

Joint-State Columbia River Fishery Policy Review Committee
Narrative Descriptions and Analysis of Policy Issues, Alternatives and Options
COHO
October 1, 2019

Description of Issues

Following is a listing of possible policy changes related to non-treaty fisheries as part of the review of Columbia River salmon and steelhead fishery management under consideration by the Joint-State Columbia River Fishery Policy Review Committee (PRC) process. Most policy issues that have been introduced for active consideration during the process are listed below, together with a narrative description of identified potential alternatives from current status quo associated with that particular issue. The current status of PRC discussion and/or recommendation on each alternative is also shown, including rationale for any action taken to date to eliminate or de-prioritize an alternative from further consideration at this time. The recommendations made by the PRC on February 26 were focused primarily on allocation, allowable commercial fishing gear, and SAFE production levels. There are other sub-issues that were not addressed by the PRC at that time, some of which are shown below.

Coho

Issue 1: Allocation of Coho impacts between non-treaty fisheries

This issue involves the allocation of impacts for ESA-listed lower Columbia River natural Coho (LCN) between in-river recreational and non-treaty commercial fisheries. Allocation sharing applies to fisheries occurring in concurrent Columbia River waters downstream of Bonneville Dam and Select Areas. Fishery access to healthy and harvestable hatchery Coho stocks is constrained by the need to protect co-occurring ESA-listed Coho, as well as ESA-listed A- and B-index wild steelhead. Opportunity may also be constrained by ESA-listed Chinook stocks in some years. In recent years, the fisheries have primarily been constrained by performance of Coho and steelhead returns.

- February PRC Recommendation/Current WA Policy/Current OR Policy (full concurrence)
 - There is no formal allocation of Coho ESA impacts. However, fisheries are prioritized with commercial fisheries receiving sufficient impacts to implement Select Area (Coho and Chinook) and mainstem fall Chinook and hatchery Coho fisheries. The balance is provided to recreational fisheries; the large majority of recreational catch occurs in the Buoy 10 fishery. If these fisheries are expected to be unable to use all of the impacts, the remainder is assigned to mainstem commercial Coho fisheries. The current prioritization of allocations has not limited these fisheries.
- Alternative 1
 - Set a numeric allocation for recreational and commercial fisheries.
 - *Status of Consideration: This was removed from the list by the PRC at the March 14 meeting as the current prioritization guideline does not constrain either fishery.*

Issue 2: Allowable mainstem commercial gear for Coho

This issue involves establishing allowable commercial gear types for non-treaty commercial fisheries targeting Coho in the mainstem Columbia River. Recent Coho-directed fisheries have generally occurred in commercial Zones 1-3 during October. Small mesh (≤ 6 -inch mesh) gill nets were the primary gear type used in this fishery until prohibited by policy in 2017. The use of tangle nets (≤ 3.75 -

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inch mesh) were evaluated beginning in 2009 and implemented in 2013 as part of efforts to increase harvest per ESA-impact in commercial fisheries. Tangle net fisheries targeting hatchery Coho occurred in 2013-2015. Purse and beach seines were used in 2014-2016 to target hatchery fall Chinook and hatchery Coho. Due to challenges with implementation, pound nets have not been evaluated in a full-scale fishery at a level similar to seines, but the Cathlamet pound net was tested in 2013 and 2016-2018, and testing is on-going in 2019. All of these gear types are viable for Coho to varying degrees. Tangle nets can be used as a mark-selective tool to leverage ESA-impacts into larger harvests. Gill nets may be used when abundance is high and ESA impacts are available.

- February PRC Recommendation/Current WA Policy
 - Allowable commercial fishing gear for Coho-directed non-treaty commercial fisheries to include gill net, tangle net, and other alternative gear.
- Current OR Policy
 - Limit allowable gear for Coho-directed non-treaty commercial fisheries in Zones 1-3 of the mainstem Columbia River to tangle nets and other alternative gear.
- Alternative 1
 - Commercial mainstem gears restricted to alternative gear (non-tangle net) only.
- *Status of Consideration: Active for further analysis.*

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Results

Following are the results associated with possible policy changes as part of the review of Columbia River salmon and steelhead fishery management under consideration by the Joint-State Columbia River Fishery Policy Review Committee (PRC) process. Issues and options previously removed from the list are excluded.

Coho

Issue 2: Allowable mainstem commercial gear

Analysis Results:

Table 1 shows the harvest of Coho, by gear type, in mainstem non-treaty commercial fisheries during 2013-2016. During 2014 and 2015 when multiple gear types were used, catch rates, mark rates, and total landings of Coho were much higher in October Coho-directed tangle net (MSF) and gill net (non-MSF) fisheries than for seines; however, effort was also much higher for these gears. Both gear types performed best in 2014 when the Coho return was large. October Coho fisheries did not occur in 2016-2018 as insufficient ESA impacts were available to implement the fisheries. A mark-selective seine fishery occurred in late August and September during 2014-2016. Coho harvest was relatively low even though Coho abundance in the lower river typically peaks in mid-September. Coho harvest in the seine fishery was limited by individual fisher quotas (IFQs) in 2014-2016 due to available impacts for wild B-Index steelhead; however, most seine fishers' catches did not approach the IFQs, so they were not a limiting factor.

Table 1. Harvest of Coho in mainstem non-treaty commercial fisheries, by gear, 2013-2016.

Year	Tangle Net ¹	Gill Net ²	Beach Seine ³	Purse Seine ³
2013	4,831	1,952	--	--
2014	18,234	43,867	509	561
2015	993	2,242	58	529
2016	--	--	39	565

¹Hatchery Coho in October mark-selective fisheries. No fishery in 2016.

²All Coho in October non-mark-selective fisheries. No fishery in 2016.

³Hatchery Coho in late August and September mark-selective fisheries. No fishery in 2013.

Participation in the Coho tangle net fishery was moderate (Table 2), likely because tangle nets can be fished from current gill net boats, with relatively low additional capital and operating costs compared to other alternative gears such as purse seines and pound nets. The mark rate for late stock Coho during the October fishery was relatively high, averaging 76%, and allowed a large proportion of the captured Coho to be harvested, while minimizing impacts to wild Coho.

Joint-State Columbia River Fishery Policy Review Committee
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Table 2. Coho landings and ex-vessel value for the commercial Coho tangle net fishery, 2013-2015.

Year	Days Fished	Deliveries	Coho Landed ¹	Mark Rate	Avg Wt (lb)	Avg \$/lb	Avg Value/Fish	Total Ex-Vessel Value
2013	8	174	4,831	77%	6.1	\$1.87	\$11.44	\$55,251
2014	9	242	18,234	83%	6.3	\$1.20	\$7.54	\$137,556
2015	3	102	993	67%	5.7	\$1.65	\$9.36	\$9,299
Avg	7	173	8,019	76%	6.0	\$1.57	\$9.45	\$67,369

¹ Includes hatchery adults and jacks.

Sufficient ESA impacts were available for the late fall commercial fishery during 2013-2015 to allow 6-inch gill net fisheries to occur in concert with the October tangle net fisheries. Effort and landings in the non-MSF gill net fishery were usually larger than in the MSF tangle net fishery, and the average size of Coho was also greater, contributing to about a 27% higher value per fish (Table 3).

Table 3. Coho landings and ex-vessel value for the commercial Coho 6-inch gillnet fishery, 2013-2015.

Year	Days Fished	Deliveries	Coho Landed ¹	Avg Wt (lb)	Avg \$/lb	Avg Value/Fish	Total Ex-Vessel Value
2013	5	144	1,952	8.1	\$1.83	\$14.87	\$29,030
2014	13	647	43,867	7.3	\$1.28	\$9.33	\$409,201
2015	2	137	2,242	6.8	\$1.73	\$11.77	\$26,391
Avg	7	309	16,020	7.4	\$1.61	\$11.99	\$154,874

¹ Includes adults and jacks.

Mark rates for Coho caught in September seine fisheries were lower than in October tangle net fisheries, averaging 46% during 2014-2016 (Table 4). Commercial beach and purse seine fisheries targeting Coho in October have not been evaluated.

Table 4. Coho landings and ex-vessel value for the commercial seine fishery, 2014-2016.

Year	Gear	Permits Fished	Days Fished	Deliveries	Coho Landed ¹	Mark Rate	Avg Wt (lb)	Avg \$/lb	Avg \$/Fish	Ex-Vessel Value
2014	Beach	6	12	20	509	35%	7.8	\$1.22	\$9.56	\$4,864
	Purse	4	15	19	561	29%	7.7	\$1.09	\$8.43	\$4,729
	Total	10	27	39	1,070	32%	7.8	\$1.15	\$8.96	\$9,593
2015	Beach	3	6	6	58	33%	6.8	\$1.50	\$10.19	\$591
	Purse	4	14	19	529	46%	5.7	\$1.52	\$8.74	\$4,624
	Total	7	20	25	587	44%	5.8	\$1.52	\$8.88	\$5,215
2016	Beach	2	6	3	39	89%	3.6	\$1.18	\$4.22	\$165
	Purse	2	13	21	565	62%	6.3	\$1.74	\$11.02	\$6,227
	Total	4	19	24	604	63%	6.2	\$1.72	\$10.58	\$6,392
2014-2016 Seine Avg		7	22	29	754	46%	6.6	\$1.46	\$9.48	\$7,067

¹ Includes hatchery adults and jacks.