

SALMON TECHNICAL TEAM REPORT
PRELIMINARY ANALYSIS OF TENTATIVE 2020 OCEAN SALMON FISHERY
MANAGEMENT MEASURES

April 6, 2020

TABLE 1. 2020 Commercial troll management measures for non-Indian ocean salmon fisheries – STT analyzed. (Page 1 of 7)
 Sunday, April 05, 2020,9:37 PM

A. SEASON DESCRIPTIONS
North of Cape Falcon
Supplemental Management Information
1. Overall non-Indian TAC: 55,000 Chinook and 35,000 coho marked with a healed adipose fin clip (marked). 2. Non-Indian commercial troll TAC: 28,275 Chinook and 2,500 marked coho. 3. Trade: Commercial troll traded 3,100 marked coho to the recreational fishery for 775 Chinook.
Model run: Coho: 2021a, 2021b, 2022a, 2022b, 2023a, 2023b Chinook: 1920a, 1920b, 2020a, 2020b, 2120a, 2120b
<p>U.S./Canada Border to Cape Falcon</p> <ul style="list-style-type: none"> May 6 through the earlier of June 28, or 18,850 Chinook. No more than 6,965 of which may be caught in the area between the U.S./Canada border and the Queets River, and no more than 5,144 of which may be caught in the area between Leadbetter Pt. and Cape Falcon (C.8). <p>Open seven days per week (C.1). All salmon, except coho (C.4, C.7). Chinook minimum size limit of 28 inches total length (B). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3).</p> <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>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 2021, the season will open May 1 for all salmon except coho consistent with preseason regulations as described for this area and subareas for May 6-June 28, 2020, including subarea salmon guidelines and weekly vessel limits. These regulations would apply from the opening of the fishery on May 1, 2021, until modified following Council review at its March and/or April 2021 meetings. Catch during this opening will be counted towards quotas set for this area and subareas at the April 2021 meeting.</p>
<p>U.S./Canada Border to Cape Falcon</p> <ul style="list-style-type: none"> July 1 through the earlier of September 30, or 9,425 Chinook or 2,500 coho (C.8). <p>Open seven days per week. All salmon. Chinook minimum size limit of 28 inches total length. Coho minimum size limit of 16 inches total length (B, C.1). All coho must be marked with a healed adipose fin clip (C.8.d). No chum retention north of Cape Alava, Washington in August and September (C.4, C.7). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3).</p> <p>Landing and possession limit of 10 marked coho per vessel per landing week (Thurs.-Wed.) (C.1).</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 10, the Grays Harbor Control Zone (C.5). Vessels must land and deliver their salmon within 24 hours of any closure of this fishery.</p> <p>Vessels fishing or in possession of salmon <u>north</u> of Leadbetter Point must land and deliver all species of fish in a Washington port and must possess a Washington troll and/or salmon delivery license. Vessels may not land fish east of the Sekiu River or east of the Megler-Astoria bridge. <u>For delivery to Washington ports south of Leadbetter Point</u>, vessels must notify the Washington Department of Fish and Wildlife at 360-249-1215 prior to crossing the Leadbetter Point line with area fished, total Chinook, coho, and halibut catch aboard, and destination with approximate time of delivery. During any single trip, only one side of the Leadbetter Point line may be fished (C.11).</p> <p>Vessels fishing or in possession of salmon while fishing <u>south</u> of Leadbetter Point must land and deliver all species of fish within the area and south of Leadbetter Point, except that Oregon permitted vessels may also land all species of fish in Garibaldi, Oregon. 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 541-867-0300 ext. 271 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. Inseason actions may modify harvest guidelines in later fisheries to achieve or prevent exceeding the overall allowable troll harvest impacts (C.8).</p> <p>Vessels in possession of salmon <u>north of the Queets River</u> may not cross the Queets River line without first notifying WDFW at 360-249-1215 with area fished, total Chinook, coho, and halibut catch aboard and destination. Vessels in possession of salmon south of the Queets River 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>

TABLE 1. 2020 Commercial troll management measures for non-Indian ocean salmon fisheries – STT analyzed. (Page 2 of 7)
 Sunday, April 05, 2020,9:37 PM

A. SEASON DESCRIPTIONS
South of Cape Falcon
Supplemental Management Information
<ol style="list-style-type: none"> 1. Sacramento River fall Chinook spawning escapement of 237,837 hatchery and natural area adults. 2. Sacramento Index exploitation rate of 49.7%. 3. Klamath River recreational fishery allocation: 1,315 adult Klamath River fall Chinook. 4. Klamath tribal allocation: 8,664 adult Klamath River fall Chinook. 5. CA/OR share of Klamath River fall Chinook commercial ocean harvest: 61% / 39%. 6. Fisheries may need to be adjusted to meet NMFS ESA consultation standards, FMP requirements, other management objectives, or upon receipt of new allocation recommendations from the California Fish and Game Commission.
<p>Cape Falcon to Humbug Mt.</p> <ul style="list-style-type: none"> • April 15-30; • May 1-5, 26-31; • June 4-30; • July 1-31; • August 1-25; • September 1-October 31 (C.9.a). <p>Open seven days per week. All salmon except coho (C.4, C.7). Chinook minimum size limit of 28 inches total length (B, C.1). All vessels fishing in the area must land their salmon in the State of Oregon. See gear restrictions and definitions (C.2, C.3).</p> <p>Beginning September 1, no more than 75 Chinook allowed per vessel per landing week (Thurs.-Wed.).</p> <p>In 2021, the season will open March 15 for all salmon except coho. Chinook minimum size limit of 28 inches total length (B, C.1). Gear and other restrictions same as in 2020 (C.2, C.3, C.4). This opening could be modified following Council review at its March 2021 meetings (C.8).</p>
<p>Humbug Mt. to OR/CA Border (Oregon KMZ)</p> <ul style="list-style-type: none"> • April 15-30; • May 1-5, 26-31; • June 4 through the earlier of June 30, or a 700 Chinook quota; • July 1 through the earlier of July 31, or a 300 Chinook quota (C.9.a). <p>Open seven days per week. All salmon except coho (C.4, C.7). Chinook minimum size limit of 28 inches total length (B, C.1). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3). Prior to June 4, all salmon caught in this area must be landed and delivered in the State of Oregon.</p> <p>June 4-July 31 weekly landing and possession limit of 40 Chinook per vessel per landing week (Thurs.-Wed.). Any remaining portion of Chinook quotas may be transferred inseason on an impact neutral basis to the next open quota period (C.8.b).</p> <p>All vessels fishing in this area during June, 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 541-867-0300 Ext. 252 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 2021, the season will open March 15 for all salmon except coho. Chinook minimum size limit of 28 inches total length (B; C.1). Gear restrictions same as in 2020 (C.2; C.3; C.4). This season would open without quota or weekly landing limits unless modified following Council review at its March 2021 meeting (C.8).</p>

TABLE 1. 2020 Commercial troll management measures for non-Indian ocean salmon fisheries – STT analyzed. (Page 3 of 7)
 Sunday, April 05, 2020, 9:37 PM

A. SEASON DESCRIPTIONS
South of Cape Falcon
Supplemental Management Information
<p>OR/CA Border to Humboldt South Jetty (California KMZ)</p> <ul style="list-style-type: none"> • Closed <p>In 2021, 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. 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, 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 additional closures adjacent to the Smith and Klamath rivers. This opening could be modified following Council review at its March or April 2021 meetings.</p>
<p>Humboldt South Jetty to Horse Mt.</p> <ul style="list-style-type: none"> • Closed. <p>When the fishery is closed between the OR/CA border and Humboldt 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>
<p>Horse Mt. to Point Arena (Fort Bragg)</p> <ul style="list-style-type: none"> • May 6-14; • September 1-30 (C.9.b). <p>Open seven days per week. All salmon except coho (C.4, C.7). Chinook minimum size limit of 27 inches total length (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).</p> <p>In 2021, the season will open April 15 for all salmon except coho. Chinook minimum size limit of 27 inches total length. Gear restrictions same as in 2020. This opening could be modified following Council review at its March or April 2021 meetings.</p>
<p>Point Arena to Pigeon Point (San Francisco)</p> <ul style="list-style-type: none"> • May 6-14, 22-31; • June 1-4, 14-30; • July 12-31; • August 1-28; • September 1-30 (C.9.b). <p>Open seven days per week. All salmon except coho (C.4, C.7). Chinook minimum size limit of 27 inches total length through August, then 26 inches thereafter (B, C.1). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3). All salmon must be landed in California. All salmon caught in the area prior to September 1 must be landed and offloaded no later than 11:59 p.m., August 30 (C.6). During September, all salmon must be landed south of Point Arena (C.6).</p> <p>In 2021, the season will open May 1 for all salmon except coho. Chinook minimum size limit of 27 inches total length. Gear restrictions same as in 2020. This opening could be modified following Council review at its March or April 2021 meetings.</p> <p>Point Reyes to Point San Pedro (Fall Area Target Zone)</p> <ul style="list-style-type: none"> • October 1-2, 5-9, 12-15. <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). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3).</p>
<p>Pigeon Point to U.S./Mexico Border (Monterey)</p> <ul style="list-style-type: none"> • May 1-14, 22-31; • June 1-4, 14-30; • July 12-31; • August 1-28 (C.9.b). <p>Open seven days per week. All salmon except coho (C.4, C.7). Chinook minimum size limit of 27 inches total length (B, C.1). See compliance requirements (C.1) and gear restrictions and definitions (C.2, C.3). All salmon must be landed in California. All salmon caught in the area prior to September 1 must be landed and offloaded no later than 11:59 p.m., August 30 (C.6).</p> <p>In 2021, the season will open May 1 for all salmon except coho. Chinook minimum size limit of 27 inches total length. Gear restrictions same as in 2020. This opening could be modified following Council review at its March or April 2021 meeting.</p>
<p>For all commercial troll fisheries in California: 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. 2020 Commercial troll management measures for non-Indian ocean salmon fisheries – STT analyzed. (Page 4 of 7)
 Sunday, April 05, 2020,9:37 PM

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

Area (when open)	Chinook		Coho		Pink
	Total Length	Head-off	Total Length	Head-off	
North of Cape Falcon	28	21.5	16	12	None
Cape Falcon to Humbug Mt.	28	21.5	-	-	None
Humbug Mt. to OR/CA Border (OR KMZ)	28	21.5	-	-	None
OR/CA Border to Humboldt South Jetty (CA KMZ)	Closed	-	-	-	-
Horse Mt. to Pt. Arena (FB)	27	20.5	-	-	27
Pt. Arena to Pigeon Pt. (SF) through August	27	20.5	-	-	27
Pt. Arena to Pigeon Pt. (SF) September-October	26	19.5	-	-	26
Pigeon Pt. to U.S./Mexico Border (MO)	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:

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

C.3. Gear Definitions:

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:

- a. 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.
- b. 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

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS

C.5. Control Zone Definitions:

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

TABLE 1. 2020 Commercial troll management measures for non-Indian ocean salmon fisheries – STT analyzed. (Page 6 of 7)
Sunday, April 05, 2020,9:37 PM

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

C.7. **Incidental Halibut Harvest:** During authorized periods, the operator of a vessel that has been issued an incidental halibut harvest license may retain Pacific halibut caught incidentally in Area 2A while trolling for salmon. Halibut retained must be no less than 32 inches in total length, measured from the tip of the lower jaw with the mouth closed to the extreme end of the middle of the tail, and must be landed with the head on. When halibut are caught and landed incidental to commercial salmon fishing by an IPHC license holder, any person who is required to report the salmon landing by applicable state law must include on the state landing receipt for that landing both the number of halibut landed, and the total dressed, head-on weight of halibut landed, in pounds, as well as the number and species of salmon landed.

License applications for incidental harvest must be obtained from the International Pacific Halibut Commission (phone: 206-634-1838). Applicants must apply prior to mid-March 2020 for 2020 permits (*exact date to be set by the IPHC in early 2020*). Incidental harvest is authorized only during April, May, and June of the 2020 troll seasons, and after June 30 in 2020 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 44,899 pound 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.

All alternatives are for the time period of May 1, 2020 through the end of the 2020 salmon troll fishery, and April 1-30, 2021 with the exception that the alternatives would be in place until modified through inseason action or superseded by the 2021 management measures.

Alternative I – (status quo) license holders may land no more than one Pacific halibut per each two Chinook, except one Pacific halibut may be landed without meeting the ratio requirement, and no more than 35 halibut landed per trip.

Alternative II – license holders may land no more than one Pacific halibut per each two Chinook, except one Pacific halibut may be landed without meeting the ratio requirement, and no more than 30 halibut landed per trip.

Alternative III - license holders may land no more than one Pacific halibut per each two Chinook, except one Pacific halibut may be landed without meeting the ratio requirement, and no more than 25 halibut landed per trip.

Incidental Pacific halibut catch regulations in the commercial salmon troll fishery adopted for 2020, prior to any 2020 inseason action, will be in effect when incidental Pacific halibut retention opens on April 1, 2021 unless otherwise modified by inseason action at the March 2021 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. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS *(continued)*

- 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:
- 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.
 - 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.
 - 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.
 - At the March 2021 meeting, the Council will consider inseason recommendations for special regulations for any experimental fisheries (proposals must meet Council protocol and be received in November 2020).
 - 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.
 - Landing limits may be modified inseason to sustain season length and keep harvest within overall quotas.
- C.9. State Waters Fisheries: Consistent with Council management objectives:
- The State of Oregon may establish additional late-season fisheries in state waters.
 - The State of California may establish limited fisheries in selected state waters.
 - Check state regulations for details.
- C.10. For the purposes of California Fish and Game Code, Section 8232.5, the definition of the Klamath Management Zone (KMZ) for the ocean salmon season shall be that area from Humbug Mountain, Oregon, to Horse Mountain, California.
- C.11. Latitudes for geographical reference of major landmarks along the west coast. Source: 2018 West Coast federal salmon regulations. <https://www.govinfo.gov/content/pkg/FR-2018-05-01/pdf/2018-09164.pdf>

Cape Flattery, WA	48°23'00" N lat.	Humboldt South Jetty, CA.	40°45'53" N lat.
Cape Alava, WA	48°10'00" N lat.	Horse Mountain, CA	40°05'00" N lat.
Queets River, WA	47°31'42" N lat.	Point Arena, CA	38°57'30" N lat.
Leadbetter Point, WA	46°38'10" N lat.	Point Reyes, CA	37°59'44" N lat.
Cape Falcon, OR	45°46'00" N lat.	Point San Pedro, CA	37°35'40" N lat.
Florence South Jetty, OR	44°00'54" N lat.	Pigeon Point, CA	37°11'00" N lat.
South end Hecata Bank line, OR	44°00'54" N lat.	Point Sur, CA	36°18'00" N lat.
Humbug Mountain, OR	43°58'00" N lat.	Point Conception, CA	34°27'00" N lat.
Oregon-California border	42°00'00" N lat.		

TABLE 2. 2020 Recreational management measures for non-Indian ocean salmon fisheries – STT analyzed. (Page 1 of 5)
 Sunday, April 05, 2020,9:38 PM

A. SEASON DESCRIPTIONS
North of Cape Falcon
Supplemental Management Information
1. Overall non-Indian TAC: 55,000 Chinook and 35,000 coho marked with a healed adipose fin clip (marked). 2. Recreational TAC: 26,725 Chinook and 32,500 marked coho; all retained coho must be marked. 3. Commercial troll traded 3,100 marked coho to the recreational fishery for 775 Chinook. 4. No Area 4B add-on fishery. 5. Buoy 10 fishery opens August 1 with an expected landed catch of 15,000 marked coho in August and September.
<p>U.S./Canada Border to Cape Alava (Neah Bay Subarea)</p> <ul style="list-style-type: none"> June 20 through the earlier of September 30, or 3,380 marked coho subarea quota, with a subarea guideline of 5,725 Chinook (C.5). <p>Open seven days a week. See minimum size limits (B). See gear restrictions and definitions (C.2, C.3).</p> <p>During June 20-28: All salmon, except coho; one salmon per day (C.1).</p> <p>Beginning June 29: 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).</p> <p>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 20 through the earlier of September 30, or 850 marked coho subarea quota, with a subarea guideline of 1,300 Chinook (C.5). <p>Open seven days a week. See salmon minimum size limits (B). See gear restrictions and definitions (C.2, C.3).</p> <p>During June 20-28: All salmon, except coho; one salmon per day (C.1).</p> <p>Beginning June 29: 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).</p>
<p>Queets River to Leadbetter Point (Westport Subarea)</p> <ul style="list-style-type: none"> June 20 through the earlier of September 30, or 12,020 marked coho subarea quota, with a subarea guideline of 12,600 Chinook (C.5). <p>Chinook minimum size limit of 22 inches total length (B). Coho minimum size limit of 16 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <p>During June 20-28: Open seven days per week. All salmon except coho; one salmon per day (C.1).</p> <p>Beginning June 29: 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).</p> <p>Grays Harbor Control Zone closed beginning August 10 (C.4.b).</p>
<p>Leadbetter Point to Cape Falcon (Columbia River Subarea)</p> <ul style="list-style-type: none"> June 20 through the earlier of September 30, or 16,250 marked coho subarea quota, with a subarea guideline of 7,100 Chinook (C.5). <p>Chinook minimum size limit of 22 inches total length (B). Coho minimum size limit of 16 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <p>During June 20-28: Open seven days per week. All salmon except coho; one salmon per day (C.1).</p> <p>Beginning June 29, 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).</p> <p>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. 2020 Recreational management measures for non-Indian ocean salmon fisheries – STT analyzed. (Page 2 of 5)
 Sunday, April 05, 2020,9:38 PM

A. SEASON DESCRIPTIONS
South of Cape Falcon
Supplemental Management Information
<ol style="list-style-type: none"> 1. Sacramento River fall Chinook spawning escapement of 237,837 hatchery and natural area adults. 2. Sacramento Index exploitation rate of 49.7%. 3. Klamath River recreational fishery allocation: 1,315 adult Klamath River fall Chinook. 4. Klamath tribal allocation: 8,664 adult Klamath River fall Chinook. 5. Overall recreational coho TAC: 22,000 coho marked with a healed adipose fin clip (marked), and 3,000 coho in the non-mark-selective coho fishery. 6. Fisheries may need to be adjusted to meet NMFS ESA consultation standards, FMP requirements, other management objectives, or upon receipt of new allocation recommendations from the California Fish and Game Commission (CFGC).
<p>Cape Falcon to Humbug Mt.</p> <ul style="list-style-type: none"> • March 15-October 31 (C.6), except as provided below during the all-salmon mark-selective fishery and the non-mark-selective coho fishery (C.5). <p>Open seven days per week. All salmon except coho, two fish per day (C.1). See minimum size limits (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2021, the season will open March 15 for all salmon except coho, two salmon per day (C.1). Same minimum size limits (B), and the same gear restrictions as in 2020 (C.2, C.3). This opening could be modified following Council review at its March 2021 meeting (C.5).</p>
<p>Cape Falcon to Humbug Mt. <u>Mark-selective coho fishery:</u></p> <ul style="list-style-type: none"> • June 27 through the earlier of August 16, or 22,000 marked coho quota (C.6). <p>Open seven days per week. All salmon, two salmon per day. All retained coho must be marked with a healed adipose fin clip (C.1). See minimum size limits (B). See gear restrictions and definitions (C.2, C.3).</p> <p>Any remainder of the mark-selective coho quota may be transferred inseason on an impact neutral basis to the non-selective coho quota from Cape Falcon to Humbug Mountain (C.5).</p>
<p>Cape Falcon to Humbug Mt. <u>Non-mark-selective coho fishery:</u></p> <ul style="list-style-type: none"> • September 4-5, and open each Friday and Saturday through the earlier of September 30, or 3,000 non-mark-selective coho quota (C.6). Open days may be modified inseason. <p>All salmon, two salmon per day (C.1). See minimum size limits (B). See gear restrictions and definitions (C.2, C.3).</p>
<p>Humbug Mt. to OR/CA Border (Oregon KMZ)</p> <ul style="list-style-type: none"> • June 20-August 2 (C.6). <p>Open seven days per week. All salmon except coho, 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. 2020 Recreational management measures for non-Indian ocean salmon fisheries – STT analyzed. (Page 3 of 5)
 Sunday, April 05, 2020,9:38 PM

A. SEASON DESCRIPTIONS
<p>OR/CA Border to Horse Mt. (California KMZ)</p> <ul style="list-style-type: none"> • June 6-August 8 (C.6). <p>Open seven days per week. All salmon except coho, two salmon per day (C.1). Chinook minimum size limit of 20 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <p>Klamath Control Zone closed in August (C.4.e). See California State regulations for additional closures adjacent to the Smith, Eel, and Klamath Rivers.</p> <p>In 2021, 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 2020 (C.2, C.3). This opening could be modified following Council review at its March 2021 meeting.</p>
<p>Horse Mt. to Point Arena (Fort Bragg)</p> <ul style="list-style-type: none"> • May 1-November 8 (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 2021, season opens April 3 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 2020 (C.2, C.3). This opening could be modified following Council review at its March 2021 meeting.</p>
<p>Point Arena to Pigeon Point (San Francisco)</p> <ul style="list-style-type: none"> • May 1-November 8 (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 2021, season opens April 3 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 2020 (C.2, C.3). This opening could be modified following Council review at its March 2021 meeting.</p>
<p>Pigeon Point to U.S./Mexico Border (Monterey)</p> <ul style="list-style-type: none"> • May 1-October 4 (C.6). <p>Open seven days per week. All salmon except coho, two salmon per day (C.1). See gear restrictions and definitions (C.2, C.3). Chinook minimum size limit of 24 inches total length (B).</p> <p>In 2021, season opens April 3 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 2020 (C.2, C.3). This opening could be modified following Council review at its March 2021 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 (OR KMZ)	24	16	None
OR/CA Border to Horse Mt. (CA KMZ)	20	-	20
Horse Mt. to Pt. Arena (FB)	20	-	20
Pt. Arena to Pigeon Pt. (SF)	20	-	24
Pigeon Pt. to U.S./Mexico Border (MO)	24	-	24

C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS

- C.1. Compliance with Minimum Size and Other Special Restrictions: All salmon on board a vessel must meet the minimum size or other special requirements for the area being fished and the area in which they are landed if that area is open. Salmon may be landed in an area that is closed only if they meet the minimum size or other special requirements for the area in which they were caught. 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.
- 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.
 - Horse Mt., California, 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:

- 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.
- 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.
- 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:

- 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.
- 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.).
- 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.
- 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.
- Klamath Control Zone*: The ocean area at the Klamath River mouth bounded on the north by 41°38'48" N. lat. (approximately 6 nautical miles north of the Klamath River mouth); on the west by 124°23'00" W. long. (approximately 12 nautical miles off shore); and, on the south by 41°26'48" N. lat. (approximately 6 nautical miles south of the Klamath River mouth).

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:
- a. Actions could include modifications to bag limits, or days open to fishing, and extensions or reductions in areas open to fishing.
 - b. Coho may be transferred inseason among recreational subareas north of Cape Falcon to help meet the recreational season duration objectives (for each subarea) after conferring with representatives of the affected ports and the Council's SAS recreational representatives north of Cape Falcon, and if the transfer would not result in exceeding preseason impact expectations on any stocks.
 - c. Chinook and coho may be transferred between the recreational and commercial fisheries north of Cape Falcon if there is agreement among the representatives of the SAS, and if the transfer would not result in exceeding preseason impact expectations on any stocks.
 - d. Fishery managers may consider inseason action modifying regulations restricting retention of unmarked (adipose fin intact) coho. To remain consistent with preseason expectations, any inseason action shall consider, if significant, the difference between observed and preseason forecasted (adipose-clipped) mark rates. Such a consideration may also include a change in bag limit of two salmon, no more than one of which may be a coho.
 - e. Marked coho remaining from the Cape Falcon to Humbug Mt. recreational mark-selective coho quota may be transferred inseason to the Cape Falcon to Humbug Mt. non-mark-selective recreational fishery if the transfer would not result in exceeding preseason impact expectations on any stocks.
- C.6. Additional Seasons in State Territorial Waters: Consistent with Council management objectives, the States of Washington, Oregon, and California may establish limited seasons in state waters. Check state regulations for details.

TABLE 3a. (QTA) 2020 Treaty Indian troll management Alternatives for ocean salmon fisheries - Tribe proposed. (Page 1 of 3)
 Sunday, April 05, 2020,4:51 PM

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: 30,000 Chinook and 12,500 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>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>1. Overall Treaty-Indian TAC: 20,000 Chinook and 0 coho.</p> <p>2. Overall Chinook and/or coho TAC 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>
<ul style="list-style-type: none"> • May 1 through the earlier of June 30 or 18,000 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 August 31, or 12,000 Chinook quota, or 12,500 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 15,000 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 August 31, or 10,000 Chinook quota or 10,000 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 12,000 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 August 31, or 8,000 Chinook quota or 0 coho quota. <p>All salmon. See size limit (B) and other restrictions (C).</p>

TABLE 3b. (Makah Tribal) 2020 Treaty Indian troll management Alternatives for ocean salmon fisheries - Tribe proposed. (Page 2 of 3)
 Sunday, April 05, 2020,4:51 PM

A. SEASON ALTERNATIVE DESCRIPTIONS		
MAKAH TRIBAL ALTERNATIVE I	MAKAH TRIBAL ALTERNATIVE II	MAKAH TRIBAL ALTERNATIVE III
Supplemental Management Information	Supplemental Management Information	Supplemental Management Information
<p>1. Overall Treaty-Indian TAC: 45,000 Chinook and 30,000 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>1. Overall Treaty-Indian TAC: 35,000 Chinook and 22,500 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>1. Overall Treaty-Indian TAC: 25,000 Chinook and 15,000 coho.</p> <p>2. Overall Chinook and/or coho TAC 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>
<ul style="list-style-type: none"> May 1 through the earlier of June 30 or 22,500 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 22,500 Chinook quota, or 30,000 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 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 22,500 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 15,000 coho quota. <p>All salmon. See size limit (B) and other restrictions (C).</p>

TABLE 3a and 3b. 2020 Treaty Indian troll management Alternatives for ocean salmon fisheries - Tribe proposed. (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.

HQH - 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

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

C.3. Quotas

- a. The quotas include troll catches by the S'Klallam and Makah Tribes in Washington State Statistical Area 4B from May 1 through September 15.
- b. The 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 2020 season (estimated harvest during the October ceremonial and subsistence fishery: 20 Chinook; 40 coho).

C.4. Area Closures

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

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

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

TABLE 5a. Projected key stock escapements (thousands of fish) or management criteria for 2020 ocean fishery Alternatives - STT analyzed (QTA).^{a/} (Page 1 of 4)

Key Stock/Criteria	PROJECTED			2020 Criteria	Spawner Objective or Other Comparative Standard as Noted ^{b/}
	Alt I	Alt II	Alt III		
CHINOOK	CHINOOK			CHINOOK	
<u>SRKW PREY ABUNDANCE:</u>					
North of Falcon	1,249.8	1,249.8	1,249.8	≥ 972.0	Oct 1 starting abundance of age 3+ Chinook from U.S./Canada Border to Cape Falcon
Falcon to Horse Mt.	1,070.4	1,070.4	1,070.4	NA	Oct 1 starting abundance of age 3+ Chinook from Cape Falcon to Horse Mt.
South of Horse Mt.	542.6	542.6	542.6	NA	Oct 1 starting abundance of age 3+ Chinook south of Horse Mt.
<u>PUGET SOUND:</u>					
Elwha Summer/Fall	4.9%	4.8%	4.7%	≤ 10.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
Dungeness Spring	4.8%	4.7%	4.6%	≤ 10.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
Mid-Hood Canal Summer/Fall	13.0%	12.5%	12.0%	TBD	Preterminal Southern U.S. exploitation rate. Discussions are ongoing between WA state and tribal co-managers regarding a conservation standard for 2020 that is in accordance with NMFS guidance.
Skokomish Summer/Fall	49.8%	49.5%	49.2%	≤ 50.0%	Total exploitation rate (NMFS ESA consultation standard).
Nooksack Spring	10.9%	10.5%	10.2%	≤ 10.5%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
	0.98	0.95	0.92	≤ 1.00	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Skagit Summer/Fall	49.2%	49.1%	49.0%	≤ 48.0%	Total exploitation rate (NMFS ESA consultation standard).
	--	--	--	≤ 0.95	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
Skagit Spring	10.3%	10.2%	10.0%	≤ 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	21.9%	21.8%	21.7%	≤ 22.0%	Rebuilding exploitation rate (NMFS ESA consultation standard).
	0.72	0.71	0.70	≤ 1.00	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Snohomish Summer/Fall	9.3%	9.1%	9.0%	≤ 8.0%	Southern U.S. exploitation rate limit under critical abundance forecast for 2020 (NMFS ESA consultation standard).
	0.78	0.77	0.76	≤ 1.00	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Lake Washington Summer/Fall	0.568	0.570	0.573	≥ 0.500	Natural-origin escapement in the Cedar River (NMFS ESA consultation standard).
Green River Summer/Fall	1.032	1.038	1.044	≥ 1.200	Natural-origin spawning escapement (NMFS ESA consultation standard). Spawner objective can be met through fishery mgmt and/or hatchery broodstock management actions.
White River Spring	16.4%	16.2%	16.1%	≤ 22.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
Puyallup Summer/Fall	1.153	1.157	1.161	≥ 0.750	Natural-origin spawning escapement (NMFS ESA consultation standard). Spawner objective can be met through fishery mgmt and/or hatchery broodstock management actions.
Nisqually River Summer/Fall	50.9%	50.5%	50.1%	≤ 47.0%	Total exploitation rate, (NMFS ESA consultation standard). An additional 2% ER may be added to facilitate inriver selective gear studies after meeting base criteria during final pre-season modeling.
Puget Sound Spring	1.6%	1.4%	1.2%	≤ 3.0%	Exploitation rate in PFMC fisheries (NMFS ESA consultation standard).
Puget Sound Summer/Fall	4.7%	4.3%	3.9%	≤ 6.0%	Exploitation rate in PFMC fisheries (NMFS ESA consultation standard).

TABLE 5a. Projected key stock escapements (thousands of fish) or management criteria for 2020 ocean fishery management measures - STT analyzed (QTA).^{af} (Page 2 of 4)

Key Stock/Criteria	PROJECTED			2020 Criteria	Spawner Objective or Other Comparative Standard as Noted ^{b/}
	Alt I	Alt II	Alt III		
CHINOOK	CHINOOK			CHINOOK	
WASHINGTON COAST:					
Hoko Fall	2.175	2.176	2.177	0.85	FMP MSY spawning escapement objective.
	2.0%	1.9%	1.8%	≤ 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 spawning escapement objective.
	--	--	--	≤ 0.85	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
Hoh Fall	>1.2	>1.2	>1.2	1.2	FMP MSY spawning escapement objective.
	--	--	--	≤ 0.85	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
Queets Fall	>2.5	>2.5	>2.5	2.5	FMP MSY spawning escapement objective.
	--	--	--	≤ 0.85	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
Grays Harbor Fall	>13.3	>13.3	>13.3	13.3	FMP MSY spawning escapement objective.
	--	--	--	≤ 0.85	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
COLUMBIA RIVER:					
Columbia Upriver Brights	227.2	227.6	227.9	74.0	Minimum ocean escapement to attain 40.0 adults over McNary Dam, with normal distribution and no mainstem harvest. The management goal has been increased to 60.0 by Columbia River managers.
Mid-Columbia Brights	77.6	77.7	77.8	14.9	Minimum ocean escapement to attain 7.9 for Little White Salmon egg-take, assuming average conversion and no mainstem harvest.
Columbia Lower River Hatchery Tules	49.7	49.8	50.0	25.0	Minimum ocean escapement to attain 14.8 adults for hatchery egg-take, with average conversion and no lower river mainstem or tributary harvest.
Columbia Lower River Natural Tules ^{cf} (threatened)	36.6%	36.4%	36.2%	≤ 38.0%	Total adult equivalent fishery exploitation rate (2020 NMFS ESA guidance).
Columbia Lower River Wild ^{ef} (threatened)	19.4	19.4	19.5	6.9	Minimum ocean escapement to attain MSY spawner goal of 5.7 for N. Lewis River fall Chinook (NMFS ESA consultation standard).
Spring Creek Hatchery Tules	44.8	44.9	45.1	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	37.8	37.8	37.9	29.0	Aggregate escapement to mouth of Columbia River.
Snake River Fall (threatened) SRFI	50.7%	49.7%	48.6%	≤ 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 2020 ocean fishery management measures - STT analyzed (QTA).^{af} (Page 3 of 4)

Key Stock/Criteria	PROJECTED			2020 Criteria	Spawner Objective or Other Comparative Standard as Noted ^{b/}
	Alt I	Alt II	Alt III		
CHINOOK	CHINOOK			CHINOOK	
OREGON COAST:					
Nehalem Fall	--	--	--	≤ 0.85	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
Siletz Fall	--	--	--	≤ 0.85	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
Siuslaw Fall	--	--	--	≤ 0.85	ISBM obligation applicable, escapement goal not expected to be met. Compliance assessed postseason by the PSC.
South Umpqua	--	--	--	≤ 0.85	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Coquille	--	--	--	≤ 0.85	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
CALIFORNIA:					
Klamath River Fall	36.1	36.1	36.1	≥ 36.2	2020 minimum natural area adult escapement (FMP control rule).
Federally recognized tribal harvest	50.0%	50.0%	50.0%	50.0%	Equals 8.7 (thousand) adult fish for Yurok and Hoopa Valley tribal fisheries.
Exploitation (spawner reduction) rate	25.3%	25.3%	25.3%	≤ 25.0%	FMP control rule.
Adult river mouth return	59.0	59.0	59.0	NA	Total adults in thousands.
Age-4 ocean harvest rate	9.5%	9.5%	9.5%	≤ 16.0%	NMFS ESA consultation standard for threatened California Coastal Chinook.
KMZ sport fishery share	8.1%	8.1%	8.1%		
River recreational fishery share	15.0%	15.0%	15.0%	NA	Equals 1.3 (thousand) adult fish for recreational inriver fisheries.
Sacramento River Winter (endangered)	16.1%	16.1%	16.1%	≤ 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 2020 ESA Guidance).
Sacramento River Fall	237.8	237.8	237.8	≥ 141.955	2020 minimum hatchery and natural area adult escapement (FMP control rule).
Sacramento Index Exploitation Rate	49.7%	49.7%	49.7%	≤ 70.0%	FMP control rule.
Ocean commercial impacts	145.9	145.9	145.9		Includes fall (Sept-Dec) 2019 impacts (5.7 thousand SRFC).
Ocean recreational impacts	47.5	47.5	47.5		Includes fall (Sept-Dec) 2019 impacts (3.3 thousand SRFC).
River recreational impacts	42.0	42.0	42.0		

TABLE 5a. Projected key stock escapements (thousands of fish) or management criteria for 2020 ocean fishery management measures - STT analyzed (QTA).^{a/} (Page 4 of 4)

Key Stock/Criteria	PROJECTED			2020 Criteria	Spawner Objective or Other Comparative Standard as Noted ^{b/}
	Alt I	Alt II	Alt III		
COHO	COHO			COHO	
Interior Fraser (Thompson River)	6.7%(2.3%)	6.4%(2.0%)	5.6%(1.2%)	≤ 10.0%	2020 Southern U.S. exploitation rate ceiling; PSC coho agreement.
Skagit	30.9%(2.2%)	30.6%(1.9%)	30.1%(1.2%)	≤ 35.0%	2020 total exploitation rate ceiling; FMP matrix ^{d/}
Stillaguamish	26.5%(1.6%)	26.3%(1.4%)	25.9%(0.9%)	≤ 35.0%	2020 total exploitation rate ceiling; FMP matrix ^{d/}
Snohomish	14.4%(1.6%)	14.2%(1.4%)	13.8%(0.9%)	≤ 20.0%	2020 total exploitation rate ceiling; FMP matrix ^{d/}
Hood Canal	45.8%(2.6%)	45.6%(2.3%)	45.1%(1.5%)	≤ 45.0%	2020 total exploitation rate ceiling; FMP matrix ^{d/}
Strait of Juan de Fuca	8.9%(2.0%)	8.7%(1.8%)	8.0%(1.2%)	≤ 20.0%	2020 total exploitation rate ceiling; FMP matrix ^{d/}
Quillayute Fall	8.7	8.8	8.8	6.3	FMP MSY adult spawner estimate. Value depicted is ocean escapement.
Hoh	3.7	3.7	3.7	2.0	FMP MSY adult spawner estimate. Value depicted is ocean escapement.
Queets Wild	6.7	6.7	6.8	5.8	FMP MSY adult spawner estimate. Value depicted is ocean escapement.
Grays Harbor	47.2	47.3	47.5	24.4	FMP MSY adult spawner estimate. Value depicted is ocean escapement.
Willapa Bay	27.5	27.6	27.8	17.2	FMP MSY natural area adult spawner estimate. Value depicted is ocean escapement.
Lower Columbia River Natural (threatened)	15.3%	15.1%	14.7%	≤ 18.0%	Total marine and mainstem Columbia R. fishery exploitation rate (2020 NMFS ESA guidance).
Upper Columbia ^{c/}	68.9%	69.0%	69.0%	≥ 50%	Minimum percentage of the run to Bonneville Dam.
Columbia River Hatchery Early	85.8	86.0	86.4	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	34.1	34.2	34.4	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	11.7%	11.7%	11.5%	≤ 15.0%	Marine and freshwater fishery exploitation rate (NMFS ESA consultation standard).
Southern Oregon/Northern California Coast (threatened)	3.2%	3.2%	3.2%	≤ 13.0%	Marine fishery exploitation rate for R/K hatchery coho (NMFS ESA consultation standard).

a/ Model results for Chinook include updates to Canadian and OR coastal stock abundances, total allowable catches in 2020 AABM fisheries, and preliminary 2020 Puget Sound fisheries. Model results for coho include updates to 2020 Canadian abundances and updated proxy 2020 Canadian fisheries, as well as preliminary 2020 Puget Sound fisheries and 2020 Queets terminal area fisheries.

b/ ISBM obligation is assessed as a proportion of the 2009-2015 average calendar year exploitation rate. Ocean escapement is the number of salmon escaping ocean fisheries and entering freshwater with the following clarifications. Ocean escapement for Puget Sound stocks is the estimated number of salmon entering Area 4B that are available to U.S. net fisheries in Puget Sound and spawner escapement after impacts from the Canadian, U.S. ocean, and Puget Sound troll and recreational fisheries have been deducted. Numbers in parentheses represent Council area 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 represent marine and freshwater impacts. Values reported for Klamath River fall Chinook are natural area adult spawners. Values reported for Sacramento River fall Chinook are hatchery and natural area adult spawners.

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

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

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

TABLE 5b. Projected key stock escapements (thousands of fish) or management criteria for 2020 ocean fishery Alternatives - STT analyzed (MT)^{a/} (Page 1 of 4)

Key Stock/Criteria	PROJECTED			2020 Criteria	Spawner Objective or Other Comparative Standard as Noted ^{b/}
	Alt I	Alt II	Alt III		
CHINOOK	CHINOOK				CHINOOK
<u>SRKW PREY ABUNDANCE:</u>					
North of Falcon	1,249.8	1,249.8	1,249.8	≥ 972.0	Oct 1 starting abundance of age 3+ Chinook from U.S./Canada Border to Cape Falcon
Falcon to Horse Mt.	1,070.4	1,070.4	1,070.4	NA	Oct 1 starting abundance of age 3+ Chinook from Cape Falcon to Horse Mt.
South of Horse Mt.	542.6	542.6	542.6	NA	Oct 1 starting abundance of age 3+ Chinook south of Horse Mt.
<u>PUGET SOUND:</u>					
Elwha Summer/Fall	5.1%	4.9%	4.7%	≤ 10.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
Dungeness Spring	5.1%	4.8%	4.6%	≤ 10.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
Mid-Hood Canal Summer/Fall	14.4%	13.4%	12.4%	TBD	Preterminal Southern U.S. exploitation rate. Discussions are ongoing between WA state and tribal co-managers regarding a conservation standard for 2020 that is in accordance with NMFS guidance.
Skokomish Summer/Fall	50.7%	50.1%	49.4%	≤ 50.0%	Total exploitation rate (NMFS ESA consultation standard).
Nooksack Spring	11.8%	11.2%	10.5%	≤ 10.5%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
	1.06	1.00	0.94	≤ 1.00	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Skagit Summer/Fall	49.3%	49.2%	49.1%	≤ 48.0%	Total exploitation rate (NMFS ESA consultation standard).
	--	--	--	≤ 0.95	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
Skagit Spring	10.6%	10.4%	10.1%	≤ 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	22.0%	21.9%	21.7%	≤ 22.0%	Rebuilding exploitation rate (NMFS ESA consultation standard).
	0.73	0.72	0.71	≤ 1.00	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Snohomish Summer/Fall	9.6%	9.3%	9.0%	≤ 8.0%	Southern U.S. exploitation rate limit under critical abundance forecast for 2020 (NMFS ESA consultation standard).
	0.81	0.79	0.76	≤ 1.00	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Lake Washington Summer/Fall	0.562	0.567	0.571	≥ 0.500	Natural-origin escapement in the Cedar River (NMFS ESA consultation standard).
Green River Summer/Fall	1.017	1.028	1.039	≥ 1.200	Natural-origin spawning escapement (NMFS ESA consultation standard). Spawner objective can be met through fishery mgmt and/or hatchery broodstock management actions.
White River Spring	16.7%	16.4%	16.2%	≤ 22.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
Puyallup Summer/Fall	1.142	1.150	1.158	≥ 0.750	Natural-origin spawning escapement (NMFS ESA consultation standard). Spawner objective can be met through fishery mgmt and/or hatchery broodstock management actions.
Nisqually River Summer/Fall	51.8%	51.1%	50.4%	≤ 47.0%	Total exploitation rate, (NMFS ESA consultation standard). An additional 2% ER may be added to facilitate inriver selective gear studies after meeting base criteria during final preseason modeling.
Puget Sound Spring	2.2%	1.8%	1.4%	≤ 3.0%	Exploitation rate in PFMC fisheries (NMFS ESA consultation standard).
Puget Sound Summer/Fall	5.8%	5.0%	4.2%	≤ 6.0%	Exploitation rate in PFMC fisheries (NMFS ESA consultation standard).

TABLE 5b. Projected key stock escapements (thousands of fish) or management criteria for 2020 ocean fishery management measures - STT analyzed (MT).^{a/} (Page 2 of 4)

Key Stock/Criteria	PROJECTED			2020 Criteria	Spawner Objective or Other Comparative Standard as Noted ^{b/}
	Alt I	Alt II	Alt III		
CHINOOK	CHINOOK			CHINOOK	
<u>WASHINGTON COAST:</u>					
Hoko Fall	2.169	2.172	2.175	0.85	FMP MSY spawning escapement objective.
	2.4%	2.2%	2.0%	≤ 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 spawning escapement objective.
	--	--	--	≤ 0.85	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
Hoh Fall	>1.2	>1.2	>1.2	1.2	FMP MSY spawning escapement objective.
	--	--	--	≤ 0.85	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
Queets Fall	>2.5	>2.5	>2.5	2.5	FMP MSY spawning escapement objective.
	--	--	--	≤ 0.85	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
Grays Harbor Fall	>13.3	>13.3	>13.3	13.3	FMP MSY spawning escapement objective.
	--	--	--	≤ 0.85	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
<u>COLUMBIA RIVER:</u>					
Columbia Upriver Brights	225.8	226.6	227.4	74.0	Minimum ocean escapement to attain 40.0 adults over McNary Dam, with normal distribution and no mainstem harvest. The management goal has been increased to 60.0 by Columbia River managers.
Mid-Columbia Brights	77.1	77.4	77.6	14.9	Minimum ocean escapement to attain 7.9 for Little White Salmon egg-take, assuming average conversion and no mainstem harvest.
Columbia Lower River Hatchery Tules	49.4	49.6	49.9	25.0	Minimum ocean escapement to attain 14.8 adults for hatchery egg-take, with average conversion and no lower river mainstem or tributary harvest.
Columbia Lower River Natural Tules ^{c/} (threatened)	37.2%	36.8%	36.4%	≤ 38.0%	Total adult equivalent fishery exploitation rate (2020 NMFS ESA guidance).
Columbia Lower River Wild ^{d/} (threatened)	19.3	19.3	19.4	6.9	Minimum ocean escapement to attain MSY spawner goal of 5.7 for N. Lewis River fall Chinook (NMFS ESA consultation standard).
Spring Creek Hatchery Tules	44.5	44.7	44.9	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	37.7	37.8	37.9	29.0	Aggregate escapement to mouth of Columbia River.
Snake River Fall (threatened) SRFI	54.4%	52.2%	50.0%	≤ 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 2020 ocean fishery management measures - STT analyzed (MT).^{a/} (Page 3 of 4)

Key Stock/Criteria	PROJECTED			2020 Criteria	Spawner Objective or Other Comparative Standard as Noted ^{b/}
	Alt I	Alt II	Alt III		
CHINOOK	CHINOOK			CHINOOK	
OREGON COAST:					
Nehalem Fall	--	--	--	≤ 0.85	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
Siletz Fall	--	--	--	≤ 0.85	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
Siuslaw Fall	--	--	--	≤ 0.85	ISBM obligation applicable, escapement goal not expected to be met. Compliance assessed postseason by the PSC.
South Umpqua	--	--	--	≤ 0.85	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Coquille	--	--	--	≤ 0.85	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
CALIFORNIA:					
Klamath River Fall	36.1	36.1	36.1	≥ 36.2	2020 minimum natural area adult escapement (FMP control rule).
Federally recognized tribal harvest	50.0%	50.0%	50.0%	50.0%	Equals 8.7 (thousand) adult fish for Yurok and Hoopa Valley tribal fisheries.
Exploitation (spawner reduction) rate	25.3%	25.3%	25.3%	≤ 25.0%	FMP control rule.
Adult river mouth return	59.0	59.0	59.0	NA	Total adults in thousands.
Age-4 ocean harvest rate	9.5%	9.5%	9.5%	≤ 16.0%	NMFS ESA consultation standard for threatened California Coastal Chinook.
KMZ sport fishery share	8.1%	8.1%	8.1%		
River recreational fishery share	15.0%	15.0%	15.0%	NA	Equals 1.3 (thousand) adult fish for recreational inriver fisheries.
Sacramento River Winter (endangered)	16.1%	16.1%	16.1%	≤ 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 2020 ESA Guidance).
Sacramento River Fall	237.8	237.8	237.8	≥ 141.955	2020 minimum hatchery and natural area adult escapement (FMP control rule).
Sacramento Index Exploitation Rate	49.7%	49.7%	49.7%	≤ 70.0%	FMP control rule.
Ocean commercial impacts	145.9	145.9	145.9		Includes fall (Sept-Dec) 2019 impacts (5.7 thousand SRFC).
Ocean recreational impacts	47.5	47.5	47.5		Includes fall (Sept-Dec) 2019 impacts (3.3 thousand SRFC).
River recreational impacts	42.0	42.0	42.0		

TABLE 5b. Projected key stock escapements (thousands of fish) or management criteria for 2020 ocean fishery management measures - STT analyzed (MT).^{a/} (Page 4 of 4)

Key Stock/Criteria	PROJECTED			2020 Criteria	Spawner Objective or Other Comparative Standard as Noted ^{b/}
	Alt I	Alt II	Alt III		
COHO	COHO				COHO
Interior Fraser (Thompson River)	8.8%(4.5%)	7.9%(3.5%)	7.0%(2.6%)	≤ 10.0%	2020 Southern U.S. exploitation rate ceiling; PSC coho agreement.
Skagit	32.4%(4.1%)	31.7%(3.3%)	31.1%(2.4%)	≤ 35.0%	2020 total exploitation rate ceiling; FMP matrix ^{d/}
Stillaguamish	27.7%(3.0%)	27.2%(2.4%)	26.6%(1.8%)	≤ 35.0%	2020 total exploitation rate ceiling; FMP matrix ^{d/}
Snohomish	15.6%(3.0%)	15.1%(2.4%)	14.6%(1.8%)	≤ 20.0%	2020 total exploitation rate ceiling; FMP matrix ^{d/}
Hood Canal	47.1%(4.5%)	46.5%(3.6%)	45.9%(2.7%)	≤ 45.0%	2020 total exploitation rate ceiling; FMP matrix ^{d/}
Strait of Juan de Fuca	10.4%(3.7%)	9.7%(3.0%)	9.1%(2.3%)	≤ 20.0%	2020 total exploitation rate ceiling; FMP matrix ^{d/}
Quillayute Fall	8.6	8.6	8.7	6.3	FMP MSY adult spawner estimate. Value depicted is ocean escapement.
Hoh	3.5	3.5	3.6	2.0	FMP MSY adult spawner estimate. Value depicted is ocean escapement.
Queets Wild	6.5	6.6	6.7	5.8	FMP MSY adult spawner estimate. Value depicted is ocean escapement.
Grays Harbor	46.2	46.6	46.9	24.4	FMP MSY adult spawner estimate. Value depicted is ocean escapement.
Willapa Bay	26.9	27.2	27.5	17.2	FMP MSY natural area adult spawner estimate. Value depicted is ocean escapement.
Lower Columbia River Natural (threatened)	17.0%	16.3%	15.7%	≤ 18.0%	Total marine and mainstem Columbia R. fishery exploitation rate (2020 NMFS ESA guidance).
Upper Columbia ^{c/}	68.6%	68.7%	68.8%	≥ 50%	Minimum percentage of the run to Bonneville Dam.
Columbia River Hatchery Early	84.2	84.8	85.5	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	33.4	33.7	33.9	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	12.1%	11.9%	11.8%	≤ 15.0%	Marine and freshwater fishery exploitation rate (NMFS ESA consultation standard).
Southern Oregon/Northern California Coast (threatened)	3.2%	3.2%	3.2%	≤ 13.0%	Marine fishery exploitation rate for R/K hatchery coho (NMFS ESA consultation standard).

a/ Model results for Chinook include updates to Canadian and OR coastal stock abundances, total allowable catches in 2020 AABM fisheries, and preliminary 2020 Puget Sound fisheries. Model results for coho include updates to 2020 Canadian abundances and updated proxy 2020 Canadian fisheries, as well as preliminary 2020 Puget Sound fisheries and 2020 Queets terminal area fisheries.

b/ ISBM obligation is assessed as a proportion of the 2009-2015 average calendar year exploitation rate. Ocean escapement is the number of salmon escaping ocean fisheries and entering freshwater with the following clarifications. Ocean escapement for Puget Sound stocks is the estimated number of salmon entering Area 4B that are available to U.S. net fisheries in Puget Sound and spawner escapement after impacts from the Canadian, U.S. ocean, and Puget Sound troll and recreational fisheries have been deducted. Numbers in parentheses represent Council area 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 represent marine and freshwater impacts. Values reported for Klamath River fall Chinook are natural area adult spawners. Values reported for Sacramento River fall Chinook are hatchery and natural area adult spawners.

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

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

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

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 2020 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%	2.4%	2.4%	2.4%
BRITISH COLUMBIA	0.3%	0.3%	0.3%	0.6%	0.6%	0.6%	0.5%	0.5%	0.5%	13.6%	13.6%	13.6%
PUGET SOUND/STRAIT	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.7%	0.7%
NORTH OF CAPE FALCON												
Treaty Indian Ocean Troll	0.9%	0.7%	0.3%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	1.8%	1.5%	1.2%
Recreational	4.6%	4.6%	4.6%	0.8%	0.8%	0.8%	0.0%	0.0%	0.0%	3.9%	3.9%	3.9%
Non-Indian Troll	1.1%	1.1%	1.1%	0.2%	0.2%	0.2%	0.0%	0.0%	0.0%	5.0%	5.0%	5.0%
SOUTH OF CAPE FALCON												
Recreational:										0.2%	0.2%	0.2%
Cape Falcon to Humbug Mt.	3.5%	3.5%	3.5%	6.7%	6.7%	6.7%	0.5%	0.5%	0.5%	-	-	-
Humbug Mt. to OR/CA border (KMZ)	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	-	-	-
OR/CA border to Horse Mt. (KMZ)	0.0%	0.0%	0.0%	0.2%	0.2%	0.2%	0.7%	0.7%	0.7%	-	-	-
Fort Bragg	0.0%	0.0%	0.0%	0.2%	0.2%	0.2%	0.7%	0.7%	0.7%	-	-	-
South of Pt. Arena	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.2%	0.2%	0.2%	-	-	-
Troll:										1.1%	1.1%	1.1%
Cape Falcon to Humbug Mt.	0.4%	0.4%	0.4%	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%	0.1%	0.1%	0.1%	0.2%	0.2%	0.2%	-	-	-
South of Pt. Arena	0.0%	0.0%	0.0%	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%	-	-	-
BUOY 10	2.7%	2.7%	2.7%	0.2%	0.2%	0.2%	0.0%	0.0%	0.0%	8.1%	8.2%	8.2%
ESTUARY/FRESHWATER	1.5%	1.5%	1.5%	1.4%	1.4%	1.4%	0.3%	0.3%	0.3%			
TOTAL^{a/}	15.3%	15.1%	14.7%	11.7%	11.7%	11.5%	3.2%	3.2%	3.2%	36.6%	36.4%	36.2%

a/ Totals do not include estuary/freshwater for RK coho; estuary/freshwater catch is included in the total for LCN and OCN. For LCR Tule Chinook, includes projected impacts of inriver fisheries that have not yet been shaped. Bolded values identify ocean exploitation rates that, when combined with freshwater harvest rates, would exceed the total allowable 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 2020 ocean fisheries management Alternatives - STT analyzed (MT).

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%	2.3%	2.4%	2.4%
BRITISH COLUMBIA	0.3%	0.3%	0.3%	0.6%	0.6%	0.6%	0.5%	0.5%	0.5%	13.5%	13.6%	13.6%
PUGET SOUND/STRAIT	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.7%	0.7%
NORTH OF CAPE FALCON												
Treaty Indian Ocean Troll	2.6%	1.9%	1.3%	0.6%	0.4%	0.3%	0.0%	0.0%	0.0%	2.6%	2.0%	1.4%
Recreational	4.7%	4.7%	4.6%	0.8%	0.8%	0.8%	0.0%	0.0%	0.0%	3.8%	3.9%	3.9%
Non-Indian Troll	1.1%	1.1%	1.1%	0.2%	0.2%	0.2%	0.0%	0.0%	0.0%	5.0%	5.0%	5.0%
SOUTH OF CAPE FALCON												
Recreational:										0.2%	0.2%	0.2%
Cape Falcon to Humbug Mt.	3.5%	3.5%	3.5%	6.7%	6.7%	6.7%	0.5%	0.5%	0.5%	-	-	-
Humbug Mt. to OR/CA border (KMZ)	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	-	-	-
OR/CA border to Horse Mt. (KMZ)	0.0%	0.0%	0.0%	0.2%	0.2%	0.2%	0.7%	0.7%	0.7%	-	-	-
Fort Bragg	0.0%	0.0%	0.0%	0.2%	0.2%	0.2%	0.7%	0.7%	0.7%	-	-	-
South of Pt. Arena	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.2%	0.2%	0.2%	-	-	-
Troll:										1.1%	1.1%	1.1%
Cape Falcon to Humbug Mt.	0.4%	0.4%	0.4%	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%	0.1%	0.1%	0.1%	0.2%	0.2%	0.2%	-	-	-
South of Pt. Arena	0.0%	0.0%	0.0%	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%	-	-	-
BUOY 10	2.7%	2.7%	2.7%	0.2%	0.2%	0.2%	0.0%	0.0%	0.0%	8.1%	8.1%	8.2%
ESTUARY/FRESHWATER	1.4%	1.4%	1.5%	1.4%	1.4%	1.4%	0.3%	0.3%	0.3%			
TOTAL^{a/}	17.0%	16.3%	15.7%	12.1%	11.9%	11.8%	3.2%	3.2%	3.2%	37.2%	36.8%	36.4%

a/ Totals do not include estuary/freshwater for RK coho; estuary/freshwater catch is included in the total for LCN and OCN. For LCR Tule Chinook, includes projected impacts of inriver fisheries that have not yet been shaped. 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 run Chinook age-3 ocean impact rate south of Pt. Arena by month, area, and fishery. Max rate: 20.0%.

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	0.08	0.51	0.66	0.64	0.19	0.08			2.15	SF		0.91	1.33	1.93	0.70	0.11	0.20	0.03		5.20
MO	0.33	1.51	0.72	0.78	0.00				3.34	MO		0.62	1.09	2.52	1.11	0.08	0.00			5.42
Total	0.41	2.02	1.37	1.43	0.19	0.08			5.49	Total		1.52	2.41	4.46	1.81	0.19	0.20	0.03		10.61

16.1% 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 2019		Summer 2020						Summer Total	Year Total	Port Area	Fall 2019			Summer 2020						Summer Total	Year Total
	Sep	Oct-Dec	Mar	Apr	May	Jun	Jul	Aug				Sep	Oct	Nov-Dec	Mar	Apr	May	Jun	Jul	Aug		
NO	60	0		32	38	42	105	366	583	643	NO	0	0		0	0	0	0	18	18	36	36
CO	0	0		94	70	206	432	1,187	1,989	1,989	CO	0	0	0	0	0	2	11	36	36	85	85
KO					18	74	50		142	142	KO							15	88	12	115	115
KC											KC							219	227	64	510	510
FB					505				505	505	FB	0	0	0			39	89	142	34	304	304
SF		0			232	771	1,591	750	3,344	3,344	SF	0	0				28	115	138	10	291	291
MO					118	112	92	2	324	324	MO						5	9	21	3	38	38
Total	60	0		126	981	1,205	2,271	2,305	6,888	6,948	Total	0	0	0	0		74	460	671	177	1,382	1,382

36,078 natural area spawners, 25.3% spawner reduction rate, 9.5% 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												
Alternative I	193,375 Total		Summer 2020						Summer Total	Year Total	Alternative I	Fall 2019			Summer 2020						Summer Total	Year Total
Port Area	Sep	Oct-Dec	Mar	Apr	May	Jun	Jul	Aug			Port Area	Sep	Oct	Nov-Dec	Mar	Apr	May	Jun	Jul	Aug		
NO	187	0		1,340	1,422	2,447	4,609	5,068	14,886	15,073	NO	39	0		8	5	9	38	329	169	558	597
CO	0	0		1,992	1,187	3,344	1,951	2,932	11,406	11,406	CO	0	0		2	3	11	112	355	347	830	830
KO				0	250	293	147		690	690	KO							73	360	18	451	451
KC											KC	27						919	1,033	201	2,153	2,180
FB					3,177				3,177	3,177	FB	76	0				633	1,158	2,408	867	5,066	5,142
SF	4,929	561			12,328	20,760	26,059	18,359	77,506	82,996	SF	2,844	296				3,804	6,150	11,973	6,604	28,531	31,671
MO					13,229	13,579	4,951	759	32,518	32,518	MO						1,702	1,951	2,538	454	6,645	6,645
Total	5,116	561		3,332	31,593	40,423	37,718	27,118	140,184	145,861	Total	2,986	296		10	8	6,159	10,401	18,995	8,659	44,232	47,514

237,837 hatchery and natural area spawners, 49.7% exploitation rate