

## Columbia River Fishery Policy Review Workgroup Meeting

Narrative Descriptions and Analysis of Policy Issues, Alternatives and Options

### FALL CHINOOK

May 27, 2020

#### Issue 2: Allowable mainstem commercial gear/zones

##### Description

This issue involves establishing allowable commercial gear types for non-treaty commercial fisheries targeting fall Chinook in the mainstem Columbia River. Commercial gill netting is currently permitted during the fall season in the mainstem Columbia, as are alternative gears. To date, gears used in non-treaty fall Chinook-directed fisheries include gill nets and seines (purse and beach). In recent years, Chinook-directed gill net fisheries have been restricted to commercial Zones 4-5; initially to maximize harvest per tulle fall Chinook ESA-impact and later by policy changes. Fall seine (beach and purse) fisheries occurred in all Zones during 2014-2016 but low natural-origin B-Index summer steelhead returns have limited their use since then. Nonetheless, it is assumed that alternative gears for the fall Chinook fishery would consist of purse and beach seines as they are currently the only alternative gears with mortality rates approved by the *U.S. v. Oregon* Technical Advisory Committee (TAC) for use in fall season Chinook-directed commercial fisheries. Another gear, pound nets, have been tested in the lower river; however, due to logistical issues associated with implementation such as permitting, construction costs, in-water work period, etc., they have not yet been evaluated in a full-scale fishery at a level similar to seines. The TAC has not yet approved any release mortality rates for pound nets. Fall Chinook gill net fisheries are non-mark-selective, operated in times and areas to reduce impacts on stocks of concern, and focus on healthy and harvestable stocks (hatchery and wild). The 2014-2016 seine fisheries were primarily mark-selective for Chinook and Coho.

- February PRC Recommendation/Current WA Policy
  - Gill net, tangle net and seine gear allowed for Chinook-directed fall fisheries. No restriction on fishing Zone(s).
- Current OR Policy
  - Allow the use of gill net and other alternative gears. Gill nets limited to Zones 4-5.
- Alternative 1
  - Gill net or any alternative gear allowed for Chinook-directed fall fisheries. No restriction on fishing Zone(s).

*Status of Consideration: Active for further analysis.*

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#### Results

Table 1 also shows some comparisons of different gear types and allocations. Chinook-directed gillnet fisheries have primarily fished in Zone 4/5 since 2010 (and exclusively since 2013) to improve ex-vessel value and reduce impacts to tule fall Chinook. Table 2 provides harvest, ex-vessel value, value per fisher day, value per fish landed, and value per natural-origin B-Index steelhead mortality for fall Zone 4-5 gill net and purse/beach seine fisheries that occurred during 2014-2018. Seine fisheries did not occur in 2017 through 2019 due to limitations on natural-origin B-Index steelhead. During 2014-2016, landings and value for mainstem gill net fisheries were much higher than seines in all years due to greater participation and higher value per landed fish. The gill net fishery in these years also yielded more value per fisher-day and value per natural-origin B-Index steelhead mortality. As described above, pound nets have not been evaluated in a full-scale fishery similar to seines, but the Cathlamet pound net was tested in 2013 and 2016-2019, and is expected to continue in 2020.

Fall Chinook Issue- Alternative Combination			Economic Metrics <sup>2</sup>	
			Sport Angler Trips <sup>3</sup>	Commercial Ex-Vessel Value <sup>4</sup>
<sup>1</sup>	Allocation % (sport/commercial)	Allowable Mainstem Commercial Gear		
Issue 1 Alt 1/Issue 2 Alt 2	≤80/≥20	Alternative Gear	215,565	\$779,838
Issue 1 PRC/Issue 2 PRC Current Status Quo	≤70/≥30	Large-Mesh GN/ Alternative Gear <sup>5</sup>	211,961	\$1,612,682
Issue 1 Alt 2/Issue 2 PRC	≤65/≥35	Large-Mesh GN/ Alternative Gear <sup>5</sup>	210,160	\$1,916,854

<sup>1</sup> Potential combinations of allocation shares and allowable commercial gears other than those presented in this table were not modelled.

<sup>2</sup> 2013-2018 averages used for calculating sport and commercial metrics, except the ex-vessel value for 20%/alternative gear is based on average seine results for 2014-2016, when fall Chinook runs were large.

<sup>3</sup> Effort data for 2013-2018 modelling period only available for sport fisheries downstream of Bonneville Dam.

<sup>4</sup> Includes the value of Coho caught in Chinook-directed fisheries.

<sup>5</sup> Assumes purse and beach seines for fall alternative gears, with the gears used at 2014-2016 seine fishery levels.

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Table 2. Salmon harvest, ex-vessel value, value per fisher-day, value per salmon landed, and value per natural-origin (NO) B-Index steelhead in fall commercial large-mesh gill net and seine fisheries in the mainstem lower Columbia River, 2014-2018.

Year	Fishery	Days Fished	Fishers <sup>1</sup>	Harvest <sup>2</sup>		Total Ex-Vessel Value <sup>2</sup>	Value/Fisher-Day	Value/Salmon <sup>3</sup>	Value/Natural-Origin B-Index Steelhead Mortality <sup>4</sup>
				Chinook	Coho				
2014	Zone 4-5 Gillnet <sup>5</sup>	18	70	89,747	6,152	\$2,426,031	\$1,936	\$25	\$109,024
	Purse Seine	21	17	1,457	561	\$33,488	\$94	\$17	\$30,444
	Beach Seine	22	25	1,337	509	\$31,511	\$57	\$17	\$8,292
2015	Zone 4-5 Gillnet	14	83	74,603	597	\$2,441,263	\$2,101	\$32	\$266,697
	Purse Seine	23	14	2,312	529	\$45,698	\$142	\$16	\$39,395
	Beach Seine	6	7	681	58	\$10,951	\$261	\$15	\$18,251
2016	Zone 4-5 Gillnet	13	87	57,940	665	\$2,799,595	\$2,469	\$48	\$397,263
	Purse Seine	21	8	821	565	\$26,033	\$155	\$19	\$107,776
	Beach Seine	6	8	1	39	\$187	\$4	\$5	--
2017	Zone 4-5 Gillnet	7	93	19,398	931	\$922,305	\$1,412	\$45	\$216,932
2018	Zone 4-5 Gillnet	4	64	8,320	380	\$378,454	\$1,478	\$44	\$225,787

<sup>1</sup> Average number of fishers participating in Zone 4-5 fishery based on average deliveries per fishing period, adjusted for multiple deliveries during a period by individual vessels. Assumes one fisher per gillnet vessel. Number of fishers participating in seine fisheries based on post-season

<sup>2</sup> Includes adults and jacks. Does not include 292 unmarked Chinook harvested by purse seines and 1 unmarked Chinook harvested by a beach seine (total value of \$7,067) in a limited trial non-mark-selective fishery during 2016.

<sup>3</sup> Includes Chinook and Coho.

<sup>4</sup> No natural-origin B-Index steelhead mortalities in 2016 beach seine fishery.

<sup>5</sup> Does not include large-mesh gillnet fishing periods in October to maintain comparability to August-September seine fisheries.