

SALMON TECHNICAL TEAM REPORT  
PRELIMINARY ANALYSIS OF TENTATIVE 2019 OCEAN SALMON FISHERY  
MANAGEMENT MEASURES

*April 15, 2019*

TABLE 1. 2019 Commercial troll management measures for non-Indian ocean salmon fisheries – STT analyzed. (Page 1 of 6)  
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**A. SEASON DESCRIPTIONS**

**North of Cape Falcon**

**Supplemental Management Information**

1. Overall non-Indian TAC: 52,500 Chinook and 190,000 coho marked with a healed adipose fin clip (marked).
2. Non-Indian commercial troll TAC: 26,250 Chinook and 30,400 marked coho
3. Trade: May be considered.
4. 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.

Model #: Coho-1924, Chinook 2219

**U.S./Canada Border to Cape Falcon**

- May 6 through the earlier of June 28, or 13,200 Chinook. No more than 5,000 of which may be caught in the area between the U.S./Canada border and the Queets River, and no more than 1,800 of which may be caught in the area between Leadbetter Pt. and Cape Falcon (C.8).

Open seven days per week (C.1).

In the area between the U.S./Canada border and the Queets River: during May 6-15 the landing and possession limit is 100 Chinook per vessel for the open period. During May 16-June 28 the landing and possession limit is 50 Chinook per vessel per landing week (Thurs.-Wed.) (C.1, C.6).

In the area between Leadbetter Pt. and Cape Falcon: during May 6-15 the landing and possession limit is 100 Chinook per vessel for the open period. During May 16-June 28 the landing and possession limit is 50 Chinook per vessel per landing week (Thurs.-Wed.) (C.1, C.6).

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).

When it is projected that approximately 60% of the overall Chinook guideline has been landed, approximately 60% of the Chinook subarea guideline has been landed in the area between the U.S./Canada border and the Queets River, or approximately 60% of the Chinook subarea guideline has been landed in the area between Leadbetter Pt. and Cape Falcon, inseason action will be considered to ensure the guideline is not exceeded.

**U.S./Canada Border to Cape Falcon**

- July 1 through the earlier of September 30, or 13,050 Chinook or 30,400 marked coho (C.8). 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).

Landing and possession limit of 150 marked coho per vessel per landing week (Thurs.-Wed.) (C.1).

**For all commercial troll fisheries north of Cape Falcon:** Mandatory closed areas include: Salmon troll Yelloweye Rockfish Conservation Area, Cape Flattery and Columbia Control Zones, and beginning August 12, Grays Harbor Control Zone (C.5). Vessels must land and deliver their salmon within 24 hours of any closure of this fishery.

Vessels fishing or in possession of salmon north of Leadbetter Point must land and deliver all species of fish in a Washington port and must possess a Washington troll license. Vessels may not land fish east of the Sekiu River or east of the Megler-Astoria bridge. For delivery to Washington ports south of Leadbetter Point, 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).

Vessels fishing or in possession of salmon south 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 must 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](mailto: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).

Vessels in possession of salmon north 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.

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.

TABLE 1. 2019 Commercial troll management measures for non-Indian ocean salmon fisheries - STT analyzed. (Page 2 of 6)  
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<b>A. SEASON DESCRIPTIONS</b>	
<b>South of Cape Falcon</b>	
<b>Supplemental Management Information</b>	
<p>1. Sacramento River fall Chinook spawning escapement of 160,129 hatchery and natural area adults.  2. Sacramento Index exploitation rate of 57.8%.  3. Klamath River recreational fishery allocation: 7,636 adult Klamath River fall Chinook.  4. Klamath tribal allocation: 32,401 adult Klamath River fall Chinook.  5. CA/OR share of Klamath River fall Chinook commercial ocean harvest: 70% / 30%.  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>	
<p><b>Cape Falcon to Humbug Mt.</b></p> <ul style="list-style-type: none"> <li>• April 20-30;</li> <li>• May 6-30;</li> <li>• June 1-August 29;</li> <li>• September 1-October 31 (C.9.a).</li> </ul> <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 2020, the season will open March 15 for all salmon except coho. Chinook minimum size limit of 28 inches total length. Gear restrictions same as in 2019. This opening could be modified following Council review at its March 2020 meeting.</p>	
<p><b>Humbug Mt. to OR/CA Border (Oregon KMZ)</b></p> <ul style="list-style-type: none"> <li>• April 20-30;</li> <li>• May 6-30;</li> <li>• June 1 through the earlier of June 30, or a 3,200 Chinook quota;</li> <li>• July 1 through the earlier of July 31, or a 2,500 Chinook quota;</li> <li>• August 1 through the earlier of August 29, or a 1,200 Chinook quota (C.9.a).</li> </ul> <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 1, all salmon caught in this area must be landed and delivered in the State of Oregon.</p> <p>June 1-August 29 weekly landing and possession limit of 50 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, July, and August must land and deliver all salmon within this area or into Port Orford within 24 hours of any closure of this fishery and prior to fishing outside of this area.</p> <p>For all quota managed seasons (June, July, and August), 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 2020, the season will open March 15 for all salmon except coho. Chinook minimum size limit of 28 inches total length. Gear restrictions same as in 2019. This opening could be modified following Council review at its March 2020 meeting.</p>	
<p><b>OR/CA Border to Humboldt South Jetty (California KMZ)</b></p> <ul style="list-style-type: none"> <li>• June 1 through the earlier of June 30, or a 2,500 Chinook quota;</li> <li>• July 1 through the earlier of July 30, or a 2,500 Chinook quota;</li> <li>• August 2 through the earlier of August 31, or a 2,000 Chinook quota (C.9.b).</li> </ul> <p>Open five days per week (Fri.-Tue.). All salmon except coho (C.4, C.7). Chinook minimum size limit of 27 inches total length (B, C.1).</p> <p>Landing and possession limit of 20 Chinook per vessel per day (C.8.f).</p> <p>Any remaining portion of Chinook quotas may be transferred inseason on an impact neutral basis to the next open quota period (C.8.b).</p> <p>All 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.</p>	
<p><b>Humboldt South Jetty to Horse Mt.</b></p> <ul style="list-style-type: none"> <li>• Closed.</li> </ul>	
<p>When the fishery is closed between the OR/CA border and Humbug Mountain and open to the south, vessels with fish on board caught in the open area off California may seek temporary mooring in Brookings, Oregon prior to landing in California only if such vessels first notify the Chetco River Coast Guard Station via VHF channel 22A between the hours of 0500 and 2200 and provide the vessel name, number of fish on board, and estimated time of arrival (C.6).</p>	

TABLE 1. 2019 Commercial troll management measures for non-Indian ocean salmon fisheries - STT analyzed. (Page 3 of 6)  
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**A. SEASON DESCRIPTIONS**

**Horse Mt. to Point Arena (Fort Bragg)**

- June 4-30;
- July 11-31;
- August 1-28 (C.9.b).

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 must be landed and offloaded no later than 11:59 p.m., August 30 (C.6).

When the CA KMZ fishery is open, all fish caught in the area must be landed south of Horse Mountain until the CA KMZ fishery has been closed for at least 24 hours (C.6).

In 2020, the season will open April 16-30 for all salmon except coho, with a 27 inch Chinook minimum size limit and the same gear restrictions as in 2019. All salmon caught in the area must be landed in the area. This opening could be modified following Council review at its March 2020 meeting.

**Point Arena to Pigeon Point (San Francisco)**

- May 16-31;
- June 4-30;
- July 11-31;
- August 1-28;
- September 1-30 (C.9.b).

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).

When the CA KMZ fishery is open, all fish caught in the area must be landed south of Horse Mountain until the CA KMZ fishery has been closed for at least 24 hours (C.6).

**Point Reyes to Point San Pedro (Fall Area Target Zone)**

- October 1-4, 7-11, 14-15.

Open five days per week (Mon.-Fri.). All salmon except coho (C.4, C.7). Chinook minimum size limit of 27 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).

**Pigeon Point to U.S./Mexico Border (Monterey)**

- May 1-31;
- June 4-30;
- July 11-31 (C.9.b).

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 must be landed and offloaded no later than 11:59 p.m., August 5 (C.6).

When the CA KMZ fishery is open, all fish caught in the area must be landed south of Horse Mountain until the CA KMZ fishery has been closed for at least 24 hours (C.6).

**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).

TABLE 1. 2019 Commercial troll management Alternatives for non-Indian ocean salmon fisheries - STT analyzed. (Page 4 of 6)  
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**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	28	21.5	-	-	None
OR/CA Border to Humboldt South Jetty	27	20.5	-	-	27
Horse Mt. to Pt. Arena	27	20.5	-	-	27
Pt. Arena to Pigeon Pt.	27	20.5	-	-	27
Pigeon Pt. to U.S./Mexico Border	27	20.5	-	-	27

**C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS**

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

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

C.2. Gear Restrictions:

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

C.3. Gear Definitions:

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

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

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

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

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

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

C.5. Control Zone Definitions:

- 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.
- 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.
- 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

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

**C.5. Control Zone Definitions** *(continued)*:

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.

- 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 2019 for 2019 permits (*exact date to be set by the IPHC in early 2019*). Incidental harvest is authorized only during April, May, and June of the 2019 troll seasons, and after June 30 in 2019 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.

May 1, 2019 until the end of the 2019 salmon troll season, and April 1-30, 2020, license holders may land or possess no more than one Pacific halibut per two Chinook, except one halibut may be possessed or landed without meeting the ratio requirement, and no more than 35 halibut may be possessed or landed per trip. Halibut retained must be no less than 32 inches in total length (with head on).

Incidental Pacific halibut catch regulations in the commercial salmon troll fishery adopted for 2019, prior to any 2019 inseason action, will be in effect when incidental Pacific halibut retention opens on April 1, 2020 unless otherwise modified by inseason action at the March 2020 Council meeting.

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

- a. "C-shaped" yelloweye rockfish conservation area is an area to be voluntarily avoided for salmon trolling. NMFS and the Council request salmon trollers voluntarily avoid this area in order to protect yelloweye rockfish. The area is defined in the Pacific Council Halibut Catch Sharing Plan in the North Coast subarea (Washington marine area 3), with the following coordinates in the order listed:

48°18' N. lat.; 125°18' W. long.;  
48°18' N. lat.; 124°59' W. long.;  
48°11' N. lat.; 124°59' W. long.;  
48°11' N. lat.; 125°11' W. long.;  
48°04' N. lat.; 125°11' W. long.;  
48°04' N. lat.; 124°59' W. long.;  
48°00' N. lat.; 124°59' W. long.;  
48°00' N. lat.; 125°18' W. long.;  
and connecting back to 48°18' N. lat.; 125°18' W. long.

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

- 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 2020 meeting, the Council will consider inseason recommendations for special regulations for any experimental fisheries (proposals must meet Council protocol and be received in November 2019).
- 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.
Humbug Mountain, OR	42°40'30" N lat.	Point Sur, CA	36°18'00" N lat.
Oregon-California border	42°00'00" N lat.	Point Conception, CA	34°27'00" N lat.

TABLE 2. 2019 Recreational management measures for non-Indian ocean salmon fisheries - STT analyzed. (Page 1 of 5)  
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A. SEASON DESCRIPTIONS
North of Cape Falcon
Supplemental Management Information
<p>1. Overall non-Indian TAC: 52,500 Chinook and 190,000 coho marked with a healed adipose fin clip (marked).  2. Recreational TAC: 26,250 Chinook and 159,600 marked coho; all retained coho must be marked.  3. Trade: May be considered  4. No Area 4B add-on fishery.  5. Buoy 10 fishery opens August 1 with an expected landed catch of 50,000 marked coho in August and September.  6. 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><b>U.S./Canada Border to Cape Alava (Neah Bay Subarea)</b></p> <ul style="list-style-type: none"> <li>June 22 through earlier of September 30, or 16,600 marked coho subarea quota, with a subarea guideline of 5,200 Chinook (C.5).</li> </ul> <p>Open seven days per week. All salmon, except no chum beginning August 1; two salmon per day. All coho must be marked with a healed adipose fin clip (B, C.1).</p> <p>Beginning August 1, Chinook non-retention east of the Bonilla-Tatoosh line (C.4.a) during Council managed ocean fishery. See gear restrictions and definitions (C.2, C.3). Inseason management may be used to sustain season length and keep harvest within the overall Chinook and coho recreational TACs for north of Cape Falcon (C.5).</p>
<p><b>Cape Alava to Queets River (La Push Subarea)</b></p> <ul style="list-style-type: none"> <li>June 22 through earlier of September 30, or 4,050 marked coho subarea quota, with a subarea guideline of 1,100 Chinook (C.5).</li> <li>October 1 through earlier of October 13, or 100 marked coho quota, or 100 Chinook quota (C.5) in the area north of 47°50'00" N. lat. and south of 48°00'00" N. lat.</li> </ul> <p>Open seven days per week. All salmon, two salmon per day. All coho must be marked with a healed adipose fin clip (C.1). See gear restrictions and definitions (B, C.2, C.3).</p> <p>Inseason management may be used to sustain season length and keep harvest within the overall Chinook and coho recreational TACs for north of Cape Falcon (C.5).</p>
<p><b>Queets River to Leadbetter Point (Westport Subarea)</b></p> <ul style="list-style-type: none"> <li>June 22 through earlier of September 30, or 59,050 marked coho subarea quota, with a subarea guideline of 12,700 Chinook (C.5)</li> </ul> <p>Open seven days per week. All salmon; two salmon per day, no more than one of which may be a Chinook. All coho must be marked with a healed adipose fin clip (B, C.1).</p> <p>See gear restrictions and definitions (C.2, C.3). Grays Harbor Control Zone closed beginning August 12 (C.4.b). Inseason management may be used to sustain season length and keep harvest within the overall Chinook and coho recreational TACs for north of Cape Falcon (C.5).</p>
<p><b>Leadbetter Point to Cape Falcon (Columbia River Subarea)</b></p> <ul style="list-style-type: none"> <li>June 22 through earlier of September 30, or 79,800 marked coho subarea quota, with a subarea guideline of 7,150 Chinook (C.5).</li> </ul> <p>Open seven days per week. All salmon; two salmon per day, no more than one of which may be a Chinook. All coho must be marked with a healed adipose fin clip (B, C.1). See gear restrictions and definitions (C.2, C.3). Columbia Control Zone closed (C.4.c). Inseason management may be used to sustain season length and keep harvest within the overall Chinook and coho recreational TACs for north of Cape Falcon (C.5).</p>



TABLE 2. 2019 Recreational management measures for non-Indian ocean salmon fisheries - STT analyzed. (Page 2 of 5)  
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A. SEASON DESCRIPTIONS
South of Cape Falcon
Supplemental Management Information
<ol style="list-style-type: none"> <li>1. Sacramento River fall Chinook spawning escapement of 160,129 hatchery and natural area adults.</li> <li>2. Sacramento Index exploitation rate of 57.8%.</li> <li>3. Klamath River recreational fishery allocation: 7,636 adult Klamath River fall Chinook.</li> <li>4. Klamath tribal allocation: 32,401 adult Klamath River fall Chinook.</li> <li>5. Overall recreational coho TAC: 90,000 coho marked with a healed adipose fin clip (marked), and 9,000 coho in the non-mark-selective coho fishery.</li> <li>6. Fisheries may need to be adjusted to meet NMFS ESA consultation standards, FMP requirements, other management objectives, or upon receipt of new allocation recommendations from the CFGC.</li> </ol>
<p><b>Cape Falcon to Humbug Mt.</b></p> <ul style="list-style-type: none"> <li>• 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).</li> </ul> <p>Open seven days per week. All salmon except coho, two fish per day (C.1). Chinook minimum size limit of 24 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2020, the season will open March 15 for all salmon except coho, two salmon per day (C.1). Chinook minimum size limit of 24 inches total length (B); and the same gear restrictions as in 2019 (C.2, C.3). This opening could be modified following Council review at its March 2020 meeting.</p>
<p><b>Cape Falcon to OR/CA Border</b></p> <p><u>Mark-selective coho fishery:</u></p> <ul style="list-style-type: none"> <li>• June 22 through the earlier of August 25, or 90,000 marked coho quota.</li> </ul> <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><b>Cape Falcon to Humbug Mt.</b></p> <p><u>Non-mark-selective coho fishery:</u></p> <ul style="list-style-type: none"> <li>• August 31-September 30, open each Friday through Sunday, or 9,000 non-mark-selective coho quota (C.6). Open days may be modified inseason (C.5).</li> </ul> <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><b>Humbug Mt. to OR/CA Border (Oregon KMZ)</b></p> <ul style="list-style-type: none"> <li>• May 18-September 2 (C.6).</li> </ul> <p>Open seven days per week. All salmon except coho, <u>except</u> as described above in the "Cape Falcon to OR/CA Border all-salmon mark-selective coho fishery." Two salmon per day (C.1). Chinook minimum size limit of 24 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p>
<p><b>For Recreational Fisheries from Cape Falcon to Humbug Mt.:</b> 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. 2019 Recreational management measures for non-Indian ocean salmon fisheries - STT analyzed. (Page 3 of 5)  
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A. SEASON DESCRIPTIONS	
<b>OR/CA Border to Horse Mt. (California KMZ)</b>	<ul style="list-style-type: none"> <li>• May 25-September 2 (C.6).</li> </ul> <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>
<b>Horse Mt. to Point Arena (Fort Bragg)</b>	<ul style="list-style-type: none"> <li>• April 13-30;</li> <li>• May 18-October 31 (C.6).</li> </ul> <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 2020, season opens April 4 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 2019 (C.2, C.3). This opening could be modified following Council review at its March 2020 meeting.</p>
<b>Point Arena to Pigeon Point (San Francisco)</b>	<ul style="list-style-type: none"> <li>• April 13-30;</li> <li>• May 18-October 31 (C.6).</li> </ul> <p>Open seven days per week. All salmon except coho, two salmon per day (C.1). Chinook minimum size limit of 24 inches total length through April 30, then 20 inches thereafter (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2020, season opens April 4 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 2019 (C.2, C.3). This opening could be modified following Council review at its March 2020 meeting.</p>
<b>Pigeon Point to U.S./Mexico Border (Monterey)</b>	<ul style="list-style-type: none"> <li>• April 6-August 28 (C.6).</li> </ul> <p>Open seven days per week. All salmon except coho, two salmon per day (C.1). Chinook minimum size limit of 24 inches total length (B). See gear restrictions and definitions (C.2, C.3).</p> <p>In 2020, season opens April 4 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 2019 (C.2, C.3). This opening could be modified following Council review at its March 2020 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	24	16	None
Cape Falcon to Humbug Mt.	24	16	None
Humbug Mt. to OR/CA Border	24	16	None
OR/CA Border to Horse Mt.	20	-	20
Horse Mt. to Pt. Arena	20	-	20
Pt. Arena to Pigeon Pt. (April 13-30)	24	-	24
Pt. Arena to Pigeon Pt. (May 18-October 31)	20	-	20
Pigeon Pt. to U.S./Mexico Border	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)*

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

TABLE 3. 2019 Treaty Indian Troll Management Alternatives for Ocean Salmon Fisheries - Tribe proposed. (Page 1 of 2)

A. SEASON ALTERNATIVE DESCRIPTIONS	
Supplemental Management Information	
<p>1. Overall Treaty-Indian TAC: 35,000 Chinook and 55,000 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>	
<ul style="list-style-type: none"> <li>May 1 through the earlier of June 30 or 17,500 Chinook quota.</li> </ul> <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"> <li>July 1 through the earlier of September 15, or 17,500 Chinook quota or 55,000 coho quota</li> </ul> <p>All salmon. See size limit (B) and other restrictions (C).</p>	

**B. MINIMUM SIZE (INCHES)**

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

**C. REQUIREMENTS, DEFINITIONS, RESTRICTIONS, OR EXCEPTIONS**

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

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

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

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

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

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

C.2. Gear restrictions

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

TABLE 3. 2019 Treaty Indian troll management Alternatives for ocean salmon fisheries - Tribe proposed. (Page 2 of 2)
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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 2019 season (estimated harvest during the October ceremonial and subsistence fishery: 20 Chinook; 40 coho).

C.4. Area Closures

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

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

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

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2019 ocean fishery management measures - STT Analyzed.<sup>a/</sup> (Page 1 of 4)

Key Stock/Criteria	Projected	2019 Criteria	Spaw ner Objective or Other Comparative Standard as Noted <sup>b/</sup>
<b>CHINOOK</b>	<b>CHINOOK</b>		<b>CHINOOK</b>
<u>PUGET SOUND:</u>			
Elw ha Summer/Fall	1.4%	≤ 10.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
Dungeness Spring	1.2%	≤ 10.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
Mid-Hood Canal Summer/Fall	11.8%	≤ 12.0%	Preterminal Southern U.S. exploitation rate (NMFS ESA consultation standard).
Skokomish Summer/Fall	48.2%	≤ 50.0%	Total exploitation rate (NMFS ESA consultation standard).
Nooksack Spring	10.5%	≤ 10.5%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
	0.95	≤ 1.00	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Skagit Summer/Fall	36.7%	--	Total exploitation rate.
	12.224	≥ 8.242	Aggregate Rebuilding abundance threshold NOR (NMFS ESA consultation standard).
	--	≤ 0.95	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
Skagit Spring	32.1%	--	Total exploitation rate.
	1.616	≥ 0.841	Aggregate Rebuilding abundance threshold NOR (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	18.0%	≤ 22.0%	Rebuilding exploitation rate (NMFS ESA consultation standard).
	0.53	≤ 1.00	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Snohomish Summer/Fall	15.8%	≤ 20.0%	Rebuilding exploitation rate (NMFS ESA consultation standard).
	0.55	≤ 1.00	ISBM obligation applicable, as this stock lacks a CTC agreed escapement goal. Compliance assessed postseason by the PSC.
Lake Washington Summer/Fall	0.844	≥ 0.500	Natural-origin escapement in the Cedar River (NMFS ESA consultation standard).
Green River Summer/Fall	2.161	≥ 1.200	Natural-origin spawning escapement (NMFS ESA consultation standard).
White River Spring	16.7%	≤ 22.0%	Southern U.S. exploitation rate (NMFS ESA consultation standard).
Puyallup Summer/Fall	1.115	≥ 0.750	Natural-origin spawning escapement (NMFS ESA consultation standard).
Nisqually River Summer/Fall	47.0% (48.7%)	≤ 47.0% (49.0%)	Total exploitation rate, (additional 2% contingent on mark selective fishery plan for river; NMFS ESA consultation standard).
Puget Sound Spring	1.8%	≤ 3.0%	Exploitation rate in PFMC fisheries (NMFS ESA consultation standard).
Puget Sound Summer/Fall	4.7%	≤ 6.0%	Exploitation rate in PFMC fisheries (NMFS ESA consultation standard).

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2019 ocean fishery management measures - STT Analyzed.<sup>a/</sup> (Page 2 of 4)

Key Stock/Criteria	Projected	2019 Criteria	Spaw ner Objective or Other Comparative Standard as Noted <sup>b/</sup>
<b>CHINOOK</b>	<b>CHINOOK</b>		<b>CHINOOK</b>
<u>WASHINGTON COAST:</u>			
Hoko Fall	2.32	0.85	FMP MSY spaw ning escapement objective.
	2.4%	≤ 10.0%	Calendar year exploitation rate ISBM obligation. Compliance assessed postseason by the PSC.
Quillayute Fall	>3.0	3.0	FMP MSY spaw ning escapement objective.
	--	≤ 0.85	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
Hoh Fall	>1.2	1.2	FMP MSY spaw ning escapement objective.
	--	≤ 0.85	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
Queets Fall	>2.5	2.5	FMP MSY spaw ning escapement objective.
	--	≤ 0.85	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
Grays Harbor Fall	>13.3	13.3	FMP MSY spaw ning escapement objective.
	--	≤ 0.85	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
<u>COLUMBIA RIVER:</u>			
Columbia Upriver Brights	162.6	74.0	Minimum ocean escapement to attain 40.0 adults over McNary Dam, with normal distribution and no mainstem harvest. The management goal has been increased to 60.0 by Columbia River managers.
	--	≤ 0.85	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
Mid-Columbia Brights	66.4	14.9	Minimum ocean escapement to attain 7.9 for Little White Salmon egg-take, assuming average conversion and no mainstem harvest.
Columbia Low er River Hatchery Tules <sup>e/</sup>	55.1	25.0	Minimum ocean escapement to attain 14.8 adults for hatchery egg-take, with average conversion and no low er river mainstem or tributary harvest.
Columbia Low er River Natural Tules (threatened)	36.0%	≤ 38.0%	Total adult equivalent fishery exploitation rate (2019 NMFS ESA guidance).
Columbia Low er River Wild <sup>c/</sup> (threatened)	14.1	6.9	Minimum ocean escapement to attain MSY spaw ner goal of 5.7 for N. Lewis River fall Chinook (NMFS ESA consultation standard).
	--	≤ 0.85	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
Spring Creek Hatchery Tules	48.4	8.2	Minimum ocean escapement to attain 6.0 adults for Spring Creek Hatchery egg-take, assuming average conversion and no mainstem harvest.
Snake River Fall (threatened) SRFI	58.7%	≤ 70.0%	Of 1988-1993 base period exploitation rate for all ocean fisheries (NMFS ESA consultation standard).
Columbia Upriver Summers	36.3	29.0	Aggregate escapement to mouth of Columbia River (2019 NMFS guidance). Minimum ocean escapement to attain 12.1 adults over Rock Island Dam.



TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2019 ocean fishery management measures - STT Analyzed.<sup>a/</sup> (Page 3 of 4)

Key Stock/Criteria	Projected	2019 Criteria	Spaw ner Objective or Other Comparative Standard as Noted <sup>b/</sup>
<b>CHINOOK</b>	<b>CHINOOK</b>		<b>CHINOOK</b>
<u>OREGON COAST:</u>			
Nehalem Fall	--	≤ 0.85	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
Siletz Fall	--	≤ 0.85	ISBM obligation not applicable, escapement goal expected to be met. Compliance assessed postseason by the PSC.
Siuslaw Fall	--	≤ 0.85	ISBM obligation 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.
<u>CALIFORNIA:</u>			
Klamath River Fall	40.7	≥ 40.7	2019 minimum natural area adult escapement (FMP control rule).
Federally recognized tribal harvest	50.0%	50.0%	Equals 32.4 (thousand) adult fish for Yurok and Hoopa Valley tribal fisheries.
Exploitation (spaw ner reduction) rate	53.7%	≤ 53.7%	FMP control rule.
Adult river mouth return	97.9	NA	Total adults in thousands.
Age-4 ocean harvest rate	16.0%	≤ 16.0%	NMFS ESA consultation standard for threatened California Coastal Chinook.
KMZ sport fishery share	7.0%	NA	Includes 0.0 (thousand) adult fish impacted in the KMZ sport fishery during fall (Sept-Dec) 2018.
River recreational fishery share	23.6%	NA	Equals 7.6 (thousand) adult fish for recreational inriver fisheries.
Sacramento River Winter (endangered)	14.8%	≤ 15.7%	Age-3 ocean impact rate in fisheries south of Pt. Arena. In addition, the following season restrictions apply: Recreational- 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. Commercial- 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 2019 ESA Guidance).
Sacramento River Fall	160.1	≥ 160.0	2019 minimum hatchery and natural area adult escapement (NMFS guidance).
Sacramento Index Exploitation Rate	57.8%	≤ 67.9%	FMP control rule.
Ocean commercial impacts	142.3	NA	Includes fall (Sept-Dec) 2018 impacts (6.2 thousand SRFC).
Ocean recreational impacts	49.0	NA	Includes fall 2018 impacts (7.7 thousand SRFC).
River recreational impacts	28.3	NA	Equals 12.9% of the total harvest.

TABLE 5. Projected key stock escapements (thousands of fish) or management criteria for 2019 ocean fishery management measures - STT Analyzed.<sup>a/</sup> (Page 4 of 4)

Key Stock/Criteria	Projected	2019 Criteria	Spaw ner Objective or Other Comparative Standard as Noted <sup>b/</sup>
<b>COHO</b>	<b>COHO</b>	<b>COHO</b>	<b>COHO</b>
Interior Fraser (Thompson River)	9.1%(5.3%)	≤ 10.0%	2019 Southern U.S. exploitation rate ceiling; PSC coho agreement.
Skagit	32.5%(4.8%)	≤ 35.0%	2019 total exploitation rate ceiling; FMP matrix <sup>d/</sup>
Stillaguamish	22.5%(3.4%)	≤ 50.0%	2019 total exploitation rate ceiling; FMP matrix <sup>d/</sup>
Snohomish	19.4%(3.4%)	≤ 40.0%	2019 total exploitation rate ceiling; FMP matrix <sup>d/</sup>
Hood Canal	44.3%(5.3%)	≤ 45.0%	2019 total exploitation rate ceiling; FMP matrix <sup>d/</sup>
Strait of Juan de Fuca	8.9%(4.2%)	≤ 20.0%	2019 total exploitation rate ceiling; FMP matrix <sup>d/</sup>
Quillayute Fall	13.7	6.3	FMP MSY adult spaw ner estimate. Value depicted is ocean escapement.
Hoh	5.8	2.0	FMP MSY adult spaw ner estimate. Value depicted is ocean escapement.
Queets Wild	9.1	5.8	FMP MSY adult spaw ner estimate. Value depicted is ocean escapement.
Grays Harbor	65.9	24.4	FMP MSY adult spaw ner estimate. Value depicted is ocean escapement.
Willapa Bay Natural	56.3	17.2	FMP MSY adult spaw ner estimate. Value depicted is ocean escapement.
Low er Columbia River Natural (threatened)	13.8%	≤ 23.0%	Total marine and mainstem Columbia R. fishery exploitation rate (NMFS ESA guidance). Value depicted is marine ER before Buoy 10.
Upper Columbia <sup>e/</sup>	>50%	≥ 50%	Minimum percentage of the run to Bonneville Dam.
Columbia River Hatchery Early	340.5	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	213.3	9.7	Minimum ocean escapement to attain hatchery egg-take goal of 6.4 late adult coho, with average conversion and no mainstem or tributary fisheries.
Oregon Coastal Natural	13.7%	≤ 15.0%	Marine and freshw ater fishery exploitation rate (NMFS ESA consultation standard).
Southern Oregon/Northern California Coast (threatened)	5.8%	≤ 13.0%	Marine fishery exploitation rate for R/K hatchery coho (NMFS ESA consultation standard).

a/ Model results for Chinook include updates to northern stock abundances and total allow able catch in 2019 AABM fisheries in addition to preliminary 2019 fisheries for Puget Sound. Model results for coho include final 2019 Canadian abundances and updated proxy 2019 Canadian 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 freshw ater w ith the follow ing clarifications. Ocean escapement for Puget Sound stocks is the estimated number of salmon entering Area 4B that are available to U.S. net fisheries in Puget Sound and spaw ner escapement after impacts from the Canadian, U.S. ocean, and Puget Sound troll and recreational fisheries have been deducted. Numbers in parentheses represent Council area exploitation rates for Puget sound coho stocks. For Columbia River early and late coho stocks, ocean escapement represents the number of coho after the Buoy 10 fishery. Exploitation rates for LCN coho include marine impacts only. Exploitation rates for OCN coho represent marine and freshw ater impacts. Values reported for Klamath River fall Chinook are natural area adult spaw ners. Values reported for Sacramento River fall Chinook are hatchery and natural area adult spaw ners.

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

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

TABLE 7. Expected coastwide lower Columbia Natural (LCN) Oregon coastal natural (OCN) and Rogue/Klamath (RK) coho, and Lower Columbia River (LCR) tule Chinook exploitation rates by fishery for 2019 ocean fisheries management measures-STT Analyzed.

Fishery	Exploitation Rate (Percent)			
	LCN Coho	OCN Coho	RK Coho	LCR Tule
SOUTHEAST ALASKA	0.0%	0.0%	0.0%	1.6%
BRITISH COLUMBIA	0.2%	0.5%	0.3%	11.9%
PUGET SOUND/STRAIT/BAY	0.1%	0.0%	0.0%	0.7%
NORTH OF CAPE FALCON				
Treaty Indian Ocean Troll	2.7%	0.6%	0.0%	2.0%
Recreational	5.0%	0.9%	0.1%	4.5%
Non-Indian Troll	1.5%	0.3%	0.0%	5.3%
SOUTH OF CAPE FALCON				
Recreational:				0.2%
Cape Falcon to Humbug Mt.	3.4%	7.0%	0.4%	
Humbug Mt. to OR/CA border (KMZ)	0.1%	0.4%	0.8%	
OR/CA border to Horse Mt. (KMZ)	0.0%	0.3%	1.1%	
Fort Bragg	0.0%	0.2%	0.6%	
South of Pt. Arena	0.0%	0.1%	0.2%	
Troll:				1.5%
Cape Falcon to Humbug Mt.	0.7%	0.9%	0.2%	
Humbug Mt. OR/CA border (KMZ)	0.0%	0.1%	0.2%	
OR/CA border to Horse Mt. (KMZ)	0.0%	0.2%	0.8%	
Fort Bragg	0.0%	0.4%	1.0%	
South of Pt. Arena	0.0%	0.3%	0.2%	
BUOY 10	1.8%	0.1%	0.0%	8.2%
ESTUARY/FRESHWATER	na	1.4%	0.2%	
TOTAL <sup>a/</sup>	13.8%	13.7%	5.8%	36.0%

a/ Totals do not include Buoy 10 and estuary/freshwater for LCN and RK coho; estuary/freshwater catch is included in the total for OCN.

Table A-1. Sacramento River winter run Chinook age-3 ocean impact rate south of Pt. Arena by month, area, and fishery. Max rate: 15.7%.

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	0.45	0.33	0.59	0.12	0.07			1.64	SF	0.20	0.41	1.27	1.98	0.75	0.10	0.22			4.93
MO	0.49	0.90	0.59						1.97	MO	1.09	0.57	1.10	2.58	0.92					6.28
Total	0.56	1.35	0.92	0.59	0.12	0.07			3.61	Total	1.29	0.98	2.37	4.57	1.67	0.10	0.22			11.20

14.8% total impact rate

Table A-2. Klamath River fall Chinook age-4 ocean harvest by month, area, and fishery. In 2019, a harvest of 16979 age-4 KRFC results in a 16% ocean harvest rate.

Commercial											Recreational													
Port Area	Fall 2018 Sep	Oct-Dec		Mar	Apr	Summer 2019 May	Jun	Jul	Aug	Summer Total	Year Total	Port Area	Fall 2018 Sep	Oct	Nov-Dec		Mar	Apr	Summer 2019 May	Jun	Jul	Aug	Summer Total	Year Total
NO	85	0			53	224	103	117	475	972	1,057	NO	31	0			0	0	0	0	11	16	27	58
CO	0	0			166	376	486	547	1,133	2,708	2,708	CO	0	0	0		0	0	2	13	24	24	63	63
KO		0			0	93	358	362	171	984	984	KO		0					1	30	60	202	293	293
KC							518	441	379	1,338	1,338	KC	0						29	174	152	267	622	622
FB	44						3,304	2,861	638	6,803	6,847	FB	0	0			3	12	62	96	21		194	194
SF	0	0				294	747	905	271	2,217	2,217	SF	0	0			19	9	66	81	6		181	181
MO						232	93	92		417	417	MO					20	4	7	14	1		46	46
Total	129	0			219	1,218	5,610	5,326	3,067	15,440	15,569	Total	31	0	0	0	0	41	58	352	438	538	1,427	1,458
											14.7%												1.4%	

16.0% age-4 ocean harvest rate, 40,700 natural area spawners, 53.7% spawner reduction rate

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

Commercial										Recreational												
Port Area	Fall 2018		Summer 2019						Summer Total	Year Total	Port Area	Fall 2018			Summer 2019						Summer Total	Year Total
	Sep	Oct-Dec	Mar	Apr	May	Jun	Jul	Aug				Sep	Oct	Nov-Dec	Mar	Apr	May	Jun	Jul	Aug		
NO	0	0		762	2,722	2,246	3,467	5,077	14,274	14,274	NO	36	0		7	4	7	49	249	193	509	545
CO	15	0		1,130	2,263	3,182	1,697	2,933	11,205	11,220	CO	23	0	0	1	3	9	144	287	318	762	785
KO		0		0	481	1,135	1,049	300	2,965	2,965	KO		0				72	165	300	226	763	763
KC					551	1,121	512		2,184	2,184	KC	0					269	888	859	632	2,648	2,648
FB	44					13,723	14,240	5,708	33,671	33,715	FB	0	0			135	234	958	1,949	683	3,959	3,959
SF	5,067	1,088			9,469	12,874	10,996	13,063	46,402	52,557	SF	4,685	2,964			1,494	1,392	4,806	9,832	5,215	22,739	30,388
MO					15,425	6,686	3,262		25,373	25,373	MO					4,545	1,395	1,582	2,069	279	9,870	9,870
Total	5,126	1,088		1,892	30,360	40,396	35,832	27,593	136,073	142,287	Total	4,744	2,964	0	8	6,181	3,378	8,591	15,545	7,546	41,249	48,957

160,129 hatchery and natural area adult spawners, 57.8% exploitation rate

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