2%	-
South of Pt. Arena	0.0%	0.1%	-
Troll:			2.1%
Cape Falcon to Humbug Mt.	0.8%	0.9%	-
Humbug Mt. to OR/CA border (KMZ)	0.0%	0.0%	-
OR/CA border to Horse Mt. (KMZ)	0.0%	0.0%	-
Fort Bragg	0.0%	0.1%	-
South of Pt. Arena	0.0%	0.1%	-
BUOY 10	2.0%	0.1%	
ESTUARY/FRESHWATER	1.8%	3.4%	9.8%
TOTAL ^{a/}	17.5%	15.0%	38.0%

TABLE 7. Expected coastwide lower Columbia Natural (LCN) Oregon coastal natural (OCN) and Rogue/Klamath (RK) coho, and Lower Columbia River (LCR) tule Chinook exploitation rates by fishery for 2022 ocean fisheries management Alternatives -STT analyzed (Page 2 of 2).

Fishery	Exploitation Rate (Percent)			
	Trinity Natural	Klamath Natural	Rogue Natural	Other SONCC
SOUTHEAST ALASKA	0.0%	0.0%	0.0%	0.0%
BRITISH COLUMBIA	0.1%	0.1%	0.1%	0.1%
PUGET SOUND/STRAIT	0.0%	0.0%	0.0%	0.0%
NORTH OF CAPE FALCON				
Treaty Indian Ocean Troll	0.0%	0.0%	0.0%	0.0%
Recreational	0.1%	0.1%	0.1%	0.1%
Non-Indian Troll	0.0%	0.0%	0.0%	0.0%
SOUTH OF CAPE FALCON				
Recreational:				
Cape Falcon to Humbug Mt.	0.5%	0.5%	0.5%	0.5%
Humbug Mt. to OR/CA border (KMZ)	0.3%	0.3%	0.3%	0.3%
OR/CA border to Latitude 40°10' N. (KMZ)	0.7%	0.7%	0.7%	0.7%
Fort Bragg	0.4%	0.4%	0.4%	0.4%
South of Pt. Arena	0.2%	0.2%	0.2%	0.2%
Troll:				
Cape Falcon to Humbug Mt.	0.1%	0.1%	0.1%	0.1%
Humbug Mt. to OR/CA border (KMZ)	0.1%	0.1%	0.1%	0.1%
OR/CA border to Horse Mt. (KMZ)	0.0%	0.0%	0.0%	0.0%
Fort Bragg	0.2%	0.2%	0.2%	0.2%
South of Pt. Arena	0.1%	0.1%	0.1%	0.1%
BUOY 10	0.0%	0.0%	0.0%	0.0%
ESTUARY/FRESHWATER	10.6%	5.8%	4.9%	0.0%
TOTAL ^{a/}	13.5%	8.7%	7.8%	2.9%

a/ Estuary/freshwater catch is included in the total for LCN, OCN, SONCC, and LCR Tule Chinook populations. Bolded values identify exploitation rates that would exceed the total allowable exploitation rate

Table A-1. Sacramento River winter Chinook age-3 ocean impact rate south of Pt. Arena by month, area, and fishery. Max rate: 20%.

Commercial										Recreational										
Total																				
Port									Year	Port									Year	
Area	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Area	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
SF			0.16	0.12	0.19	0.07			0.54	SF	0.28	0.84	0.38	2.13	0.72	0.12	0.19			4.66
MO	0.33	0.95	0.27	0.25					1.80	MO	1.27	1.26	1.66	2.88	1.05	0.07				8.20
Total	0.33	0.95	0.43	0.37	0.19	0.07	0.00	0.00	2.34	Total	1.55	2.10	2.04	5.01	1.77	0.19	0.19	0.00	0.00	12.86

15.2% total impact rate

SF Pt. Arena to Pigeon Pt. (San Francisco)
MO Pigeon Pt. to the U.S./Mexico Border (Monterey)

Table A-2. Klamath River fall Chinook ocean impacts in numbers of fish by month, area, and fishery.

Commercial											Recreational											
Port Area	Fall 2021		Summer 2022						Summer Total	Year Total	Port Area	Fall 2021			Summer 2022					Summer Total	Year Total	
	Sep	Oct-Dec	Mar	Apr	May	Jun	Jul	Aug				Sep	Oct	Nov-Dec	Mar	Apr	May	Jun	Jul	Aug		
NO	0	0	23	23	7	191	772	571	1,587	1,587	NO	0	0		0	14	0	0	3	154	171	171
CO	11	0			33			193	226	237	CO	34	0		0	0	0	0	9	397	406	440
KO			0	0		105	71	64	240	240	KO							48	22	196	266	266
KC											KC						113			153	266	266
FB	193						612	941	1,553	1,746	FB	37	0				38	58	115	59	270	307
SF	0	0					903	358	1,261	1,261	SF	0	0			0	31	89	449	120	689	689
MO					360	271	91	48	770	770	MO	0				0	0	0	0	0	0	0
Total	204	0	23	23	401	568	2,449	2,174	5,638	5,842	Total	72	0		0	14	182	194	598	1,078	2,066	2,138

38,180 natural area spawners, 25.0% spawner reduction rate, 10% age-4 ocean harvest rate

NO	Cape Falcon to S. End of Heceta Bank	FB	Southern KMZ Boundary to Pt. Arena (Fort Bragg)
CO	S. End of Heceta Bank to Humbug Mt.	SF	Pt. Arena to Pigeon Pt. (San Francisco)
KO	Humbug Mt. to OR/CA Border (Oregon KMZ)	MO	Pigeon Pt. to U.S./Mexico Border (Monterey)
KC	OR/CA Border to latitude 40°10' N. (California KMZ)		

Table A-3. Sacramento River fall Chinook ocean impacts in numbers of fish by month, area, and fishery.

Commercial											Recreational											
Port	Fall 2021		Summer 2022						Summer	Year	Port	Fall 2021		Summer 2022						Summer	Year	
Area	Sep	Oct-Dec	Mar	Apr	May	Jun	Jul	Aug	Total	Total	Area	Sep	Oct	Nov-Dec	Mar	Apr	May	Jun	Jul	Aug	Total	Total
NO	0	8	3,348	3,184	2,776	4,432	5,794	1,101	20,635	20,643	NO	45	0		11	0	8	160	478	193	850	895
CO	0	0			2,866			586	3,452	3,452	CO	0	0		0	15	22	194	407	107	745	745
KO			0	0		320	200	70	590	590	KO							56	473	197	726	726
KC											KC						3,133		1,802		4,935	4,935
FB	1,166						6,313	6,619	12,932	14,098	FB	0	574				666	950	1,660	1,674	4,950	5,524
SF	3,844	682					8,635	4,796	13,431	17,957	SF	2,083	463			3,475	6,285	2,662	17,831	8,994	39,247	41,793
MO					22,013	10,857	1,873	385	35,128	35,128	MO	94	0			9,948	2,418	2,308	3,440	721	18,835	18,929
Total	5,010	690	3,348	3,184	27,656	15,609	22,814	13,558	86,169	91,869	Total	2,222	1,037		11	13,439	12,532	6,330	24,290	13,689	70,291	73,550

198,694 hatchery and natural area spawners, 49.9% spawner reduction rate

NO	Cape Falcon to S. End of Heceta Bank	FB	Southern KMZ Boundary to Pt. Arena (Fort Bragg)
CO	S. End of Heceta Bank to Humbug Mt.	SF	Pt. Arena to Pigeon Pt. (San Francisco)
KO	Humbug Mt. to OR/CA Border (Oregon KMZ)	MO	Pigeon Pt. to U.S./Mexico Border (Monterey)
KC	OR/CA Border to latitude 40°10' N. (California KMZ)		

Table A-4. Klamath River fall Chinook age-4 ocean harvest in numbers of fish by month, area, and fishery.

Commercial											Recreational											
Port Area	Fall 2021		Summer 2022						Summer	Year	Port Area	Fall 2021			Summer 2022						Summer	Year
	Sep	Oct-Dec	Mar	Apr	May	Jun	Jul	Aug	Total	Total		Sep	Oct	Nov-Dec	Mar	Apr	May	Jun	Jul	Aug	Total	Total
NO	0	0	19	19	6	57	554	282	937	937	NO	0	0		0	4	0	0	1	39	44	44
CO	8	0			29			147	176	184	CO	33	0		0	0	0	0	2	100	102	135
KO			0	0		92	58	55	205	205	KO							11	6	54	71	71
KC											KC						29			69	98	98
FB	55						293	634	927	982	FB	36	0				10	15	29	15	69	105
SF	0	0					636	150	786	786	SF	0	0			0	8	23	115	30	176	176
MO					306	185	83	44	618	618	MO	0				0	0	0	0	0	0	0
Total	63	0	19	19	341	334	1,623	1,312	3,648	3,711	Total	68	0			4	47	49	153	307	560	628
8.6%											1.5%											

38,180 natural area spawners, 25.0% spawner reduction rate, 10% age-4 ocean harvest rate

NO Cape Falcon to S. End of Heceta Bank FB Southern KMZ Boundary to Pt. Arena (Fort Bragg)
CO S. End of Heceta Bank to Humbug Mt. SF Pt. Arena to Pigeon Pt. (San Francisco)
KO Humbug Mt. to OR/CA Border (Oregon KMZ) MO Pigeon Pt. to U.S./Mexico Border (Monterey)
KC OR/CA Border to latitude 40°10' N. (California KMZ)