

**2021 – 2022 Co-Managers' List of Agreed Fisheries
(May 1, 2021 – May 14, 2022)**

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4/23/2021

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Part I. Treaty/Non-Treaty OCEAN Fisheries (FRAM #3721 (Chinook) & #2140 (Coho))

Treaty Troll Quota	40,000 Chinook; 26,500 Coho
Non-treaty TAC	58,000 Chinook and 75,000 marked Coho.
NT Troll TAC	30,750 Chinook and 5,000 marked Coho.
Recreational TAC	27,250 Chinook and 70,000 marked Coho.

1.1 Treaty Troll: Areas 2, 3, 4 & 4B

5/1-6/30	Chinook directed fishery with sub quota of 20,000 Chinook. May 1 through June 30 or attainment of 20,000 Chinook sub quota, whichever comes first. All salmon except Coho. If the Chinook quota for the May-June fishery is not fully utilized, the excess fish may be transferred on an impact-neutral basis for limiting stocks into the later all-salmon season. If the Chinook quota is exceeded, the excess will be deducted from the later all-salmon season.
7/1-9/15	All salmon species, with quota of 26,500 Coho and sub quota of 20,000 Chinook plus any portion of uncaught Chinook rolled over from the May 1 through June 30 time period on an impact-neutral basis. Chum release 8/1-9/15. Open from July 1 through September 15, or attainment of either the Coho quota or the Chinook sub quota, whichever comes first.

1.2 Non-Treaty Troll: U.S./Canada border to Cape Falcon

<p>5/1- thru earliest of 6/29 or pre-season Chinook sub-quota of 15,375 (no more than 5,680 of which may be caught in the area between the U.S./Canada border and the Queets River and no more than 4,195 of which may be caught in the area between Leadbetter Pt. and Cape Falcon)</p>	<p>All salmon except Coho with 15,375 Chinook quota; no more than 5,680 of which may be caught in the area between the U.S./Canada border and the Queets River and no more than 4,195 of which may be caught in the area between Leadbetter Pt. and Cape Falcon; Open seven days per week. Landing and possession limit of 75 Chinook per vessel per landing week (Thurs-Wed) is in effect in the area between the U.S./Canada border and the Queets River and in the area between Leadbetter Point and Cape Falcon. An in-season conference call will occur when it is projected that 75% of the overall Chinook quota has been landed or 75% of any sub-area quota has been landed to consider modifying the open period and landing and possession limits. Mandatory Yelloweye Rockfish Conservation Area, Columbia and Cape Flattery Control Zones closed. Trip limits, gear restrictions, and guidelines may be implemented or adjusted in-season. Vessels must land their fish within 24 hours of any closure of this fishery; under state law, vessels must report their catch on a state fish receiving ticket. Vessels in possession of salmon north of the Queets River may not cross the Queets River line without first notifying WDFW with area fished, total Chinook 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 with area fished, total Chinook and halibut catch aboard, and destination. Vessels fishing, or in possession of salmon while fishing north 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 Port Angeles or east of the Megler-Astoria bridge. For delivery to Washington ports east of the Seiku River, vessels must first notify WDFW with area fished, total Chinook and halibut catch aboard, and destination with approximate time of delivery. For delivery to Washington ports south of Leadbetter Point, vessels must first notify WDFW with area fished, total Chinook and halibut catch aboard, and destination with approximate time of delivery. Vessels fishing, or in possession of salmon while fishing south of Leadbetter Point must land and deliver their fish within the area and south of Leadbetter Point, except that Oregon permitted vessels may also land their fish in Garibaldi. During any single trip, only one side of the Leadbetter Point line may be fished.</p>
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<p>7/1 thru earliest of 9/30 or pre- season Chinook sub-quota of 15,375 or Coho quota of 5,000.</p>	<p>All salmon with 15,375 Chinook quota and no more than 5,000 marked Coho quota. Open seven days per week. A landing and possession limit of 20 coho per vessel per landing week (Thurs-Wed) is in effect in all areas. All retained Coho must be marked with a healed adipose fin clip. No Chum retention north of Cape Alava, Washington beginning August 1. Mandatory Yelloweye Rockfish Conservation Area, Cape Flattery and Columbia Control Zones closed. Grays Harbor Control Zone closed beginning August 12. Trip limits, gear restrictions, and guidelines may be implemented or adjusted in-season. Vessels must land their fish within 24 hours of any closure of this fishery. Under state law, vessels must report their catch on a state fish receiving ticket. Vessels in possession of salmon north of the Queets River may not cross the Queets River line without first notifying WDFW 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 with area fished, total Chinook, Coho, and halibut catch aboard, and destination. 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 and/or salmon delivery license. Vessels may not land fish east of Port Angeles or east of the Megler-Astoria bridge. For delivery to Washington ports east of the Sekiu River, vessels must first notify WDFW with area fished, total Chinook Coho, and halibut catch aboard, and destination with approximate time of delivery. For delivery to Washington ports, south of Leadbetter Point, vessels must first notify WDFW with area fished, total Chinook, Coho, and halibut catch aboard, and destination with approximate time of delivery. Vessels fishing, or in possession of salmon south of Leadbetter Point must land and deliver their fish within the area and south of Leadbetter Point, except that Oregon permitted vessels may also land their fish in Garibaldi. During any single trip, only one side of the Leadbetter Point line may be fished.</p>
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1.3 Non-Treaty Recreational

Area 1: Leadbetter Point to Cape Falcon (Oregon)

<p>6/19-9/15 (42,400 Mark Selective Fishery Coho sub quota)</p>	<p>June 19 – 26: Open 7 days per week; all salmon except Coho, 1 salmon per day. June 27 – September 15: Open 7 days per week, all salmon, 2 salmon per day, only one of which may be a Chinook; retained Coho must have a healed adipose fin clip; Chinook minimum size limit 22 inches and Coho minimum size 16"; Chinook guideline: 7,200. Closed in Columbia Control Zone. In-season management may be used to sustain season length and keep harvest within the overall Chinook recreational TAC for north of Cape Falcon.</p>
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Buoy 10

<p>6/16-7/5</p>	<p>Closed from the Astoria-Megler Bridge downstream. Open from Astoria-Megler Bridge upstream to Rocky Pt./Tongue Pt. line. 7 days/week; 6 fish (min. size 12") per day, up to 2 adults of which no more than 1 sockeye and 1 hatchery steelhead may be retained. Release all salmon other than sockeye and hatchery Chinook.</p>
<p>7/6-7/31</p>	<p>Closed from the Astoria-Megler Bridge downstream. Open from Astoria-Megler Bridge upstream to Rocky Pt./Tongue Pt. line. 7 days/week; 6 fish (min. size 12") per day, up to 2 adults of which no more than 1 sockeye and 1 hatchery steelhead may be retained. Release all salmon other than hatchery jack Chinook and sockeye.</p>
<p>8/1-8/10</p>	<p>Open 7 days/week; 2 fish per day, no more than 1 Chinook. Chinook min. size 24", Coho min. size 16". Release all salmon and steelhead other than hatchery Chinook and hatchery Coho.</p>
<p>8/11-9/6</p>	<p>Open 7 days/week; 2 fish per day, no more than 1 Chinook. Chinook min. size 24", Coho min. size 16". Release all salmon and steelhead other than Chinook and hatchery Coho.</p>
<p>9/7-9/30</p>	<p>Open 7 days/week; 3 fish per day. Coho min. size 16". Release all salmon and steelhead other than hatchery Coho.</p>
<p>10/1-10/31</p>	<p>Open 7 days/week; 6 fish (min. size 12") per day, up to 3 adults. Release all salmon and steelhead other than hatchery Coho.</p>
<p>11/1-12/31</p>	<p>Open 7 days/week; 6 fish (min. size 12") per day, up to 3 adults, of which no more than 2 may be hatchery steelhead. Release all salmon other than hatchery Coho.</p>

1/1-3/31	Open 7 days/week, 6 fish (min. size 12") per day, up to 2 adults, release all salmon other than hatchery Chinook.
North Jetty	Open 7 days per week when Area 1 or Buoy 10 area is open. When Buoy 10 area and Area 1 are open concurrently, the daily limit and minimum size restrictions follow the most liberal regulations of those areas.

Area 2: Queets River to Leadbetter Point

6/19-9/15 (20,440 Mark Selective Fishery Coho sub quota	June 19 – 26: Open 7 days per week; all salmon except Coho; 1 salmon per day. June 27- September 15: Open 5 days per week (Sun- Thurs); all salmon, 2 salmon per day, only one of which may be a Chinook; retained Coho must have a healed adipose fin clip; Chinook minimum size limit 22 inches and Coho minimum size 16 inches; Chinook guideline: 12,925. Grays Harbor Control Zone closed beginning August 9. In-season management may be used to sustain season length and keep harvest within the overall Chinook recreational TAC for north of Cape Falcon.
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Area 2-1 (east of a line from Leadbetter Point to Cape Shoalwater): Willapa Bay

6/19- 7/31	Open concurrent with Area 2, when Area 2 is open for salmon. Area 2 rules apply.
8/1-1/31	6 fish limit, 2 adults, 12" min size limit. Release wild Chinook and wild Coho. 2 pole endorsement.

Area 2-2 (east of line between tips of exposed jetties): Grays Harbor

West of Buoy 13 line 6/19- 8/21	Open concurrent with Area 2, when Area 2 is open for salmon. Area 2 rules apply.
East of Buoy 13 line, when open	All salmon required to be released may not be totally removed from the water, except anglers fishing from boats 30' or longer as listed on either their State or Coast Guard regulation are exempt. Single-point barbless hooks required.
East of Buoy 13 line 6/19- 7/31	Closed.
East of Buoy 13 line 8/1-9/23	1 fish limit, 12" min size limit. Release wild Chinook and wild Coho. Open to salmon angling only in the area described as Humptulips – North Bay (the area conforms to the commercial SMCRA 2C).

East of Buoy 13 line 10/1-11/30	1 fish limit, 12" min size limit. Release Chinook. Open to salmon angling only in the area described as East Grays Harbor (the area conforms to the commercial SMCRA 2D).
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Westport Boat Basin and Ocean Shores Boat Basin

8/16-1/31	6 fish limit, 4 adults; 12" min size limit. Release Chinook.
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Area 3: Cape Alava to Queets River

6/19-9/15 (1,430 Mark Selective Fishery Coho sub quota)	<p>June 19 – July 3: Open 7 days per week; all salmon except Coho, 2 salmon per day.</p> <p>July 4 – September 15: Open 7 days per week, all salmon except no Chum retention beginning August 1, 2 salmon per day; retained Coho must have a healed adipose fin clip; Chinook minimum size limit 24 inches and Coho minimum size 16 inches; Chinook guideline: 1,300. In-season management may be used to sustain season length and keep harvest within the overall Chinook recreational TAC for north of Cape Falcon</p>
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Area 4: U.S./Canada border to Cape Alava and east to Sekiu River

6/19-9/15 (5,730 Mark Selective Fishery Coho sub quota)	<p>June 19 – July 3: Open 7 days per week; all salmon except Coho, 1 salmon per day.</p> <p>July 4 – September 15: Open 7 days per week, all salmon except no Chum retention beginning August 1, 2 salmon per day; retained Coho must have a healed adipose fin clip; Chinook minimum size limit 24 inches and Coho minimum size 16 inches; Chinook guideline: 5,825. No Chinook retention east of Bonilla-Tatoosh line beginning August 1. Closed waters: east of a true north-south line running through Sail Rock in July; Closed to salmon angling inside the area bounded by a line from Kydaka Point to Shipwreck Point. In-season management may be used to sustain season length and keep harvest within the overall Chinook recreational TAC for north of Cape Falcon.</p>
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Area 4A: Makah Bay Treaty Evaluation Marine Set Net Fishery

Chinook	Trty	Open 6/15 through 8/31 in Area 4A, except closed inside an area bounded by a line running from Strawberry Rock Point (48° 19' 07"N, 124° 40' 00"W) to the group of rocks (48° 19' 46"N, 124° 40' 35"W) which are located off Hobuck Beach and a line to the mouth of Hobuck Creek (48° 19' 94"N, 124° 39' 66"W), to be implemented per agreement between the Makah Tribe and WDFW.
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Part II. PUGET SOUND including STRAIT of JUAN de FUCA and SAN JUAN ISLANDS fisheries (All fisheries modeled in FRAM #3721 (Chinook) & #2140 (Coho))

2.1 Strait of Juan de Fuca Pre-terminal Areas

Areas 5, 6, 6C Treaty Troll (Ntrty net closed)

NOTE: Area 4B: 5/1-10/31 see Ocean Troll. For 11/1-12/31 & 1/1-4/15 see below.

5/1-6/15	Closed
6/16-9/30	Open for salmon, Chum release; Freshwater Bay closed, south of Angeles Pt./Observatory Pt. line; Pt. Angeles Harbor closed west of line from tip of Ediz Hook to ITT Rayonier Dock; Hoko Bay closed inside the area bounded by a line from Kydaka Point to Shipwreck Point; Area 6 closed east of a line true north from Green Point; 1,000-foot closure around stream mouths. The catch estimates for this fishery modeled in FRAM are statistically-derived predictions, and are the best available pre-season estimates of catch in this fishery. In order to have the actual catch reflect run strength, however, these estimates will not be treated as a ceiling when the managers make in-season fishery management decisions.
10/1-10/31	Closed.
11/1-4/15	In Areas 4B, 5, 6, 6C the treaty troll fishery will be open from November 1, 2021 through April 15, 2022, or when the catch reaches the harvest ceiling of 8,500 Chinook, whichever comes first. 1,000-foot closures around stream mouths. Hoko Bay closed inside the area bounded by a line from Kydaka Point to Shipwreck Point for the month of November. The catch estimates for this fishery modeled in FRAM are statistically-derived predictions, and are the best available pre- season estimates of catch in this fishery. In order to have the actual catch reflect run strength, however, these estimates will not be treated as a ceiling when the managers make in-season fishery management decisions. The winter troll catch ceiling is 8,500 Chinook.
4/16-4/30	Closed

Areas 4B, 5, & 6C Treaty Net (Ntrty net closed)

Note: The catch estimates for this fishery modeled in FRAM are statistically-derived predictions, and are the best available pre-season estimates of catch in this fishery. In order to have the actual catch reflect run strength, however, these estimates will not be treated as a ceiling when the managers make in-season fishery management decisions.

Chinook	Open for setnet gear only, 6/20 through 8/21; 7 days a week; Hoko Bay closed, inside the area bounded by a line from Kydaka Point to Shipwreck Point; Freshwater Bay closed, south of Angeles Pt./Observatory Pt. line; 1,000-ft. closure around stream mouths.
Sockeye/Pink	Start to be determined by Fraser River Panel. The Co-managers have identified the following management actions to control by-catch of Chinook. Estimated by-catches are best estimates and are not quotas or ceilings. The priority for this fishery is to harvest the full Treaty share of Sockeye and pink salmon, while managing the fishery so as to not greatly exceed the projected incidental harvest of Chinook salmon. All Chinook by-catch in this fishery will be promptly reported by each Tribe to the NWIFC TOCAS database and reported to the U.S. section of the Fraser Panel at least weekly, including 'Take Home' and 'Ceremonial & Subsistence' (C&S). If in-season the Chinook by-catch in this fishery exceeds 1,300, the Tribes will consider management actions to limit the Chinook by-catch, such as time or area restrictions, while continuing the priority objective of harvesting Sockeye salmon. If in-season the fishery is projected to result in a total Chinook by-catch exceeding 3,300 Chinook, the Tribes will, effective with that scheduled fishery opening, prohibit any commercial sales of Chinook salmon, and any Chinook salmon landed must be delivered to the fishers' respective Tribe.
Coho	Open for gillnets starting at 6 days per week with in-season adjustments based on cumulative catch. Fishery will target Coho from the end of Fraser Panel control, through 10/9; 1,000 ft. closure around stream mouths. Hoko Bay closed, inside the area bounded by a line from Kydaka Point to Shipwreck Point.
Chum	Open for gillnets, starting at 6 days per week (day may be added if effort is low), 10/10 through 11/13; 1,000-foot closure around stream mouths. Hoko Bay closed, inside the area bounded by a line from Kydaka Point to Shipwreck Point.

Area 5 Recreational

Kydaka Point Closure: Waters south of a line from Kydaka Point westerly approximately 4 miles to Shipwreck Point closed to salmon angling 7/1-8/15.

5/1-6/30	Closed
7/1-9/30	2 fish limit, (Chinook 22" min size); release Chum, wild Coho and wild Chinook. Release all Chinook 8/16-9/30.
10/1-2/28	Closed
3/1- 4/30	2 fish limit (Chinook 22" min size), release Coho and wild Chinook.
5/1 – 5/14	Closed

Area 6 Recreational

5/1-6/30	Closed
7/1-9/30	2 fish limit, release Chinook, wild Coho, and Chum; except W. of true N/S line through “2” buoy near tip of Ediz Hook retention of marked Chinook allowed (Chinook 22" min size);. South of Angeles Pt. /Observatory Pt. line – closed to angling. Pt. Angeles Hbr. W. of line from tip of Ediz Hook to ITT Rayonier Dock – closed to salmon angling. Release all Chinook 8/16-9/30.
10/1-5/14	Closed

2.2 Strait of Juan de Fuca Terminal Areas

Area 6D Dungeness Bay Net

Note: The following applies to all 6D Dungeness Bay Coho fisheries (Tribal & WDFW): Co-managers agree to examine the feasibility of creating an in-season runsize update for the 6D coho fishery prior to the start of the 2021 season. If Co-managers agree on the usefulness of the update model, the update will be used in-season to evaluate the likelihood of achieving the hatchery egg take goal and guide subsequent management of the bay and river fisheries. Absent in-season conditions that support the likely achievement of egg take goals, Dungeness Bay fisheries may close early.

Chinook	All	Closed
Pink	Trty	Closed
	Ntrty	Closed
Coho	Trty	Open 9/21 through 10/30; Additional days beyond 10/30 may be considered; 9/21 through 10/10, seven days per week, fishing 7 am to 7 pm only, nets must be attended by fisher, Chinook and Chum release; 10/11 through 10/30 (or 11/6 should conditions allow), seven days per week, 24 hours per day; 1,500 ft closure around mouth of Dungeness River.
	Ntrty	Open Wk 39 (wb 9/19) through Wk 44 (wb 10/24) for skiff gillnet gear; 7AM – 7PM; Wk 39 T-F, Wks 40-44 M-F; Chinook and Chum NR, release by cutting ensnaring meshes; 1,500 ft. (1/4 nautical mile) closure around each river mouth, and 500ft closure around Meadowbrook Cr. mouth. Fishery may close early pending in-season information. Openings possible in Wk 45 (wb 10/31) based on in-season information.
Chum	All	Closed

Dungeness River (Treaty and Recreational)

Note: The following applies to all Dungeness River Coho fisheries (Tribal & WDFW): Co-managers will meet on, or prior to October 14, 2021 to review current in-season conditions and the results of an in-season runsize update if available. Absent in-season conditions that support the likely achievement of egg take goals, Dungeness River fisheries may remain closed. If flows are precluding coho from moving upriver to the hatchery, the Dungeness River fishery will remain closed until conditions allow coho movement upriver.

Dungeness River Treaty (Ntrty net closed)

Chinook	Trty	Closed
Pink	Trty	Closed
Coho	Trty	Commercial fishing up to 3 days/wk, to be determined in-season, for Coho only, is scheduled to open on 10/16 and will be restricted to areas below the Dungeness hatchery intake using species selective (hand-held) gear. Subsistence fishing using selective gear is scheduled to open on 10/16. Refer to the co-management agreement above for possible emergency closures.
Chum	Trty	Closed

Elwha River Treaty (Ntrty net closed)

Chinook	Trty	Closed except Ceremonial Harvest of 4 fish in July.
Coho	Trty	Closed
Chum	Trty	Closed

Dungeness Bay Recreational

5/1-9/30	Closed to salmon.
10/1-10/31	2 fish limit, hatchery Coho only.
11/1-5/14	Closed to salmon.

Dungeness River Recreational

mouth to the forks at Dungeness Forks Campground	10/16-11/30	4 fish limit, hatchery Coho only; 12" min size.
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Elwha River Recreational

Closed to salmon and gamefish

Hoko River Recreational

mouth to cement bridge (mile 7.0) on Hoko/Ozette Hwy.	Closed to salmon
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All other STRAIT OF JUAN DE FUCA REGION freshwater recreational closed to salmon angling.

2.3 San Juan Islands/Point Roberts Area

Areas 6, 7, & 7A Net

Chinook	All	Closed
Sockeye	Trty	<p>Schedule to be determined. The Co-managers have identified the following management actions to track and control by-catch of Chinook. Estimated by-catches are best estimates and are not quotas. The priority for this fishery is to harvest the full treaty share of Sockeye salmon, while managing the fishery so as to not greatly exceed the projected incidental harvest of Chinook salmon. All Chinook by-catch in this fishery will be promptly reported by each Tribe to the NWIFC TOCAS database and reported to the U.S. Section of the Fraser Panel at least weekly, including take home and ceremonial and subsistence (C&S).</p> <p>Prior to achieving a by-catch of 4,200 Chinook there will be no restrictions on the retention or sale of Chinook salmon. If, during the season, the Fraser Panel schedules a fishery that is projected to result in a total Chinook by-catch exceeding 4,200 fish, the Tribes will, effective with that scheduled fishery, prohibit any commercial sales of Chinook salmon, and any Chinook salmon landed must be delivered to the fisher's respective Tribe. Reef net wild coho, wild Chinook, and chum NR. Reef net may retain marked Chinook through 9/30. Further policy discussion may occur among the affected parties prior to the season.</p>
	Ntrty	<p>Schedule to be determined. The Co-managers have identified the following management actions to track and control by-catch. Modeled by-catches are best estimates and are not quotas. All vessel operators must complete best fishing practices certification prior to fishing. PS: brailing required. Chinook and Chum NR. Reef net Chum and unmarked Chinook NR. Reef net: fishers may retain hatchery Chinook, with a cap of 300 and unmarked Coho with a cap of 500 for all gears through 9/30. Estimates of by-catch will be shared at least weekly in the U.S. Section of the Fraser River Panel. Purse seine and gillnet fisheries will be managed to ensure that the non-treaty impact does not exceed 3,771 total Chinook (120% of pre-season estimate).</p>

Pink	Trty	Purse seine, gill net, and reef net: schedule dependent upon Fraser Panel. See Chinook and coho bycatch in-season actions description in sockeye section above. Reef net: wild coho, wild Chinook, and chum NR. Reef net may retain marked Chinook through 9/30.
	Ntrty	Schedule to be determined. All vessel operators must complete best fishing practices certification prior to fishing. PS: brailing required. Chinook, Coho, and chum NR. Reef net: Chum, wild Chinook, and wild Coho NR. See Chinook by-catch in-season actions description in Sockeye section above.
Coho	Trty	Reef net: 7 days/wk beginning at end of Fraser Panel management through 11/20; Chinook NR after 9/30; Chum NR through 9/30.
	Ntrty	Reef net: 7 days/wk beginning at end of Fraser Mgmt through Chum mgmt wk 41 (wb 10/3); Chinook NR after 9/30; unmarked Coho retention allowed through 9/30 with a cap of 500, then Coho retention. Chum retention prohibited until after 9/30. All vessel operators must complete best fishing practices certification prior to fishing.
Chum	Trty	The Treaty fishery will open October 10 (dependent on run status updates from CDFO) and remain open. See attached 2021 7/7A Chum Fishing Plan. Reef nets open from end of Fraser Panel management through end of Chum management (11/20), 7 days/wk. Reef net release requirements listed in Coho fishery description, above.
	Ntrty	Dependent on update of run status from CDFO. PS and GN open wk 41 (wb 10/3) through wk 45 (wb 10/31). Open 10/10, 10/11, 10/14, 10/15 and may re-open through the end of the season on 10/19 based on conditions outlined in the attached agreement. Co-managers will meet via conference call on Saturday 10/16 to discuss catch to date. PS: brailing and recovery box required, Chinook and Coho NR. GN: during wk 41, Chinook and Coho NR, recovery box required and limited soak times in effect. Reef nets open from end of Fraser Panel management through wk 45 (wb 10/31), 7 days/wk, must release all Chinook. All vessel operators must complete best fishing practices certification prior to fishing.

Subsistence	Trty	12/1 – 4/30 subsistence troll fishery (Chinook 22” min size). Bellingham Bay closed 4/1 – 4/30.
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Area 7 Recreational

5/1-6/30	Closed to salmon.
7/1-7/31	2 fish limit, 1 hatchery Chinook (Chinook 22” min size); release Chum, wild Coho, and wild Chinook; Bellingham and Samish Bay closed to salmon.
8/1-8/15	2 fish limit, release Chinook, Chum, and wild Coho; Bellingham and Samish Bay closed to salmon..
8/16-8/31	2 fish limit, 1 hatchery Chinook (Chinook 22” min size); Release Chum, wild Coho, and wild Chinook.
9/1-9/30	2 fish limit, release Chinook, Chum, and wild Coho.
10/1-5/14	Closed to salmon

2.4 Nooksack/Samish Terminal Region

Bellingham Bay (Areas 7B, 7C, 7D; 7A On-Reservation) Net

Chinook/Pink	Trty	Area 7D: Weeks 17 – 25, ceremonial and subsistence fishery no more than two days a week targeting hatchery spring Chinook returning to the Lummi Bay salmon hatchery. Effort will be limited and participation is by permit only. Lummi's spring Chinook fisheries in Lummi Bay and the Nooksack River will be managed so as not to exceed 29 Nooksack spring Chinook NOR mortalities.
		<p>Areas 7B, & 7D: August 1 through September 10, open weekly 4 PM Sunday to 4 PM Friday. Fishing pattern: 5,5,5,5,5,5.</p> <p>Area 7C: August 1 through September 17, open weekly 4 PM Sunday to 4 PM Friday. Fishing pattern: 5,5,5,5,5,5,5.</p> <p>Samish Bay is closed southeasterly of a line from Oyster Creek to the fisheries marker on Samish Island, except that hand pull gillnets may fish from a line from Oyster Creek to Fish Point on Samish Island, August 1 through September 15, Sunday 4 PM to Wednesday 4 PM, weekly. Fishing pattern: 3,3,3,3,3,3,3. 6 ½" mesh in 7C and off-reservation areas of 7B, except when open for sockeye in Area 7 and 7A.</p>
Chinook /Coho	Ntrty	Areas 7B & 7C: Wks 34 (wb 8/15) – 37 (wb 8/29); PS Coho NR through wk 35. GN fishing pattern: 3,3,5,5 PS fishing pattern 1,2,1,3
Coho	Trty	Area 7A on-reservation fishery: September 5 through October 6. Open weekly 4 PM Sunday to 4 PM Wednesday. Fishing pattern: 3,3,3,3,3.
		Areas 7B and 7D: September 12 through October 23, open Sunday 4 PM to Saturday 4 PM. Fishing pattern: 6,6,6,6,6,6.
		7C: On September 27, a Co-manager conference call will be held to determine the status of Samish Chinook escapement. If the escapement goal appears to be attainable, and through development of a Co-manager agreed in-season update methodology it is determined that there is a harvestable surplus of Samish Coho, then a Coho fishery will open September 29 to October 16, Sunday 4 PM to Wednesday 4 PM, weekly. Fishing pattern: 3,3,3.

	Ntrty	Area 7B: Wks 38 (wb 9/12) - 43 (wb 10/17); GN fishing pattern: 5,7,7,7,7,7 (24 hrs for all days); PS fishing pattern: 3,7,7,7,7,7.
Chum	Trty	Areas 7B & 7D: Oct. 24 – Dec.7; open weekly Monday and Tuesday, daylight hours only; Fishing pattern: 2,2,2,2,2,2,2.
	Ntrty	Area 7B: Wks 44 (wb 10/24) - 49 (wb 11/28); PS fishing pattern: 1,1,1,1,1,1 and GN fishing pattern: 3,3,3,3,3,3. Whatcom Creek Zone (east of line from Post Point to flashing red light at west entrance of Squalicum Harbor) closed.

Nooksack River Tribal Net (Non-Tribal net closed)

Note: On a weekly basis, Nooksack Tribe commercial fisheries on the Nooksack River will open at 12:01 AM Sun, except that portion of the river between Marine Drive Bridge and the first turn (“Big Bend”) in the river upstream of the Slater Road Bridge (approximately ¼ mile upriver from the Slater Road Bridge), which will open at 4:00 PM Sunday. On a weekly basis the Nooksack Tribe’s commercial Chinook fisheries will close 4:00 PM Friday; Coho fisheries will close 4:00 PM Saturday and Chum fisheries will close 10:00 AM Tuesday.

Chinook/ Pink	4/5-6/15	April to June 30: limited ceremonial and subsistence fishery will be managed for a total mortality of 39 NOR Chinook. The Nooksack Tribe’s ceremonial and subsistence fisheries may occur from Slater Road Bridge up to 500 feet upriver of the Highway 9 Bridge in the lower North Fork through May 28. Any openings from May 29 through June 30 will be limited to the area downstream of the BNSF railroad bridge that is below the Highway 9 Bridge. This will avoid overlap with the lower portion of the WDFW recreational fishery. A total of 286 Chinook are projected in the Nooksack Tribe’s fishery with an anticipated 10 NORs among the 286. This fishery is by permit only. The Lummi Nation’s fishery will occur in the lower Nooksack River between the Slater Road bridge and the river mouth (between RM 0.0 and 3.5). Lummi’s spring Chinook fisheries in Lummi Bay and the Nooksack River will be managed so as not to exceed 29 NOR chinook mortalities. Tribal fisheries in the river may be selective and/or non-selective and the selective fishery will release NOR Chinook and apply a release mortality rate of 30% to these fish. Based on in-season harvests and fishing conditions, the Nooksack Tribe and Lummi Nation may discuss alternate sharing arrangements of the allowable 39 NOR mortalities.
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	8/1 - 9/11	<p>Open weekly 4 PM Sunday to 4 PM Saturday, August 1 through 4 PM September 11. Fishing pattern: 6,6,6,6,6,6. The river is divided into five zones during this period. These zones open in subsequent weeks, proceeding upriver, to protect migrating spring Chinook.</p> <p>Zone 1 is from Marine Drive Bridge to Slater Bridge. Zone 2 is from Slater Bridge to Hannegan Bridge In Lynden. Zone 3 is from Hannegan Bridge to Nugent's Corner Bridge. Zone 4 is from Nugent's Corner Bridge to the confluence of the north and south forks. The area in Zone 4, 1.3 miles downstream of the confluence (down to Nooksack Tribe blue colored automotive shop) will remain closed to protect holding Spring Chinook. Zone 5 is upriver of the confluence of the north and south forks, and is closed.</p>
Coho	9/12 – 10/23	<p>Open weekly 4 PM Sunday through 4 PM Saturday. Fishing pattern: 6,6,6,6,6,6. The area in Zone 4, 1.3 miles downstream of the north and south Fork confluence (down to Nooksack Tribe blue colored automotive shop) will remain closed through 4 PM September 23 to protect holding Spring Chinook.</p>
Chum	10/25 – 12/14	<p>Commercial. Open weekly Monday and Tuesday. Fishing pattern: 2,2,2,2,2,2,2,2. The Nooksack Tribe will fish 12:01 am to 10 am daily. The Lummi Nation will fish daylight hours daily (10 hours per day)</p>
	11/1 - 11/22	<p>Subsistence harvest only. The Lummi Nation and Nooksack Tribe will each schedule one day of subsistence fishing between November 1 and November 22. The subsistence fishery will be scheduled on a day with no commercial fishing.</p>
	11/8 – 11/30	<p>Nooksack Tribe and Lummi Nation will conduct a test fishery to assess the Nooksack chum run size. Nooksack will fish between Nugents Corner and the Everson Bridge. Lummi will fish downriver of the Slater Road Bridge. A single fisher from each tribe will make 4 drifts each, per fishing day. All fish captured during this fishery will be used by the tribes for ceremonial and subsistence purposes. Fishing Pattern: 1,1,1,1. Fishing days will be determined by tides and river flow. Catch and effort data from this fishery will be shared with the co-managers and used to inform discussion on run strength. The co-managers will stay in regular communication throughout the chum season sharing information and observations on catch, hatchery rack returns and fish on the spawning grounds. Commercial fishing schedules may be adjusted based on these discussions.</p>

Bellingham Bay Terminal Area Recreational

5/1-8/15	Closed to Salmon
8/16-9/30	4 fish limit, 2 Chinook (Chinook 22" min size); Samish Bay closed.
10/1-5/14	Closed to Salmon.

Nooksack River Recreational; mainstem and North Fork

from Lummi Indian Reservation boundary to yellow marker at the FFA high school barn in Deming	8/1 – 9/30	2 fish limit, plus 2 additional Pink salmon or hatchery Coho; 12" min size. Release wild Chinook and Chum. Night closure and anti-snagging rules in effect.
	10/1 – 12/31	2 fish limit, plus 2 additional Pink salmon or hatchery Coho; 12" min size. Release wild Chinook and Chum. Night closure and anti-snagging rules in effect.
from yellow marker at the FFA high school barn to confluence of North and South forks	10/1 – 12/31	2 fish limit, plus 2 additional Pink salmon or hatchery Coho; 12" min size. Night closure and anti-snagging rules in effect.

Nooksack River Recreational, South Fork

from mouth to Skookum Creek	10/1 – 12/31	2 fish limit, plus 4 additional hatchery Coho; 12" min size. Release wild Chinook 10/1 – 10/15. Night closure and only one single point hook allowed.
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Nooksack River Recreational, North Fork

from the Hwy. 9 Bridge to the yellow marker at the upstream side of Kendall Hatchery.	5/29 – 6/30	2 fish limit, hatchery Chinook only, 12" min. size; release all other salmon. Night closure and anti-snagging rules in effect.
Hwy 9 bridge to Maple Creek	10/1 – 12/31	2 fish limit, plus 2 additional hatchery Coho; 12" min size. Night closure and anti-snagging rules in effect.

Samish River Recreational

from mouth to I-5 Bridge	8/1 – 9/13	2 fish limit, 12" min size. Release wild Coho, Chum, and Pink salmon.
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Dakota Creek Recreational

mouth to Giles Road Bridge	5/1 – 5/14/2022	Closed
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Whatcom Creek Recreational

mouth to yellow markers below foot bridge below Dupont St. in Bellingham	TBD	To be determined.
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All other NOOKSACK/SAMISH TERMINAL REGION freshwater recreational: Closed to salmon angling.

2.5 Skagit Terminal Region

Terminal area fisheries will be managed so as not to exceed total projected incidental fishery mortalities of Skagit wild summer/fall Chinook. Treaty schedules may be changed in-season as necessary to meet management objectives and harvestable shares and to address river and weather conditions. Swinomish, Sauk-Suiattle, and Upper Skagit Tribes' fisheries will be managed so as not to exceed their individual shares based on the preseason forecast and any in-season update that becomes available. The modeled inter-tribal catch distributions are forecasts only and do not set a precedent for future years.

The Sauk-Suiattle, Upper Skagit and Swinomish Tribes reserve the opportunity to take C&S reserved Chinook across the entire duration of this LOAF agreement, May 1, 2021 through May 14, 2022. The Upper Skagit, Sauk-Suiattle, and Swinomish Tribes reserve the right to reallocate catch between commercial and C&S as needed and in response to changes in goals and ISUs. Further, Upper Skagit, Sauk-Suiattle, and Swinomish Tribes reserve the right to adjust fishery dates and the logistics of modeled fisheries due to water conditions or allocative reasons throughout their Usual & Accustomed fishing areas.

The Sauk-Suiattle, Upper Skagit and Swinomish Indian Tribes may propose spring Chinook fisheries to begin in April of 2022 and extending into May 2022. Opening of these fisheries would be dependent on the co-managers submission of a supplemental Skagit spring Chinook fishery plan for the spring Chinook management period, for NMFS' review and concurrence. The plan would detail the following: the forecasted Skagit spring Chinook MU run size for 2022; the

management objectives that would be in place for that run-year; an estimate of allowable impacts and those estimated to be taken during the spring Chinook management period; plans for monitoring this period, and a description of how this fishery would operate within any limits in place for other ESA-listed species incidentally encountered during this fishery. The parameters of this fishery would be subject to modification by the co-managers on submission to NMFS of a revised plan, independently or as part of the 2022-2023 LOAF.

The Skagit co-managers will utilize the same update models for Sockeye (river/lake Trap method), Coho (Blakes/Spudhouse test fishery method), and Chum ISU (Bay/Jetty/Blakes test fishery method) consideration (with data from 2020 added) that have been used in recent years. Other models may be considered with co-manager agreement should they become available before or during the fishery.

NOTE: WDFW will share creel sampling and enforcement reports in-season as fisheries progress. The Skagit River recreational fisheries will follow sampling plans provided in past years. Communication: Co-managers will share available information from the Areas 4, 5, and 6 recreational fisheries (species, mark, size, catch, encounter) the second week of August. This information will be evaluated against pre-season expectation and provide co-managers with additional information which may be useful in management considerations.

Skagit Bay (Area 8) Net

Note: Fishing schedules for Skagit Bay, Skagit River, and Baker River are pre-season projections. Schedules may be changed in-season as necessary to meet management objectives and harvestable shares.

Chinook	Area 8 – Trty	Swinomish Tribe may elect to take some or all of their C&S reserved Chinook in Area 8.
Spring Chinook	Area 8 – Trty	<u>Swinomish Tribe fishing pattern</u> : wk 18 (wb 4/25) thru wk 19 (wb 5/2); 4,4. Additionally, Swinomish will open fisheries in April and May of 2022 during the timeframe of this LOAF in accordance with the stipulations in the Skagit preamble section above. Once a 2022 spring Chinook forecast is available, Chinook impacts for these April-May 2022 fishing days will be modeled during the 2022-23 NOF/PFMC process such that they are applied to the correct biological return year. <u>Upper Skagit Tribe fishing pattern</u> : No scheduled fishery.
Sockeye	Area 8 – Trty	Swinomish fishery will be managed so as not to exceed their individual Sockeye share based on the preseason forecast and any in-season update that becomes available. Additional fishing dependent on ISU. <u>Swinomish Tribe fishing pattern</u> : wk 27 (wb 6/27) thru wk 28 (wb 7/4); 2,2. <u>Upper Skagit Tribe fishing pattern</u> : No scheduled fishery.
	Ntrty	Closed
Pink	Area 8 – Trty	<u>Swinomish Tribe fishing pattern</u> : wk 35 (wb 8/22) thru wk 37 (wb 9/5); 1,5,2. <u>Upper Skagit Tribe fishing pattern</u> : No scheduled fishery.
	Area 8 - Ntrty	Closed. May open pending co-manager agreement on ISU that indicates harvestable run size.
Coho	Trty	If ISU changes abundance status, treaty shares may be modified following co- manager discussions.
	Area 8 – Trty	<u>Swinomish Tribe fishing pattern</u> : wk 39 (wb 9/19) thru wk 40 (wb 9/26); 1.5,1.5. <u>Upper Skagit Tribe fishing pattern</u> : No scheduled fishery.

	Ntrty	Closed
Chum	Area 8 – Trty	<u>Swinomish Tribe fishing pattern</u> : No preseason harvestable. <u>Upper Skagit Tribe fishing pattern</u> : No preseason harvestable.
	Ntrty	Closed. May open pending co-manager agreement on ISU that indicates harvestable runsize.
Chum Test	Area 8	1 boat at Jetty 1 day/wk 44 (wb 10/24) & 45 (wb 10/31) and 1 boat in Bay 1 day/wk 44 (wb 10/24) & 45 (wb 10/31).
	Ntrty	Closed. May open pending co-manager agreement on ISU that indicates harvestable runsize.

Skagit River Treaty Net (Ntrty net closed)

Chinook	Ceremonial and Subsistence – 200 summer/fall and 34 spring Chinook total: Swinomish (17 spring), Sauk-Suiattle (200 summer/fall), and Upper Skagit (17 spring) Tribes.	
Spring Chinook	Area 78C	<p><u>Swinomish Tribe fishing pattern</u>: wk 18 (wb 4/25) thru wk 19 (wb 5/2): 4,4. Additionally, Swinomish will open fisheries in April and May of 2022 during the timeframe of this LOAF, in accordance with the stipulations in the Skagit preamble section above. Once a 2022 spring Chinook forecast is available, Chinook impacts for these April-May 2020 fishing days will be modeled during the 2022-23 NOF/PFMC process such that they are applied to the correct biological return year.</p> <p><u>Upper Skagit Tribe fishing pattern</u>: wk 19 (wb 5/2) thru wk 20 (wb 5/9):1.25, 1.5.. Additionally, Upper Skagit will fish the following schedule in 2022 during the timeframe of the 2021-2022 LOAF: wk 17 (wb 4/17/2022) thru wk 18 (wb 4/24/2022): 2,2. Once a 2022 spring Chinook forecast is available, realized Chinook impacts for these April 2022 fishing days will be modeled during the 2022-23 NOF/PFMC process such that they are applied to the correct biological return year.</p>

	Area 78D	<u>Upper Skagit Tribe fishing pattern:</u> wk 19 (wb 5/2) thru wk 20 (wb 5/9):1.25, 1.5. Additionally, Upper Skagit will fish the following schedule in 2022 during the timeframe of the 2021-2022 LOAF: wk 17 (wb 4/17/2022) thru wk 18 (wb 4/24/2022): 2,2. Once a 2022 spring Chinook forecast is available, realized Chinook impacts for these April 2022 fishing days will be modeled during the 2022-23 NOF/PFMC process such that they are applied to the correct biological return year.
	Area 78P Cascade R.	<u>Sauk-Suiattle Tribe fishing pattern:</u> wk 21 (wb 5/16) thru wk 22 (wb 5/23); 7,7. And wk 23 (wb 5/30) thru wk 30 (wb 7/18); 2,2,2,2,2,2,2. Fishery managed to a 300 spring Chinook quota. Release natural Chinook.
Sockeye	Ceremonial and Subsistence: 100 fish Upper Skagit Tribe. [350 sockeye Sauk-Suiattle -- Swinomish and Upper Skagit object unless Sauk takes these within its U&A as set forth in <i>United States v. Washington</i> , 384 F. Supp. 312, 376 (FF 131) (W.D. Wash. 1974)].	
	Area 78C	Swinomish and Upper Skagit Tribes' fisheries will be managed so as not to exceed their individual Sockeye shares based on the preseason forecast and any in-season update that becomes available. <u>Swinomish Tribe fishing pattern:</u> wk 27 (wb 6/27) thru wk 28 (wb 7/4): 2,2. Additional fishing dependent on ISU. <u>Upper Skagit Tribe fishing pattern:</u> wk 28 (wb 7/4) thru wk 29 (wb 7/11): 0.208,0.208. Additional fishing dependent on ISU.
Sockeye	Area 78D Area 78O	Swinomish and Upper Skagit Tribes' fisheries will be managed so as to not exceed their individual Sockeye shares based on the preseason forecast and any in-season update that becomes available. <u>Swinomish Tribe fishing pattern (Area 78D-4 and Baker River):</u> Wk 28 (wb 7/4) thru wk 29 (wb7/11): 1,1; Additional fishing dependent on ISU; <u>Upper Skagit Tribe fishing pattern:</u> Areas 78D-2, 78D-3, 78D-4, and 78O (Baker River): wk 28 (wb 7/4) thru wk 29 (wb7/11): 0.208. 0.208; Additional fishing dependent on ISU.

Pink	Area 78C	<u>Swinomish Tribe fishing pattern:</u> wk 35 (wb 8/22) thru wk 37 (wb 9/5); 1,5,2. <u>Upper Skagit Tribe fishing pattern:</u> Wk 36 (wb 8/29) thru wk 38 (wb 9/12): 1.5, 2.167, 2.167. Additional fishing dependent on ISU. Additional fishing dependent on ISU.
	Area 78D	<u>Upper Skagit Tribe fishing pattern:</u> Wk 36 (wb 8/29) thru wk 38 (wb 9/12): 1.5, 2.167, 2.167. Additional fishing dependent on ISU.
	Area 78P Cascade R.	<u>Sauk-Suiattle Tribe fishing pattern:</u> wk 34 (wb 8/15) thru wk 38 (wb 9/12):2,2,2,2.
	Area 78B Sauk R.	<u>Sauk-Suiattle Tribe fishing pattern:</u> wk 34 (wb 8/15) thru wk 38 (wb 9/12); 7,7,7,7.
Coho	If ISU changes abundance status, treaty shares may be modified following co-manager discussions.	
	Area 78C:	<u>Swinomish Tribe fishing pattern:</u> Wk 39 (wb 9/19) thru wk 40 (wb 9/26): 1.5, 1.5. <u>Upper Skagit Tribe fishing pattern:</u> Wk 41 (wb 10/3) thru wk 43 (wb10/17): 0.333, 0.333, 0.333.
	Area 78D	<u>Upper Skagit Tribe fishing pattern:</u> Wk 41 (wb 10/3) thru wk 43 (wb10/17): 0.333, 0.333, 0.333.
	Area 78P Cascade R.	<u>Sauk-Suiattle Tribe fishing pattern:</u> wk 39 (wb 9/19) thru wk 45 (wb 10/31); 2,2,2,2,2,2. Fishery managed to a 2000 coho quota.
	Area 78B Sauk R.	<u>Sauk-Suiattle Tribe fishing pattern:</u> wk 45 (wb 10/31) thru wk 48 (wb 11/21); 7,7,7,7. Fishery managed to a 1000 coho quota.
Chum	Area 78C	<u>Swinomish fishing pattern:</u> No pre-season harvestable. <u>Upper Skagit Tribe fishing pattern:</u> No pre-season harvestable.
	Area 78D	<u>Upper Skagit Tribe fishing pattern:</u> No pre-season harvestable.
River Test	Chinook	Area 78C - Blakes wk 19 (wb 5/2) thru wk 35 (wb 8/22);1 boat, 6 hours/wk.
	Sockeye	Area 78C – Blakes wk 24 (wb 6/6) thru wk 29 (wb 7/11); 1 boat, 12 hours/wk; Area 78D-3 - Upper Skagit - wk 23 (wb 5/30) thru wk 30 (wb 7/18);1 boat, 4 hrs/wk.

	Coho	Area 78C - Blakes Drift wk 38 (wb 9/12) thru wk 42 (wb 10/10), 12 hours/wk; Area 78C – Spudhouse Drift, Upper Skagit, wk 34 (wb 8/15) thru wk 42 (wb 10/10);1 boat, 12 hours/wk; Area 78D-3 Wk 35 (wb 8/22) thru wk 44 (wb 10/24);1 boat, 4 hours/wk.
	Chum	Area 78C - Blakes Drift wk 44 (wb 10/24) and wk 45 (wb 10/31);1 boat, 12 hours/wk.
	Steelhead (tangle net)	Area 78D-3 Wk 5 (wb 1/23/22) thru wk 17 (wb 4/17/22). Steelhead tagged and released..

Swinomish Channel Treaty Net (Ntrty net closed)

Coho	No separate openings. Area opens during Area 8 openings.
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Area 8-1 Recreational

5/1-7/31	Closed to salmon.
8/1 – 9/19	2 fish limit, release Chinook and chum.
9/20-5/14	Closed to salmon.

Baker River/Lake Recreational

mouth to Dam	Closed to salmon.	
Baker Lake	TBD	To be determined.

Cascade River Recreational

mouth to Rockport-Cascade Road Bridge	6/1 – 7/15	4 fish limit, only 2 may be adults, hatchery Chinook only, 12” min. size. Closed on Sundays and Mondays to avoid gear conflict with treaty fisheries.
	9/16 – 10/15	4 fish limit, Coho only, 12” min. size. Closed on Sundays and Mondays to avoid gear conflict with treaty fisheries.

Skagit River Recreational

Specific gear conflict closure dates have not been identified but recreational fishing for all species will close two days per week from the mouth to highway 530 bridge in Rockport during weeks 26-29 for Sockeye and weeks 39-41 for Coho.

Mouth to Hwy 536 at Mt. Vernon (Memorial HWY Bridge)	8/14 – 8/31	4 fish limit, only Pink salmon, release Chinook and Chum. 12” min size.
	9/1 – 10/15	2 fish limit plus 2 additional Pink salmon, release Chinook and Chum.
from Memorial Hwy Bridge to Gilligan Creek	5/1-5/31	2 fish limit, hatchery Chinook only, (12” min. size).
	8/14-8/31	4 fish limit, Pink salmon only, (12” min size).
	9/1 – 10/15	2 fish limit plus 2 additional Pink salmon, (12” min size). Release Chinook and Chum.
Mouth of Gilligan creek to Dalles Bridge at Concrete	9/1 – 10/15	2 fish limit plus 2 additional Pink salmon, (12” min size). Release Chinook and Chum.
Dalles Bridge at Concrete to Hwy 530 Bridge at Rockport	9/1 – 10/15	2 fish limit plus 2 additional Pink salmon, (12” min size). Release Chinook and Chum.
Hwy 530 Bridge at Rockport to Cascade River Rd	6/1 – 7/15	4 fish limit, (12” min size). Only 2 may be adults, Release all salmon other than hatchery Chinook.
	9/1 – 10/15	2 fish limit plus 2 additional Pink salmon, (12” min size). Release Chinook and Chum.

All other SKAGIT TERMINAL REGION freshwater recreational closed to salmon angling.

2.6 Stillaguamish/Snohomish Terminal Region

Area 8A Net

Chinook	Trty	Closed (Ceremonial set-aside of up to 100 Chinook, July-September period).
	Ntrty	Closed
Pink	Trty	(8/02 – 9/03): 5 days per week
	Ntrty	Closed
Coho	Trty	Tulalip Tribes: (9/06 – 9/24) 3 days per week; (9/27 – 10/15) 1 day per week. Manage for 55,000 escapement to the Snohomish River (see Snohomish River Natural Coho Rebuilding Plan), with ISU at weeks 38 and 39.
	Test	Closed
	Ntrty	Closed
Chum	Trty	Closed
	Test	Closed
	Ntrty	Closed

Area 8D Net

Chinook	Trty	BS, RH, GN gear outside Tulalip Bay may be open during the following periods: (5/03 – 5/29) 5 days per week (5/31 – 8/06) 4 ½ days per week: Mon – 11:59 AM Fri (8/09 - 9/10) 5 days per week Setnets inside Tulalip Bay may be open during the following period: (5/03 – 9/10) 5 days per week
	Ntrty	Closed
Coho	Trty	(9/12 – 10/29) BS, RH, GN gear outside Tulalip Bay may be open 5 days per week to target Tulalip hatchery Coho. Setnet may be open 5 days per week.
	Ntrty	Closed

Chum	Trty	(11/01 – 12/03) Open to target Tulalip hatchery Chum. Managed to allow for hatchery egg take needs based on Tulalip hatchery escapement updates and projections. All Area 8D fisheries will close concurrently as agreed to by Tulalip and WDFW to ensure egg take requirements are met.
	Ntrty	Closed

Stillaguamish River Treaty Net (Ntrty net closed)

Chinook	Ceremonial fishery only; Open 5/15 – 8/15; Up to 7 days per week; maximum catch of 21 Chinook; Open from mouth of Hatt Slough (RM 0) to Danielson Hole (RM 14).
Pink	C&S fishery only; Open 8/1 – 8/31; Maximum catch of 400 Pink. Up to 7 days per week; Open from mouth of Hatt Slough (RM 0) to
Coho	Commercial fishery; Open 9/1 – 10/31; Up to 5 days per week; Open from mouth of Hatt Slough (RM 0) to Danielson Hole (RM 14).
Chum	C&S fishery only; Open 11/1 – 12/5; Up to 3 days per week; max catch of 300 Chum; Open from mouth of Hatt Slough (RM 0) to Danielson Hole (RM 14).

Snohomish River Treaty Net (Ntrty net closed)

Chinook, Pink, Coho, Chum	Closed
Coho Test	Closed

Area 8-2 Recreational

5/1-8/13	Closed
8/14-9/19	2 fish limit, release Chinook, Chum, and wild Coho. Open south of a line from Clinton to Mukilteo fishing pier.
9/20-5/14	Closed

Tulalip Special Area Recreational Fishery

Same as Area 8-2 Recreational, except during the period 5/28-9/26:	5/28-9/7	Open 12:01 AM Friday – 11:59 AM Monday each week. Closed June 5. Open within Tulalip Special Area boundaries only. Closed to all angling east of the line from Mission Point to Hermosa Point. 2 fish limit salmon, 2 pole endorsement (Chinook 22” min. size); 7/1-8/15 intermittent closures may be needed to ensure hatchery broodstock goals.
	9/11-9/26	Open Saturday and Sunday each week. Open within Tulalip Special Area boundaries only. Closed to all angling east of the line from Mission Point to Hermosa Point. 2 fish limit salmon, 2 pole endorsement (Chinook 22” min. size).

Snohomish River Recreational

WDFW and the Tulalip Tribes commit to developing and implementing a freshwater monitoring plan to assess encounter rates of target and non-target salmonids in 2021.

mouth to confluence of the Skykomish and Snoqualmie rivers	8/23 – 9/19	4 fish limit, Pink salmon and hatchery Coho only, 12” min. size. Continuation of fishery dependent on ISU.
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Snoqualmie River Recreational

mouth to Snoqualmie Falls	5/1 – 5/14/2022	Closed to salmon
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Skykomish River Recreational

WDFW and the Tulalip Tribes commit to developing and implementing a freshwater monitoring plan to assess encounter rates of target and non-target salmonids in 2021.

from mouth to Wallace River	5/29–7/31	4 fish limit, only 2 may be adults, hatchery Chinook only, 12” min. size.
mouth to confluence of North and South forks	8/30-9/19	4 fish limit, Pink salmon and hatchery Coho only, 12” min. size. Continuation of fishery dependent on ISU.

Wallace River Recreational

mouth to 200' upstream of water intake of salmon hatchery	10/1 – 11/31	2 fish limit, hatchery Coho only, 12" min. size. Continuation of fishery dependent on ISU.
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Stillaguamish River Recreational

mouth to forks	5/1 – 5/14/2022	Closed to salmon.
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See appendix for gamefish season regulations.

All other STILLAGUAMISH/SNOHOMISH TERMINAL REGION freshwater recreational closed to salmon angling.

2.7 Admiralty Inlet Area

The co-managers have agreed to develop a comprehensive chum management plan over the course of the next three years. It is the intent of co-managers to address catches of Hood Canal Origin fall chum, including catches in marine areas 9, 10, and 11 in this comprehensive chum plan. Co-managers have agreed to review the balance of pre-terminal impacts to Hood Canal Origin chum between tribal and non-tribal fisheries beginning with the 2019 season. This information will identify any overly imbalanced condition that would require further co-manager discussion for future seasons in the interim period.

Area 9 Net

Chinook	Trty	Ceremonial and Subsistence – Up to 500 Chinook as agreed upon by those Tribes with U&A in Area 9, (PS and Hook & Line, release all Chum 6/1 – 9/30).
	Ntrty	Closed
Chum	Research	Wk 43 (wb 10/24) – 46 (wb 11/14) research fishery to develop stock composition/timing information. Research catch quota of up to 2,400 Chum. 2021 Area 9 Chum Salmon Research Fishery Plan to be developed by NWIFC and tribal staff prior to beginning this research.

	Trty	The Area 9 fall chum fishery north of the HC bridge will open wk 43 (wb 10/17) through wk 45 (wb 10/31); fishing pattern: GN 3,4,3; and PS 4,3,3. Open area restricted to that portion of North Hood Canal bounded to the south by the Hood Canal Bridge and bounded to the north by a line from White Rock due east to landfall. Tribes with adjudicated U&A in the open section of Area 9 may choose to participate. Coho and Chinook model inputs have been modeled during NOF that anticipate the participation levels of 2020. If the fishery reaches a catch threshold of 30,000 chum salmon before 10/30, there will be a conference call among the participating Tribes to discuss any needed fishery management actions. Participating tribes agree to sample tissue for DNA analysis of their tribe's chum catch and wild coho bycatch to the extent practicable.
	Ntrty	Closed

Area 9 Recreational

5/1 – 7/15	Closed to salmon.
7/16 – 8/15	2 fish limit, 1 hatchery Chinook (Chinook 22" min size); release wild Coho, Chum and wild Chinook. Closed south and west of a line from Foulweather Bluff to Olele Point.
8/16 – 9/30	2 fish limit; release wild Coho, Chum and Chinook.
10/1 – 5/14	Closed to salmon.

Edmonds Pier Recreational

Year-Round	2 fish limit, 1 Chinook (Chinook 22" min size), release Chum 8/1-9/30.
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3.0 South Sound Region

3.1 Area 10 Sub region

Area 10 Net

Chinook	Closed	
Sockeye	Trty	Fishery dependent upon ISU (Ballard lock counts)
	Ntrty	Closed

Pink	Trty	All waters within 1,800 feet of shoreline closed; Fishing schedule for Area 10 shall be set consistent with the MST agreement (1983). <u>Suquamish</u> – Wk 31 (wb 7/25) – wk 35 (wb 8/22), Maximum of 5 days/wk, 1 PS, 1GN; <u>Tulalip</u> – Wk 34 (wb 8/15) – wk 35 (wb 8/22), anticipated effort: 3 GN, 1 RH, East portion of Area 10 closed.
	Ntrty	Purse Seine: Wk 34 (wb 8/15) – Wk 36 (wb 8/29) 2,2,2. Gill Net Wk 34 (wb 8/15) – Wk 36 (wb/29) 2,2,2.
Coho	Test	Gillnet: Wk 37 (wb 9/5) - wk 39 (wb 9/19); 3 boats, 3 sites; fishing pattern: 2,2,2.
	Trty	On-Reservation only; wk 38 (wb 9/12) – wk 43 (wb 10/17); gillnet/beach seine; 7 days/wk. Off Reservation: Wk 37 (wb 9/5) – wk 40 (wb 9/26). Fishing schedule for Area 10 shall be set consistent with the MST agreement (1983).
	Ntrty	Closed

Chum	<p>Given the recent decline in South Sound fall chum stocks, a conservative methodology was used for the pre-season forecast that was agreed to by all parties. This resulted in a historically low pre-season forecast for South Sound chum, which along with Nisqually winter chum, are projected to be below escapement in 2021. Due to the forecast and concerns for incidental impacts to Nisqually winter chum stock, the co-managers (State and Tribal) are planning to forgo preterminal directed fisheries in Marine Areas 10 and 11, as well as recreational fisheries directed at any of the South Sound chum stocks for the 2021 fishery. Through continued engagement and collaboration by co-manager technical staff, appropriate levels of escapement will be explored as targets for the 2021 Chum season. The co-managers will meet after the completion of 2021 PFMC/NOF to discuss establishing ISU triggers for Area 10/11 fisheries that would allow for preterminal fisheries in 2021 if the Apple Cove Test Fishery demonstrates a significantly larger run size than the pre-season forecast. All preterminal fisheries should prioritize co-managers access to their respective shares. Fishing cannot continue past week 45 by State or tribal comanagers in 2021 to protect Late Chum. The co-managers support continuation and improvement of the Apple Cove Point test fishery to inform in-season adjustments to pre-season forecasts and will inform discussion around harvest levels to meet agreed to escapement levels. The co-managers also support continued efforts to improve the ISU methodology and model performance.</p>
Test	Purse Seine: Wk 41 (wb 10/10) - wk 46 (wb 11/14); 1 site, fishing pattern: 1,1,1,1,1,1.
Trty	<p>Treaty allocation based on intertribal sharing agreement; wk 42 (wb 10/10) – wk 45 (wb 10/31) fishing pattern and opening dependent on ISU; Fishing schedule for Area 10 shall be set consistent with the MST agreement (1983).</p> <p><u>Suquamish</u> – On-reservation only (set net gear only): wk 42 (wb 10/10) – wk 50 (wb 12/5) up to 7 days per week dependent upon Chum return to the Grovers Creek Hatchery.</p>
Ntrty	Closed; fishing dependent on South Sound Chum Management Agreement above.

Area 10A Treaty Net (Ntrty net closed): That portion of Elliott Bay east of the line from Pier 91 to the light at Duwamish Head.

Chinook	Trty Test	Gillnet: Wk 30 (wb 7/18 th) – Wk 32 (wb 8/1 th); 7/21, 7/28 & 8/4 (Wednesday nights); 5 fishing sites (one boat per site). 8 PM to 8 AM. One night per week; 8 PM to 8 AM.
	Trty	Gillnet: Wk 33 (wb 8/8) Based on ISU one 12 hour opening 8 PM to 8 AM (Wednesday night targeted). Wk 34 (wb 8/15) based on ISU one 12 hour opening 8 PM to 8 AM (Wednesday night targeted). Starting Wk 35 (wb 8/22) any additional openings will be discussed & agreed by co-managers.
	Trty	Ceremonial and subsistence fisheries
Pink	Trty	Gillnet: Wk 336 (wb 8/29); with the fishing pattern Sunday thru Friday.
Coho	Trty	Gillnet: Fishery will open Wk 37 (wb 9/5) – Wk 42 (wb 10/13 th) with the fishing pattern Sunday thru Friday. (Fishery will close if the Duwamish/Green River ISU is executed and does not show harvestable coho. If the ISU shows harvestable coho the fishing pattern will be as stated above).
	Trty	Ceremonial and subsistence fisheries
Chum	Trty	Gillnet: Wk 44 (wb 10/24) - Wk 49 (wb 11/28); with the fishing pattern Sunday thru Friday.
	Trty	Ceremonial and subsistence fisheries

Duwamish/Green River (Area 80B) Treaty Net (Ntrty net closed)

Chinook	Trty	Gillnet: Wk 33 (wb 8/8) Based on ISU one 12 hour opening 8 PM to 8 AM (Wednesday night targeted). Wk 34 (wb 8/15) Based on ISU one 12 hour opening 8 PM to 8 AM (Wednesday night targeted). Starting Wk 35 (wb 8/22) any additional openings will be discussed & agreed by the co-managers.
	Trty	Ceremonial and subsistence fisheries
Pink	Trty	Gillnet: Wk 36 (wb 8/29); with the fishing pattern Sunday thru Friday.

Coho	Trty Test	Wk 37 (wb 9/5) Coho ISU test fishery on the river (from the mouth of the East and West waterways up to 16 th Ave. Bridge). The 6 sites are as follows: East Waterway, West Waterway, Old Riverside Marina, Kellogg Island, 1 st Ave Bridge and 16 th Ave Bridge.
Coho	Trty	Gillnet: Fishery will open Wk 38 (wb 9/12) up to the Boeing Street bridge. Starting on Wk 39 (wb 9/19) the fishery will open up to the Hwy 99 Bridge. Fishing pattern will be Sunday thru Friday. (Fishery will closed if the treaty test ISU is executed and does not show harvestable coho. If the ISU shows harvestable coho the fishing pattern will be as stated above).
	Trty	Ceremonial and subsistence fisheries
Chum	Trty	Gillnet: Wk 45 (wb 10/31) – Wk 50 (wb 12/5) with the fishing pattern Sunday thru Friday
	Trty	Ceremonial and subsistence fisheries

Area 10E Treaty Net (Ntrty net closed; see below for recreational SAF)

Chinook	Trty	Wk 30 (wb 7/18) - wk 38 (wb 9/12); fishing pattern: 7 days/wk. Possible extension for Sinclair Inlet.
Coho	Trty	On-Reservation only; wk 38 (wb 9/12) - wk 43 (wb 10/17); gillnet/beach seine; 7 days/wk.
Chum	Trty	Wk 43 (wb 10/17) - wk 50 (wb 12/5); schedule dependent upon ISU.

Lake Washington System (includes Lake, Lake Union, Ship Canal, & Lake Sammamish)

Areas 10F, 10G, 10C, 10D Treaty Net (Ntrty net closed)

Sockeye	Wk 24 (wb 6/6) – Wk 32 (wb 8/8) Based on ISU (lock counts).
	Wk 24 (wb 6/6) – Wk 33 (wb 8/15) Bio-sample program
	Wk 26 (wb 6/20) PSC test fishery
Chinook	Closed.
	Ceremonial and subsistence fisheries

Coho	Coho fisheries in the four following areas are dependent upon the ISU (if lock counts project run size < 10,000 coho entering the lake), then the coho fishery will remain closed in all four areas including Lake Sammamish):	
	Ceremonial and subsistence fisheries	
	Lower ship canal (below Ballard Locks)	If the ISU is > than 10,000 the fishery could open as early as Wk 38 (wb 9/12) – Wk 45 (wb 10/31) with the fishing pattern up to 7 days per week (Sun – Sat).
	Upper ship canal (above Ballard Locks):	If the ISU is > than 10,000 the fishery could open as early as Wk 38 (wb 9/12) – Wk 45 (wb 10/31) with the fishing pattern Sunday thru Friday.
	North end Lake Washington (North of Hwy. 520 bridge):	If the ISU is > than 10,000 the fishery could open Wk 39 (wb 9/19) – Wk 46 (wb 11/7) with the fishing pattern Sunday thru Friday.

Lake Sammamish Treaty Net

Chinook	Based on ISU – hatchery surplus.
	Ceremonial and subsistence fisheries
Coho	If the ISU is > than 10,000 the fishery could open Wk 41 (wb 10/3) – Wk 47 (wb 11/14) with the fishing pattern Sunday thru Friday.
	Ceremonial and subsistence fisheries

Area 10 Recreational

5/1-6/15	Closed to salmon.
6/16-7/15	2 fish limit, release Chinook and Chum.
7/16-8/31	2 fish limit, 1 hatchery Chinook (Chinook 22" min size), release wild Chinook and release Chum.
9/1-10/31	2 fish limit, release Chinook and Chum.
11/1-12/31	Closed
1/1-3/31	2 fish limit, (Chinook 22" min size), release wild Chinook..
4/1-5/14	Closed.

Shilshole Bay (East of Meadow Point/West Point line) closed to salmon 7/1-8/31.

Outer Elliott Bay (E of West Pt. /Alki Pt line to Pier 91/Duwamish Head line) closed to salmon 7/1-8/19.

Inner Elliott Bay (E of Pier 91/Duwamish Head line) closed to salmon 7/1-8/5 and 8/9-8/19.

Area 10 Piers Recreational

Seacrest Pier, Pier 86, Waterman Pier, Bremerton Boardwalk, Illahee State Park Pier	Year-Round	2 fish limit, 1 Chinook (22" min size), release Chum.
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Elliott Bay Recreational SAF

5/1- 6/30	Same as Area 10.
7/1- 8/5	Closed to salmon.
8/6 – 8/9 (noon)	2 fish limit, release Chum. Inner Elliot bay waters open east of a line from Pier 91 to Duwamish head. Additional openings contingent upon ISU model results.
8/10 – 8/19	Closed
8/20- 8/31	2 fish limit, release Chinook and Chum.
9/1-5/14	Same as Area 10.

Sinclair Inlet Recreational SAF

5/1-7/15	Same regulations as Area 10.
7/16-9/30	Open S of Manette Bridge, S of line drawn true W from Battle Point, and W of line drawn true S from Point White; 3 fish limit, (Chinook 22" min size), release wild Chinook and Chum, 2 pole endorsement.
10/1-5/14	Same regulations as Area 10.

Green River Recreational

WDFW commits to implementing a creel survey to assess Chinook encounter rates in both directed and non-directed Chinook fisheries within the river.

From an east-west line extending through the southernmost tip of Harbor Island to Tukwila International Boulevard/Old Hwy. 99	8/20 – 12/31	Daily limit 6. No more than 3 adults may be Coho and Chum, 12” min size, release Chinook.
Tukwila International Boulevard/Old Hwy. 99 to the South 212nd Street Bridge	8/20 – 12/31	Daily limit 6. No more than 3 adults may be Coho, Chum, or Chinook, 12” min size. No more than 2 Chinook may be retained as part of the daily limit; anglers must keep the first 2 Chinook that are landed.
South 212 th Street Bridge to Auburn-Black Diamond Road Bridge	9/16 – 12/31	Daily limit 6. No more than 3 adults may be Coho and Chum, 12” min size, release Chinook. Closed within 150’ of the mouth of Big Soos Creek (from the eastbound Bridge of highway 18 to Auburn Black Diamond Road Bridge).
from Auburn-Black Diamond Rd Bridge to Tacoma Headworks Dam	11/1 – 12/31	Daily limit 6. No more than 3 adults may be Coho and Chum, 12” min size, release Chinook, Closed waters - within 150’ of the mouth of Keta (Crisp) Creek. Keta Creek closure includes both banks of the river and extends 150 feet upstream and downstream from a point directly across the river from the mouth of Keta Creek. Also closed upstream of the Tacoma Municipal Watershed Boundary Marker (1.3 miles downstream of the Tacoma Headworks Dam).

Chinook fishery is dependent upon ISU and co-manager agreement.

The 2021/2022 WDFW sport pamphlet will reflect the following season end dates for trout and other game fish fall/winter season.

Mouth to Tacoma Headworks Dam: Dec. 31

Soos Creek Recreational

Closed to salmon.

Lake Washington Recreational

August-October	Closed to salmon. Re-opening dependent upon ISU (lock counts) and co-manager agreement. Potential fishery starting date to be determined: Coho: 12” min. size. 4 fish limit, Coho only.
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Lake Sammamish Recreational

10/1 – 11/30	Fishery dependent upon ISU (lock counts) and co-manager agreement. 4 fish limit, Coho only. 12” min size.
12/1 – 5/31	Landlocked salmon rules apply. Hatchery Coho may be retained as part of the trout daily limit. 12-inch minimum size.

All other SOUTH SOUND AREA 10 REGION freshwater: Closed to salmon angling

3.2 Area 11 Sub region

Area 11 Net

Chinook	All	Closed
Pink	Trty	Wk 32 (wb 8/1) - Wk 35 (wb 8/22) 3 days per week. Drift Gillnet Only and fishery could close early if Chinook impacts are reached.
	Ntrty	Closed
Coho	Trty:	Wk 37 (wb 9/5) - Wk 42 (wb 10/10) 7 days a week. Drift Gillnet 24 hrs a day. Beach Seines daylight hours only.
	Ntrty:	Closed

Chum	<p>Given the recent decline in South Sound fall chum stocks, a conservative methodology was used for the pre-season forecast that was agreed to by all parties. This resulted in a historically low pre-season forecast for South Sound chum, which along with Nisqually winter chum, are projected to be below escapement in 2021. Due to the forecast and concerns for incidental impacts to Nisqually winter chum stock, the co-managers (State and Tribal) are planning to forgo preterminal directed fisheries in Marine Areas 10 and 11, as well as recreational fisheries directed at any of the South Sound chum stocks for the 2021 fishery. Through continued engagement and collaboration by co-manager technical staff, appropriate levels of escapement will be explored as targets for the 2021 Chum season. The co-managers will meet after the completion of 2021 PFMC/NOF to discuss establishing ISU triggers for Area 10/11 fisheries that would allow for preterminal fisheries in 2021 if the Apple Cove Test Fishery demonstrates a significantly larger run size than the pre-season forecast. All preterminal fisheries should prioritize co-managers access to their respective shares. Fishing cannot continue past week 45 by State or tribal comanagers in 2021 to protect Late Chum. The co-managers support continuation and improvement of the Apple Cove Point test fishery to inform in-season adjustments to pre-season forecasts and will inform discussion around harvest levels to meet agreed to escapement levels. The co-managers also support continued efforts to improve the ISU methodology and model performance.</p>
Trty:	Closed for Conservation Reasons.
Ntrty	Closed; fishing dependent on South Sound Chum Management Agreement above.

Area 11A Net Treaty Net (Ntrty net closed)

Chinook	Closed
Coho	Wk 37 (wb 9/5) - Wk 42 (wb 10/10) 3 nights a week.
Chum	Closed

Puyallup River (Area 81B) Treaty Net (Ntrty net closed)

Chinook	<p>The Muckleshoot Indian Tribe and Puyallup Tribe of Indians may propose spring Chinook fishery to begin in May 2022. Opening of these fisheries would be dependent on the Co-managers' submission of a supplemental White River spring Chinook fishery plan for the spring Chinook management period, for NMFS' review and concurrence. The plan would detail the following: the forecasted White River spring Chinook MU run size for 2022; the management objectives that would be in place for that run-year; an estimate of allowable impacts and those estimated to be taken during the spring Chinook management period; plans for monitoring this period, and a description of how this fishery would operate within any limits in place for other ESA-listed species incidentally encountered during this fishery. The parameters of this fishery would be subject to modification by the co-managers on submission to NMFS of a revised plan, independently or as part of the 2022-2023 LOAF.</p>	
	Spring Chinook	Ceremonial and Subsistence
	Summer – Fall	Commercial fishery Wk 33 (wb 8/8) and Wk 34 (wb 8/15) fishing pattern: 6 hours.
Coho	Commercial fishery Wk 37 (wb 9/5) - Wk 42 (wb 10/10) fishing pattern: 1,2,2,2,2,2,2.	
Chum	Test fishery Wk 43 (wb 10/17) - Wk 46 (wb 11/7) 1 day/wk, drift net only.	
Winter Chum	Commercial fishery Wk 46 (wb 11/7) – Wk 53 (wb 12/26) 1 to 3 days a week. Opening may be postponed to week 47 depending on In Season Information to protect fall chum.	

White River Treaty Net

Spring Chinook	The Muckleshoot Indian Tribe and Puyallup Tribe of Indians may propose spring Chinook fishery to begin in May 2022. Opening of these fisheries would be dependent on the Co-managers' submission of a supplemental White River spring Chinook fishery plan for the spring Chinook management period, for NMFS' review and concurrence. The plan would detail the following: the forecasted White River spring Chinook MU run size for 2022; the management objectives that would be in place for that run-year; an estimate of allowable impacts and those estimated to be taken during the spring Chinook management period; plans for monitoring this period, and a description of how this fishery would operate within any limits in place for other ESA-listed species incidentally encountered during this fishery. The parameters of this fishery would be subject to modification by the co-managers on submission to NMFS of a revised plan, independently or as part of the 2022-2023 LOAF.
Coho	Gillnet fishery will open Wk 37 (wb 9/5) – wk 42 (wb 10/10) with the fishing pattern: Sunday thru Friday from Puyallup/White River confluence upstream to R St. Bridge.

Ceremonial and subsistence fisheries open up to 7 days/wk.

Area 11 Recreational

5/1-6/15	Closed to salmon.	
6/16-9/30	2 fish limit (Chinook 22" min. size), 1 hatchery Chinook, release Chum and wild Chinook; Commencement Bay (E. of Cliff House Restaurant/Sperry Ocean Dock line) closed to salmon through 7/31.	
10/1 – 10/31	2 fish limit, release Chinook and Chum.	
11/1-12/31	2 fish limit, 1 hatchery Chinook (Chinook 22" min. size), release wild Chinook, Chum, and Coho.	
1/1-5/14	Closed to salmon.	
Dash Point Dock, Point Defiance Boathouse Dock, Les Davis Pier, Des Moines Pier and Redondo Pier	Year-Round	2 fish limit, 1 Chinook (Chinook 22" min size); release Chum.

Puyallup River Recreational

WDFW, PIT, and MIT commit to developing and executing a freshwater monitoring plan for 2021. Technical staff will develop a study design and work through the details for the freshwater monitoring plan.

from 11 th St. Bridge to E. Main Bridge	8/16 – 11/30	Closed Sundays 8/15-8/31. Closed Sunday – Tuesday 9/1-9/31. 6 fish limit, 4 adults of which only 2 adults may be Chinook or Coho, 12” min size, release Chum and wild Chinook.
from E. Main Bridge to Carbon R.	8/16 – 11/30	6 fish limit, 4 adults of which only 2 adults may be Chinook or Coho, 12”min size, release chum and wild Chinook.

Carbon River Recreational

from mouth to Voight Creek	9/1 – 11/30	6 fish limit, 2 adults, 12” min size, release Chum and wild Chinook.
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All other SOUTH SOUND AREA 11 REGION freshwater recreational Closed to salmon angling.

3.3 Area 13 Sub region

Fox Island/Ketron Island (Area 13)

Chinook	Treaty	8/1-9/15, 7 days/wk
	Ntrty	Closed
Coho	Treaty	9/15 – 10/20, 7 days/wk
	Ntrty	Closed
Chum	Treaty	Closed unless opened by Medicine Creek Treaty Tribes’ agreement
	Ntrty	Closed

Area 13 Treaty Net (Ntrty net closed)

Chinook	Closed
Pink	Closed
Coho	Closed
Chum	Closed

Carr Inlet (Area 13A) Treaty Net ¹(Ntrty net closed) ¹Based on Medicine Creek Treaty Tribal proposed annual regulations. Individual Tribal regulations may deviate from this schedule.

Chinook	8/1 – 9/18, 7 days/wk, opens in sections.
Coho	9/12 – 10/23, 7 days/wk, opens in sections.
Chum	10/24 – 11/27, 7 days/wk, opens in sections.

Chambers Bay (Area 13C) Treaty Net¹ (Ntrty net closed)

Chinook	7/25 – 10/9; Beach seines Sunday noon to Tuesday noon. Set nets Wednesday noon to Friday noon.
Coho	10/10 – 10/30; Beach seines Sunday noon to Monday noon. Set nets Monday noon to Tuesday noon.
Chum	Closed for conservation.

Area 13D Treaty Net (Ntrty net closed)

Chinook	7/15 - 9/9 or earlier date dependent on in-season management needs; 7 days/wk
Coho	9/10 - 10/31 or earlier date dependent on in-season management needs.
Dana Pass (13D-1)	7 days/wk
Pickering Pass (13D-2)	7 days/wk
Peale Pass (13D-3)	7 days/wk
Southern Case (13D-4)	7 days/wk
Chum	Open approximately 10/5 2-4 days per week; managed by weekly escapement updates (~10/5).
Area 13E Net	Closed to all fishing

Budd Inlet (Area 13F) Treaty Net (Ntrty net closed)

Chinook	7/15-9/9 or earlier date dependent on in-season management needs; 7 days/wk 9/10-9/24 extended opening dependent on in-season monitoring to meet hatchery escapement needs.
Coho	Closed
Chum	Open approximately 11/7, 2-4 days per week, managed by weekly in-season updates

Eld Inlet (Area 13G) Treaty Net (Ntrty net closed)

Chinook	7/15-9/9; opening dependent upon in-season data, outer portion only.
Coho	Closed
Chum	Open approximately 11/7, 2-4 days per week, managed by weekly escapement updates

Totten Inlet (Area 13H) Treaty Net (Ntrty net closed)

Chinook	8/1-9/9; schedule dependent on in-season data
Coho	Closed
Chum	Open approximately 10/10, 2-4 days per week; managed by weekly escapement updates

Little Skookum Inlet (Area 13I) Treaty Net (Ntrty net closed)

Chinook	8/1-9/9; schedule dependent upon in-season data
Coho	Closed
Chum	Open approximately 11/7, 2-4 days per week; managed by weekly escapement updates

Hammersley Inlet (Area 13J) Treaty Net (Ntrty net closed)

Chinook	8/1-9/9 or earlier date dependent on in-season management needs
Coho	Closed
Chum	Open approximately, 10/10 - 12/31, 2-4 days/wk; managed by weekly escapement updates

Northern Case Inlet (Area 13K) Treaty Net (Ntrty net closed)

Chinook	7/15-9/9
Coho	9/10-10/31 or earlier date dependent on in-season management needs
Chum	Open approximately 10/10 -12/31; 2-4 days/wk; managed by weekly escapement updates

Nisqually River (Area 83D) Treaty Net (Ntrty net closed)

Chinook/Pink	<p>Gill Net - 2 days a week wk wks 35 – 37.</p> <p>Fishing boundary: Mouth of Nisqually River up to approximate RM 5 at flagging.</p> <p>Selective gear staff driven testing. 1-5 days/wk, wk 32 (wb 8/1) through wk 40 (wb 9/26) or until 150 adult Chinook are encountered.</p> <p>Change In Ratio data collection staff driven TN 1-3 days/wk, wk 32 (wb 8/1) through wk 46 (wb 11/7). Release all fish.</p>
Coho	<p>Gill Net – 12 hour wk 41 (wb 10/3) and then 3 days wk 42 (wb 10/10) through wk 46 (wb 11/7). Fishing boundary: Mouth of Nisqually River up to approximate RM 6 at Tom Brown’s Log Jam at flagging wk 42-43. Upper boundary Kalama Creek at flagging wks 44-46.</p>
Chum	<p>No directed chum fishery. If Yelm Escapement ISU reaches 312 live count on or before January 1, fishing schedule: 2-3 days/wk through wk 4 (wb 1/16). Fishing boundary: Mouth of Nisqually River up to approximate RM 5 at flagging.</p>

McAllister Creek (Area 83F) Treaty Net (Ntrty net closed)

Chinook/Pink	<p>Gill Net – 3-5 days/wk during the following weeks: wk 31 (wb 7/25) through wk 45 (wb 10/31). Freshwater courses.</p>
Coho	<p>Closed.</p>
Chum	<p>Closed.</p>

Area 13 Recreational

5/1-5/14/2022	<p>2 fish limit (Chinook 22” min. size, 20” min. size 7/1-9/30), release wild Coho, Chum, and wild Chinook. 2 pole endorsement. Minter Creek mouth closed 4/16 - 9/15; Lower Budd Inlet closure zone 7/16-10/31.</p>
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Fox Island Pier Recreational

Year-Round	<p>2 fish limit, 1 Chinook (Chinook 22" min size, 20" min. size 7/1-9/30), release Chum, wild Coho, and wild Chinook.</p>
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Chambers Creek Estuary Recreational

downstream of markers 400' below Boise- Cascade Dam to Burlington Northern Railroad Bridge	7/1 – 11/15	6 fish limit, 4 adults; 12" min size, release wild Chinook, wild Coho, and Chum.
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Deschutes River Recreational

Capitol Lake (from outlet to 400' below lowest Tumwater Falls (Deschutes River) fish ladder).	5/1- 5/14/2022	Closed
from Old Hwy 99 Bridge on Capitol Blvd in Tumwater upstream	Year round	6 fish limit, 2 adults, 12" min size, release Coho.

Kennedy Creek Recreational

mouth to northbound Hwy. 101 Bridge		Closed to salmon.
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McLane Creek Recreational

from a line 50' north of and parallel to the Mud Bay Rd. Bridge to a line 100' upstream of and parallel to the south bridge on Hwy.101		Closed to salmon.
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Minter Creek Recreational

mouth to 50' downstream of hatchery rack	9/1 – 12/31	6 fish limit, 4 adults of which only 2 adults may be Chinook or Coho, release wild Coho, 12" min size.
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Nisqually River Recreational

WDFW and NIT commit to developing and executing a freshwater monitoring plan for 2021. Technical staff will develop a study design and work through the details for the freshwater monitoring plan.

mouth to the military tank crossing bridge, one mile upstream of the mouth of Muck Creek	7/1 – 11/15	6 fish limit, 2 adults, 12” min. size; release Chum, wild Coho, and wild Chinook. Closed Sundays and Mondays 8/22-9/6 and 10/1-11/15.
	11/16-1/31	Closed to salmon angling. May open pending Yelm Escapement ISU. Open to Chum: 6 fish limit, 2 adults, release wild Coho and wild Chinook, 12” min size.
McAllister Cr. - mouth to Olympia-Steilacoom Rd Bridge	7/1 – 11/30	6 fish limit, 2 adults, 12” min size. Release wild Chinook, wild Coho, and Chum.

All other SOUTH SOUND AREA 13 REGION freshwater recreational closed to salmon angling.

4.0 Hood Canal Region (All fisheries modeled in FRAM #3721 (Chinook) & #2140 (Coho))

Hood Canal Mainstem (Areas 12, 12B, 12C, 12D)

Treaty: 1,000 foot closure around streams that are closed to net fishing. Beach seines and hook and line gear release Chum through 9/30 (through 10/10 if within 500' of western shore of Areas 12B and 12C).

Nontreaty: See WAC 220-47-307 for Nontreaty exclusion zones.

Chinook/Pink	Trty	Areas 12, 12B and 12D: Closed to net gear per the Summer Chum Salmon Conservation Initiative (SCSCI).
		Area 12C: Gillnets and Beach Seines wb 7/18 - wb 7/25 3 d/wk; Gillnets wb 8/1-8/22 4 d/wk; Beach Seines wb 8/1-8/22 4 d/wk; Beach Seines wb 8/29 - 8/31 3d/wk. Beach Seines Release chum 8/1-8/31 And Gillnets Restricted to 7" min. mesh starting 8/1 per the SCSCI.
		Area 12H: Open wb 7/18 through 9/12; hook and line gear continuous; beach seines and dipnets daylight hours only Monday each week; possible in-season modifications; Chum release.
	Ntrty	Area 12H (12C): Hoodspout Hatchery Zone Only, Wks 30 (wb 7/18) – 36 (wb 8/29); Pink retention Wk 30 – 36. 5,000 Chinook quota. BS fishing pattern: Thursdays: 1,1,1,1,1,1; Tuesday, second day per week triggered pending in-season agreements with Co-managers. Weekly in-season calls. Release all Chum per the SCSCI.
Coho	Trty	Area 12: Open 9/25 through 10/09 for gillnets. Beach seines for Coho only (release all Chinook and Chum through 9/30) may start no earlier than 9/16. Both gear types open 5 days/wk.
		Area 12B: Open 10/1 through 10/16 for gillnets; 500-foot closure along western shore through 10/10; beach seines for Coho only (release all Chinook and Chum through 9/30) may start no earlier than 9/16. Both gear types open 5 days/wk.

		<p>Area 12C:</p> <ul style="list-style-type: none"> a) Gillnets: 10/1-10/16 5 d/wk. b) Beach Seines: 10/1-10/16 5 d/wk. DAYLIGHT HOURS ONLY. c) 500 foot beach closure from Ayock Pt. to approx. 2,000 feet south of Lilliwaup (at the large house, north of Octopus Hole) through 10/10 for both gear types.
Coho	Trty	Area 12D (west of Madrona Pt. - local name): Open for gillnets no earlier than 10/1. Weekly schedules identical to Area 12C.
	Ntrty	Closed
Chum	See comanager agreed-to Hood Canal MOU in appendix.	
	Trty	Area 12: Open 10/10 through 11/20; 7 d/wk
		Area 12B: Open 10/17 through 11/20; 7 d/wk; except north of an East-West line from Zelatched Point to Seal Rock open through 11/27.
		Area 12C: Open 10/17 through 11/27; 7 d/wk.
		Area 12D: Closed.
		Area 12H: Hook and line gear open from 10/17 through 11/20; beach seines open Monday of each week; possible in-season adjustments to 2 days/wk. Starting 11/7, hatchery escapement control measures will go into effect, if necessary.
Ntrty	Areas 12 and 12B: Wks 43 (wb 10/17) - 45 (wb 10/31): PS Chinook NR; PS fishing pattern: 1,1,1; GN fishing pattern: 2,2,2 daylight hours. Fishing in wks 44 and 45 contingent upon remaining available pre-season share or results from the agreed-to ISU.	
	Area 12C: Fisheries scheduled Wks 45 (wb 10/31) -: PS Chinook NR; PS fishing pattern: 1; GN fishing pattern: 2,2,2 daylight hours. Fishing is contingent upon the results of the agreed-to ISU.	
	Hoodsport Hatchery Zone (12C): Beach seine fishery wks 46-48; fishing pattern: 2,2,2,2. Fishing is contingent upon the results from the agreed-to ISU.	
	Area 12D Closed	

Areas 12, 12B Treaty Hook and Line (Troll and Handline)

NOTE: Expected fishing effort from the Port Gamble and Jamestown S’Klallam Tribes and the Lower Elwha Klallam Tribe.

5/1 – 7/10	Closed
7/11 – 9/4	<p>Open for salmon wb 7/11 through wb 8/29 with quota of 1,500 Chinook, release Chum and Steelhead; Fishery shall close upon attainment of Chinook quota; Open 7 days/week, daylight hours only; Chinook salmon measuring less than 22” must be released; Coho salmon measuring less than 16” must be released; Participating tribes shall sample landed catch and report the catch numbers and sampling results on in-season conference calls.</p> <p>Closed within 1000 ft. radius around all waters within channels created by exposed tidelands of the Dosewallips, Duckabush, and Hamma Hamma rivers; Closed within 1,000 radius around all stream mouths that are not open to fishing.</p> <p>The coho catch estimates by time-step modeled in FRAM for this fishery are calculated predictions and are the best available pre-season estimate of coho catch in this fishery. In order to collect data on actual coho interceptions the estimates will not be treated as a ceiling when managers make in-season fishery management decisions.</p>
9/5 - 4/30	Closed

Port Gamble (Area 9A)

Note: No gillnet may be operated within the boundaries as described: From the head/mouth of Port Gamble Bay along both the eastern and western shores, along the southeastern edge of Pt. Julia and then north of a straight line drawn to west to the southern edge of the old mill site designated by markers (map in appendix).

Chinook	All	Closed
Coho	Trty	Open wb 8/08 through wb 10/24; 7 days/wk; gillnet only. Ceremonial Harvest of 20 Chinook in August.

Coho	Ntrty	Open Wks 34 (wb 8/15) - 44 (wb 10/24) skiff GN limited to 100 fathoms length and 60 meshes in depth; 7 days/wk; Chinook NR; Chum NR through 9/30; release NR fish by cutting ensnaring meshes. The beach area of the Port Gamble Indian Reservation, between Pt. Julia and the boundary marker at the south end of the reservation - closed to all fishing.
Chum	Trty	Open 10/31 through 11/27; 7 days/wk; gillnet only.
	Ntrty	Closed

Quilcene / Dabob (Area 12A)

Coho	Trty	Open 8/21 through 10/09; Chum and Chinook release from hook and line and beach seine gear through 9/30; beach seines 5 days/wk, daylight hours. Hook and line fisheries for Coho only, open continuously. Gillnets closed until Summer Chum escapement exceeds 1,500, then (1) GN day/wk; when escapement reaches 2,500 (2) GN day/wk; when escapement reaches 3,500 GN will be determined. Beach seine advance notification required prior to fishing.
	Ntrty	Beach seine open wks 34 (wb 8/15) – 40 (wb 9/26); Limited participation; Chinook and Chum NR; fishing pattern 1,5,5,5,5,5; GN closed unless Treaty GN opening. Fishery will be managed consistent with SCSCI.
Chum	Trty	Open to set and drift gillnets wb 10/10 through 11/20, South of an E-W line through Pt. Whitney.
	Ntrty	Closed

Big Quilcene River (Area 82F) Treaty (Ntrty net closed)

Coho	Openings to be determined in-season, for Coho only, from 9/1 through 10/09. Closed below Rogers St. From Rogers St. to U.S. Hwy 101, dipnets, hook and line gear only, release all other salmon. The hatchery area, from U.S. Hwy 101 to the Quilcene Hatchery rack, may be opened for short periods to take surplus Coho. Hand held gear only (dipnets, hand lines, etc.).
Chum	Closed

**Skokomish River (Area 82G) Treaty (Ntrty net closed) Purdy Creek (Area 82J)
Treaty Net (Ntrty net closed)**

Note: The Skokomish Tribe will continue to sample all agreed to fisheries in order to provide weekly in-season updates (i.e. CWT, species, mark status, and mark rates). The WDFW will provide weekly in-season updates for Chinook returns to the George Adams Hatchery rack. Note: Hook and line gear and beach seines release Chum through 10/15 above Hwy 106 Bridge.

Skokomish River – Mouth to HWY 106 Bridge (Area 82G) Treaty

Coho	Open wb 10/03 – wb 10/24, 7 days/wk.
Chum	Open wb 10/31 through 11/21, 7 days/wk.

Skokomish River – HWY 106 Bridge to HWY 101 Bridge (Area 82G) Treaty

Chinook	Open wb 8/01 - wb 8/22, 3 days/wk.
Coho	Open wb 10/03 – wb 10/24, 7 days/wk.
Chum	Open wb 10/31 through wb 11/21; 7 days/wk.

Purdy Creek (Area 82J)

Note: Treaty Net 250 feet from the confluence/mouth of Purdy Creek to the HWY 101 Bridge (fishing nets may not be attached to any abutment or railings on the HWY 101 Bridge).

Chinook	Gill Nets only: Open Saturdays only beginning July 11 – August 07. In-season adjustments will occur to ensure weekly broodstock targets are achieved.
Chum	Gill Nets, Dip Nets and Hook & Line: Open 11/07 as necessary to reach tribal share.

Misc. Hood Canal Rivers (Dosewallips, Duckabush, Hamma Hamma, Tahuya, Dewatto, Union)

All species	Closed to commercial harvest.
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Area 12 Recreational

Note: Release all Chum from 8/1 to 10/15, per the SCSCI. 7/1-10/15: All waters within channels created by exposed tidelands including - the free flowing waters of the Skokomish River downstream (north) of the City of Tacoma PUD overhead transfer powerlines are CLOSED to fishing for finfish; the State and Tribe will meet and resolve issues prior to a fishery occurring in this area. Mouth closures apply to Dosewallips, Duckabush, Dewatto, and Hamma Hamma Rivers.

5/1-6/30	Closed
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7/1-7/10	Closed North of Ayock.
7/1-9/30	South of Ayock Pt. – 4 fish limit, (Chinook 20" min size); release Chum and wild Chinook. 2 pole endorsement.
7/11-9/30	North of Ayock Pt. – 4 fish limit, release Chinook and Chum.
10/1-11/30	4 fish limit, 2 hatchery Chinook (Chinook 22" min size). Release wild Chinook, release Chum through 10/15.
12/1-5/14	Closed.

Quilcene/Dabob Bay Recreational

5/1-7/31	Same as Area 12.
8/1-8/30	4 fish limit, Coho only.
9/1-5/14	Same as Area 12.

Hoodsport Hatchery Zone Recreational, Same as Area 12 (above) except:

7/1-11/30	4 fish limit, no minimum size; Release wild Chinook and release Chum 7/1-10/15. 2 pole endorsement 7/1-10/31.
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Dewatto River Recreational

mouth to Dewatto-Holly Rd. Bridge	Closed to salmon.
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Dosewallips River Recreational

mouth to ONP boundary	11/1 – 12/15	2 fish limit, 12" min size, Chum only.
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Duckabush River Recreational

mouth to ONP Boundary	11/1 – 12/15	2 fish limit, 12" min size, Chum only.
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Quilcene River Recreational

Rodgers St. to Hwy 101 Bridge	8/16 – 10/31	6 fish limit, 4 adults, 12" min size, Coho only. Night closure.
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Skokomish River Recreational

Closed to salmon.

Tahuya River Recreational

Closed to salmon.

All other HOOD CANAL REGION freshwater recreational closed to salmon angling

2021 – 2022 List Of Agreed Fisheries Appendix

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1.1 2021 7/7A Chum Fishing Plan

04/14/21

Chum salmon fisheries in Areas 7 and 7A will be regulated to comply with a base harvest ceiling of 125,000 Chum salmon, unless a critically low level of abundance is identified for those stocks migrating through Johnstone Strait (“Inside Southern Chum salmon”) (PST 2019). Chapter 6 of Annex IV specifies that U.S. commercial fisheries for Chum salmon in Areas 7 and 7A will not occur prior to October 10. Paragraph 9 (a-b) specifies run sizes below 1.0 million as critical (estimated by Canada). For run sizes below the critical threshold, the U.S. catch of Chum salmon in Areas 7 and 7A will be limited to those taken incidentally to other species and in other minor fisheries, and shall not exceed 20,000 pieces. When the Fraser River chum run-size is greater than 1.6 million, the US share shall be 160,000 chum.

Table 1. U.S. 7/7A chum catches, 2009-2020

Year	Non-Tribal catch	Tribal catch	Total U.S. catch	Total U.S. Share ^A	Uncaught share	Overage	Paid Back
2009	16,406	7,667	24,073	20,000 ^B	N/A	0	
2010	6,062	17,342	23,404	20,000 ^B	N/A	0	
2011	24,084	36,401	60,485	130,000	69,515	0	
2012	32,157	40,709	72,866	130,000	57,134	0	
2013	30,239	49,411	79,650	130,000	50,350	0	
2014	60,135	86,436	146,571	130,000	0	16,571	
2015	59,754	65,303	125,057	130,000	4,943	0	4,943
2016	66,531	51,705	118,236	130,000	11,764	0	11,764
2017	56,830	66,366	123,196	130,000	6,804	0	
2018	37,806	28,605	66,411	N/A ^C	N/A	0	
2019	574		574	N/A ^D	N/A	0	

2020	47,270	40,281	87,551	125,000	37,449		
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^A Between 2009-2018, the base US share was 130,000 chum per year. Starting in 2019, the base US share shall be 125,000 chum per year

^B In 2009 and 2010, the Inside Southern Chum run size was below the critical threshold of 1.0 million; thus, per Chapter 6 of the PST the harvest ceiling was 20,000 additional chum following the notice from Canada that the run size was below the critical threshold.

^C In 2018 the inside Southern chum was above the critical threshold, allowing the US to open fisheries. However, Fraser River chum were below the critical threshold of 900,000, which required the US to close 7/7A chum fisheries.

^D In 2019 the inside Southern chum run was below the critical threshold. The only commercial harvest is attributed to non-tribal reef net between October 1-8.

In 2013, the co-managers enacted a fishing plan intended to result in the full harvest of chum salmon allowed to be caught in Area 7/7A under the existing Chapter 6 of the Pacific Salmon Treaty. Adoption of these annual pre-season chum fishing plans for Area 7/7A has mostly resulted in the full harvest of the U.S. share in recent years (Table 1).

To continue to promote fishing opportunity that allows both the tribal and non-tribal fleets to catch their full shares, the co-managers will use the management approach below for the 2021 season.

-
- Tribal and non-tribal reef net fisheries will remain open continuously from the end of Fraser management to the end of the chum season or until their respective shares are harvested, whichever comes first. Reef nets will release all chum and unmarked Chinook through September 30. Release all Chinook beginning October 1.
- Tribal purse seine (PS) and gillnet (GN) fisheries will open on Sunday October 10 and remain open continuously until the end of the season or until the treaty share is harvested, whichever comes first.
- Non-tribal PS and GN fisheries will open on Sunday October 10, Monday October 11, Thursday October 14 and Friday October 15.
- Non-treaty purse seine and gillnet fisheries will be evaluated relative to the thresholds below based on non-treaty chum catch reported on the in-season co-

manager conference call scheduled for Saturday, October 16, 2021. Non-treaty fisheries will re-open on the prescribed dates and remain open continuously until the end of the season or until the non-treaty share is harvested, whichever comes first.

Table 2. 2021 Tribal and Non-Tribal chum fishing schedule for Area 7 & 7A

	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct	15-Oct	16-Oct	17-Oct
	SUN	MON	TUE	WED	THU	FRI	SAT	SUN
Treaty and Non-Treaty Reef Net								
Treaty Gillnet and Purse Seine								
Non-Treaty Gillnet and Purse Seine								
Co-manager Conference Call								

- If total non-treaty catch is:
 - <29,000; non-treaty fishery will reopen Monday, October 18.
 - >=29,000; non-treaty fishery will reopen Tuesday, October 19.
-
- The co-managers will exchange data on by-catch throughout the season and take appropriate management actions should levels of by-catch greatly exceed expectations.
-
- The co-managers will meet by conference call and adjust schedules if needed in response to in-season notification by Canada’s Department of Fisheries and Oceans that chum salmon returns are below the critical thresholds identified in Chapter 6, paragraph 9 of the Pacific Salmon Treaty.
-
- At any time, the tribes and/or WDFW may open limited and closely regulated fisheries in an attempt to collect tissue samples from Area 7 West, Area 7 East and Area 7A for Genetic Stock Identification analysis. US Southern Panel members will notify their Canadian counterparts of this intent in an expeditious manner. As described in PST Chapter 6, paragraph 9(b), catches taken for the purpose of GSI sampling will not count toward the 20,000 catch limit allowed when critical thresholds are not being met.

1.2 Skagit Pink and Coho Creel Census and Monitoring Plan

To assess angler effort, catch and impacts to other stocks and species, WDFW will conduct a creel survey on the Skagit River during the sport pink and coho fisheries. The sampling design for this creel will be designed by WDFW with input from the Skagit regional comanagers. The core design structure will be similar to the Skagit lower area hatchery spring Chinook and sockeye fisheries but will incorporate advancements from the steelhead sport catch and release fishery creel methodology.

During the creel survey, two pieces of information will be collected, angler effort and catch data. Effort index counts will be made by counting the number of boat trailers and cars at the known access sites within the fishery boundary. Total effort counts will cover the entire fishery areas and be conducted so all anglers can be enumerated, either by boat or by air. Information collected from angler interviews will include the number of anglers in the fishing party, angler type (i.e., boat or shore), whether or not anglers have completed their trip, start and stop time, number of trailers and cars associated with the fishing party, and the number of fish kept and released by species and mark.

Total catches and impacts will be calculated. If catch or impact levels are expected to be exceeded, in-season management actions will occur as quickly as possible and comanagers will be notified without delay. In-season management actions could include adjusting daily catch limits, changing the time of the fishery or the area of the fishery, or emergency closure of the fishery. Catch data from the creel will be shared with the other Skagit comanagers during the Skagit weekly comanager meetings.

The method developed for this creel will be written up for replication in future creels. The methods used in previous creels to estimate total effort and harvest are outlined in WDFW Methods Manual-Creel Information from Sport Fisheries (Hahn 2000).

1.3 Lower Skagit River Spring Chinook Selective Fishery Proposal

Proposal

The proposal is to conduct a spring Chinook mark selective sport fishery in the Skagit River from the Memorial Highway Bridge located in Mt. Vernon at river mile 11.4 to Gilligan Creek located at river mile 28.9. The fishery will open May 1, and close May 31, unless the wild Chinook or steelhead impact limits are met prior to the scheduled end date. The daily limit will be two ad-clipped Chinooks only per day per angler, no retention of any other species allowed consistent with current gamefish regulations. Fishing will be closed at night.

Fishery Guidelines

Spring Chinook:

The fishery will be creeded by WDFW staff. The hooking mortality rate of 10% will be used for freshwater sport fisheries on fish encountered. The fishery will be closed when maximum impacts are expected to be met or are met. The Skagit River recreational fisheries will follow sampling plans provided in past years.

Skagit Creel Census and Monitoring Plan

To assess angler effort, catch, total harvest and impacts to other stocks and species WDFW will conduct a creel survey on the Skagit River during the selective Chinook fishery. A two-stage sampling design will be used to conduct the creel survey. Days of the month will be divided into two strata, weekdays and weekends. Each stratum has a fishing day length of approximately 16 hours that will be divided into two substrata, an early and late period. On weekend days, creel surveyors will sample both days and both the early and late periods. On weekdays, sampling will occur also both time periods, on three randomly selected days per week.

During the creel survey two pieces of information will be collected, angler effort and catch data. Effort counts will be made by counting the number of boat trailers and/or cars at the known access sites within the fishery boundary twice a day. In addition tie in counts will be conducted twice a week via jet sled to estimate/verify total effort. Information collected from angler interviews include number in party, angler type (i.e., boat or shore), whether or not anglers have completed their trip, start and stop time, number of trailers and cars associated with the party, and the number of fish kept and released by species and mark.

Methods used to expand effort and angler catch data to estimate total effort and harvest are outlined in WDFW Methods Manual-Creel Information from Sport Fisheries (Hahn 2000). Total catches and impacts to wild stocks will be calculated on a weekly basis. Impacts to stocks of concern nearing maximum impact levels will be immediately communicated to concerned parties and an emergency closure of the fishery will occur to avoid further impacts.

1.4 Pacific Salmon Commission Chum Technical Committee 2021 Juan de Fuca Strait Chum Salmon Sampling Program

The Pacific Salmon Commission Southern Panel has again identified the establishment of a chum sampling program for the Strait of Juan de Fuca as a top research priority for proposals through the Southern Endowment Fund for 2021. The Chum Technical Committee submitted a proposal to continue the Strait of Juan de Fuca GSI sampling program which was begun in 2016, and this proposal was once again selected for funding. The sampling program will follow the same methodology since 2016. Therefore, the analysis of potential impacts to ESA-listed Puget Sound steelhead and Puget Sound Chinook, described below, remains unchanged from previous years.

Sampling Program Objectives:

For stock reconstruction for Southern BC and Washington Chum salmon, one significant data gap is the diversion of chum populations through the Southern Route via Juan de Fuca Strait. This project will work towards addressing that data gap by sampling this migration route in both U.S. and Canadian waters to determine:

- Spatial & temporal stock composition of chum salmon migrating through the Southern Diversion route,
- Provide sampling platform for stock identification, migration rate studies etc.
- Develop time series of Catch per Unit effort data to pair with the Johnstone Strait Test Fishery to determine the diversion rates of various chum populations.

This multi-year program is a structured sampling program in Juan de Fuca Strait (Canadian Area 20 and U.S. Area 5). This research involves chartering a Purse Seine vessel to fish 4 days/week starting the 1st week of October for 5 weeks (2 vessel-days on each side of the international boundary). Catch per Unit Effort information is collected as well as biological samples for stock identification purposes. All fish are released except for the 400 samples/week (a total of 2,000 chum) that are collected during the program.

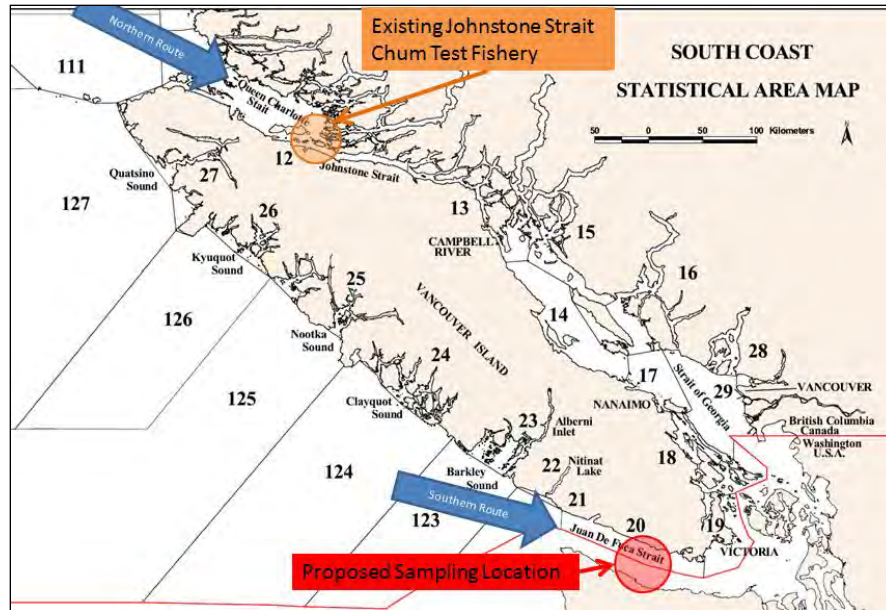


Figure 1. Map of Vancouver Island with migration pathways and proposed sampling location.

Sampling Program Methodology:

Gear: In order to reduce selectivity, a Purse Seine vessel will be chartered to conduct the sampling following a typical Test Fishery pattern (Fig 2). The vessel will fish using a standard WCVI Seine net (300 fathom 6 ½ Strips) that will be constructed for this program.

Timing: The sampling program will cover the main fall chum migration time period through the month of October. The vessel will fish a total of 4 days per week (2 days in Canadian waters and 2 days in U.S. waters) over a 5 week period starting the first week of October.

Location: The 2 days per week of fishing in U.S. waters will occur entirely within Catch Area 5. The charter vessel will complete a minimum of 6 sets/day fishing along a North-South line perpendicular to the coast of Vancouver Island across to Washington State. Set locations will be established along that line based on past sockeye samplings conducted by the Pacific Salmon Commission. There will be flexibility in the set location especially during this pilot phase of the program to determine optimum set locations (i.e. the fish may be predominantly shore-oriented so most of the effective fishing effort would be near shore).

Monitoring: An observer trained by DFO will be onboard at all times during fishing operations. The observers’ duties will include collection and recording of all catch data, such as date, time, set location, number of sets, and catch by set and species. Data collected will be recorded on paper set logs and entered into an electronic logbook for real-time data transmission using a satellite system. This satellite system will also provide the Vessel Monitoring System (VMS) for real time monitoring of vessel positioning to a predetermined frequency. Enumeration procedures:

- Once the bunt is dried up alongside or at the stern of the vessel fish will be sampled by dip-netting a portion of the catch out of the net.
- The remaining fish will be counted by species as they swim out of the bunt over the breast line.
- Lowering and raising the breast line controls the speed with which the fish swim out of the net.

- The observer will count all chum salmon while crew members will count any salmon and steelhead by-catch.
- All fish will be released except those being sampled.
- All catch data including biological samples will be entered and stored and accessible over the web through the Fishery Operating System (FOS).

Sampling: A total of 400 chum will be sampled for biological information in each week (200/week on the Canadian side and 200/week on the U.S. side). Sampling will be done across sets attempting to sample proportionate to the CPUE. Information collected will be:

- Scale samples for age determination
- Length samples (Post Orbital Fork)
- Sex composition
- Tissue samples for DNA extraction: DNA tissue samples will be collected as adipose tissue and mounted on Whatman paper. Alternatively, samples can be collected and preserved in 95% ethanol.

If required, other species may also be sampled following similar protocols.

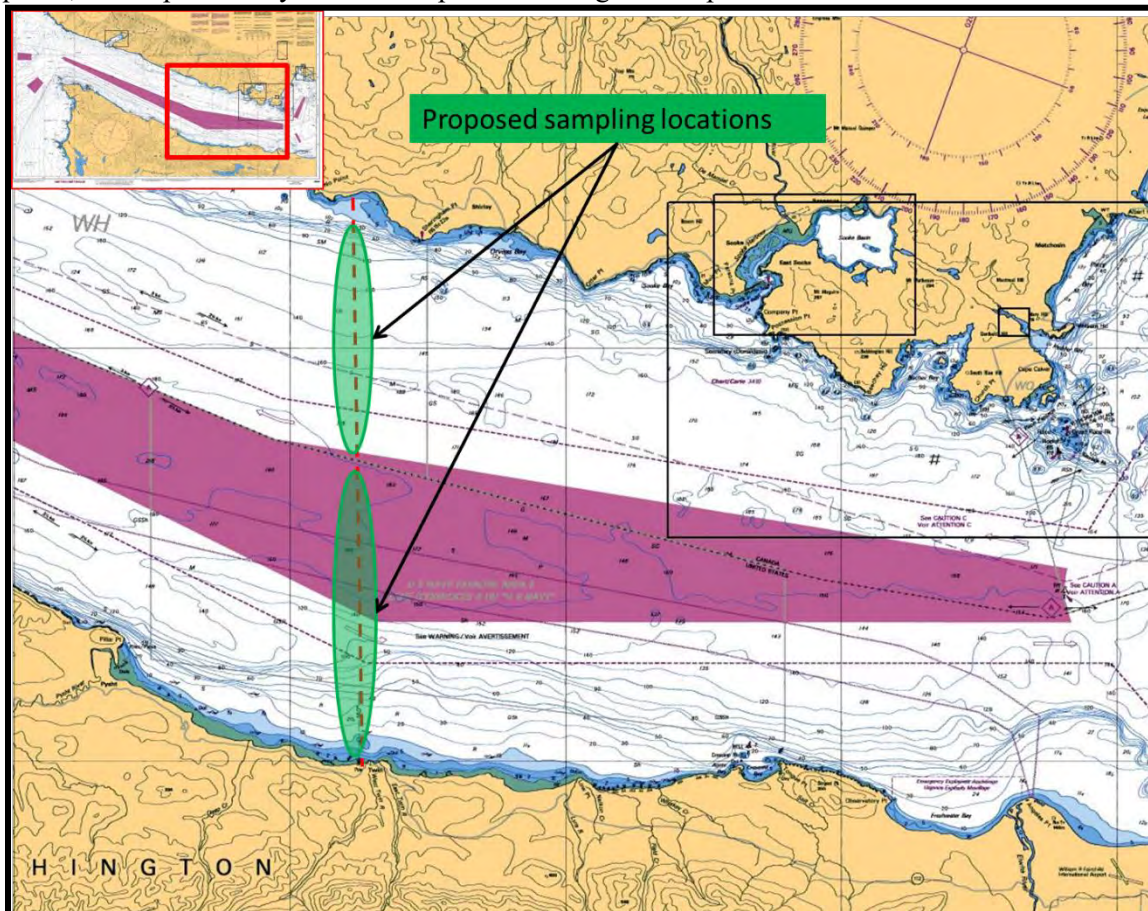


Figure 2. Proposed initial sampling locations for program initiation following similar pattern to past sampling programs for sockeye by the Pacific Salmon Commission. Fishing in US waters will be limited to Catch Area 5.

Mitigation Measures to Minimize the Potential for Take:

Sampled chum will be dip-netted out of the seine. The remainder of the fish in the seine (including any potential listed fish) will not be brought aboard the vessel, but rather released directly from the seine while still in the water, by submerging the cork line.

Take Estimation and Reporting:

Table 1 shows the number of observed encounters with potentially ESA-listed salmonids during years 2016 – 2019 of this research, which were below the anticipated take analysis presented here. The same fishing protocols will be used during the 2021 operations. Therefore, the following take estimates (developed in 2016) represent very conservative impact expectations for the 2021 research.

Table 1. Observed encounters of potentially ESA-listed salmonids in the Juan de Fuca Strait Chum Salmon Sampling Program during 2016, 2017 and 2018.

	Observed Encounters (all released)		
	Adult Chinook	Immature Chinook	Steelhead
2016	0	21	1
2017	3	27	0
2018	0	69	0
2019	0	2	0
2020	0	0	2

Puget Sound Steelhead: Based on fish tickets from 5 recent years (2011-2015), October and November steelhead catches in all commercial fisheries within Areas 4B and 5 ranged from zero (in 2013, 2014 & 2015), to one (in the 2012 troll fishery), to three (in 2011 gillnet fisheries). Therefore, we would conservatively expect our research activities to encounter less than 10 adult steelhead in total, with all being released alive with minimal actual handling. Since all steelhead will be released without being brought aboard the vessel, a 20% release mortality will be assumed. This mortality rate is higher than the 10% rate assumed for recreational hook & line fisheries, but lower than the release mortality rates assumed for adult Chinook (33%) or Coho (26%) assumed for purse seine fisheries where the fish are brought aboard the vessel prior to being released. A 20% assumed release mortality rate suggests that this sampling program could potentially result in 2 dead steelhead of unknown production origin and listing status during 2021 operations. Steelhead that are potentially encountered in Area 5 may not be part of the listed Puget Sound ESU.

Puget Sound Chinook: Typically, only immature "blackmouth" Chinook should be present in Area 5 during October and November. Based on WDFW estimates of Chinook encounters in October mark-selective fisheries in Area 5, we anticipate encountering less than 200 immature Chinook in the course of this research during 2021. Should any immature Chinook become entrained in the seine, smaller ones would likely escape through the mesh. Any entrained Chinook will be released over the cork line along with the excess chum. As with steelhead, no Chinook are expected to be brought aboard the vessel. Therefore, a lower release mortality rate than the rate that is usually assumed for immature Chinook that are hauled aboard purse seiners (45%) is appropriate. Assuming a release mortality rate of 30% suggests that this research might result in a total of 60 incidental mortalities of immature Chinook in Area 5 during October and early November. Based on FRAM modeling of those impacts, total adult equivalent (AEQ) mortalities

expected in this research sampling program during 2021, by stock, are shown in Table 2, along with the expected resulting net increases to the total exploitation rates for those same natural stocks.

Table 2. Total Adult Equivalent (AEQ) incidental release mortalities, rounded to the nearest one-tenth of a fish, of all Chinook stocks estimated (by the FRAM model) to occur incidentally in the Juan de Fuca Strait Chum Salmon Sampling Program during 2021, and the FRAM-derived estimates of the increases in total 2021 Exploitation Rates (over those occurring in fisheries) of Puget Sound Chinook stocks anticipated to result from those AEQ mortalities, rounded to the nearest one-hundredth of one percent.

Natural Chinook Stock	AEQ Mortalities	Increase to Total ER
Nooksack Earlies	0.0	0.00%
Skagit Springs	0.1	0.00%
White Spring Fing	0.0	0.00%
Dungeness Spring	0.1	0.02%
Skagit SF	0.1	0.00%
Stillaguamish	0.0	0.00%
Skykomish	0.2	0.01%
Lake Washington	0.2	0.01%
Green	1.4	0.01%
Puyallup	0.3	0.01%
Nisqually	0.3	0.01%
Hoko	0.0	0.00%
Elwha	0.9	0.02%
Mid-HC	0.0	0.01%
Skokomish	0.0	0.01%

These low exploitation rates, when combined with the other research fishing activities consulted under the 2021 Chinook Harvest Management Plan (to our knowledge), still fall well below the level reserved for this type of research activity, as described in the 2010 Co-manager Comprehensive Management Plan for Puget Sound Chinook:

Mortality associated with certain monitoring and research activities (e.g., test fisheries and update fisheries), that primarily inform in-season harvest management decisions, will be accounted with other fishery related mortality under the ER ceilings defined for each MU. Mortality associated with other research and monitoring, which have broader applicability to stock assessment, will not be accounted under the ER ceilings, Mortality in this latter category will not exceed a level equivalent to 1% of the estimated annual abundance (i.e., 1% ER), for any MU.

1.5 2021 Area 9 (NHC sub-area) Treaty Commercial Chum Fishing Plan

Pre-Season Planning:

The 2021-22 Co-Managers' List of Agreed Fisheries (LOAF) states in *Part x, Section x.x* (Admiralty Inlet Area) that "The Area 9 fall Chum fishery north of the HC bridge will open wk 43 (wb 10/17) through wk 45 (wb 10/31); fishing pattern: GN 3,4,3; and PS 4,3,3. Open area restricted to that portion of North Hood Canal bounded to the south by the Hood Canal Bridge and bounded to the north by a line from White Rock due east to landfall. Tribes with adjudicated U&A in the open section of Area 9 may choose to participate. Coho and Chinook model inputs have been modeled during NOF that anticipate the participation levels of 2021. If the fishery reaches a catch threshold of 30,000 Chum salmon before 10/30, there will be a conference call among the participating Tribes to discuss any needed fishery management actions. Participating tribes agree to sample tissue for DNA analysis of their tribe's Chum catch and wild Coho bycatch to the extent practicable."

During the North of Falcon salmon planning process, expected Coho and Chinook impacts for all five tribes with treaty fishing rights in the proposed fishing zone were modeled in pre-season FRAM model runs.

Objective:

The purpose of this management plan is to provide a management framework for this Area 9-NHC treaty commercial Chum fishery to improve coordination, compliance, safety, and management of the fishery.

Eligible Tribes:

Jamestown S'Klallam Tribe, Lower Elwha Klallam Tribe, Port Gamble S'Klallam Tribe, Skokomish Tribe, and Suquamish Tribe.

Fishery Area:

That portion of Area 9 north of the Hood Canal Bridge and south of a line true east from White Rock to landfall on the Kitsap Peninsula.

Fishery Period: Management weeks 43 through 45

Proposed Weekly Fishery Schedule:

Week 43 (GN 3, PS 4)

Week 44: (GN 4, PS 3)

Week 45: (GN 3, PS 3)

Gillnets Open –

Week 43: 8:00 am Sunday through 8:00 am Wednesday,

Week 44: 8:00 am Sunday through 8:00 am Thursday,

Week 45: 8:00 am Sunday through 8:00 am Wednesday.

Purse Seines Open – Daylight Hours Only.

Week 43: 8:00 am Wednesday through 8:00 pm Saturday,

Week 44: 8:00 am Thursday through 8:00 pm Saturday,

Week 45: 8:00 am Thursday through 8:00 pm Saturday.

Expected Total Season Boat-Days:

Total Season Gillnet Effort* = 90

Total Season Purse Seine Effort* = 2

* As modeled in the 2021 preseason FRAM model runs.

By-catch inputs for Coho and Chinook FRAM modeling:

The by-catch inputs of Coho and Chinook for 2021 FRAM modelling utilized effort and encounters from the previous 2020 season. Effort in 2019 and 2020 was lower than previous years (2017, 2018) largely resulting from low run-sizes. Current year effort and encounters are modelled using 2020 data due to the projected low run-sizes this year. Over the 2020 season the average gillnet Coho encounter was 0.09 fish per boat-day, this average was rounded up to one Coho encounter per boat-day for estimating potential Coho mortalities. Resulting gillnet retention of 89 was expanded for drop-off mortality (2%), and purse seine retention of 2 Coho was added. Pre-season FRAM modeled input totaled 91 Coho. Chinook have not been encountered in this fishery, thus model input remains at 1 as a placeholder.

Other Restrictions:

Purse seine release of Chinook;

Purse seine opening shall be scheduled to occur on the same days and times for all participating Tribes;

Gillnet openings shall be scheduled to occur on the same days and times for all participating Tribes;

All catch shall be recorded on treaty commercial fish tickets.

Central/South Sound Tribal Agreements:

Estimated interceptions of South/Central Sound origin Chum shall be considered a pre-terminal interception and will be deducted from the South/Central Sound computed Treaty share of

harvestable Chum entering Area 10 using weekly stock composition as outlined in the table below. Results from the samples taken more recently for genetic analysis have not been provided as of the date of this plan. If those results are available before the fall fishery starts, they will be incorporated into the weekly stock compositions.

In-Season Coordination, Catch Monitoring, and Conference Calls:

A conference call will be held at (1:00 pm) on (Monday) of each fishing week to report and review the effort and catches to date, as well as anticipated effort and catches, to help ensure a successful fishery for all parties. If the fishery reaches a catch threshold of 30,000 Chum salmon before 10/30, there will be a conference call among the participating Tribes to discuss any needed fishery management actions. Each participating tribe shall monitor the catch and bycatch of its fishers and be prepared to report these numbers on that week’s in-season conference call.

Broodstock collection at the Little Boston Hatchery (Port Gamble Bay) shall be monitored to ensure that Fall Chum broodstock collection goals will be met. If the hatchery is not meeting its broodstock collection needs, then harvest management actions will be taken to ensure a sufficient passage of Chum salmon to the hatchery.

Catch Sampling:

The participating tribes plan to continue collecting Chum tissue samples for weekly stock composition data. A sampling design to distribute the collection of 200 weekly samples over the geographic area being fished will be coordinated among the participating tribes.

Enforcement:

Each participating tribe shall maintain an enforcement presence to ensure that its fishers comply with this management plan and their individual tribal fishery regulations.

Region of Origin	Weekly Portion of Total Catch		
	WK 43	WK 44	WK 45
Data source (GSI 2011, 2013, 2014, 2015, 2016, 2017)			
Total catch estimate	TBD	TBD	TBD
Hood Canal (average %/wk)	0.881	0.865	0.909
South Sound (average %/wk)	0.113	0.114	0.072

North Sound (average %/wk)	0.000	0.011	0.004
PS Lates (average %/wk)	0.001	0.000	0.008
Other (non-local) (average %/wk)	0.006	0.009	0.008

1.6 Green River Management Objectives

For 2021, WDFW, the Muckleshoot Tribe, and Suquamish Tribe will manage the unmarked returns to the Green River for 1,200 natural origin adults on the spawning grounds and returning to Soos Creek Hatchery. This management action will occur through a combination of fisheries actions modeled in FRAM/TAMM and transportation of unmarked adult Chinook (excluding double index tagged fish) from hatchery facilities within the Green River basin to the spawning grounds.

Terminal fisheries directed at the Green River stock are managed based upon an in-season update (ISU) with a test fishery during statistical weeks 30-32 in Elliott Bay that updates the terminal run-size (marked and unmarked adult returns). Terminal fisheries are contingent on confirmation of the pre-season forecast. Initial results from this ISU will be available during statistical week 32 (the 1st week of August). The co-managers will make in-season decisions consistent with the projected run size and natural escapement estimates. NOAA Fisheries will be informed of any subsequent management actions taken by the state and tribal co-managers that deviate from the pre-season fishery structure in the 2021 List of Agreed to Fisheries.

The 2021 FRAM/TAMM model run (Chin3621) projects that 2,257 natural origin recruits (NORs) will escape fisheries and return to the Green River. Of these NORs, 1,669 will spawn naturally in the Green River with the remaining 588 trapped at Soos Creek Hatchery weir between week 32-44 (August – late October) with a peak between week 37-42 (early September – mid October). The co-managers are expecting to meet the goal of 1,200 NOR adults on the spawning grounds without the need to transfer unmarked (NOR) adults to the spawning grounds. Regardless of the pre-season projections, the co-managers will continue to evaluate escapements through the season and take actions as warranted.

1.7 Green/Duwamish coho salmon in-season update model

The Muckleshoot Indian Tribe conducted a coho test fishery during statistical week 36 from 2003-2010, 2016, 2018, and 2020. This test fishery was revived in 2016 due to the unprecedentedly low run sizes projections for many stocks in Puget Sound, including the Green River stock. This test fishery uses gill net catches from six sites in the lower Duwamish River between the mouth in the East and West Waterway and the 16th Avenue Bridge. One net (300 feet of 5 inch mesh webbing) is fished at each site from 7 PM to 7 AM. Coho from each net are enumerated and combined with the terminal run size to project returns for the current year.

This in-season update methodology models escapement as a function of test fishery catches. Initial modeling examined multiple metrics to predict escapement. These metrics included the maximum catch among the six sites and the geometric mean of the n ($n = 2, 3, 4,$ and 6) largest catches (Table 1). These models were fit in R using a general linear model with a Poisson distribution. The model with the lowest Akaike’s Information Criteria value was used to project the in-season run size.

Table 1. Available data for the Green River in-season update model. TRS is the terminal run size and projected is the projection from the model.

Year	Max	2	3	4	All	TRS	Projected
2003	71	70.5	69.3	62.9	29.4	80,414	64,220
2004	709	543.7	327.7	248.9	154.2	168,411	169,680
2005	44	37.5	28.2	24.1	17.0	75,060	60,017
2006	69	59.9	45.4	37.4	24.1	85,494	62,838
2007	98	77.3	69.4	59.3	37.4	52,101	65,126
2008	88	46.9	32.8	27.4	19.5	65,951	61,184
2009	52	39.5	32.0	28.8	22.5	43,021	60,260
2010	34	33.5	33.3	29.3	23.5	32,396	59,522
2016	182	96.3	53.0	37.3	25.5	52,146	65,893
2018	43	35.9	33.4	28.6	17.8	78,089	70,648
2020	147	120.6	71.4	49.1	26.8	61,789	67,774

Over the eleven years of available data, the average projection was 9.3% greater than the observed terminal run size (Table 1).

1.8 Lake Washington Management Objective

The Lake Washington management unit is composed of two natural stocks, the Cedar River and the Sammamish River. The 2021 preseason natural origin recruit (NOR) forecast is for a terminal run size of 646 to the Cedar River and 100 to the Sammamish River. For 2021, WDFW, the Suquamish Tribe, and Muckleshoot Tribe will manage the NOR returns to the Lake Washington basin consistent with recent-year average NOR spawner escapements in the Cedar River. The 2021 FRAM/TAMM model run (Chin3621) projects that 620 natural origin recruits (NORs) will escape mixed stock fisheries and return to the Lake Washington basin. NOR spawning escapement is expected to be 536 in the Cedar River, and 84 in the Sammamish River.

1.9 Puyallup River Management Objectives

For 2021, WDFW, the Puyallup Tribe, and Muckleshoot Tribe will manage the returns to the Puyallup River for a total of 1,170 adults with at least 750 natural origin adults on the spawning grounds. This management action will occur through a combination of fisheries actions modeled in FRAM/TAMM and transportation of unmarked adult Chinook from hatchery facilities within the Puyallup River basin to the spawning grounds.

Terminal fisheries directed at the Puyallup River stock are managed based upon a pre-season forecast and modeled through the FRAM/TAMM. The 2021 FRAM/TAMM model run (Chin3621) projects that 929 natural origin recruits (NORs) will escape fisheries and return to the Puyallup River with an additional 1,607 hatchery origin recruits straying to the spawning grounds for a total natural escapement of 2,536. The co-managers do not expect any NOR adults will need to be transferred to the spawning grounds, but will continue to evaluate escapements through the season and take actions as warranted.

1.10 2021-2022 Warm Water Test Fishery

This proposal is put forth to implement a test fishery that will collect additional information on the feasibility and potential impacts of a directed fishery (C&S and commercial) on invasive warm-water fishes in selected portions of the Lake Washington basin, a commercial fishery in the northern portion of Lake Washington, and associated research in Lake Sammamish to estimate population abundance of native and invasive piscivores (Figure 1). The results of this test fishery will inform implementation and management of a full scale commercial fishery directed at warm-water fishes in all areas of the basin that remain off limits to directed commercial fisheries due to concerns over steelhead encounters. To date, the Muckleshoot Indian Tribe (MIT) has collected gillnet catch data from March – April 2015, January 2017 – June 2017, March 2018 – June 2018, and March 2019 – April 2019, March 2020, and March 2021 to inform potential impacts to listed salmonids which will be used to estimate impacts for the first step toward a commercial fishery.

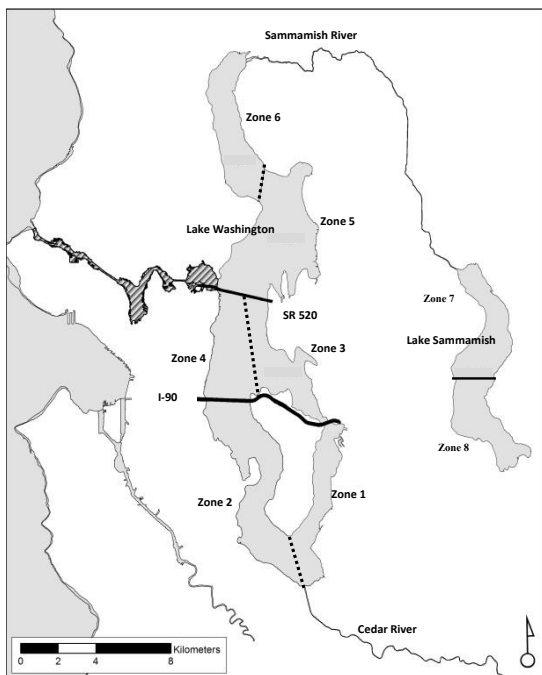


Figure 1. Proposed warmwater fishery zones (1-8) in the Lake Washington basin include zones 1-6 in Lake Washington and zones 7-8 in Lake Sammamish.

The test fishery (and directed commercial fisheries in the future) is scheduled to encompass times and areas that minimize impacts to ESA listed salmonids. Chinook adults start migrating into the basin in mid-June with spawning concluding the first week of November. The timing of the test fishery is proposed from May 1 – June 11, 2021 and January 1 – April 30, 2022. This range of dates will avoid impacts on migrating adult Chinook and steelhead in Lake Washington. Using large mesh gillnets will avoid impacts on age-0 Chinook and steelhead smolts emigrating to sea during the proposed times. The probability of encountering an adult wild steelhead is extremely low. If a steelhead is encountered, it would likely be a stray from a neighboring

watershed such as the Green River. Steelhead surveys in the Sammamish River tributaries, including Lake Sammamish, were discontinued at the end of 2003 after five years of surveys in which no steelhead or steelhead redds were observed. Therefore, minimal risk of encounters exists in northern Lake Washington or Lake Sammamish. There are very few remaining steelhead spawning in the Cedar River. From 2009 through 2015, redd-based escapement estimates for the Cedar River have averaged just over two steelhead per year and no steelhead redds were observed during 2017. Further, several of the redds detected prior to 2017 may have been produced by large cutthroat or rainbow trout which are known to overlap with steelhead in both space and time.

The Lake Washington test fishing area will be divided into zones (Figure 1) and will focus on central and southern Lake Washington (zones 1-4), with additional effort in northern Lake Washington (zones 5-6) when there is no directed commercial fishery. Up to 24 300-foot gillnets will be deployed within a single zone each night. The gillnet mesh will range from 2.5 - 6 inch stretch mesh. This is a 1.0 inch stretch mesh wider interval (previously 3.5 - 6 inch) than previous years. This wider range will only be used during the test fishery. Fishing will occur up to four nights per week and nets will be set on Monday and retrieved no later than Friday. Nets will be checked often to further minimize interactions with steelhead. Any steelhead caught will be released (ancillary to this project, we have successfully tagged and released multiple walleye, suggesting that gill net mortality can be reduced by frequently checking nets). The cold water in the lake during this period minimizes mortality of released fish.

A limited commercial fishery is proposed to begin transitioning from research to implementation in such a way that impacts can be monitored and controlled. Because steelhead encounters have the lowest probability in northern Lake Washington, this initial commercial fishery will occur in Lake Washington zones 5 and 6. In Lake Washington, MIT has fished 446 net nights over five years and encountered only 11 sub-adult Chinook (i.e. blackmouth), and no adult NOR migratory Chinook. Net length restrictions will be identical to those used during the test fishery and fishers will be limited to 4 nets. The commercial fishery will be restricted to the use of 3.5 - 6 inch stretch mesh gill nets which have been previously used in the test fishery. This commercial fishery will occur from March 1 – April 30, 2022 and nets will only be deployed from Monday afternoon through Friday morning to minimize conflict with weekend recreational activities. MIT enforcement and biologists will be on-site to inspect all landed catch.

In previous years, the test fishery has produced valuable information to assess the potential impacts of a commercial directed fishery, but has done little to generate data that would inform a long-term management plan for invasive piscivores. To that end, MIT has developed an additional research proposal aimed at assessing the population size of select piscivores in Lake Sammamish. A new electrofishing boat has already been purchased to conduct this research. Lake Sammamish was chosen because of its smaller size and likely smaller piscivore populations (making an intensive mark-recapture study more tractable) as well as the limited number of ESA listed NOR salmonids potentially using its waters as a migratory corridor. Even though abundance of ESA listed salmonids is likely to be low, MIT proposes to use best practices when conducting this research to minimize overall take. As such, protocols for electrofishing will

follow those from Bonar et al. (2000) which were developed by WDFW and used in warm water fisheries research projects that received ESA Section 10(a)(1)(A) coverage for incidental impacts to listed salmonids (1345-9A).

Take estimation and reporting

There is a very small to zero potential for the test fishery to interact with adult steelhead in Lake Washington and no potential for interaction with adult migratory Chinook. Nevertheless, we have designed this test fishery to minimize these interactions. Should there be an encounter in the test fishery, steelhead or Chinook will be handled carefully by trained professional staff and as much biological data will be collected as possible, including lengths, fin clips for genetic analyses, marks, presence of tags, and capture locations. Further, should staff believe survival upon release is questionable, the steelhead or Chinook will be retained and reported as ceremonial and subsistence treaty catch.

In the commercial fishery, all catch will be landed and then inspected by a fishery biologist. Due to the time and area restrictions, no steelhead or adult NOR Chinook are expected to be encountered. Any sub-adult Chinook landed will have as much biological data taken as possible. MIT expects 10 or fewer participants in this fishery. There will be a maximum of 36 nights of fishing which translates into a maximum of 1,440 net-nights of effort. Based on past test fishery results, this intensity of fishing effort would result in a maximum of 36 sub-adult chinook encounters.

MIT does not expect any adult Chinook or steelhead encounters as part of the Lake Sammamish research, but juvenile Chinook or *O. mykiss* (rainbow trout or steelhead juveniles) encounters are possible. From June-July 2017 in Lake Washington, an electrofishing effort similar to our proposal was implemented to assess the warm water fish community (Garrett 2017). During that work, 65 Chinook ranging from 85-227 mm and 25 rainbow trout ranging from 147-318 mm were encountered. We expect similar encounters of juvenile Chinook due to the close proximity of Issaquah Creek Hatchery but fewer encounters of juvenile rainbow trout due to extirpation of the spawning steelhead population from tributaries of the Sammamish River.

Understanding the potential for interaction with the public, we propose monthly reporting on these fishery activities to NOAA. These reports will contain gear used, area fished, and effort. Further, any natural origin adult steelhead or Chinook encountered will be immediately reported. MIT proposes a limit of three natural origin adult steelhead encounters or five natural origin adult Chinook encounters (Table 1). Should either cap be reached, the test fishery or commercial fishery will be immediately shut down for the remainder of the season. During the research project in Lake Sammamish, effort will be shifted spatially and temporally to avoid sampling during hatchery Chinook releases.

Table 1. Expected maximum levels of incidental mortality of ESA-listed Lake WA Chinook and steelhead, by life stage, associated with the 2021-2022 MIT Warm water predator evaluation studies.

Activity	UM Chinook smolts	UM Chinook sub-adults	UM Chinook adults	UM steelhead smolts	UM steelhead adults
Lake Wa. test fishery	0	6	5	0	3
Pilot Comm. Fishery	0	8		0	
Lake Samm. research (electrofishing)	7	0	0	3	0
Total	7	14	0	3	3

References

- Bonar, S.A., B.D. Bolding, and M. Divens. 2000. Standard fish sampling guidelines for Washington ponds and lakes. Washington Department of Fish and Wildlife. Olympia, WA.
- Garrett, D., C. Jackson, and S. Caromile. 2017. Biological assessment of the warmwater fish community in Lake Washington. Washington Department of Fish and Wildlife. Olympia, WA.

1.11 Relative Abundance and Diet of Piscivorous Fishes In the Lake Washington Shipping Canal During Late Spring and Early Summer

04/13/2021

Objective 1: Describe the relative abundance and size structure of piscivorous fishes in different sectors of the Lake Washington Shipping Canal (LWSC) and in Lake Washington during the juvenile salmon out-migration period.

Objective 2: Assess the stomach contents of piscivorous fishes inhabiting different sectors of the LWSC and Lake Washington. Identify sectors of the LWSC and Lake Washington where predation on juvenile salmonids is greatest during the out-migration period.

Objective 3: Assess the effectiveness of Merwin Traps as a tool for capturing and removing non-native piscivorous fishes (perch) in Lake Sammamish, Lake Washington, and the LWSC.

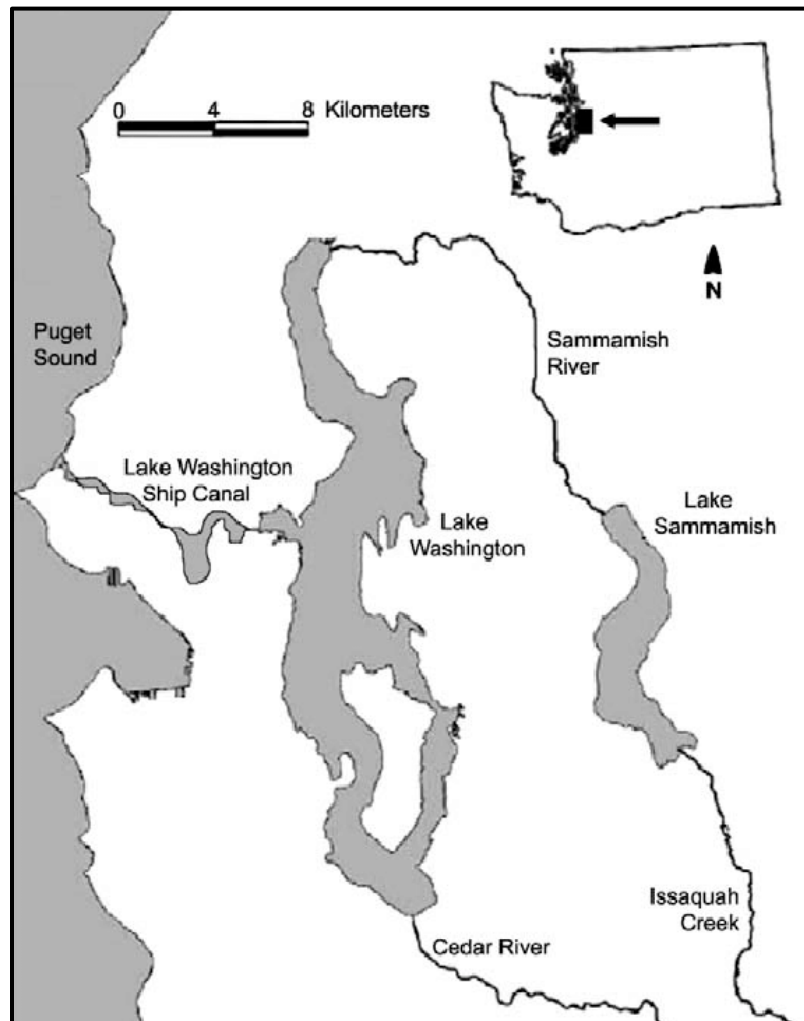


Figure 1. The proposed study area, the LWSC, Lake Washington, and Lake Sammamish.

Study Area

The study area includes the LWSC, Lake Washington, and Lake Sammamish.

Methods

Gill netting will occur over multiple sampling days between early-May and late June, 2021 and between mid-April and late-June 2022. Variable-mesh monofilament gill nets will be set during the salmon smolt out-migration period within the study area (Figure 1). Netting effort will be concentrated within the LWSC, but may also occur in selected areas of Lake Washington and Lake Sammamish. Nets will be deployed at night with 12-16 hour set times. A range of mesh sizes (2-inch stretch to 5-inch stretch) will be used in an effort to capture a broad range of fish species and sizes. However, much of the netting effort will utilize smaller mesh sizes (2.5-inch to 3-inch stretch mesh) to target yellow perch, a non-native piscivore known to prey on Chinook smolts during the out-migration period. All species captured will be measured to the nearest millimeter. Stomach contents of some piscivorous fishes caught at selected locations will be assessed for evidence of predation on juvenile salmonids.

Merwin Traps (1 to 2 traps total) may be deployed in Lake Sammamish or Lake Washington between early-March and late June of 2022. It is likely that only one trap will be deployed in Lake Sammamish near the outlet of Issaquah Creek, however a second trap may be deployed in the same general area or in Lake Washington. Traps will be fished continuously and will be checked daily with all species caught being recorded. Any Chinook or steelhead that are captured will be released unharmed.

ESA Considerations

The Puget Sound Chinook Harvest Management Plan allows for limited take of listed species during research activities within each Management Unit (MU): "Mortality associated with certain monitoring and research activities (e.g. test fisheries and update fisheries), that primarily inform in-season harvest management decisions, will be accounted with other fishery related mortality under the ER ceilings defined for each MU. Mortality associated with other research and monitoring, which have broader applicability to stock assessment, will not be accounted under the ER ceilings. Mortality in this latter category will not exceed a level equivalent to 1% of the estimated annual abundance (i.e. 1% ER), for any MU." As such, there is limited take for Puget Sound Chinook available to this proposed project under the PSCHMP, in combination with other projects within the MU. Incidental impacts to listed Puget Sound steelhead from this research proposal are extremely unlikely as addressed below.

Similar studies conducted in recent years indicate that this monitoring effort will remove many piscivorous fish from the LWSC and other areas of the Lake Washington watershed that would otherwise prey on juvenile Chinook, and this monitoring project is therefore likely to benefit juvenile salmonids migrating through the area. The study is not likely to result in the take of listed anadromous species (PS Chinook and PS steelhead), and estimated take values are provided below:

1. Steelhead adults: The probability of encountering an adult steelhead is low. Adult steelhead were not encountered during previous sampling efforts (conducted in 2016, 2017, 2018, or 2019) in the LWSC. Likewise, Tribal test fisheries using gill nets in Lakes Sammamish and Washington in recent years have not encountered adult steelhead. Spawning ground surveys indicate that few (if any) steelhead spawn in the Lake Washington watershed, and steelhead adults are not expected to be migrating through the LWSC during the proposed sampling period. The take is estimated as zero adult steelhead.
2. Steelhead juveniles: The probability of encountering a juvenile steelhead is low. Juvenile steelhead were not encountered during previous sampling efforts (conducted 2016-2019) in the LWSC. Spawning ground surveys indicate that few (if any) steelhead spawn in the Lake Washington watershed, and the number of steelhead smolts migrating through the LWSC is expected to be low. Any steelhead smolt

migrants that may be present will not be affected by the sampling gear as the proposed gillnet mesh size is too large to entangle juveniles (2 to 4 inch stretch mesh). The take is estimated as zero juvenile steelhead.

3. Chinook adults: Chinook adults typically begin migrating through the LWSC in mid-June with the peak migration period occurring in mid to late August (Figure 2). Relatively small numbers of adult Chinook would be migrating through the LWSC while the proposed sampling would occur (May and June), however some adult Chinook may encounter the sampling gear as they migrate through the action area. Chinook adults migrating through the LWSC are likely to use deep-water offshore habitats where sampling gear is less likely to be deployed. Most sampling effort will occur in near-shore or off-channel, weedy habitats where adult Chinook are less likely to migrate. Adult Chinook were not encountered during the past four years of previous sampling efforts (2016 through 2019) in the LWSC. Due to the early timing of the proposed sampling and the off-channel areas where sampling will occur, the number of adult Chinook encountering sampling gear will likely be small. A combined gear take of 5 Chinook adults (NOR and/or HOR) is estimated.

4. Chinook juveniles: Juvenile Chinook will actively be migrating through the LWSC during the proposed sampling period (March - June). Small numbers of juvenile Chinook smolts may encounter the sampling gear, however the mesh size (2 to 4 inch stretch mesh) is too large to entangle a Chinook juvenile and poses very little threat. Juvenile Chinook were not encountered during previous sampling efforts (2016-2019) in the LWSC. The take is estimated as zero juvenile Chinook.

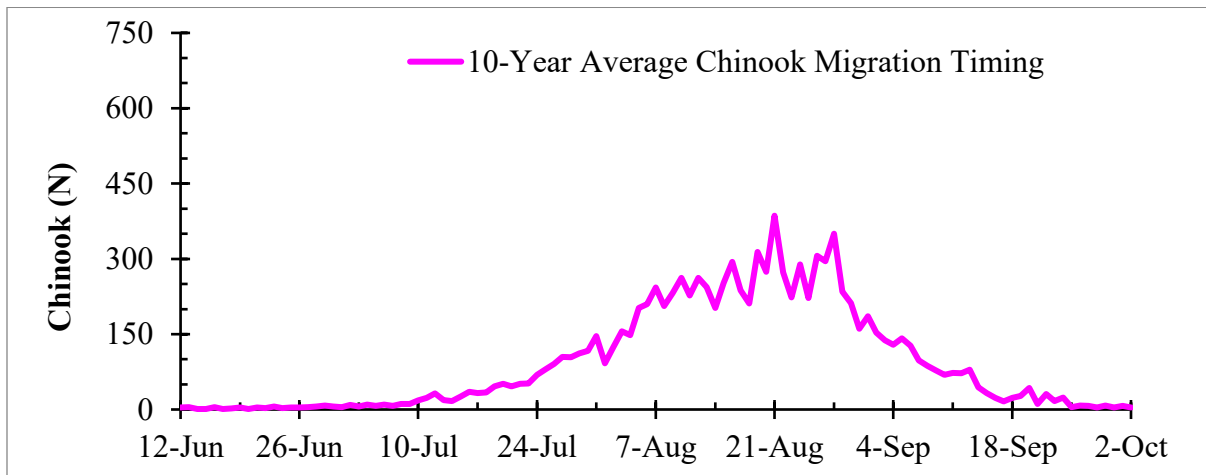


Figure 2. Recent ten-year average adult Chinook migration timing through the Ballard Locks.

As outlined above, this proposal, as part of the PSCHMP seeks incidental take coverage for both Puget Sound Chinook and steelhead. Expected steelhead take is zero fish (bullets 1 and 2 above). Chinook take (HOR and NOR combined) may not exceed a level equivalent to 1% of the estimated annual abundance (i.e. 1% ER). Annual post-season terminal (10-F Returns) total abundance values for Lake Washington Chinook adults during the past 10-year time period are listed in Table 1. The 2021 pre-season terminal abundance forecast for Lake Washington Chinook is 4,410 fish. The estimated take of 5 adult Chinook represents an exploitation rate of 0.1134% ($5/4,410=0.001134$), which is well below the 1% ER limit.

Year	Hatchery Abundance	Natural Abundance	Total Abundance	Source
2010	8,131	688	8,819	Co-Manager Forecast Files, Post Season
2011	5,612	829	6,441	Co-Manager Forecast Files, Post Season
2012	10,671	1,116	11,787	Co-Manager Forecast Files, Post Season
2013	5,415	1,729	7,144	Co-Manager Forecast Files, Post Season
2014	2,644	408	3,052	Co-Manager Forecast Files, Post Season
2015	4,791	1,383	6,174	Co-Manager Forecast Files, Post Season
2016	4,184	801	4,985	Co-Manager Forecast Files, Post Season
2017	5,347	1,836	7,183	Co-Manager Forecast Files, Post Season
2018	2,646	789	3,435	Co-Manager Forecast Files, Post Season
2019	2,847	757	3,604	Co-Manager Forecast Files, Post Season
2020	4,319	346	4,665	Co-Manager Forecast Files, Post Season
2021	3,664	746	4,410	Co-Manager Forecast Files, Pre Season

Table 1. Annual post-season (2010-20) and pre-season (2021) terminal abundance estimates for Lake Washington Chinook.

In summary, project impacts are significantly below the 1% allotment for Chinook annual abundance provided for in the PSCHMP. The estimated take of HOR and NOR combined is 5 adults, and 0 smolts, which is 0.1134% of annual abundance.

1.12 2021 Stillaguamish River Sport Gamefish Rules

2021 gamefish rules are as follows;

- Statewide gamefish rules; open unless closed, Saturday before Memorial Day through Oct 31st, 2 fish limit, 8 inch minimum size.
- Exceptions to statewide gamefish rules;
 - Mainstem Stillaguamish
 - Below Marine Drive,
 - Open year-round, trout minimum size 14", daily limit 2, night closure and anti-snagging rule Aug 1-Nov 30.
 - From Marine Drive to forks,
 - Closed May 1st through Sept. 15th
 - Open Sept 16th through Nov 15th, catch and release except up to 2 hatchery steelhead may be retained, selective gear rules (no bait), night closure.
 - Open Dec. 1 through Jan 31, 2020, minimum size 14".
 - Closed to fishing from the diversion dam downstream of I-5, downstream 200 feet.
 - Pilchuck Creek,
 - from mouth to Hwy. 9 Bridge,
 - Closed May 1-Sept. 15th
 - Open Sept. 16th through Jan 31st 2020, selective gear rules (no bait) from Sept 16th through Nov. 30th.
 - North Fork Stillaguamish,
 - From mouth to Swede Heaven Bridge,
 - Closed May 1-Sept 15th
 - Open Sept. 16th through Nov. 30th, fly-fishing only, catch and release except up to 2 hatchery steelhead may be retained.
 - Open Dec. 1 through Jan 31st, trout minimum size 14".
 - Additional opening in the Whitehorse Hatchery terminal area, from mouth of French Creek to the Swede Heaven Bridge, Feb 1st through Feb 15th, minimum size 14".
 - Night closure Sept 16th through Nov. 30th.
 - Fishing from a floating device prohibited upstream of the Hwy 530 Bridge, motors prohibited downstream of the Hwy 530 Bridge.
 - From Swede Heaven Bridge to North Fork Falls,
 - Closed May 1 through Sept 15th
 - Open Sept. 16th through Nov. 30th, catch and release except up to 2 hatchery steelhead may be retained, selective gear rules (no bait).
 - North Fork Tributaries,
 - Boulder River from mouth to Boulder Falls,
 - Closed May 1 through Sept 15th

- Open September 16th through Oct 31st, catch and release, selective gear rules (no bait).
 - Squire Creek,
 - Closed May 1 through Sept 15th
 - Open Sept. 16th through Oct 31st, catch and release, selective gear rules (no bait).
 - South Fork Stillaguamish,
 - From mouth to 400' below Granite Falls fishway outlet,
 - Closed May 1 through Sept. 15th
 - Open Sept 16th through Jan 31st, minimum size 14".
 - Sept 16th through Nov 30th, night closure and anti-snagging rules.
 - From Mountain Loop Hwy upstream,
 - Open Sat before Memorial Day through Nov 30th.
 - South Fork Tributaries,
 - Canyon Creek,
 - Closed May 1 through Sept. 15th
- Open Sept. 16th through Jan 31st, catch and release, selective gear rules (no bait).

1.13 2021 Co-Management Agreement for Hood Canal Chum Salmon Fisheries.

The 2021 forecasted run size of Hood Canal fall chum is 273,396; this is the lowest projected return in over two decades. This historically low forecasted return is expected to curtail chum salmon fisheries in Hood Canal and disrupt the co-managers' ability to use the 'agreed-to' Hood Canal fall chum ISU model this season. Considering this circumstance, the Hood Canal Treaty Tribes (Skokomish Tribe, Port Gamble S'Klallam Tribe, Jamestown S'Klallam Tribe and Lower Elwha Klallam Tribe) and the Washington Department of Fish and Wildlife (WDFW) agree to manage their respective Hood Canal chum fisheries to the preseason forecasted harvestable shares, unless prior to the chum fishing season, the co-managers develop an 'agreed-to' alternative method to estimate the Hood Canal fall chum run size in-season: one that would be expected to work under the expected conditions of low chum run size and/or reduced purse seine fishery days/hours. The Hood Canal co-managers further agree:

- 1) To exchange information and meet (if necessary) prior to August 1, 2021 to update and agree to the data necessary to explore alternative ISU methods or develop a new or modified version of the current ISU model. Any ISU models or methods developed must be agreed-to by all parties before being implemented in-season.
- 2) Those waters of Area 12 east of the Area 12/12B boundary and south of a line projected 94° true from Hazel Point to the light on the opposite shore will be closed to purse seines for the entirety of the season. WDFW managed gillnet fisheries will be authorized in this area during management weeks 43 and 44.
- 3) 1,000 ft closure around the mouth of all fish bearing streams not open to net fishing in Hood Canal and within Area 9A (Port Gamble Bay) around Port Gamble Creek and Martha John Creek.
- 4) That on-water enforcement will be sufficient to ensure compliance with all regulations.
- 5) If an alternative ISU method is developed, to convene a conference call on the day of (or day following) the availability of the results to discuss management of the remainder of the season.

Authorized Signatures:

The following parties agree to the above for the management of the 2021 Hood Canal chum salmon season, and the undersigned persons have authority to enter into this agreement:

[Handwritten Signature]

Jamestown S'Klallam Tribe

4/21/21

Date

[Handwritten Signature]

Lower Elwha Klallam Tribe

4-21-2021

Date

[Handwritten Signature]

Port Gamble S'Klallam Tribe

4/21/21

Date

[Handwritten Signature]

Skokomish Tribe

4/21/21

Date

[Handwritten Signature]

Washington Department of Fish and Wildlife

4/21/2021

Date

1.14 Comprehensive Chum Management Plan Components and Objectives

Stock Assessment

- Update Forecasts – the forecast methodologies need to be updated in each management area or for each river system to accurately predict the management unit.
 - *Management-unit-specific forecasts will require management-unit-specific age data from multiple return years. For those systems where age data is lacking, scales samples will need to be collected from terminal fisheries and/or spawning escapements for a number of years. Also, full reconstruction of all recruits will require estimates of stock composition in all pre-terminal mixed-stock chum fisheries. Sampling plans for can be developed prior to the 2019 management period. Run reconstructions going back to the mid-1990s will be corrected using GSI data this year. Existing mean stock composition data can be implemented now, and additional GSI analyses can be incorporated as they become available.*
- Update Escapement Goals – Many river systems in Puget Sound have escapement goals that have not been updated since the 60s or 70s. Contemporary estimates of MSH for each river system should be calculated to update escapement goals where possible. This can be done after run reconstructions going back to the mid-90s are corrected using GSI data (i.e. enough years of data to parameterize stock-recruit functions).
 - *Like forecasts, spawner-recruit functions will require system specific time series of age compositions spanning multiple years as well as multiple years of GSI-corrected reconstructed runs. The process for updating escapement goals will be developed during 2019, and a timeline for completing escapement goal updates for each management unit will be determined. Spawner-recruit functions, as well as habitat-based or production-goal-based approaches to establishing escapement objectives should be considered.*

Fisheries Management

- Refine Management Units – Individual populations in North Puget Sound and South Puget Sound have failed to make their escapement goals consistently over the past decade. Management units should be established at the finest resolution possible based on existing GSI data from commercial and test fisheries, run reconstruction rules, run timing, etc. to protect weak stocks to allow for escapements to achieve MSH.
 - *The resolution of GSI analyses are dependent on the degree to which populations are genetically discernable, which is a factor of both intrinsic population genetics as well as the completeness of the GSI baseline. Prior to the 2019 chum management period, an evaluation of WDFW SNPs chum baseline will be made, and a plan for collecting additional genetic samples from terminal populations will be developed, with a focus on un-sampled and under-sampled populations.*

- Develop Abundance-Based Breakpoints – Fisheries will be managed to pass more fish to the terminal areas in years of low abundance. In years of higher abundance larger pre-terminal opportunities will be provided for. Appropriate breakpoints for the refined management units should be based on past observations of returns as well as reasonable predictions of future run sizes.
 - *Establishing appropriate abundance-based fishery management breakpoints will require the same GSI-corrected run reconstructions that are needed for revising forecasts and updating escapement goals. Such breakpoints will also be dependent upon the revised forecasts and the updated escapement goals, so completion of this task must follow development of those tools.*
- Conservation Measures to Protect Weak Stocks – Thresholds will be defined for each management unit below which critical harvest measures will apply. Harvest rates or other measures to minimize impacts will be applied fairly and consistently across preterminal areas consistent with the intent to pass more fish to terminal area fisheries and escapement during years of low abundance.
 - *Policy meetings will need to be conducted in the first year to establish harvestable objectives and maximum allowable impacts for critical stocks that are designed to achieve rebuilding. Existing management plans and agreements as well as GSI-corrected run reconstructions will need to be reviewed for equitability of impacts across fisheries.*

Monitoring and Research

- Fisheries should be sampled for GSI data. Samples should be representative of the fishery to allow accurate estimation of stock composition in the fishery.
 - *Sampling plans will be developed prior to 2019 chum returns.*
- Hatchery programs should also be sampled for GSI to understand the impacts of fisheries on supplementation programs.
 - *Sampling plans will be developed prior to 2019 chum returns.*
- Test fisheries should continue to be conducted for inseason management (i.e. estimating run sizes) and GSI collection. Additional test fisheries should be considered where they may improve the understanding of stock composition in a management area or where a refined management unit may warrant a new inseason estimation. These may include mark-recapture experiments in addition to GSI sampling.
 - *A technical evaluation of potential new test fisheries will be undertaken prior to 2019 in-season chum management.*
- Genetic samples should be collected from terminal areas to improve the resolution of genetic stock identification. Emphasis should be placed on unsampled river systems. Note: this is likely a lower priority as GSI is unlikely to be able to resolve stocks at the individual watershed level.

- *Prior to the 2019 chum management period, an evaluation of WDFW SNPs chum baseline will be made, and a plan for collecting additional genetic samples from terminal populations will be developed.*

Habitat and Hatcheries

- Habitat plans for each river system will provide recommendations for protecting existing fish habitats and projects to restore functioning habitats. Emphasis will be placed on habitat protections and restoration that will increase MSH for a population.
 - *Co-manager habitat biologists will be consulted to begin development of habitat plans.*
- Co-Managers will review existing hatchery production and develop plans for increased production using existing capacity as well as funding proposals to increase hatchery capacity and production. Increased production is designed to meet the needs for treaty tribal harvest and non-tribal fisheries.
 - *Co-manager hatchery biologists will be consulted to begin development of increased hatchery production plans.*

1.15 2021 Skokomish Fall Chinook Late-Timed Performance Report and Program Plan

Introduction

In 2020, the Washington Department of Fish and Wildlife and the Skokomish Tribe continued to implement a program at George Adams Hatchery to evaluate the development of a late spawning mode from the extant hatchery Chinook population, as part of a strategy to recover fall Chinook in the Skokomish River. We hypothesize that the river entry and sexual maturity timing of this later mode would be more conducive to environmental conditions in the Skokomish River than the current hatchery stock. The late-timed fall Chinook hatchery program currently provides for 330,000 eggs to be taken after October 1 with the peak of the late egg take being approximately five weeks later than the current peak, which is the third week of September. The current release goal is 200,000 fingerlings in May at a size of 70 fish per pound, consistent with release body size and timing of the regular program. In addition, two releases of 50,000 fish in April at 90 fpp are planned into the North Fork Skokomish and Vance Creek.

The success of this program will be predicated on achieving Objective 1 of the 2015 Addendum to the 2014 Fall Chinook Management Plan in the Skokomish River, to develop the late-timed mode through consistent hatchery returns. To that end, WDFW made the first release of progeny of late-timed spawners in 2015, have successfully made egg take through the 2019 BY, and secured the program egg take goal of 330,000 for the upcoming BY 2020 release. However, the low overall return of Chinook to Hood Canal resulted in very few fish on the late tail of the return. Thus, a small portion of the late-time program was backfilled from the latest egg take from September. The co-managers expect to continue with this program through the 2021 spawning cycle, at which point two complete brood cycles will have been released.

The contribution of this program to the ultimate goal of recovery will depend on Objective 2, the ability of these fish to colonize natural spawning habitat and produce natural-origin returns at sustainable levels. Importantly, in order to achieve success in the long term, naturally spawning late-timed fish must exhibit population productivity rates that exceed replacement. A detailed discussion of appropriate program size and various strategies for achieving a minimum of 10% natural spawners from the late-timed program are given in the 2015 addendum. The purpose of this document is to describe a plan for putting late-timed returns and their progeny on the natural spawning grounds. Supplementation with both adult and smolt releases provides the most efficient means providing natural spawners from the late-timed program while maintaining a manageable program size.

Production

Reliance on passive colonization through straying would require a program size as high as 550 to 750 thousand eggs (see Task 1-4 of the 2015 Addendum late-timed fall Chinook Program Plan). Such a

program would result in large surplus returns of adults to the hatchery with no role in the broodstock program. Moreover, passive colonization would be likely to occur on a timescale inconsistent with objectives for the numerical expansion of the late-timed stock.

The co-Managers adopted a more efficient approach through active supplementation, with a program size of 330,000. This program bolsters hatchery program strays with active seeding of key habitats through a combination of off-station juvenile releases and transport of adult hatchery returns to the spawning grounds (Table 1). The program return to the hatchery continues to be supported with the original 200,000 release. Additionally, both adult and juvenile releases are used to recruit more adults to the natural spawning grounds. Adult release groups (ARG) are derived from excess unripened broodstock at the hatchery.

Table 1. Skokomish late Fall Chinook Program plan.

Program Component	Release location	Supplementation strategy	Release number	Release size	Timing	Mark
Hatchery Late	Purdy Creek	Fingerling (SRG)	200,000	70 fpp	May	Unclipped, GA Late cwt
Natural Late	North Fork (RM 13.3)	Fingerling (SRG)	50,000	80 fpp	April	Unclipped, NF Late cwt
	South Fork (RM 2.2)	Adult (ARG) ^{a/}	200	0.1 fpp	Oct	Site-specific Floy
	Vance Creek (RM 3.0) ^{b/}	Fingerling (SRG)	50,000	80 fpp	April	Unclipped, Vance Late cwt
		Adult (ARG) ^{a/}	200	0.1 fpp	Oct	Site-specific Floy
Total release			300,000			
Egg take goal			330,000			

^{a/} Adult releases are planned from hatchery adult surpluses from late maturing fish and will be dependent on availability

^{b/} Up to three locations have been identified for ARG and SRG releases in Vance Creek below RM 3.0 to distribute spawners

The hatchery late-timed Chinook program goal for release location, timing and size is the same as for the regular timed release into Purdy Creek, at 70fpp in May. Given the volatility of the south fork Skokomish and mainstem, the co-managers had originally identified Vance Creek and the North Fork as the best locations for both adult and smolt releases. However, further consideration of other reintroduction and supplementation programs currently underway in the North Fork led to a decision to focus all adult releases of late-timed fall Chinook into Vance Creek and the South Fork (Figure 1).

Two smolt release groups (SRG) of 50,000 each are produced for two locations in the Skokomish River basin where environmental conditions are most conducive to successful natural production. These groups would be reared at McKernan on well water in order to reduce their imprinting to Purdy Creek, and maximize imprinting to release sites. These groups are released just prior to smolting in order to

allow some degree of acclimation and imprinting to potential spawning locations. These releases therefore occur slightly earlier and potentially at smaller size due to their stage of development, which is currently expected to be in April, at approximately 90fpp. All three juvenile release groups are unclipped and uniquely coded wire tagged.

Program goals must be achieved in the following order. The 200k egg take for the hatchery portion of the program must be met before adults are surplus and transported to release sites. Moreover, the 220k egg take must also be met before eggs can be set aside for smolt releases. As surplus adults and eggs in excess of those needed to produce the 220k are acquired, release sites would be prioritized, 1) South Fork, 2) Vance Creek, 3) North Fork, up to the total program size outlined in Table 1.

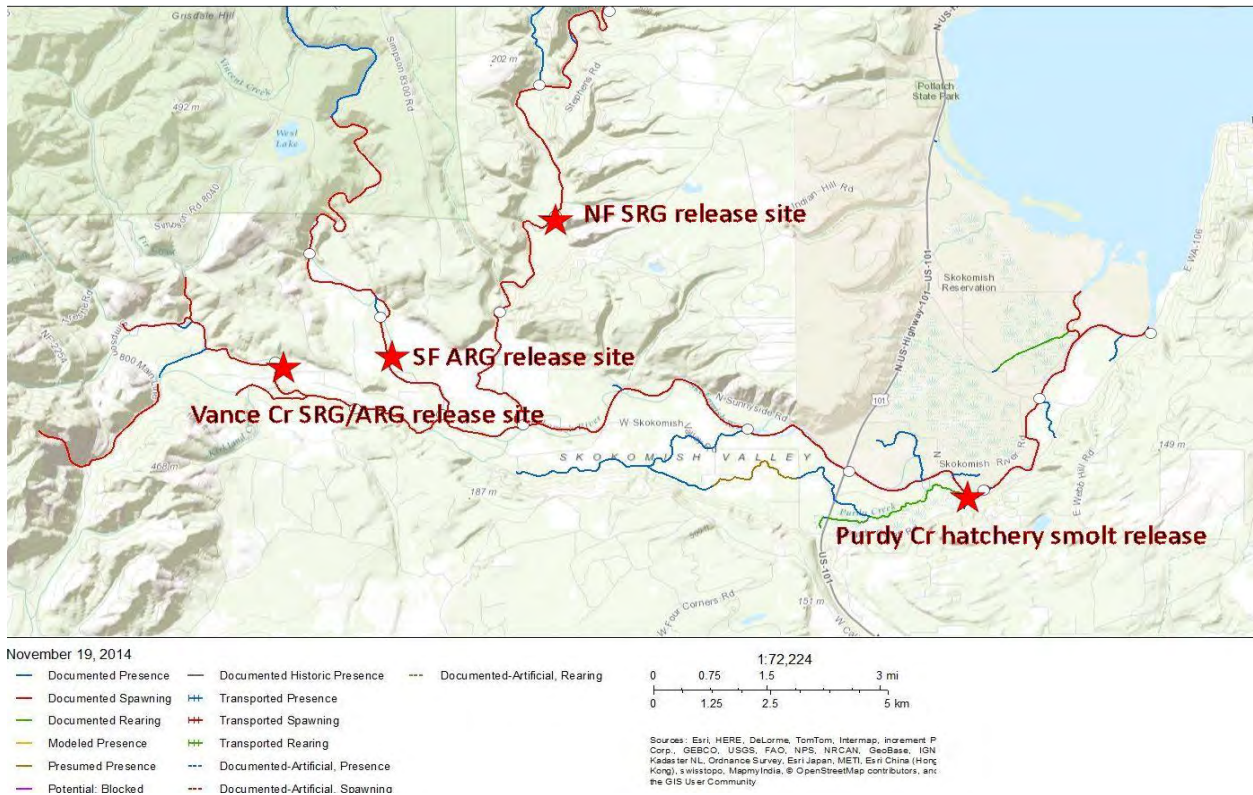


Figure 1. Proposed locations for off-station releases of late-timed fall Chinook in the Skokomish Basin.

Marking and Monitoring

In order to assess the success of late-timed Chinook program returns to George Adams hatchery, WDFW currently coded wire tags (CWT) the 200k hatchery release with a unique code. Assessments of off-station smolt release groups (SRG's) is also be contingent on unique CWT codes. Each of these three groups, in addition to the regular double index tag (DIT) groups, will be recovered at the hatchery, on the spawning grounds, and in fisheries providing critical information on survival, fidelity, and

susceptibility to fisheries. In fall of 2015 WDFW added staff to continue spawning surveys in October in the mainstem and south fork and increase the frequency of carcass surveys. However, we recommend doubling the survey frequency to provide a more thorough schedule for maximizing recoveries.

In order to monitor behavior and distribution of adult releases, an external mark will be necessary; adult releases should be marked with floy tags, color-coded based on release site and uniquely numbered for each individual. Observations of live fish and carcass recoveries will be used to assess the effectiveness of this release strategy. However, existing resources can only provide a cursory assessment.

Additional Resources

In order to implement this program, the co-managers will require additional resources (Table 3). While some of this work can be accomplished with existing staff, additional time and resources will be needed. This budget includes minimal resources outlined in the 2015 Plan, plus additional costs of rearing, marking, and transporting smolt release groups, as well as monitoring adult returns of off-station supplementation fish outlined in this plan. It does not include any of the monitoring costs identified for monitoring productivity for natural spawning fish or for genetic analysis.

An additional two months of hatchery specialist 2 time will be needed in order to conduct broodstocking, sampling and spawning of the late-timed fall Chinook hatchery program and to mark and transport adult release groups (ARG) and smolt release groups (SRG) to release sites. Four months of field technician time and 5,500 in equipment and transportation will be needed to conduct the October/November spawning and carcass surveys. Five months of Biologist 3 time will provide for supervision, analysis, and reporting on the performance of this program. A significant portion of the anticipated budget will be incurred through the cost of coded wire tagging, with \$40,500 needed each year to tag 300,000 Chinook.

Table 2. Budget for the 2020/21 implementation of late-timed Chinook program in the Skokomish River.

	Unit cost	Units	Total
Fish Culture			
Hatchery specialist 2	\$5,000	2	\$10,000
Rearing	\$1,000	3	\$3,000

Tagging	\$125/1000	300,000	\$40,500
Transport			\$2,000
Field Assessment			
Scientific technician 2	\$5,000	4	\$20,000
Sampling equipment and supplies			\$2,500
Vehicle mileage / motor pool			\$3,559
Field support, Analysis and Reporting			
Biologist 3	\$7,000	5	\$35,000
Total			\$114,759

References

2015 Addendum to the 2014 Fall Chinook Management Plan in the Skokomish River. Washington Department of Fish and Wildlife and Skokomish Tribe. Olympia, Washington. October 2015.

1.16 Area 9A Setnet Closure Area



1.17 Puget Sound Chinook Mark-Selective Sport Fisheries Sampling and Monitoring Plan Attachment A

Based on agreements between the State of Washington and the Northwest Treaty Tribes, the Washington Department of Fish and Wildlife (WDFW) has been conducting recreational mark-selective Chinook salmon fisheries (MSFs) in the marine catch areas of Puget Sound since 2003. This attachment outlines the general intent, data needs, sampling and monitoring plans, estimation methodologies, and reporting schedules associated with these fisheries.

Fishery Intent

Agreed-to Chinook salmon MSFs will be conducted in Marine Areas 5-13 during the summer and winter seasons to provide recreational fishing opportunity directed at hatchery Chinook salmon, while limiting impacts on wild stocks of conservation concern, particularly Endangered Species Act (ESA)-listed Puget Sound Chinook salmon. Sampling and monitoring programs will be implemented along with these fisheries in order to provide the information necessary to evaluate and plan potential future Chinook salmon MSFs. Prior to next fishing season, WDFW and the tribes will jointly review and analyze results of the sampling and monitoring programs for these fisheries to evaluate the effectiveness at achieving the intended objectives.

Data Needs for Evaluating the Fishery

Monitoring, sampling and reporting programs will be implemented by WDFW for the purpose of providing the data necessary to estimate the impact of these MSFs on unmarked Chinook salmon and to support the evaluation of future MSFs.

These monitoring and sampling programs are designed to provide data to estimate the following parameters:

- Mark rate in the fishery – marked and unmarked encounters will be estimated using test fishing, salmon trip reports (STR) or dockside sampling programs.
- Number of marked Chinook salmon retained – estimated using dockside sampling programs
- Number of unmarked Chinook salmon retained – estimated using dockside sampling programs
- Number of marked Chinook salmon released – estimated using dockside sampling and test fishing or STR programs
- Number of unmarked Chinook salmon released – estimated using dockside sampling and test fishing or VTR programs
- Number of Chinook salmon encounters of sublegal size - estimated using dockside sampling and test fishing or STR programs
- Stock composition of mortalities – estimated using coded-wire tag (CWT) data collected during dockside sampling
- Mortalities of marked and unmarked double-index tagged (DIT) and other CWT stocks

The co-managers agree to implement these fisheries with the understanding that the capability to estimate stock-specific unmarked fish mortalities is preserved. Methods for estimating unmarked mortalities of

DIT-CWT stocks within these MSFs have been determined jointly by the co-managers, considering recommendations of the Selective Fisheries Evaluation Committee of the Pacific Salmon Commission.

WDFW will be responsible for reporting the necessary fishery information and data to the Pacific States Marine Fishery Commission that allows these estimates to be generated.

Estimates of total fishery related mortalities, including the total exploitation rate or the Southern US exploitation rate, that represents the management objective for Puget Sound Chinook salmon management units under the co-managers' Harvest Management Plan, will be made by combining the mortality estimate for each Marine Area's mark-selective fishery with mortality estimates in other selective and non-selective fisheries. To ensure that all information necessary to make these estimates is collected, plans for sampling and monitoring of all fisheries will be included as a component of the co-managers' annual pre-season agreement.

Sampling Components

Dockside Sampling

WDFW samplers collect biological data and information regarding effort and catch by conducting angler interviews at assigned access sites. During interviews, samplers acquire data on the number of anglers fishing in each boat, the Marine Catch Area(s) fished, trip duration, trip intent (targeted species) and fish encounter composition (kept and/or released by species). When an interviewed party possesses Chinook or Coho salmon, samplers inspect the fish for CWTs using wand detectors and collect snouts from CWT-positive individuals for later lab processing. Samplers also take length measurements and collect scale samples from landed Chinook salmon. Lastly, samplers attempt to obtain information on fishing method in order to inform test-fishing methodologies.

Effort Surveys

On-the-Water Boat Surveys

On-the-water interviews, Boat Surveys, are conducted to provide information on the proportion of effort in a fishery originating from certain access sites. During these surveys, samplers attempt to intercept all anglers on the water in a given fishery and determine where they intend to tie up or exit the fishery upon completing their trip. This provides us with a list of sites, boat ramps and launches, used to access the fishery as well as information on the relative amount of use (number of anglers) each site receives. Based on this information we designate a "sample-frame" of 5-6 of the highest use access sites for each fishery, from which we select sample sites for dockside creel sampling. Information from the boat surveys also allows us to estimate the total effort that originates from non-sampled sites and include it in our estimates.

Aerial Surveys

Aerial effort surveys are conducted in fisheries where Boat Surveys are unfeasible due to large survey areas and unsafe boating conditions. During these surveys, flights are conducted to count the total number of boats on the water in a fishery. The sample-frame (sites where we station samplers) consists of the three to four access sites expected to be of highest use in the fishery.

Paired with interviews conducted at these sites, the aerial surveys provide information on the proportion of total fishery effort that originates from non-sampled sites, enabling expansion of observed dockside counts to fishery-wide totals.

Size/Mark-status Composition Estimates

Test Fishing

Test fishing is used to obtain accurate estimates of the size and mark-status composition of the Chinook salmon population being targeted by a fishery. When included in the sampling design for a given fishery, it is conducted for the duration of the fishery. Test fishers spend approximately five days per week on the water attempting to mimic the behavior of the recreational fishing fleet. Fishing method information from dockside interviews is used to inform the methods used by test fishers and efforts are focused at locations that mirror choices made by the at-large private fleet. For each salmon brought to the boat, test fishers record the encounter number, time sampled, species and mark-status. For all Chinook salmon, test fishers record the fork length and total length and collect DNA and scale samples.

Voluntary Salmon Trip Reports

Voluntary Salmon Trip Reports (STRs) are completed and returned by a subset of private and charter fleet anglers to obtain additional information on Chinook salmon encounter rates by size class and mark-status. Anglers are asked to record the date, number of anglers, target species, Marine Catch Area, and for each Chinook or Coho salmon hooked, whether the fish was kept or released, legal or sublegal sized, and marked (adipose clipped) or unmarked.

Sampling and Monitoring Plans

For complete details regarding the following sampling plans and associated assumptions, see the WDFW Methods Report (WDFW 2012).

Full Murthy

The Full Murthy sampling design is the most intensive of the four sampling plans. It utilizes intensive dockside sampling, on-the-water effort surveys and test fishing data to provide precise estimates of Chinook salmon catch and effort, along with total encounters and associated mortalities. STRs are also collected to be used as supplements to test fishing data, if necessary.

Dockside sampling is conducted on five days during each week. Sampling strata are divided into weekday (Monday through Thursday) and weekend (Friday, Saturday and Sunday) strata. During each week, $n=2$ out of $N=4$ days are randomly selected for sampling from the Monday through Thursday stratum. In addition, every Friday, Saturday, and Sunday is sampled. Samplers are stationed at two ramps on each of the selected sampling days. Samplers achieve 100% sampling coverage at the assigned ramps from approximately dawn until dark in order to intercept all boats. All anglers and fish exiting the fishery through the sampled sites will be counted. Any boats that are missed at the sampled sites will be counted and recorded on the sampling forms.

Sites from the sample frame for a given fishery are selected for sampling via a weighted-random site selection process (probability proportional to size). Initially, site selection is based on site size measures calculated from on-the-water survey data obtained during the previous year's fishery. Once the initial surveys are completed during the current year, updated size measures of sites in our sample frame are calculated based on the current year's data.

Reduced Murthy

The Reduced Murthy sampling design is a scaled-back version of the Full Murthy sampling design. It utilizes intensive dockside sampling, on-the-water effort surveys and test fishery or STR data, depending on the fishery. The main difference between the Reduced Murthy and Full Murthy is a reduced dockside sampling frequency. Dockside sampling is conducted on $n=6$ out of $N=14$ days during each two-week period. Sampling strata are divided into weekday (Monday through Thursday) and weekend (Friday, Saturday and Sunday) strata. During each two-week period, $n=2$ out of $N=8$ days are randomly selected for weekday sampling. In addition, $n=2$ out of $N=3$ days are randomly selected for sampling during each weekend. Samplers are stationed at two ramps on each of the selected sampling days. Samplers achieve 100% sampling coverage at the assigned ramps from approximately dawn until dark in order to intercept all boats. All anglers and fish exiting the fishery through the sampled sites will be counted. Any boats that are missed at the sampled sites will be counted and recorded on the sampling forms.

Sites from the sample frame for a given fishery are selected for sampling via a weighted-random site selection process (probability proportional to size). Initially, site selection is based on site size measures calculated from on-the-water survey data obtained during the previous year's fishery. Once the initial surveys are completed during the current year, updated size measures of sites in our sample frame are calculated based on the current and previous year's data.

Unlike the Full Murthy sampling design, where test fishing is a mandatory component, some fisheries sampled with the Reduced Murthy sampling design will utilize a test fishery while others will use STR data to estimate the size and mark-status composition of the targeted Chinook salmon population. For details regarding a specific fishery.

Aerial Access

The Aerial Access sampling design is a modified version of the Reduced Murthy sampling design that uses aerial effort surveys in place of on-the-water effort surveys. Dockside sampling frequencies are the same as those for the Reduced Murthy, however, instead of sampling at two sites (selected from the sampling-frame) on each sample day; samplers are stationed at all sites designated in the sample-frame (three to four sites of moderate to high effort). For each flight, the sample fraction is estimated by pairing the aerial total boat counts with the sample-frame total for boats active during the flight period (determined from dockside interviews). This allows for an expansion of estimates to account for out-of-frame effort.

As with the Reduced Murthy, fisheries monitored using the Aerial Access design may or may not include a test fishery. Those with no test fishery will use STRs to provide an estimate of the size and mark-status composition of the targeted Chinook salmon population.

Baseline

The Baseline sampling design is a less intensive monitoring program that includes dockside sampling and interviews and the collection of STR data. Baseline sampling is opportunistic in nature, with overall sampling effort allocated across space and time in a manner that maximizes the number of angler interviews obtained per sample effort. While dockside sampling procedures remain the same as in other sampling designs, the frequency of sample days may be slightly reduced. The main difference between Baseline and other, more intensive, sampling designs is the absence of effort surveys. Due to this, Baseline sampling data cannot be used to produce in-season or immediate post-season estimates absolute catch and effort. These estimates become available at a later date through the WDFW Catch Record Card system, allowing further fishery evaluation including total Chinook salmon encounters and associated mortalities by size and mark-status.

Estimation Methods

For fisheries monitored using the Full Murthy, Reduced Murthy and Aerial Access sampling designs, WDFW will produce periodic in-season and post-season estimates of catch and effort. To estimate total Chinook salmon encounters and associated mortalities by size and mark-status category, WDFW will use the agreed-to ‘bias-corrected M2’ methodology (Conrad & McHugh 2008, WDFW 2012).

Fishery-total catch and effort estimates for fisheries monitored using the Baseline sampling design will be available approximately one to one and half years after the close of the fishery, via the WDFW Catch Record Card system. For fisheries with adequate sample sizes of STR encounters, this involves the ‘bias-corrected M2’ approach, as mentioned above. In situations where STR sample sizes are insufficient, total encounters and mortalities will be estimated using an ‘Dockside Encounter’ approach, where the size and mark-status composition of the Chinook salmon population is estimated using dockside sampling data (see WDFW & NWIFC 2020 for details).

Reporting

For some fisheries, WDFW will provide the co-managers with in-season updates of fishery performance.

Following each summer and winter season, WDFW will compile a comprehensive post-season report for all Chinook MSFs conducted in Marine Areas 5-13. These reports will include a summary of the information collected as part of each fishery’s sampling and monitoring program. In addition, for fisheries sampled using the Full Murthy, Reduced Murthy and Aerial Access sampling designs, the reports will also include:

- **Weekly estimates of effort and number of Chinook salmon caught and released, by mark-status**
- **Estimates of total Chinook salmon encounters and associated mortalities by size and mark-status**
- **Comparisons of total encounters with pre-season FRAM modeled projections**
- **Comparisons of mortalities with pre-season FRAM modeled projections**
- **Estimated fishery-total mortalities of marked and unmarked DIT Chinook salmon, by stock and age**

References

Conrad R and McHugh P. 2008. Assessment of Two Methods for Estimating Total Chinook Salmon Encounters in Puget Sound/Strait of Juan de Fuca Mark-Selective Chinook Fisheries. Northwest Fishery Resource Bulletin, Manuscript Series Report No 2.

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Washington Department of Fish and Wildlife (WDFW). 2012. Methods Report: Monitoring Mark- Selective Recreational Chinook Fisheries in the Marine Catch Areas of Puget Sound (Areas 5 through 13). Revised Draft Report: January 30, 2012. Olympia, Washington.

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Washington Department of Fish and Wildlife (WDFW) and Northwest Indian Fisheries Commission (NWIFC). 2013. Estimating Total Chinook Encounters using Catch Record Card-Based Estimates of Harvest. Draft Report: November 26, 2013. Olympia, Washington.

Washington Department of Fish and Wildlife (WDFW) and Northwest Indian Fisheries Commission (NWIFC). 2020. Early Season Encounter Composition. Draft Report: September 25, 2020. Olympia, Washington.

1.18 2021 Summer Mark-Selective Sport Fishery Marine Area 5

The Northwest Treaty Tribes and the Washington Department of Fish and Wildlife (WDFW) have reached agreement to implement a Chinook and Coho salmon mark-selective fishery (MSF) in Marine Area 5 during the 2021 summer season. This fishery will be implemented consistent with management objectives defined by the co-managers' Puget Sound Chinook Harvest Management Plan, the WDFW-Tulalip management plan for hatchery origin fish, and established principles concerning the allocation of harvestable salmon and the exercise of treaty rights. The co-managers will seek to minimize or eliminate any unintended effects of this fishery on individual treaty fisheries, including dislocation and/or disruption. Therefore, treaty fisheries will not be modified in order to accommodate this mark-selective fishery.

Fishery Regulations

The summer Chinook salmon MSF in Marine Area 5 will occur from **July 1, 2021 through August 15, 2021** and the Coho salmon MSF will occur from **July 1, 2021 through September 30, 2021**. Anglers will be allowed a daily limit of up to two hatchery Chinook or Coho salmon through August 15 and two hatchery Coho salmon through September 30. All sub-area closures included in the 2021-22 Co-Managers' List of Agreed Fisheries will remain in effect for the agreed-to dates.

Fishery Controls

The preseason prediction of total legal-sized Chinook salmon encounters in Area 5 is **7,565** (FRAMChin3721). WDFW will ensure that the fishery does not exceed **7,565** predicted legal-sized Chinook salmon encounters.

Sampling Design and Estimation Methodologies

WDFW will employ the **Reduced Murthy** sampling design to monitor the Area 5 summer MSF and estimate total encounters and associated mortalities of legal, sublegal, marked and unmarked Chinook salmon (see Attachment A). The size and mark-status composition of the targeted Chinook salmon population will be estimated using Salmon Trip Reports (STRs). WDFW will employ the appropriate number of staff during the Area 5 summer MSF to meet or exceed the sampling rate goal of 20%.

Reporting Schedule

WDFW will provide the co-managers with bi-weekly in-season catch and effort estimates beginning **Friday July 16, 2021**.

WDFW will compile a comprehensive post-season report for all summer Chinook salmon MSFs conducted in Marine Areas 5-13 by February 1, 2022. This report will include a summary of the information collected as part of our sampling and monitoring program during the Area 5 summer MSF, a full analysis of impact estimates (total encounters and mortalities by size and mark-status), and estimates of marked and unmarked mortalities of Double index-tagged (DIT) and other coded-wired tagged stocks as described in Attachment A.

Coho Salmon

In the summer of 2021, WDFW will continue to employ a **Reduced Muthy** for the mark-selective Coho salmon fishery from July 1 through September 30, with the same bi-weekly reporting schedule.

1.19 2021 Summer Mark-Selective Sport Fishery Marine Area 6

The Northwest Treaty Tribes and the Washington Department of Fish and Wildlife (WDFW) have reached agreement to implement a Chinook and Coho salmon mark-selective fishery (MSF) in Marine Area 6 during the 2021 summer season. This fishery will be implemented consistent with management objectives defined by the co-managers' Puget Sound Chinook Harvest Management Plan, the WDFW-Tulalip management plan for hatchery origin fish, and established principles concerning the allocation of harvestable salmon and the exercise of treaty rights. The co-managers will seek to minimize or eliminate any unintended effects of this fishery on individual treaty fisheries, including dislocation and/or disruption. Therefore, treaty fisheries will not be modified in order to accommodate this mark-selective fishery.

Fishery Regulations

The summer Chinook salmon MSF in Marine Area 6 will occur from **July 1, 2021 through August 15, 2021**, only in the portion of the area west of a true north/south line through buoy #2 near the tip of Ediz Hook. The Coho salmon MFS will occur from **July 1 through September 30, 2021**. Anglers will be allowed a daily limit of up to two hatchery Chinook or Coho salmon through August 15 and two hatchery Coho salmon through September 30. All sub-area closures included in the 2021-22 Co-Managers' List of Agreed Fisheries will remain in effect for the agreed-to dates.

Fishery Controls

The preseason prediction of total legal-sized Chinook salmon encounters in Area 6 is **6,843** (FRAM Chin3721). WDFW plans to manage this fishery as a season, beginning and ending on the agreed-to dates (above). WDFW will ensure that the fishery does not exceed **6,843** predicted legal-sized Chinook salmon encounters.

Sampling Design and Estimation Methodologies

Sampling efforts will be conducted consistent with the **Reduced Murthy, Aerial Design**, (see Attachment A). The size and mark-status of the targeted Chinook salmon population will be estimated using Salmon Trip Reports (STRs). Total Chinook salmon encounters and associated mortalities resulting from the Area 6 summer MSF will be estimated using the 'CRC for Encounters' methodology, described in Attachment A. WDFW will employ the appropriate number of staff during the Area 6 summer MSF to meet or exceed the sampling rate goal of 20%.

Reporting Schedule

WDFW will compile a comprehensive post-season report for all summer Chinook salmon MSFs conducted in Marine Areas 5-13 by February 1, 2022. This report will include a summary of the information collected as part of our sampling and monitoring program during the Area 6 summer MSF. A full analysis of impact estimates (total encounters and mortalities by size and mark-status) resulting from the Area 6 MSF, in addition to estimates of marked and unmarked mortalities of Double index-tagged (DIT) and other coded-wired tagged stocks as described in Attachment A will be provided at a later date, as Catch Record Card estimates become available (see Attachment A).

Coho Salmon

In the summer of 2021, WDFW will continue to employ a Reduced Muthy, Aerial design, for the duration of the mark-selective Coho salmon fishery from July 1 through September 30, with the same bi-weekly reporting schedule.

1.20 2021 Summer Mark-Selective Sport Fishery Marine Area 7

The Northwest Treaty Tribes and the Washington Department of Fish and Wildlife (WDFW) have reached agreement to implement a Chinook and Coho salmon mark-selective fishery (MSF) in Marine Area 7 during the 2021 summer season. This fishery will be implemented consistent with management objectives defined by the co-managers' Puget Sound Chinook Harvest Management Plan, the WDFW-Tulalip management plan for hatchery origin fish, and established principles concerning the allocation of harvestable salmon and the exercise of treaty rights. The co-managers will seek to minimize or eliminate any unintended effects of this fishery on individual treaty fisheries, including dislocation and/or disruption. Therefore, treaty fisheries will not be modified in order to accommodate this mark-selective fishery.

Fishery Regulations

The summer Chinook salmon MSF in Marine Area 7 will occur from **July 1, 2021 through July 31 and August 16-31, 2021**. Anglers will be allowed a daily limit of up to two hatchery Chinook salmon. The Coho salmon MSF will occur from **July 1, 2021 through September 30, 2021**.

Fishery Controls

The preseason modeled predicted catch is **1,382** Chinook salmon, **2,466** total predicted unmarked encounters and **1,899** total predicted sublegal encounters in Area 7 (FRAM Chin3721). WDFW will manage this fishery not to exceed the above catch quota, total unmarked encounters or total sublegal encounters.

Sampling Design and Estimation Methodologies

WDFW will employ the **Full Murthy** sampling design to monitor the Area 7 summer MSF and estimate total encounters and associated mortalities of legal, sublegal, marked and unmarked Chinook salmon (see Attachment A). **Aerial surveys** will continue to be conducted in this time and Area in lieu of boat surveys for the Full Murthy. The size and mark-status composition of the targeted Chinook salmon population will be estimated using test fishing data. WDFW will employ the appropriate number of staff during the Area 7 summer MSF to meet or exceed the sampling rate goal of 20%.

Reporting Schedule

WDFW will provide the co-managers with weekly in-season catch and effort estimates beginning **Friday July 9, 2021**.

WDFW will compile a comprehensive post-season report for all summer Chinook salmon MSFs conducted in Marine Areas 5-13 by February 1, 2022. This report will include a summary of the information collected as part of our sampling and monitoring program during the Area 7 summer MSF, a full analysis of impact estimates (total encounters and mortalities by size and mark-status), and estimates of marked and unmarked mortalities of Double index-tagged and other coded-wire tagged stocks as described in Attachment A.

Coho Salmon

In the summer of 2021, WDFW will continue to employ a the Full Murthy, Aerial design, throughout the Coho salmon fishery. Coho salmon is a MSF July 1 through August 31 and non-selective September 1 through September 30.

1.21 2021 Summer Non-Selective Sport Fishery Marine Area 8.1

The Northwest Treaty Tribes and the Washington Department of Fish and Wildlife (WDFW) have reached agreement to implement Coho salmon non-selective fishery in Marine Area 8.1 during the 2021 summer season. This fishery will be implemented consistent with management objectives defined by the co-managers' Puget Sound Chinook Harvest Management Plan, the WDFW-Tulalip management plan for hatchery origin fish, and established principles concerning the allocation of harvestable salmon and the exercise of treaty rights. The co-managers will seek to minimize or eliminate any unintended effects of this fishery on individual treaty fisheries, including dislocation and/or disruption. Therefore, treaty fisheries will not be modified in order to accommodate this fishery.

Coho Salmon

In the summer of 2021, WDFW will employ a **Baseline Sampling Design** during the non-selective Coho salmon fishery from **August 1, 2021 through September 19, 2021**.

1.22 2021 Summer Mark-Selective Sport Fishery Marine Area 8.2

The Northwest Treaty Tribes and the Washington Department of Fish and Wildlife (WDFW) have reached agreement to implement a Coho salmon mark-selective fishery (MSF) in Marine Area 8-2 during the 2021 summer season. This fishery will be implemented consistent with management objectives defined by the co-managers' Puget Sound Chinook Harvest Management Plan, the WDFW-Tulalip management plan for hatchery origin fish, and established principles concerning the allocation of harvestable salmon and the exercise of treaty rights. The co-managers will seek to minimize or eliminate any unintended effects of this fishery on individual treaty fisheries, including dislocation and/or disruption. Therefore, treaty fisheries will not be modified in order to accommodate this mark-selective fishery.

Coho Salmon

In the summer of 2021, WDFW will employ a **Reduced Murthy** sampling method for the mark-selective Coho salmon fishery from **August 14, 2021 through September 19, 2021**, utilizing on-the-water boat surveys. This fishery is open only South and West from the Clinton/Mukilteo Line.

1.23 2021 Summer Mark-Selective Sport Fishery Marine Area 9

The Northwest Treaty Tribes and the Washington Department of Fish and Wildlife (WDFW) have reached agreement to implement a Chinook and Coho salmon mark-selective fishery (MSF) in Marine Area 9 during the 2021 summer season. These fisheries will be implemented consistent with management objectives defined by the co-managers' Puget Sound Chinook Harvest Management Plan, the WDFW-Tulalip management plan for hatchery origin fish, and established principles concerning the allocation of harvestable salmon and the exercise of treaty rights. The co-managers will seek to minimize or eliminate any unintended effects of these fisheries on individual treaty fisheries, including dislocation and/or disruption. Therefore, treaty fisheries will not be modified in order to accommodate these mark-selective fisheries.

Fishery Regulations

The summer Chinook salmon MSF in Marine Area 9 will occur from **July 16, 2021 through August 15, 2021** and the Coho salmon MSF will occur from **July 16, 2021 through September 30, 2021**. Anglers will be allowed a daily limit of up to two salmon, hatchery Chinook or Coho salmon, only one Chinook, through August 15 and two hatchery Coho salmon through September 30. All sub-area closures included in the 2021-22 Co-Managers' List of Agreed Fisheries will remain in effect for the agreed-to dates.

Fishery Controls

The preseason modeled expected catch is **4,700** Chinook salmon in Area 9 (FRAM Chin3721). WDFW will manage this fishery not to exceed the above catch quota.

Sampling Design and Estimation Methodologies

WDFW will employ the **Full Murthy** sampling design to monitor the Area 9 summer MSF and estimate total encounters and associated mortalities of legal, sublegal, marked and unmarked Chinook salmon (see Attachment A). The size and mark-status composition of the targeted Chinook salmon population will be estimated using test fishing data. WDFW will employ the appropriate number of staff during the Area 9 summer MSF to meet or exceed the sampling rate goal of 20%.

Reporting Schedule

WDFW will provide the co-managers with preliminary weekly estimates of effort and encounters beginning **Friday July 23, 2021**. WDFW will compile a comprehensive post-season report for all summer Chinook salmon MSFs conducted in Marine Areas 5-13 by February 1, 2022. This report will include a summary of the information collected as part of our sampling and monitoring program during the Area 9 summer MSF, a full analysis of impact estimates (total encounters and mortalities by size and mark-status), and estimates of marked and unmarked mortalities of Double index-tagged (DIT) and other CWT stocks as described in Attachment A.

Coho Salmon

In the summer of 2021, WDFW will employ a Full Murthy from July 16 through through September 30, for the mark-selective Coho salmon fishery, utilizing on the water boat surveys.

1.24 2021 Summer Mark-Selective Sport Fishery Marine Area 10

The Northwest Treaty Tribes and the Washington Department of Fish and Wildlife (WDFW) have reached agreement to implement a Chinook salmon mark-selective fishery (MSF) in Marine Area 10 during the 2021 summer season. These fisheries will be implemented consistent with management objectives defined by the co-managers' Puget Sound Chinook Harvest Management Plan, the WDFW-Tulalip management plan for hatchery origin fish, and established principles concerning the allocation of harvestable salmon and the exercise of treaty rights. The co-managers will seek to minimize or eliminate any unintended effects of these fisheries on individual treaty fisheries, including dislocation and/or disruption. Therefore, treaty fisheries will not be modified in order to accommodate these mark-selective fisheries.

Fishery Regulations

The summer Chinook salmon MSF in Marine 10 will occur from **July 16, 2021 through August 31, 2021** and the Coho salmon MSF will occur from **July 16 through September 30, 2021**. Anglers will be allowed a daily limit of up to two hatchery Chinook or Coho salmon through **August 31**, only one Chinook, and two hatchery Coho salmon through **September 30**. All sub-area closures included in the 2021-22 Co-Managers' List of Agreed Fisheries will remain in effect for the agreed-to dates.

Fishery Controls

The preseason modeled expected catch is **3,718** Chinook salmon in Area 10 (FRAM Chin**3721**). WDFW will manage this fishery not to exceed the above catch quota or **6,592** total sublegal encounters.

Sampling Design and Estimation Methodologies

WDFW will employ the **Full Murthy** sampling design to monitor the Areas 10 summer MSF and estimate total encounters and associated mortalities of legal, sublegal, marked and unmarked Chinook salmon (see Attachment A). The size and mark-status composition of the targeted Chinook salmon population will be estimated using test fishing data. WDFW will employ the appropriate number of staff during the Area 10 summer MSF to meet or exceed the sampling rate goal of 20%.

Reporting Schedule

WDFW will provide the co-managers with weekly in-season catch and effort estimates beginning **Friday July 23, 2021**. WDFW will compile a comprehensive post-season report for all summer Chinook salmon MSFs conducted in Marine Areas 5-13 by February 1, 2022. This report will include a summary of the information collected as part of our sampling and monitoring program during the Area 10 summer MSFs, a full analysis of impact estimates (total encounters and mortalities by size and mark-status), and estimates of marked and unmarked mortalities of Double index-tagged (DIT) and other coded-wire tagged stocks as described in Attachment A.

Coho Salmon

In the summer of 2021, WDFW will employ a Full Murthy from June 16 through September 30, utilizing on the water boat surveys.

1.25 2021 Summer Mark-Selective Sport Fishery Marine Area 11

The Northwest Treaty Tribes and the Washington Department of Fish and Wildlife (WDFW) have reached agreement to implement a Chinook salmon mark-selective fishery (MSF) in Marine Area 11 during the 2021 summer season. This fishery will be implemented consistent with management objectives defined by the co-managers' Puget Sound Chinook Harvest Management Plan, the WDFW-Tulalip management plan for hatchery origin fish, and established principles concerning the allocation of harvestable salmon and the exercise of treaty rights. The co-managers will seek to minimize or eliminate any unintended effects of this fishery on individual treaty fisheries, including dislocation and/or disruption. Therefore, treaty fisheries will not be modified in order to accommodate this mark-selective fishery.

Fishery Regulations

The summer Chinook salmon MSF and non-selective Coho salmon fishery in Marine 11 will occur from **June 16, 2021 through September 30, 2021**. Anglers will be allowed a daily limit of up to two hatchery Chinook or Coho salmon through September 30. All sub-area closures included in the 2021-22 Co-Managers' List of Agreed Fisheries will remain in effect for the agreed-to dates.

Fishery Controls

The preseason modeled expected catch is **3,084** Chinook salmon in Area 11 (FRAM Chin**3721**). WDFW will manage this fishery not to exceed the above catch quota or total sublegal encounters **4,233**.

Sampling Design and Estimation Methodologies

WDFW will employ the **Full Murthy** sampling design to monitor the Area 11 summer MSF and estimate total encounters and associated mortalities of legal, sublegal, marked and unmarked Chinook salmon (see Attachment A). The size and mark-status composition of the targeted Chinook salmon population will be estimated using test fishing and Salmon Trip Reports (STRs). WDFW will employ the appropriate number of staff during the Area 11 summer MSF in an effort to meet or exceed the sampling rate goal of 20%.

Reporting Schedule

WDFW will provide the co-managers with bi-weekly in-season catch and effort estimates beginning Friday **June 25, 2021**.

WDFW will compile a comprehensive post-season report for all summer Chinook salmon MSFs conducted in Marine Areas 5-13 by February 1, 2022. This report will include a summary of the information collected as part of our sampling and monitoring program during the Area 11 summer MSF, a full analysis of impact estimates (total encounters and mortalities by size and mark-status), and estimates of marked and unmarked mortalities of double index-tagged (DIT) and other CWT stocks as described in Attachment A.

Coho Salmon

In the summer of 2021, WDFW will employ a **Full Murthy** sampling method for the non-selective Coho salmon fishery from June 16 through September 30, utilizing on the water boat surveys.

1.26 2021 Summer Selective Sport Fishery Marine Area 12

The Northwest Treaty Tribes and the Washington Department of Fish and Wildlife (WDFW) have reached agreement to implement a Chinook salmon mark-selective fishery (MSF) in Marine Area 12 during the 2021 summer season. This fishery will be implemented consistent with management objectives defined by the co-managers' Puget Sound Chinook Harvest Management Plan, the WDFW-Tulalip management plan for hatchery origin fish, and established principles concerning the allocation of harvestable salmon and the exercise of treaty rights. The co-managers will seek to minimize or eliminate any unintended effects of this fishery on individual treaty fisheries, including dislocation and/or disruption. Therefore, treaty fisheries will not be modified in order to accommodate this mark-selective fishery.

Fishery Regulations

The summer Chinook salmon MSF in Marine Area 12 will occur from **July 1, 2021 through September 30, 2021**, only in the portion of the area located south of Ayock Point. Anglers will be allowed a daily limit of up to four salmon. All sub-area closures included in the 2021-22 Co-Managers' List of Agreed Fisheries will remain in effect for the agreed-to dates.

Fishery Controls

WDFW will manage this fishery as a season, beginning and ending on the agreed-to dates (above).

Sampling Design and Estimation Methodologies

Sampling efforts will be conducted consistent with the **Baseline Sampling Design** (see Attachment A). The size and mark-status of the targeted Chinook salmon population will be estimated using Salmon Trip Reports (STRs). Total Chinook salmon encounters and associated mortalities resulting from the Area 12 summer MSF will be estimated using the 'CRC for Encounters' methodology, described in Attachment A. WDFW will employ the appropriate number of staff during the Area 12 summer MSF in an effort to meet or exceed the sampling rate goal of 20%.

Reporting Schedule

WDFW will compile a comprehensive post-season report for all summer Chinook salmon MSFs conducted in Marine Areas 5-13 by February 1, 2022. This report will include a summary of the information collected as part of our sampling and monitoring program during the Area 12 summer MSF. A full analysis of impact estimates (total encounters and mortalities by size and mark-status) resulting from the Area 12 MSF, in addition to estimates of marked and unmarked mortalities of Double index-tagged (DIT) and other CWT stocks as described in Attachment A will be provided at a later date, as Catch Record Card estimates become available (see Attachment A).

Coho Salmon

In the summer of 2021, WDFW will employ a **Baseline Sampling Design** for the non-selective Coho salmon fishery from July 1 through September 30, both north and south of Ayock Point.

1.27 2021 Summer Mark-Selective Sport Fishery Marine Area 13

The Northwest Treaty Tribes and the Washington Department of Fish and Wildlife (WDFW) have reached agreement to implement a Chinook and Coho salmon mark-selective fishery (MSF) in Marine Area 13 during the 2021 summer season. This fishery will be implemented consistent with management objectives defined by the co-managers' Puget Sound Chinook Harvest Management Plan, the WDFW-Tulalip management plan for hatchery origin fish, and established principles concerning the allocation of harvestable salmon and the exercise of treaty rights. The co-managers will seek to minimize or eliminate any unintended effects of this fishery on individual treaty fisheries, including dislocation and/or disruption. Therefore, treaty fisheries will not be modified in order to accommodate this mark-selective fishery.

Fishery Regulations

The summer Chinook salmon MSF in Marine Area 13 will occur from **May 1, 2021 through September 30, 2021**. Anglers will be allowed a daily limit of up to two hatchery Chinook salmon. All sub-area closures included in the 2021-22 Co-Managers' List of Agreed Fisheries will remain in effect for the agreed-to dates.

Fishery Controls

WDFW will manage this fishery as a season, beginning and ending on the agreed-to dates (above).

Sampling Design and Estimation Methodologies

Sampling efforts will be conducted consistent with the **Baseline Sampling Design** (see Attachment A). The size and mark-status of the targeted Chinook salmon population will be estimated using Salmon Trip Reports (STRs). Total Chinook salmon encounters and associated mortalities resulting from the Area 13 summer MSF will be estimated using the 'CRC for Encounters' methodology, described in Attachment A. WDFW will employ the appropriate number of staff during the Area 13 summer MSF in an effort to meet or exceed the sampling rate goal of 20%.

Reporting Schedule

WDFW will compile a comprehensive post-season report for all summer Chinook salmon MSFs conducted in Marine Areas 5-13 by February 1, 2022. This report will include a summary of the information collected as part of our sampling and monitoring program during the Area 13 summer MSF. A full analysis of impact estimates (total encounters and mortalities by size and mark-status) resulting from the Area 13 MSF, in addition to estimates of marked and unmarked mortalities of Double index-tagged (DIT) and other coded-wired tagged stocks as described in Attachment A will be provided at a later date, as Catch Record Card estimates become available (see Attachment A).

Coho Salmon

In the summer of 2021, WDFW will employ a **Baseline Sampling Design** for the mark-selective Coho salmon fishery from July 1 through September 30.

1.28 2021-22 Winter Mark-Selective Sport Fishery Marine Area 5

The Northwest Treaty Tribes and the Washington Department of Fish and Wildlife (WDFW) have reached agreement to implement a Chinook salmon mark-selective fishery (MSF) in Marine Area 5 during the 2021-2022 winter season. This fishery will be implemented consistent with management objectives defined by the co-managers' Puget Sound Chinook Harvest Management Plan, the WDFW-Tulalip management plan for hatchery origin fish, and established principles concerning the allocation of harvestable salmon and the exercise of treaty rights. The co-managers will seek to minimize or eliminate any unintended effects of this fishery on individual treaty fisheries, including dislocation and/or disruption. Therefore, treaty fisheries will not be modified in order to accommodate this mark-selective fishery.

Fishery Regulations

The winter Chinook salmon MSF in Marine Area 5 will occur from **March 1, 2022 through April 30, 2022**. Anglers will be allowed a daily limit of up to two hatchery Chinook salmon. All sub-area closures included in the 2021-22 Co-Managers' List of Agreed Fisheries will remain in effect for the agreed-to dates.

Fishery Controls

WDFW will manage this fishery as a season, beginning and ending on the agreed-to dates (above).

Sampling Design and Estimation Methodologies

Sampling efforts will be conducted consistent with the **Baseline Sampling Design** (see Attachment A). The size and mark-status composition of the targeted Chinook salmon population will be estimated using Salmon Trip Reports (STRs). Total Chinook salmon encounters and associated mortalities resulting from the Area 5 winter MSF will be estimated using the 'CRC for Encounters' methodology, described in Attachment A. WDFW will employ the appropriate number of staff during the Area 5 winter MSF in an effort to meet or exceed the sampling rate goal of 20%.

Reporting Schedule

WDFW will compile a comprehensive post-season report for all winter Chinook salmon MSFs conducted in Marine Areas 5-13 by December 1, 2023. This report will include a summary of the information collected as part of our sampling and monitoring program during the Area 5 winter MSF. A full analysis of impact estimates (total encounters and mortalities by size and mark-status) resulting from the Area 5 MSF, in addition to estimates of marked and unmarked mortalities of double index-tagged (DIT) and other coded-wire tagged stocks as described in Attachment A will be provided at a later date, as estimates from Catch Record Card become available (see Attachment A).

(Area 5 is closed for Coho salmon retention in the winter)

1.29 2021-22 Winter Mark-Selective Sport Fishery Marine Areas 10

The Northwest Treaty Tribes and the Washington Department of Fish and Wildlife (WDFW) have reached agreement to implement a Chinook salmon mark-selective fishery (MSF) in Marine Area 10 during the 2021-2022 winter season. This fishery will be implemented consistent with management objectives defined by the co-managers' Puget Sound Chinook Harvest Management Plan, the WDFW-Tulalip management plan for hatchery origin fish, and established principles concerning the allocation of harvestable salmon and the exercise of treaty rights. The co-managers will seek to minimize or eliminate any unintended effects of this fishery on individual treaty fisheries, including dislocation and/or disruption. Therefore, treaty fisheries will not be modified in order to accommodate this mark-selective fishery.

Fishery Regulations

The winter Chinook salmon MSF in Marine Area 10 will occur from **January 1, 2022 through March 31, 2022**. Anglers will be allowed a daily limit of up to two hatchery Chinook salmon. All sub-area closures included in the 2021-22 Co-Managers' List of Agreed Fisheries will remain in effect for the agreed-to dates.

Fishery Controls

The preseason prediction of total Chinook salmon encounters in Area 10 is **8,475** (FRAM Chin3721). WDFW plans to manage this fishery to ensure that the fishery does not exceed 120% of **8,475** predicted total Chinook salmon encounters. WDFW will also manage to **1,105** total unmarked encounters and **7,319** total sublegal encounters.

Sampling Design and Estimation Methodologies

WDFW will employ the **Full Murthy** sampling design to monitor the Area 10 winter MSF and estimate total encounters and associated mortalities of legal, sublegal, marked and unmarked Chinook salmon (see Attachment A). Comanagers have agreed to use an additional test fishing boat in this Area in the winter. The size and mark-status composition of the targeted Chinook salmon population will be estimated using test fishing data. WDFW will employ the appropriate number of staff during the Area 10 winter MSF in an effort to meet or exceed the sampling rate goal of 20%.

Reporting Schedule

WDFW will provide the co-managers with weekly in-season catch and effort estimates beginning the week ending **January 7, 2022**.

WDFW will compile a comprehensive post-season report for all winter Chinook salmon MSFs conducted in Marine Areas 5-13 by December 1, 2023. This report will include a summary of the information collected as part of our sampling and monitoring program during the Area 10 winter MSF, a full analysis of impact estimates (total encounters and mortalities by size and mark-status), and estimates of marked and unmarked mortalities of double index-tagged (DIT) and other coded-wire tagged stocks as described in Attachment A.

Coho Salmon

In the winter of 2021-22, WDFW will employ a **Reduced Murthy** sampling method for the non-selective Coho salmon fishery September 1 through October 31, 2021 when there is no Chinook salmon retention, and a **Full Murthy** from January 1 through March 31, 2022, when there is also a Chinook MSF.

1.30 2021-22 Winter Mark-Selective Sport Fishery Marine Area 11

The Northwest Treaty Tribes and the Washington Department of Fish and Wildlife (WDFW) have reached agreement to implement a Chinook salmon mark-selective fishery (MSF) in Marine Area 10 during the 2021-2022 winter season. This fishery will be implemented consistent with management objectives defined by the co-managers' Puget Sound Chinook Harvest Management Plan, the WDFW-Tulalip management plan for hatchery origin fish, and established principles concerning the allocation of harvestable salmon and the exercise of treaty rights. The co-managers will seek to minimize or eliminate any unintended effects of this fishery on individual treaty fisheries, including dislocation and/or disruption. Therefore, treaty fisheries will not be modified in order to accommodate this mark-selective fishery.

Fishery Regulations

The winter Chinook salmon MSF in Marine Area 11 will occur from **November 1, 2021 through December 31, 2021**. Anglers will be allowed a daily limit of up to two hatchery Chinook salmon. All sub-area closures included in the 2021-22 Co-Managers' List of Agreed Fisheries will remain in effect for the agreed-to dates.

Fishery Controls

The preseason prediction of total Chinook salmon encounters in Area 10 is 1,001 (FRAM Chin**3721**). WDFW plans to manage this fishery to ensure that the fishery does not exceed 120% of 1,001 predicted total Chinook salmon encounters. WDFW will also manage to 239 total unmarked encounters and **637** total sublegal encounters.

Sampling Design and Estimation Methodologies

WDFW will employ the **Full Murthy** sampling design to monitor the Area 11 winter MSF and estimate total encounters and associated mortalities of legal, sublegal, marked and unmarked Chinook salmon (see Attachment A). Comanagers have agreed to use an additional testfishing boat in the Area in the winter. The size and mark-status composition of the targeted Chinook salmon population will be estimated using test fishing and Salmon Trip Reports (STRs). WDFW will employ the appropriate number of staff during the Area 11 winter MSF in an effort to meet or exceed the sampling rate goal of 20%.

Reporting Schedule

WDFW will provide the co-managers with weekly in-season catch and effort estimates beginning the week ending **November 12, 2021**.

WDFW will compile a comprehensive post-season report for all winter Chinook salmon MSFs conducted in Marine Areas 5-13 by December 1, 2023. This report will include a summary of the information collected as part of our sampling and monitoring program during the Area 11 winter MSF, a full analysis of impact estimates (total encounters and mortalities by size and mark-status), and estimates of marked and unmarked mortalities of double index-tagged (DIT) and other coded-wire tagged stocks as described in Attachment A.

Coho Salmon

In the winter of 2021-22, WDFW will employ a **Reduced Murthy** sampling method for the non-selective Coho salmon fishery **October 1 through October 31, 2021**. There is no Coho salmon retention during the November 1 through December 31, 2021 timeframe.

1.31 2021-22 Winter Mark-Selective Sport Fishery Marine Area 12

The Northwest Treaty Tribes and the Washington Department of Fish and Wildlife (WDFW) have reached agreement to implement a Coho salmon non-selective fishery in Marine Area 12 during the 2021 winter season. This fishery will be implemented consistent with management objectives defined by the co-managers' Puget Sound Chinook Harvest Management Plan, the WDFW-Tulalip management plan for hatchery origin fish, and established principles concerning the allocation of harvestable salmon and the exercise of treaty rights. The co-managers will seek to minimize or eliminate any unintended effects of this fishery on individual treaty fisheries, including dislocation and/or disruption. Therefore, treaty fisheries will not be modified in order to accommodate this mark-selective fishery.

Coho Salmon

In the winter of 2021-22, WDFW will employ **Baseline Sampling Design** for the non-selective Coho salmon fishery **October 1 through October 31, 2021**, North and South of Ayock Point.

1.32 2021-22 Winter Mark-Selective Sport Fishery Marine Area 13

The Northwest Treaty Tribes and the Washington Department of Fish and Wildlife (WDFW) have reached agreement to implement a Chinook salmon mark-selective fishery (MSF) in Marine Area 13 during the 2021-2022 winter season. This fishery will be implemented consistent with management objectives defined by the co-managers' Puget Sound Chinook Harvest Management Plan, the WDFW-Tulalip management plan for hatchery origin fish, and established principles concerning the allocation of harvestable salmon and the exercise of treaty rights. The co-managers will seek to minimize or eliminate any unintended effects of this fishery on individual treaty fisheries, including dislocation and/or disruption. Therefore, treaty fisheries will not be modified in order to accommodate this mark-selective fishery.

Fishery Regulations

The winter Chinook and Coho salmon MSFs in Marine Area 13 will occur from **October 1, 2021 through May 14, 2022**. Anglers will be allowed a daily limit of up to two hatchery Chinook or Coho salmon. All sub-area closures included in the 2021-22 Co-Managers' List of Agreed Fisheries will remain in effect for the agreed-to dates.

Fishery Controls

WDFW will manage this fishery as a season, beginning and ending on the agreed-to dates (above).

Sampling Design and Estimation Methodologies

Sampling efforts will be conducted consistent with the **Baseline Sampling Design** (see Attachment A). The size and mark-status composition of the targeted Chinook salmon population will be estimated using Salmon Trip Reports (STRs). Total Chinook salmon encounters and associated mortalities resulting from the Area 13 winter MSF will be estimated using the 'CRC for Encounters' methodology, described in Attachment A. WDFW will employ the appropriate number of staff during the Area 13 winter MSF in an effort to meet or exceed the sampling rate goal of 20%.

Reporting Schedule

WDFW will compile a comprehensive post-season report for all winter Chinook salmon MSFs conducted in Marine Areas 5-13 by December 1, 2023. This report will include a summary of the information collected as part of our sampling and monitoring program during the Area 13 winter MSF. A full analysis of impact estimates (total encounters and mortalities by size and mark-status) resulting from the Area 13 MSF, in addition to estimates of marked and unmarked mortalities of Double index-tagged (DIT) and other coded-wire tagged stocks as described in Attachment A will be provided at a later date, as Catch Record Card estimates become available (see Attachment A).