

SALMON TECHNICAL TEAM REPORT 1:
PRELIMINARY ANALYSIS OF TENTATIVE
2021 OCEAN SALMON FISHERY MANAGEMENT MEASURES

TABLE 1. 2021 Commercial troll management measures for non-Indian ocean salmon fisheries – STT Analyzed. (Page 1 of 8)

A. SEASON DESCRIPTIONS
North of Cape Falcon
Supplemental Management Information
<p>1. Overall non-Indian TAC: 59,000 Chinook and 100,000 coho marked with a healed adipose fin clip (marked).</p> <p>2. Non-Indian commercial troll TAC: 32,000 Chinook and 6,000 marked coho.</p> <p>3. Trade: commercial troll traded 10,000 marked coho to the recreational fishery for 2,500 Chinook.</p> <p>4. For fisheries scheduled <u>prior</u> to May 16, 2021: See 2020 management measures, which are subject to inseason action and the 2021 season description described below.</p>
<i>Model Runs: Coho-2126, 2127, 2128, Chin-2521, 2621, 2721</i>
<p>U.S./Canada Border to Cape Falcon</p> <ul style="list-style-type: none"> May 16 through the earlier of June 29, or 18,180 Chinook. No more than 6,710 of which may be caught in the area between the U.S./Canada border and the Queets River, and no more than 4,960 of which may be caught in the area between Leadbetter Pt. and Cape Falcon (C.8). <p>In the area between the U.S./Canada border and the Queets River the landing and possession limit is 75 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 75 Chinook per vessel per landing week (Thurs.-Wed.) (C.1, C.6).</p> <p>Open seven days per week (C.1). 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 projected that approximately 75% of the overall Chinook guideline has been landed, or approximately 75% of any of the individual Chinook subarea guidelines have been landed, inseason action will be considered to ensure the guideline is not exceeded.</p> <p>In 2022, the season will open May 1 consistent with all preseason regulations in place in this area and subareas during May 16-June 30, 2021, 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 2022 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 13,820 Chinook or 6,000 coho (C.8). <p>Landing and possession limit of 50 marked coho per vessel per landing week (Thurs.-Wed.) (C.1).</p> <p>Open seven days per week. All salmon, except no chum retention north of Cape Alava, Washington in August and September (C.4, C.7). Chinook minimum size limit 27 inches total length and coho minimum size limit 16 inches total length (B, C.1). All coho must be marked with a healed adipose fin clip (C.8.d). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3).</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 9, 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 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.</p> <p>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).</p> <p>In 2021, vessels may not land any species of fish east of Port Angeles or east of the Megler-Astoria bridge.</p> <p>For delivery to Washington ports <u>east of the Sekiu River</u>, vessels must notify WDFW at 360-249-1215 prior to crossing the Bonilla-Tatoosh line with area fished, total Chinook, coho and halibut catch aboard, and destination with approximate time of delivery.</p> <p>In 2022, vessels may not land any species of fish east of the Sekiu River or east of the Megler-Astoria bridge.</p> <p><i>(Continued next page)</i></p>

TABLE 1. 2021 Commercial troll management measures for non-Indian ocean salmon fisheries – STT Analyzed. (Page 2 of 8)

A. SEASON DESCRIPTIONS
North of Cape Falcon
<p>For all commercial troll fisheries north of Cape Falcon: <i>(continued)</i></p> <p>Vessels fishing or in possession of salmon <u>north of Leadbetter Point</u> must land and deliver all species of fish in a Washington port and must possess a Washington troll and/or salmon delivery license.</p> <p><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 of Leadbetter Point</u> 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. 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@state.or.us. Notification shall include vessel name and number, number of salmon by species, port of landing and location of delivery, and estimated time of delivery.</p> <p>Inseason actions may modify harvest guidelines in later fisheries to achieve or prevent exceeding the overall allowable troll harvest impacts (C.8).</p>
A. SEASON DESCRIPTIONS
South of Cape Falcon
Supplemental Management Information
<ol style="list-style-type: none"> 1. Sacramento River fall Chinook spawning escapement of 133,300 hatchery and natural area adults. 2. Sacramento Index exploitation rate of 50.8%. 3. Klamath River recreational fishery allocation: 1,231 adult Klamath River fall Chinook. 4. Klamath tribal allocation: 8,208 adult Klamath River fall Chinook. 5. CA/OR share of Klamath River fall Chinook ocean impacts: 64.5% / 35.5% 6. CA/OR share of Klamath River fall Chinook commercial ocean harvest: 64.0% / 36.0%. 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. Commercial coho TAC: 10,000 coho marked with a healed adipose fin clip (marked). 9. For fisheries scheduled prior to May 16, 2021, see 2020 management measures, which are subject to inseason action and the 2021 season description described below.

TABLE 1. 2021 Commercial troll management measures for non-Indian ocean salmon fisheries – STT Analyzed. (Page 3 of 8)

A. SEASON DESCRIPTIONS
South of Cape Falcon
<p>Cape Falcon to Heceta Bank line</p> <ul style="list-style-type: none"> March 20-April 30 (C.9.a). <p>All salmon except coho, except as described below (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).</p> <p>In 2022, 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 2021. This opening could be modified following Council review at its March 2022 meeting.</p>
<p>Cape Falcon to Humbug Mt.</p> <ul style="list-style-type: none"> May 1-5; 9-15; May 16-24; 27-31; June 5-7, 12-14, 19-21, 26-28; September 1-October 31 (C.9.a). <p>All salmon except coho, except as described below (C.4, C.7). Beginning September 1, no more than 75 Chinook allowed per vessel per landing week (Thurs.-Wed.).</p> <p>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> <ul style="list-style-type: none"> July 5-7, 12-14, 19-21, 26-28, and; August 1-4, 8-10, 15-17 (C.9.a). <p>All salmon. All retained coho must be marked with a healed adipose fin clip (C.4, C.7). 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.</p> <p>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>In 2022, 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 2021. This opening could be modified following Council review at its March 2022 meeting.</p>
<p>Humbug Mt. to OR/CA Border (Oregon KMZ)</p> <ul style="list-style-type: none"> March 20-May 5; May 9-15 May 16-24, 27-31; June 1-30, or the earlier of 300 Chinook quota; July 1-31, or the earlier of 200 Chinook quota (C.9.a). <p>June 1-July 31 weekly landing and possession limit of 20 Chinook per vessel per week (Thurs.-Wed.).</p> <p>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>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 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.</p> <p>For all quota managed seasons (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 by calling 541-857-2538 or sending notification via e-mail to kmzor.trollreport@state.or.us, with vessel name and number, number of salmon by species, location of delivery, and estimated time of delivery.</p> <p>In 2022, 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 2021. This opening could be modified following Council review at its March 2022 meeting.</p> <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. 2021 Commercial troll management measures for non-Indian ocean salmon fisheries – STT Analyzed. (Page 4 of 8)
A. SEASON DESCRIPTIONS
South of Cape Falcon
OR/CA Border to Humboldt South Jetty (California KMZ) <ul style="list-style-type: none"> • Closed (C.9.b). <p>In 2022, 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 2022 meetings.</p>
Humboldt South Jetty to Southern KMZ Boundary <ul style="list-style-type: none"> • Closed.
Southern KMZ Boundary to Point Arena (Fort Bragg) <ul style="list-style-type: none"> • August 1-16; • September 1-30 (C.9.b). <p>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 and north of Point Arena (C.6, C.11).</p> <p>In 2022, 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 2021 (C.2, C.3). This opening could be modified following Council review at its March 2022 meeting.</p>
Pt. Arena to Pigeon Pt. (San Francisco) <ul style="list-style-type: none"> • June 16-30; • July 16-22; • August 1-16; • September 1-30 (C.9.b). <p>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. During September, all salmon must be landed south of Point Arena (C.6, C.11).</p> <p>In 2022, 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 2021 (C.2, C.3). This opening could be modified following Council review at its March or April 2022 meetings.</p> <p>Point Reyes to Point San Pedro (Fall Area Target Zone)</p> <ul style="list-style-type: none"> • October 1, 4-8, 11-15. <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>
Pigeon Point to U.S./Mexico Border (Monterey) <ul style="list-style-type: none"> • May 1-12; • May 20-27; • June 16-30; • July 16-22; • August 1-16 (C.9.b). <p>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).</p> <p>In 2022, 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 2021 (C.2, C.3). This opening could be modified following Council review at its March or April 2022 meetings.</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. 2021 Commercial troll management measures for non-Indian ocean salmon fisheries – STT Analyzed. (Page 5 of 8)

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	-	-	-	-	-
Southern KMZ Boundary 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. 2021 Commercial troll management measures for non-Indian ocean salmon fisheries – STT Analyzed. (Page 6 of 8)

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 offshore); 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.

During the 2021 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.

Through May 15, 2021, consistent with 2020 regulations, 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.

Beginning May 16, 2021 through the end of the 2021 salmon troll fishery, and beginning April 1, 2022, until modified through inseason action or superseded by the 2022 management measures the following applies:

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.

Incidental Pacific halibut catch regulations in the commercial salmon troll fishery adopted for 2021, prior to any 2021 inseason action, will be in effect when incidental Pacific halibut retention opens on April 1, 2022 unless otherwise modified by inseason action at the March 2022 Council meeting.

- a. "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.
- g. *Inseason modifications to salmon management areas (establishing a sub-area boundary for example) is allowed if the boundary is described as a landmark in Section C.11 of this document, and if the change would not result in exceeding preseason impact expectations on any stocks.*

C.9. State Waters Fisheries: Consistent with Council management objectives:

- a. The State of Oregon may establish additional late-season fisheries in state waters.
- b. The State of California may establish limited fisheries in selected state waters.
- c. 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 Humburg Mountain, Oregon, to the Southern KMZ Boundary.

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

C.11. Latitudes for geographical reference of major landmarks along the west coast *that are used in describing salmon management areas or subareas*. Majority of information derived from source: 2020 West Coast federal salmon regulations.
<https://www.govinfo.gov/content/pkg/FR-2020-05-08/pdf/2020-09903.pdf>

<i>U.S./Canada Border</i>	49°00'00" N lat.	40°10' line (near Cape Mendocino, CA)	40°10'00" N lat
Cape Flattery, WA	48°23'00" N lat.	Horse Mountain, CA	40°05'00" N lat.
Cape Alava, WA	48°10'00" N lat.	Point Arena, CA	38°57'30" N lat.
Queets River, WA	47°31'42" N lat.	Point Reyes, CA	37°59'44" N lat.
Leadbetter Point, WA	46°38'10" N lat.	Point San Pedro, CA	37°35'40" N lat.
Cape Falcon, OR	45°46'00" N lat.	Pigeon Point, CA	37°11'00" N lat.
South end Heceta Bank line, OR	43°58'00" N lat.	Point Sur, CA	36°18'00" N lat.
Humboldt Mountain, OR	42°40'30" N lat.	Point Conception, CA	34°27'00" N lat.
Oregon-California border	42°00'00" N lat.	<i>U.S./Mexico Border</i>	32° 30' N" N lat.
Humboldt South Jetty, CA	40°45'53" N lat.		

TABLE 2. 2021 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: 59,000 Chinook and 100,000 coho marked with a healed adipose fin clip (marked).</p> <p>2. Recreational TAC: 27,000 Chinook and 94,000 marked coho; all retained coho must be marked.</p> <p>3. Trade: commercial troll traded 10,000 marked coho to the recreational fishery for 2,500 Chinook.</p> <p>4. No Area 4B add-on fishery.</p> <p>5. Buoy 10 fishery opens August 1 with an expected landed catch of 80,000 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 19-July 3 (C.5). <p>Open seven days per week. All salmon, except coho; one 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"> July 4 through the earlier of September 15, or 7,710 marked coho subarea quota, with a subarea guideline of 5,750 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; coho minimum size limit 16 inches total length (B). See gear restrictions and definitions (C.2, C.3). Beginning August 1, Chinook non-retention east of the Bonilla-Tatoosh line (C.4.a) during Council managed ocean fishery.</p>
<p>Cape Alava to Queets River (La Push Subarea)</p> <ul style="list-style-type: none"> June 19-July 3 (C.5). <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"> July 4 through the earlier of September 15, or 1,930 marked coho subarea quota, with a subarea guideline of 1,300 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; coho minimum size limit 16 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p>
<p>Queets River to Leadbetter Point (Westport Subarea)</p> <ul style="list-style-type: none"> June 19-26 (C.5). <p>Open seven days per week. All salmon, except coho; one salmon per day (C.1). Chinook minimum size limit of 22 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <ul style="list-style-type: none"> June 27 through the earlier of September 15, or 27,460 marked coho subarea quota, with a subarea guideline of 12,800 Chinook (C.5). <p>Open five days per week (Sun.-Thurs.). 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). Chinook minimum size limit of 22 inches total length; coho minimum size limit 16 inches total length (B). See gear restrictions and definitions (C.2, C.3). Grays Harbor Control Zone closed beginning August 9 (C.4.b).</p>
<p>Leadbetter Point to Cape Falcon (Columbia River Subarea)</p> <ul style="list-style-type: none"> June 19-26 (C.5). <p>Open seven days per week. All salmon, except coho; one salmon per day (C.1). Chinook minimum size limit of 22 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <ul style="list-style-type: none"> June 27 through the earlier of September 15, or 56,900 marked coho subarea quota, with a subarea guideline of 7,150 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). Chinook minimum size limit of 22 inches total length; coho minimum size limit 16 inches total length (B). See gear restrictions and definitions (C.2, C.3). Columbia Control Zone closed (C.4.c).</p>
<p>For all Recreational fisheries north of Cape Falcon: 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. 2021 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 133,300 hatchery and natural area adults. 2. Sacramento Index exploitation rate of 50.8%. 3. Klamath River recreational fishery allocation: 1,231 adult Klamath River fall Chinook. 4. Klamath tribal allocation: 8,208 adult Klamath River fall Chinook. 5. CA/OR share of Klamath River fall Chinook ocean impacts: 64.5% / 35.5% 6. Overall recreational coho TAC: 120,000 coho marked with a healed adipose fin clip (marked), and 14,000 coho in the non-mark-selective coho fishery. 7. For fisheries scheduled prior to May 16, 2021, see 2020 management measures, which are subject to inseason action and the 2021 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, open for all salmon except coho, <u>except</u> as listed below for mark selective and non-mark selective coho seasons; • May 16-October 31, open for all salmon except coho, <u>except</u> as listed below for mark selective and non-mark selective coho seasons; • June 12 - August 28 or 120,000 marked coho quota. <u>Open area extends to the OR/CA Border</u>. Open for all salmon, all retained coho must be marked with a healed adipose fin clip; • September 10-12, and each Friday, Saturday, and Sunday through the earlier of September 30, or 14,000 non-mark-selective coho quota. Open for all salmon, (C.5, C.6). Open days may be modified inseason. <p>Two salmon per day (C.1). See minimum size limits (B). See gear restrictions and definitions (C.2, C.3). Any remainder of the mark-selective coho quota may be transferred inseason on an impact neutral basis to the non-selective coho quota (C.5).</p> <p>In 2022, 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 2021 (C.2, C.3). This opening could be modified following Council review at its March 2022 meeting.</p>
<p>Humbug Mt. to OR/CA Border (Oregon KMZ)</p> <ul style="list-style-type: none"> • June 12-18. Open for all salmon except Chinook, all coho must be marked with a healed adipose fin clip; • June 19-August 15. Open for all salmon, all coho must be marked with a healed adipose fin clip. Coho retention closes when the Cape Falcon to OR/CA border quota of 120,000 coho is attained. • August 16-28. Open for all salmon except-Chinook. All salmon fishing closes in this area the earlier of August 28 or the Cape Falcon to OR/CA border quota of 120,000 coho. <p>Open seven days per week. Two salmon per day (C.1). See minimum size limits (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. 2021 Recreational management measures for non-Indian ocean salmon fisheries – STT Analyzed. (Page 3 of 5)

A. SEASON DESCRIPTIONS	
South of Cape Falcon	
OR/CA Border to Southern KMZ Boundary (California KMZ)	
<ul style="list-style-type: none"> June 28-July 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). See California State regulations for closures adjacent to the Smith, Eel, and Klamath Rivers.</p> <p>In 2022, 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 2021 (C.2, C.3). This opening could be modified following Council review at its March or April 2022 meetings.</p>	
Southern KMZ Boundary to Point Arena (Fort Bragg)	
<ul style="list-style-type: none"> June 28-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 2022, season opens April 2 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 2021 (C.2, C.3). This opening could be modified following Council review at its March 2022 meeting.</p>	
Point Arena to Pigeon Point (San Francisco)	
<ul style="list-style-type: none"> June 28-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 2022, season opens April 2 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 2021 (C.2, C.3). This opening could be modified following Council review at its March 2022 meeting.</p>	
Pigeon Point to U.S./Mexico Border (Monterey)	
<ul style="list-style-type: none"> April 3-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-September 30 (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 2022, season opens April 2 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 2021 (C.2, C.3). This opening could be modified following Council review at its March 2022 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>	

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

Area (when open)	Chinook	Coho	Pink
North of Cape Falcon (Westport and Col R)	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 Southern KMZ Boundary	20	-	20
Southern KMZ Boundary to Pt. Arena	20	-	20
Pt. Arena to Pigeon Pt.	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. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS (continued)

- 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. Southern KMZ Boundary 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.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. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS (continued)

- C.5. Inseason Management: Regulatory modifications may become necessary inseason to meet preseason management objectives such as quotas, harvest guidelines, and season duration. In addition to standard inseason actions or modifications already noted under the season description, the following inseason guidance is provided to NMFS:
- Actions could include modifications to bag limits, or days open to fishing, and extensions or reductions in areas open to fishing.
 - Coho may be transferred inseason among recreational subareas north of Cape Falcon 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.
 - 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.
 - 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.
 - 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.
 - Inseason modifications to salmon management areas (establishing a sub-area boundary for example) is allowed if the boundary is described as a landmark in Section C.7 of this document, and if the change 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.
- C.7. Latitudes for geographical reference of major landmarks along the west coast that are used in describing salmon management areas or subareas. Majority of information derived from source: 2020 West Coast federal salmon regulations. <https://www.govinfo.gov/content/pkg/FR-2020-05-08/pdf/2020-09903.pdf>

U.S./Canada Border	49°00'00" N lat.	40°10' line (near Cape Mendocino, CA)	40°10'00" N lat
Cape Flattery, WA	48°23'00" N lat.	Horse Mountain, CA	40°05'00" N lat.
Cape Alava, WA	48°10'00" N lat.	Point Arena, CA	38°57'30" N lat.
Queets River, WA	47°31'42" N lat.	Point Reyes, CA	37°59'44" N lat.
Leadbetter Point, WA	46°38'10" N lat.	Point San Pedro, CA	37°35'40" N lat.
Cape Falcon, OR	45°46'00" N lat.	Pigeon Point, CA	37°11'00" N lat.
South end Heceta Bank line, OR	43°58'00" N lat.	Point Sur, CA	36°18'00" N lat.
Humbug Mountain, OR	42°40'30" N lat.	Point Conception, CA	34°27'00" N lat.
Oregon-California border	42°00'00" N lat.	U.S./Mexico Border	32° 30' N" N lat.
Humboldt South Jetty, CA	40°45'53" N lat.		

TABLE 3a. 2021 Treaty Indian troll management Alternatives for ocean salmon fisheries (QTA Tribes) – STT Analyzed.
(Page 1 of 3)

A. SEASON ALTERNATIVE DESCRIPTIONS		
QTA ALTERNATIVE I	QTA ALTERNATIVE II	QTA ALTERNATIVE III
Supplemental Management Information	Supplemental Management Information	Supplemental Management Information
<p>1. Overall Treaty-Indian TAC: 35,000 Chinook and 16,500 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 2022, the season will open May 1, consistent with all preseason regulations in place for Treaty Indian Troll fisheries during May 16-June 30, 2021. All catch in May 2022 applies against the 2022 Treaty Indian Troll fisheries quota. This opening could be modified following Council review at its March and/or April 2022 meetings.</p>	<p>1. Overall Treaty-Indian TAC: 25,000 Chinook and 10,000 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 2022, the season will open May 1, consistent with all preseason regulations in place for Treaty Indian Troll fisheries during May 16-June 30, 2021. All catch in May 2022 applies against the 2022 Treaty Indian Troll fisheries quota. This opening could be modified following Council review at its March and/or April 2022 meetings.</p>	Closed
<ul style="list-style-type: none"> May 1 through the earlier of June 30 or 17,500 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 17,500 Chinook quota, or 16,500 coho quota. <p>All Salmon. See size limit (B) and other restrictions (C).</p>	<ul style="list-style-type: none"> May 1 through the earlier of June 30 or 12,500 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 12,500 Chinook quota or 10,000 coho quota <p>All salmon. See size limit (B) and other restrictions (C).</p>	

TABLE 3b. 2021 Treaty Indian troll management Alternative for ocean salmon fisheries (Makah Tribe) – STT Analyzed.
(Page 2 of 3)

A. SEASON ALTERNATIVE DESCRIPTIONS	
MAKAH ALTERNATIVE	
Supplemental Management Information	
<ol style="list-style-type: none"> 1. Overall Treaty-Indian TAC: 40,000 Chinook and 40,000 coho. 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. 3. In 2022, the season will open May 1, consistent with all preseason regulations in place for Treaty Indian Troll fisheries during May 16-June 30, 2021. All catch in May 2022 applies against the 2022 Treaty Indian Troll fisheries quota. This opening could be modified following Council review at its March and/or April 2022 meetings. 	
<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 40,000 coho quota. <p>All Salmon. See size limit (B) and other restrictions (C).</p>	

TABLE 3a and 3b. 2021 Treaty Indian troll management Alternatives for ocean salmon fisheries – STT Analyzed.
(Page 3 of 3)

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.

QUINAULT - 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 2021 season (estimated harvest during the October ceremonial and subsistence fishery: 20 Chinook; 40 coho).

C.4. Area Closures

- 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.
- 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:

- 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 5a. Projected key stock escapements (thousands of fish) or management criteria for 2021 ocean fishery Alternatives - STT analyzed (QTA).^{a/} (Page 1 of 4)

TABLE 2d. Projected key stock escapement (thousands of fish) or management criteria for 2021 ocean fishery alternatives – CTA analyzed (2/17). (Page 1 of 4)					
Key Stock/Criteria	Alt I	Alt II	Alt III	2021 Criteria	Spaw ner Objective or Other Comparative Standard as Noted ^{b/}
CHINOOK	CHINOOK			CHINOOK	
<u>SRKW PREY ABUNDANCE:</u>					
North of Falcon	1364.9	1364.9	1364.9	≥ 966.0	Oct 1 starting abundance of age 3+ Chinook from U.S./Canada Border to Cape Falcon
Oregon Coast	1140.0	1140.0	1140.0	NA	Oct 1 starting abundance of age 3+ Chinook from Cape Falcon to Horse Mt.
California Coast	464.5	464.5	464.5	NA	Oct 1 starting abundance of age 3+ Chinook south of Horse Mt.
Southw est WCVI	738.2	738.2	738.2	NA	Oct 1 starting abundance of age 3+ Chinook off Southw est Vancouver Island
Salish Sea	605.1	605.1	605.1	NA	Oct 1 starting abundance of age 3+ Chinook in the Salish Sea
<u>PUGET SOUND:</u>					
Elw ha Summer/Fall	5.4%	5.2%	4.7%	≤ 10.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
Dungeness Spring	5.2%	5.0%	4.4%	≤ 10.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
Mid-Hood Canal Summer/Fall	12.7%	11.7%	9.4%	TBD	Preterminal Southern U.S. exploitation rate. Discussions are ongoing betw een WA state and tribal co-managers regarding a conservation standard for 2021 that is in accordance with NMFS guidance.
Skokomish Summer/Fall	49.4%	48.9%	47.4%	≤ 50.0%	Total exploitation rate (NMFS ESA consultation standard).
Nooksack Spring	12.0%	11.3%	9.6%	≤ 10.5%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
	1.01	0.96	0.82	≤ 1.00	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Skagit Summer/Fall	21.3%	21.2%	20.8%	≤ 17.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
	0.83	0.82	0.81	≤ 0.95	ISBM obligation applicable, escapement goal not expected to be met. Compliance assessed postseason by the PSC.
Skagit Spring	12.3%	12.1%	11.5%	≤ 10.3%	Southern U.S. 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	21.5%	21.3%	20.9%	≤ 22.0%	Rebuilding exploitation rate (NMFS ESA consultation standard).
	0.86	0.85	0.81	≤ 1.00	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Snohomish Summer/Fall	7.5%	7.3%	6.6%	≤ 8.0%	Southern U.S. exploitation rate limit under critical abundance forecast for 2021 (NMFS ESA consultation standard).
	0.74	0.71	0.65	≤ 1.00	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Lake Washington Summer/Fall	0.546	0.550	0.560	≥ 0.500	Natural-origin escapement in the Cedar River (NMFS ESA consultation standard).
Green River Summer/Fall	1.663	1.680	1.725	≥ 1.200	Natural-origin spawning escapement (NMFS ESA consultation standard). Spaw ner objective can be met through fishery mgmt and/or hatchery broodstock management actions.
White River Spring	16.9%	16.7%	16.0%	≤ 22.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
Puyallup Summer/Fall	0.929	0.935	0.949	≥ 0.750	Natural-origin spawning escapement (NMFS ESA consultation standard). Spaw ner objective can be met through fishery mgmt and/or hatchery broodstock management actions.
Nisqually River Summer/Fall	49.8%	49.1%	47.3%	≤ 47.0%	Total exploitation rate, (NMFS ESA consultation standard). Up to an additional 2% ER may be added to facilitate invriver selective gear studies after meeting base criteria during final preseason modeling.
Puget Sound Spring	1.8%	1.4%	0.3%	≤ 3.0%	Exploitation rate in PFMC fisheries (NMFS ESA consultation standard).
Puget Sound Summer/Fall	4.7%	3.9%	2.0%	≤ 6.0%	Exploitation rate in PFMC fisheries (NMFS ESA consultation standard).

TABLE 5a. Projected key stock escapements (thousands of fish) or management criteria for 2021 ocean fishery management measures (QTA) - STT analyzed.^{a/} (Page 2 of 4)

Key Stock/Criteria	PROJECTED			2021	Spaw ner Objective or Other Comparative Standard as Noted ^{b/}
	Alt I	Alt II	Alt III	Criteria	
CHINOOK	CHINOOK			CHINOOK	
<u>WASHINGTON COAST:</u>					
Hoko Fall	1.055	1.057	1.060	0.85 FMP MSY spaw ning escapement objective.	
	1.9%	1.7%	1.3%	≤ 10.0% Calendar year exploitation rate ISBM obligation. Compliance assessed postseason by the PSC.	
Quillayute Fall	>3.0	>3.0	>3.0	3.0 FMP MSY spaw ning 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	>1.2	1.2 FMP MSY spaw ning 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	>2.5	2.5 FMP MSY spaw ning 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	>13.3	13.3 FMP MSY spaw ning 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	349.7	350.8	353.6	74.0 Minimum ocean escapement to attain 40.0 adults over McNary Dam, w ith normal distribution and no mainstem harvest. The management goal has been increased to 60.0 by Columbia River managers.	
Mid-Columbia Brights	85.1	85.4	86.1	14.9 Minimum ocean escapement to attain 7.9 for Little White Salmon egg-take, assuming average conversion and no mainstem harvest.	
Columbia Low er River Hatchery Tules	73.9	74.2	75.0	25.0 Minimum ocean escapement to attain 14.8 adults for hatchery egg-take, w ith average conversion and no low er river mainstem or tributary harvest.	
Columbia Low er River Natural Tules (threatened)	38.0%	37.6%	36.5%	≤ 38.0% Total adult equivalent fishery exploitation rate (2021 NMFS ESA guidance).	
Columbia Low er River Wild ^{ef} (threatened)	20.5	20.6	20.8	6.9 Minimum ocean escapement to attain MSY spaw ner goal of 5.7 for N. Lew is River fall Chinook (NMFS ESA consultation standard).	
Spring Creek Hatchery Tules	47.1	47.4	48.0	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	78.6	78.8	79.3	29.0 Aggregate escapement to mouth of Columbia River.	
Snake River Fall (threatened) SRFI	49.6%	47.5%	42.1%	≤ 70.0% Of 1988-1993 base period exploitation rate for all ocean fisheries (NMFS ESA consultation standard).	

TABLE 5a. Projected key stock escapements (thousands of fish) or management criteria for 2021 ocean fishery management measures (QTA) - STT analyzed.^{ai} (Page 3 of 4)

Key Stock/Criteria	PROJECTED			2021 Criteria	Spaw ner Objective or Other Comparative Standard as Noted ^{bi}
	Alt I	Alt II	Alt III		
CHINOOK		CHINOOK			CHINOOK
<u>OREGON COAST:</u>					
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 not applicable, escapement goal 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.
<u>CALIFORNIA:</u>					
Klamath River Fall	31.464	31.464	31.464	≥ 31.574	2021 minimum natural area adult escapement (FMP control rule).
Federally recognized tribal harvest	50.0%	50.0%	50.0%	50.0%	Equals 8.2, 8.2, and 8.2 (thousand) adult fish for Yurok and Hoopa Valley tribal fisheries.
Exploitation (spaw ner reduction) rate	25.3%	25.3%	25.3%	≤ 25.0%	FMP control rule.
Adult river mouth return	62.1	62.1	62.1	NA	Total adults in thousands.
Age-4 ocean harvest rate	10.7%	10.7%	10.7%	≤ 16.0%	NMFS ESA consultation standard for threatened California Coastal Chinook.
KMZ sport fishery share	7.7%	7.7%	7.7%		
River recreational fishery share	15.0%	15.0%	15.0%	NA	Equals 1.2, 1.2, and 1.2 (thousand) adult fish for recreational inriver fisheries.
Sacramento River Winter (endangered)	14.6%	14.6%	14.6%	≤ 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 2021 ESA Guidance).
Sacramento River Fall	133.3	133.3	133.3	≥ 122.0	2021 minimum hatchery and natural area adult escapement (FMP control rule).
Sacramento Index Exploitation Rate	50.8%	50.8%	50.8%	≤ 55.0%	FMP control rule.
Ocean commercial impacts	73.8	73.8	73.8		Includes fall (Sept-Dec) 2020 impacts (9.1 thousand SRFC).
Ocean recreational impacts	42.2	42.2	42.2		Includes fall (Sept-Dec) 2020 impacts (5.2 thousand SRFC).
River recreational impacts	21.7	21.7	21.7		

TABLE 5a. Projected key stock escapements (thousands of fish) or management criteria for 2021 ocean fishery management measures (QTA) - STT analyzed.^{a/} (Page 4 of 4)

Key Stock/Criteria	PROJECTED			2021 Criteria	Spaw ner Objective or Other Comparative Standard as Noted ^{b/}
	Alt I	Alt II	Alt III		
COHO	COHO				COHO
Interior Fraser (Thompson River)	5.1%(1.6%)	4.7%(1.2%)	4.1%(0.5%)	≤ 10.0%	2021 Southern U.S. exploitation rate ceiling; PSC coho agreement.
Skagit	37.4%(1.4%)	37.1%(1.1%)	36.7%(0.5%)	≤ 35.0%	2021 total exploitation rate ceiling; FMP matrix ^{d/}
Stillaguamish	31.2%(1.0%)	31.0%(0.8%)	30.7%(0.4%)	≤ 50.0%	2021 total exploitation rate ceiling; FMP matrix ^{d/}
Snohomish	28.3%(1.0%)	28.1%(0.8%)	27.8%(0.4%)	≤ 40.0%	2021 total exploitation rate ceiling; FMP matrix ^{d/}
Hood Canal	42.8%(1.7%)	42.5%(1.3%)	42.1%(0.7%)	≤ 45.0%	2021 total exploitation rate ceiling; FMP matrix ^{d/}
Strait of Juan de Fuca	8.5%(1.4%)	8.2%(1.1%)	7.7%(0.6%)	≤ 20.0%	2021 total exploitation rate ceiling; FMP matrix ^{d/}
Quillayute Fall	7.3	7.3	7.4	6.3	FMP MSY adult spaw ner estimate. Value depicted is ocean escapement.
Hoh	2.6	2.6	2.7	2.0	FMP MSY adult spaw ner estimate. Value depicted is ocean escapement.
Queets Wild	3.4	3.5	3.5	5.8	FMP MSY adult spaw ner estimate. Value depicted is ocean escapement.
Grays Harbor	42.9	43.0	43.2	24.4	FMP MSY adult spaw ner estimate. Value depicted is ocean escapement.
Willapa Bay	32.1	32.2	32.4	17.2	FMP MSY natural area adult spaw ner estimate. Value depicted is ocean escapement.
Low er Columbia River Natural (threatened)	10.4%	10.2%	9.8%	≤30.0%	Total marine and mainstem Columbia R. fishery exploitation rate (2021 NMFS ESA guidance).
Upper Columbia ^{c/}	80.2%	80.2%	80.3%	≥ 50%	Minimum percentage of the run to Bonneville Dam.
Columbia River Hatchery Early	787.6	789.7	793.0	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	440.6	441.9	444.0	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	12.8%	12.7%	12.6%	≤ 15.0%	Marine and freshw ater fishery exploitation rate (NMFS ESA consultation standard).
Southern Oregon/Northern California Coast (threatened)	2.7%	2.7%	2.7%	≤ 13.0%	Marine fishery exploitation rate for R/K hatchery coho (NMFS ESA consultation standard).

a/ Reflects 2021 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 spaw ner escapement after impacts from the Canadian, U.S. ocean, and Puget Sound troll and recreational fisheries have been deducted. Numbers in parentheses represent Council area exploitation rates for Puget Sound coho stocks. For Columbia River early and late coho stocks, ocean escapement represents the number of coho after the Buoy 10 fishery. Exploitation rates for LCN and OCN coho and LCR Tule Chinook represent marine and freshwater impacts. Values reported for Klamath River fall Chinook and Willapa Bay coho are natural area adult spaw ners. Values reported for Sacramento River fall Chinook are hatchery and natural area adult spaw ners.

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.

TABLE 5b. Projected key stock escapements (thousands of fish) or management criteria for 2021 ocean fishery Alternatives - STT analyzed (Makah Tribe)^{a/} (Page 1 of 4)

Key Stock/Criteria	2021		Spaw ner Objective or Other Comparative Standard as Noted ^{b/}
	PROJECTED	Criteria	
CHINOOK	CHINOOK	CHINOOK	
<u>SRKW PREY ABUNDANCE:</u>			
North of Falcon	1364.9	≥ 966.0	Oct 1 starting abundance of age 3+ Chinook from U.S./Canada Border to Cape Falcon
Oregon Coast	1140.0	NA	Oct 1 starting abundance of age 3+ Chinook from Cape Falcon to Horse Mt.
California Coast	464.5	NA	Oct 1 starting abundance of age 3+ Chinook south of Horse Mt.
Southw est WCVI	738.2	NA	Oct 1 starting abundance of age 3+ Chinook off Southw est Vancouver Island
Salish Sea	605.1	NA	Oct 1 starting abundance of age 3+ Chinook in the Salish Sea
<u>PUGET SOUND:</u>			
Elw ha Summer/Fall	5.5%	≤ 10.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
Dungeness Spring	5.3%	≤ 10.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
Mid-Hood Canal Summer/Fall	13.1%	TBD	Preterminal Southern U.S. exploitation rate. Discussions are ongoing betw een WA state and tribal co-managers regarding a conservation standard for 2021 that is in accordance w ith NMFS guidance.
Skokomish Summer/Fall	49.7%	≤ 50.0%	Total exploitation rate (NMFS ESA consultation standard).
Nooksack Spring	12.3% 1.04	≤ 10.5%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
		≤ 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% 0.83	≤ 17.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
		≤ 0.95	ISBM obligation applicable, escapement goal not expected to be met. Compliance assessed postseason by the PSC.
Skagit Spring	12.4% --	≤ 10.3%	Southern U.S. 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	21.5% 0.87	≤ 22.0%	Rebuilding exploitation rate (NMFS ESA consultation standard).
		≤ 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% 0.75	≤ 8.0%	Southern U.S. exploitation rate limit under critical abundance forecast for 2021 (NMFS ESA consultation standard).
		≤ 1.00	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Lake Washington Summer/Fall	0.544	≥ 0.500	Natural-origin escapement in the Cedar River (NMFS ESA consultation standard).
Green River Summer/Fall	1.654	≥ 1.200	Natural-origin spaw ning escapement (NMFS ESA consultation standard). Spaw ner objective can be met through fishery mgmt and/or hatchery broodstock management actions.
White River Spring	17.1%	≤ 22.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
Puyallup Summer/Fall	0.926	≥ 0.750	Natural-origin spaw ning escapement (NMFS ESA consultation standard). Spaw ner objective can be met through fishery mgmt and/or hatchery broodstock management actions.
Nisqually River Summer/Fall	50.1%	≤ 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	5.1%	≤ 6.0%	Exploitation rate in PFMC fisheries (NMFS ESA consultation standard).

TABLE 5b. Projected key stock escapements (thousands of fish) or management criteria for 2021 ocean fishery management measures (Makah Tribe) - STT analyzed.^{a/} (Page 2 of 4)

Key Stock/Criteria	2021 PROJECTED	Criteria	Spaw ner Objective or Other Comparative Standard as Noted ^{b/}
CHINOOK	CHINOOK		CHINOOK
<u>WASHINGTON COAST:</u>			
Hoko Fall	1.054	0.85 FMP MSY spaw ning escapement objective.	
	2.0%	≤ 10.0% Calendar year exploitation rate ISBM obligation. Compliance assessed postseason by the PSC.	
Quillayute Fall	>3.0	3.0 FMP MSY spaw ning 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 spaw ning 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 spaw ning 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 spaw ning 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	349.2	74.0 Minimum ocean escapement to attain 40.0 adults over McNary Dam, w ith normal distribution and no mainstem harvest. The management goal has been increased to 60.0 by Columbia River managers.	
Mid-Columbia Brights	85.0	14.9 Minimum ocean escapement to attain 7.9 for Little White Salmon egg-take, assuming average conversion and no mainstem harvest.	
Columbia Low er River Hatchery Tules	73.7	25.0 Minimum ocean escapement to attain 14.8 adults for hatchery egg-take, w ith average conversion and no low er river mainstem or tributary harvest.	
Columbia Low er River Natural Tules (threatened)	38.2%	≤ 38.0% Total adult equivalent fishery exploitation rate (2021 NMFS ESA guidance).	
Columbia Low er River Wild ^{a/} (threatened)	20.5	6.9 Minimum ocean escapement to attain MSY spaw ner goal of 5.7 for N. Lewis River fall Chinook (NMFS ESA consultation standard).	
Spring Creek Hatchery Tules	47.0	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	78.5	29.0 Aggregate escapement to mouth of Columbia River.	
Snake River Fall (threatened) SRFI	50.7%	≤ 70.0% Of 1988-1993 base period exploitation rate for all ocean fisheries (NMFS ESA consultation standard).	

TABLE 5b. Projected key stock escapements (thousands of fish) or management criteria for 2021 ocean fishery management measures (Makah Tribe) - STT analyzed.^{a/} (Page 3 of 4)

Key Stock/Criteria	PROJECTED	2021 Criteria	Spaw ner Objective or Other Comparative Standard as Noted ^{b/}
CHINOOK	CHINOOK	CHINOOK	CHINOOK
<u>OREGON COAST:</u>			
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 not applicable, escapement goal 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.
<u>CALIFORNIA:</u>			
Klamath River Fall	31.464	≥ 31.574	2021 minimum natural area adult escapement (FMP control rule).
Federally recognized tribal harvest	50.0%	50.0%	Equals 8.2 (thousand) adult fish for Yurok and Hoopa Valley tribal fisheries.
Exploitation (spaw ner reduction) rate	25.3%	≤ 25.0%	FMP control rule.
Adult river mouth return	62.1	NA	Total adults in thousands.
Age-4 ocean harvest rate	10.7%	≤ 16.0%	NMFS ESA consultation standard for threatened California Coastal Chinook.
KMZ sport fishery share	7.7%		
River recreational fishery share	15.0%	NA	Equals 1.2 (thousand) adult fish for recreational inriver fisheries.
Sacramento River Winter (endangered)	14.6%	≤ 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 2021 ESA Guidance).
Sacramento River Fall	133.3	≥ 122.0	2021 minimum hatchery and natural area adult escapement (FMP control rule).
Sacramento Index Exploitation Rate	50.8%	≤ 55.0%	FMP control rule.
Ocean commercial impacts	73.8		Includes fall (Sept-Dec) 2020 impacts (9.1 thousand SRFC).
Ocean recreational impacts	42.2		Includes fall (Sept-Dec) 2020 impacts (5.2 thousand SRFC).
River recreational impacts	21.7		

TABLE 5b. Projected key stock escapements (thousands of fish) or management criteria for 2021 ocean fishery management measures (Makah Tribe) - STT analyzed.^{a/} (Page 4 of 4)

Key Stock/Criteria	PROJECTED	2021 Criteria	Spaw ner Objective or Other Comparative Standard as Noted ^{b/}
COHO	COHO		COHO
Interior Fraser (Thompson River)	6.5%(3.0%)	≤ 10.0%	2021 Southern U.S. exploitation rate ceiling; PSC coho agreement.
Skagit	38.4%(2.7%)	≤ 35.0%	2021 total exploitation rate ceiling; FMP matrix ^{d/}
Stillaguamish	31.8%(1.9%)	≤ 50.0%	2021 total exploitation rate ceiling; FMP matrix ^{d/}
Snohomish	29.0%(1.9%)	≤ 40.0%	2021 total exploitation rate ceiling; FMP matrix ^{d/}
Hood Canal	43.7%(3.1%)	≤ 45.0%	2021 total exploitation rate ceiling; FMP matrix ^{d/}
Strait of Juan de Fuca	9.6%(2.5%)	≤ 20.0%	2021 total exploitation rate ceiling; FMP matrix ^{d/}
Quillayute Fall	7.2	6.3	FMP MSY adult spaw ner estimate. Value depicted is ocean escapement.
Hoh	2.5	2.0	FMP MSY adult spaw ner estimate. Value depicted is ocean escapement.
Queets Wild	3.4	5.8	FMP MSY adult spaw ner estimate. Value depicted is ocean escapement.
Grays Harbor	42.5	24.4	FMP MSY adult spaw ner estimate. Value depicted is ocean escapement.
Willapa Bay	31.7	17.2	FMP MSY natural area adult spaw ner estimate. Value depicted is ocean escapement.
Low er Columbia River Natural (threatened)	11.3%	≤30.0%	Total marine and mainstem Columbia R. fishery exploitation rate (2021 NMFS ESA guidance).
Upper Columbia ^{c/}	80.1%	≥ 50%	Minimum percentage of the run to Bonneville Dam.
Columbia River Hatchery Early	780.2	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	436.0	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	13.0%	≤ 15.0%	Marine and freshw ater fishery exploitation rate (NMFS ESA consultation standard).
Southern Oregon/Northern California Coast (threatened)	2.7%	≤ 13.0%	Marine fishery exploitation rate for R/K hatchery coho (NMFS ESA consultation standard).

a/ Reflects 2021 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 freshw ater w ith the follow ing 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 spaw ner escapement after impacts from the Canadian, U.S. ocean, and Puget Sound troll and recreational fisheries have been deducted. Numbers in parentheses represent Council area exploitation rates for Puget Sound coho stocks. For Columbia River early and late coho stocks, ocean escapement represents the number of coho after the Buoy 10 fishery. Exploitation rates for LCN and OCN coho and LCR Tule Chinook represent marine and freshw ater impacts. Values reported for Klamath River fall Chinook and Willapa Bay coho are natural area adult spaw ners. Values reported for Sacramento River fall Chinook are hatchery and natural area adult spaw ners.

c/ Includes projected impacts of inviver 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 w ill be adjusted by state and tribal comanagers during the preseason planning process to comply w ith stock management objectives.

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

TABLE 7a. 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 2021 ocean fisheries management Alternatives - STT analyzed (QTA).

Fishery	Exploitation Rate (Percent)											
	LCN Coho			OCN Coho			RK Coho			LCR Tule Chinook		
	I	II	III	I	II	III	I	II	III	I	II	III
SOUTHEAST ALASKA	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%	2.1%	2.1%
BRITISH COLUMBIA	0.3%	0.3%	0.3%	1.0%	1.0%	1.0%	0.6%	0.6%	0.6%	13.2%	13.2%	13.3%
PUGET SOUND/STRAIT	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.4%	0.4%
NORTH OF CAPE FALCON												
Treaty Indian Ocean Troll	0.6%	0.4%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	1.9%	1.4%	0.0%
Recreational	1.8%	1.8%	1.8%	0.3%	0.3%	0.3%	0.0%	0.0%	0.0%	3.3%	3.3%	3.3%
Non-Indian Troll	0.3%	0.3%	0.3%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	5.1%	5.1%	5.1%
SOUTH OF CAPE FALCON												
Recreational:										0.3%	0.3%	0.3%
Cape Falcon to Humbug Mt.	3.0%	3.0%	3.0%	6.5%	6.5%	6.4%	0.4%	0.4%	0.4%	-	-	-
Humbug Mt. to OR/CA border (KMZ)	0.0%	0.0%	0.0%	0.2%	0.2%	0.2%	0.5%	0.5%	0.5%	-	-	-
OR/CA border to Horse Mt. (KMZ)	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.3%	0.3%	0.3%	-	-	-
Fort Bragg	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.4%	0.4%	0.4%	-	-	-
South of Pt. Arena	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.2%	0.2%	0.2%	-	-	-
Troll:										0.9%	0.9%	0.9%
Cape Falcon to Humbug Mt.	0.5%	0.5%	0.5%	0.6%	0.6%	0.6%	0.1%	0.1%	0.1%	-	-	-
Humbug Mt. to OR/CA border (KMZ)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-	-	-
OR/CA border to Horse Mt. (KMZ)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-	-	-
Fort Bragg	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	-	-	-
South of Pt. Arena	0.0%	0.0%	0.0%	0.2%	0.2%	0.2%	0.1%	0.1%	0.1%	-	-	-
BUOY 10	1.8%	1.8%	1.8%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	10.9%	11.0%	11.2%
ESTUARY/FRESHWATER	1.8%	1.8%	1.8%	3.4%	3.4%	3.4%	0.2%	0.2%	0.2%			
TOTAL ^{a/}	10.4%	10.2%	9.8%	12.8%	12.7%	12.6%	2.7%	2.7%	2.7%	38.0%	37.6%	36.5%

a/ Totals do not include estuary/freshw ater for RK coho; estuary/freshw ater catch is included in the total for LCN, OCN, and LCR Tule Chinook. Bolded values identify ocean exploitation rates that, w hen combined w ith freshw ater harvest rates, w ould exceed the total allow able exploitation rate.

TABLE 7b. 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 2021 ocean fisheries management Alternatives - STT analyzed (Makah Tribe).

Fishery	Exploitation Rate (Percent)			
	LCN Coho	OCN Coho	RK Coho	LCR Tule Chinook
SOUTHEAST ALASKA	0.0%	0.0%	0.0%	2.1%
BRITISH COLUMBIA	0.3%	1.0%	0.6%	13.2%
PUGET SOUND/STRAIT	0.1%	0.0%	0.0%	0.4%
NORTH OF CAPE FALCON				
Treaty Indian Ocean Troll	1.5%	0.4%	0.0%	2.2%
Recreational	1.8%	0.3%	0.0%	3.3%
Non-Indian Troll	0.3%	0.1%	0.0%	5.1%
SOUTH OF CAPE FALCON				
Recreational:				0.3%
Cape Falcon to Humbug Mt.	3.0%	6.5%	0.4%	-
Humbug Mt. to OR/CA border (KMZ)	0.0%	0.2%	0.5%	-
OR/CA border to Horse Mt. (KMZ)	0.0%	0.1%	0.3%	-
Fort Bragg	0.0%	0.1%	0.4%	-
South of Pt. Arena	0.0%	0.1%	0.2%	-
Troll:				0.9%
Cape Falcon to Humbug Mt.	0.5%	0.6%	0.1%	-
Humbug Mt. to OR/CA border (KMZ)	0.0%	0.0%	0.0%	-
OR/CA border to Horse Mt. (KMZ)	0.0%	0.0%	0.0%	-
Fort Bragg	0.0%	0.0%	0.1%	-
South of Pt. Arena	0.0%	0.2%	0.1%	-
BUOY 10	1.8%	0.1%	0.0%	10.9%
ESTUARY/FRESHWATER	1.8%	3.4%	0.2%	
TOTAL ^{a/}	11.3%	13.0%	2.7%	38.2%

a/ Totals do not include estuary/freshwater for RK coho; estuary/freshwater catch is included in the total for LCN, OCN, and LCR Tule Chinook. Bolded values identify ocean exploitation rates that, when combined with freshwater harvest rates, 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										
Port Area	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year Total	Port Area	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year Total
SF		0.36	0.22	0.19	0.19	0.08			1.03	SF			0.13	1.93	0.70	0.11	0.20			3.07
MO	0.41	0.94	0.23	0.43					2.00	MO	1.27	1.27	1.69	3.07	1.12	0.08				8.50
Total	0.41	1.30	0.45	0.62	0.19	0.08			3.03	Total	1.27	1.27	1.82	5.01	1.82	0.18	0.20			11.56

14.6% total impact rate

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

Commercial											Recreational											
Port Area	Fall 2020		Summer 2021						Summer Total	Year Total	Port Area	Fall 2020			Summer 2021						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	37	46	28	32	236	481	860	860	NO	0	0		0	0	0	0	2	72	74	74
CO	0	0			142	282	384	421	1,229	1,229	CO	0	0		0	0	0	0	7	185	192	192
KO			0	0	87	46	44		177	177	KO							63	47	85	195	195
KC											KC							46	340		386	386
FB	0							455	455	455	FB	0	0	0				6	164	49	219	219
SF	57	0				1,385	772	403	2,560	2,617	SF	0	0	0				32	355	90	477	477
MO					448	245	49	55	797	797	MO	0	0			13	0	0	0	0	13	13
Total	57	0	37	46	705	1,990	1,486	1,814	6,078	6,135	Total	0	0	0	0	13	0	147	915	480	1,555	1,555

31,464 natural area spawners, 25.3% spawner reduction rate, 10.7% age-4 ocean harvest rate

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

Commercial											Recreational											
Port Area	Fall 2020		Summer 2021						Summer Total	Year Total	Port Area	Fall 2020			Summer 2021						Summer Total	Year Total
	Sep	Oct-Dec	Mar	Apr	May	Jun	Jul	Aug				Sep	Oct	Nov-Dec	Mar	Apr	May	Jun	Jul	Aug		
NO	131	0	2,347	2,803	1,952	601	1,423	1,427	10,553	10,684	NO	71	0		6	0	5	118	225	185	539	610
CO	0	0			2,089	1,197	487	721	4,494	4,494	CO	13	0		0	0	3	336	302	220	861	874
KO			0	0	432	104	93		629	629	KO							96	515	149	760	760
KC											KC							133	1,378		1,511	1,511
FB	146							3,751	3,751	3,897	FB	68	0	0				65	2,655	1,083	3,803	3,871
SF	6,922	1,867				10,872	7,113	4,575	22,560	31,349	SF	3,187	1,800	12				659	12,237	5,702	18,598	23,597
MO					14,719	6,674	956	370	22,719	22,719	MO	14	0			5,960	1,222	1,276	2,095	397	10,950	10,964
Total	7,199	1,867	2,347	2,803	19,191	19,447	10,072	10,844	64,704	73,770	Total	3,353	1,800	12	6	5,960	1,230	2,684	19,406	7,737	37,023	42,188

133,300 hatchery and natural area spawners, 50.8% 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 Southern KMZ Boundary (California KMZ)