

Columbia River Policy Summary Review

Columbia River Commercial and Recreational Advisory Group Meetings
September 5, 2018

Staff Summary of Management Section

The management section includes a variety of topics that are analyzed above. The focus of this summary will be on conservation and concurrent regulations. There were few aspects of the Policy that focused on conservation; however, the Policy operated within the conservation guidelines already in place through *U.S. v Oregon*. The Policy intent was to enhance the conservation benefits for tule fall Chinook and coho, by implementing additional mark-selective fisheries, primarily with the transition to alternative gear commercial fisheries. Alternative gears were not implemented to the degree anticipated for a variety of reasons that are summarized in the Alternative Gear Section. The level of mark-selective fisheries that were in place during 2013-2017 were not substantial enough to contribute to reducing hatchery fall Chinook or coho numbers on the spawning grounds.

Table 4A: Mark Selective Fisheries in the Mainstem Columbia River

	Fall Chinook					Coho		
	Buoy 10	L. Col. Sport	Coho Tangle Net ¹	Beach Seine ¹	Purse Seine ¹	Coho Tangle Net ¹	Beach Seine ¹	Purse Seine ¹
2013	6,631	3,651	1,862	--	--	4,831	--	--
2014	2,694	2,242	1,988	1,337	1,457	18,234	509	561
2015	6,072	1,342	1,893	681	2,312	993	58	529
2016	1,395	651	0	2	1,113	0	39	565
2017	-	782	0	0	0	0	0	0

¹Coho tangle net and seine fisheries first implemented in 2013 and 2014, respectively.

Concurrent regulations and/or policies between Oregon and Washington are critical to effectively manage the fisheries in the Columbia River; however, there are several instances where this is not the case with the current Washington Policy and Oregon rule/policies. These instances can result in unharvested fish or not meeting the objectives of both states. Non-concurrent rules can be very challenging for fishery managers and enforcement officers.

Excerpt from Synopsis 1

Non-Concurrent Allocations
Allocation differences can result in non-treaty impacts/shares not being fully utilized or fishing that occurs only in one state's waters. In the past, there have been instances of non-concurrent allocation guidance between the two states. The fishery managers have tried to meet both of the guidelines, with the result that some of the overall non-treaty share of fish has gone unharvested. This has happened with spring Chinook in the past.

Excerpt from Synopsis 1 (continued)

Examples	
Summer Chinook Allocation	Washington applies the unused commercial share to sport fisheries above Bonneville Dam or to spawning escapement. Oregon applies the unused share to escapement.
	<u>Result – unused commercial share goes to escapement.</u> Since Oregon’s rule is more restrictive we would follow this rule. We could not allow unused commercial share to go the sport fisheries because that would violate the Oregon rules.
2019 Fall Chinook Commercial Fishery in Zones 4-5	Washington Policy states that commercial fisheries would not be able to use <u>gillnets</u> in the fall fishery beginning in 2019, while Oregon rules allow for the use of gillnets in this fishery.
	Washington Policy allocates <u>up to 80%</u> to sport fisheries and Oregon rules allocates 70% to sport fisheries.
	Commercial fishers with an <u>Oregon or Washington license</u> would be able to fish in this fishery on the <u>Oregon side of the river</u> with gill nets. Fishing would be closed to gillnets in Washington waters.
	The allocation would be <u>70% to sport fisheries</u> as this does not violate either policy. The commercial fishery would occur with <u>30%</u> of the allocation.

Very few additional mark-selective fisheries were implemented during the Policy. Selective fisheries include two types: avoidance and live release, and are managed differently. Most of the sport and commercial fisheries in the Columbia River are managed using avoidance as the primary means of selectivity. Predation on salmon by birds, fish and particularly marine mammals is an on-going issue that continues to be addressed in a variety of forums; with no certain solutions anticipated in the foreseeable future. Managers routinely assess the accuracy and certainty of management strategies, in order to utilize the best scientific methods for estimating impacts from fisheries on salmon and steelhead populations.

Staff Summary of Recreational Section:

The recreational fisheries were prioritized in all fisheries during the preseason process and based on the results in the allocation section, the fisheries were able to utilize a high percentage of their overall allocation, whether it was catch allocation (summer Chinook) or ESA allocation (spring and fall Chinook). Barbless hooks were implemented in most areas required by the Policy; the few exceptions are areas where there was an absence of or negligible numbers of ESA-listed species. We are not aware of any information presented during the consideration of the Policy, on the scientific basis of a difference in mortality due to the use of barbed versus barbless hooks. The use of logbooks in the recreational fishery was not pursued during the course of the Policy.

Staff Summary of Commercial Section

Marine Stewardship Council (MSC) certification was not attempted during the Policy, but was considered during 2008-2009 by Oregon and Washington in cooperation with the commercial fishers. Several fisheries were being considered for certification under this process, but after review of the program with staff from MSC and discussion with the commercial fishing community, the cost of certification was prohibitive. At that time, there was no funding from the state or federal level to support the certification process and the fishing constituents were not interested in funding this process.

Discussions of license buyback began in 2016 but did not continue. WDFW staff have re-initiated the buyback discussion and have had several meetings with commercial fishers. The next meeting is planned for late 2018 or early 2019.

Exploration of new SAFE areas occurred by ODFW and one potential new site for Washington was identified in their analysis. At this time, no additional work has been done to consider this site. WDFW attempted to create a new SAFE area at Cathlamet Channel for spring Chinook, but the fish did not survive to provide a fishery. The plans for the Cathlamet spring Chinook program are to move the fish to Deep River and try some different release strategies. Deep River is currently the only SAFE area in Washington.

Table 22A: Overall assessment by ODFW of potential new Select Area sites following adult test fishing and juvenile acclimation evaluations.

Evaluation Site	Adult Assessment	Juvenile Assessment
Clifton Channel	Excessive catch of upriver spring Chinook	Lacking acclimation infrastructure Questionable homing source/ potential for straying
Westport Slough	Spring: OK for development Fall: natural origin coho present	Lacking acclimation infrastructure; access permission contingent on Kerry West expansion Potential straying to Clatskanie
Bradbury Slough	Upriver spring Chinook catch could lead to ineffectual use of SA allocation	Insufficient homing source; potential for straying
Coal Creek Slough	OK for spring	Lacking acclimation infrastructure No access permission at existing dock Potential water quality issues (temperature D.O.)

The commercial fishery in the upper river (Zones 4-5) was monitored in 2017 by ODFW and WDFW staff. Results showed handle of steelhead was low and similar to preseason expectations, but Chinook catch was much less than modeled.

Table 27B: Results From Monitoring August Zone 4-5 Commercial Fishery, 2017

	Chinook Catch (Aug 22-Sep 1)	Steelhead Handle	Steelhead Immediate Mortality rate	Steelhead per fishing day	Steelhead/ Chinook Ratio	Group B Index Steelhead %	Group B Steelhead Handle
2017 Preseason	43,964	746	48.9%	149	0.017	4%	26
2017 Actual	13,959	407	23.8%	81	0.029	4%	15

Staff Summary of Tribal Section

The provisions of the Policy concerning tribal fisheries were met for the Wanapum and Colville tribes. They were provided with fish and opportunity and were not precluded by other fisheries.

Staff Summary of Allocation Section

Determining how the allocation sharing actually occurred can be problematic because of the dynamics of in-season management. All of the fisheries are planned pre-season using the Policy allocations. As fisheries occur, changes to run sizes and actual harvests result in alterations to the pre-season plan.

In many years, the Upriver Spring Chinook run cannot be updated until mid to late May. Fisheries are managed conservatively prior to a run update. Once the run has been updated and staff have more confidence in the final outcome, fisheries are adjusted accordingly. For the sport fishery below Bonneville Dam, it is difficult to attain the total allocation after mid-May when the run is typically updated. This is due to the nature of the fishery – once the run is past peak, the harvest rates in the sport fishery decline. The effort often shifts from the mainstem to the tributaries during this time as well, with the result that the sport fishery is less effective at harvesting their allocation after the peak of the run. The catch balance provision is more constraining than ESA impacts, especially for the sport fisheries, so the result is that ESA impacts are left unused or reallocated to the commercial fishery. Thus looking at the ESA impact sharing does not completely tell the story of how the Policy performed. Both the recreational and commercial fisheries were able to utilize a high percent of their catch balance allocation.

Table 30C: Upriver Spring Chinook Catch Balance Shares

	Commercial			Sport		
	Catch Balance Used	Catch Balance Allowed	% Catch Balance Used	Catch Balance Used	Catch Balance Allowed	% Catch Balance Used
2010	9,077	12,530	72%	28,859	21,490	134%
2011	3,816	6,825	56%	13,842	15,345	90%
2012	4,605	4,759	97%	13,691	18,297	75%
2013	1,757	2,624	67%	6,330	7,593	83%
2014	3,621	4,911	74%	17,349	19,347	90%
2015	6,528	6,376	102%	19,381	24,836	78%
2016	3,285	3,335	99%	13,043	13,756	95%
2017	463	347	133%	7,316	7,760	94%
2010-2012 Average			75%			100%
2013-2017 Average			95%			88%

Table 36C: Percent of Tule Fall Chinook Impacts Utilized

	Comm Tules Used	Comm Tules Allowed	% Comm Tules Used	Sport Tules Used	Sport Tules Allowed	% Sport Tules Used
2013	2.81%	2.48%	113%	6.47%	5.50%	118%
2014	1.55%	2.39%	65%	5.80%	5.57%	104%
2015	2.90%	2.61%	111%	4.50%	6.09%	74%
2016	5.29%	3.39%	156%	5.14%	7.85%	65%
2017	0.66%	2.86%	23%	6.33%	6.27%	101%
Average			94%			92%

Both sport and commercial fisheries were able to utilize a high percentage of their catch allocation for summer Chinook and fall Chinook the objectives of the allocation sharing are being met.

Staff Summary of Alternative Gear

A variety of alternative gears have been researched and tested within the past 15-20 years. Tangle nets for spring Chinook were implemented in 2003 and have been used successfully since then. Most recently the beach and purse seines have been the focus of the investigations, as well as tangle nets for coho.

Release mortality studies have been conducted with varying results. Currently the *U.S. v Oregon* Technical Advisory Committee (TAC) has agreed on a set of release mortality rates to use in for seines and coho tangle nets for use in fishery management.

Table 19D: Updated seine mortality rates for Chinook, coho, and steelhead based on revised analyses by the *U.S. v. Oregon* Technical Advisory Committee of post-release mortality studies during fall 2011-2013.

Gear	Chinook	Coho	Steelhead
Beach Seine	33%	38%	5%
Purse Seine	21%	29%	2%
Coho Tangle Net	NA	23.6%	23.6%

The mortality rates for Chinook and coho make it challenging to implement seine gear in the commercial fishery. For mark-selective fisheries to be successful, the mark rate (adipose fin-clip rate) must be greater than the mortality rate; the greater the difference between the mark rate and the mortality rate, the greater the benefit. The mark rates for fall Chinook in the Columbia River are not very high due to the large proportion of natural production in the Upriver Bright component. Encounters of non-target fish can also hamper efforts at implementation, for example, the seines can catch large numbers of steelhead and during the summer season, sockeye and shad encounters can be significant. In order for the seines to be economically viable, a large volume of fish must be available and harvestable. These issues largely explain why alternative gears have not been implemented in the Columbia River, with the exception of tangle nets for spring Chinook and coho.

Staff Summary of Economic Section

Estimating economic impacts for this assessment is challenging for a number of reasons. There was a multitude of assumptions (see below) in the Workgroup process during the development of their report and many of those assumptions were included in this Policy. The expectations from the Workgroup were meant to provide a trend or change over time of fishery angler trips and ex-vessel values. It is difficult to estimate the effects of the Policy because of the moving parts of in-season fishery management and the effect that run sizes have on the fisheries.

Staff concluded that the analysis that ODFW staff provided was the most appropriate measure of how the Policy performed. This analysis was conducted by using actual run sizes, fishery data and in-season management decisions to estimate how the fisheries would have performed during 2013-2017 if the Policy had not been in place. By comparing the actual results to the results that were modeled, it shows the effects of implementing the Policy, independent of run size and many other factors.

Table 2I: Comparison of expected (pre-Policy) and actual (post-Policy) ex-vessel value for the non-treaty commercial fishery during the Policy based on ODFW analysis.

Fishery	Stock	Status	Transition				Long-Term
			2013	2014	2015	2016	2017
Mainstem Gillnet	Spring Chinook	Existing	(\$60,268)	(\$228,145)	(\$196,375)	(\$152,146)	(\$302,776)
Mainstem Gillnet	Summer Chinook	Existing	(\$47,261)	(\$31,903)	(\$82,727)	(\$109,997)	(\$238,012)
Mainstem Gillnet (Zone 4-5)	Fall Chinook	Existing	(\$663,180)	(\$293,020)	(\$1,032,775)	\$0	\$0
Mainstem Gillnet	Coho	Existing	\$10,744	(\$73,926)	(\$24,197)	\$0	\$0
Select Area Gillnet	Spring Chinook	Expanded	\$16,767	\$17,404	\$187,377	\$173,556	\$241,224
Select Area Gillnet	Fall Chinook	Expanded	\$0	\$0	\$19,746	\$60,867	\$40,061
Select Area Gillnet	Coho	Expanded	\$0	\$166,058	\$45,003	\$57,225	\$149,024
Mainstem Seine	Lower River Hatchery Chinook	New	\$0	\$0	\$51,434	\$26,894	\$0
Mainstem Seine	Coho	New	\$0	\$0	\$5,215	\$6,392	\$0
Mainstem Tangle net	Coho	New	\$86,085	\$162,732	\$49,624	\$0	\$0
Totals			(\$657,113)	(\$280,801)	(\$977,676)	\$62,790	(\$110,478)

Note: Values are not adjusted for differences in run sizes each year.

The Policy was expected to increase recreational angler trips by reallocating more impacts or fish to the recreational fisheries, and increase ex-vessel value to the commercial fishery through increased production in off-channel areas and implementation of alternative gears.

Table 2E: Summary of gains in fishing days and angler-trips due to allocation changes for lower Columbia River recreational Chinook fisheries, by year and season, 2013-2017

		2013	2014	2015	2016	2017	
Spring	Fishing Days Gained	0	5	2	1	0	
	Angler-Trips Gained	0	10,788	10,321	6,497	0	
Summer	Fishing Days Gained	0	0	0	0	25	
	Angler-Trips Gained	0	0	0	0	5,594	
Fall	Buoy 10	Non-MSF Days Gained	5	6	2	0	0
		Angler-Trips Gained	4,560	1,015	907	0	0
	Below Lewis River	Non-MSF Days Gained	3	6	5	0	0
		Angler-Trips Gained	2,470	2,265	10,402	0	0
	Fall Total	Non-MSF Days Gained	8	12	7	0	0
		Angler-Trips Gained	7,030	3,280	11,309	0	0
All Seasons Total		Fishing Days Gained	8	17	9	1	25
		Angler-Trips Gained	7,030	14,068	21,630	6,497	5,594
		% Gain in Angler Trips	2.1%	3.4%	5.5%	1.7%	2.0%

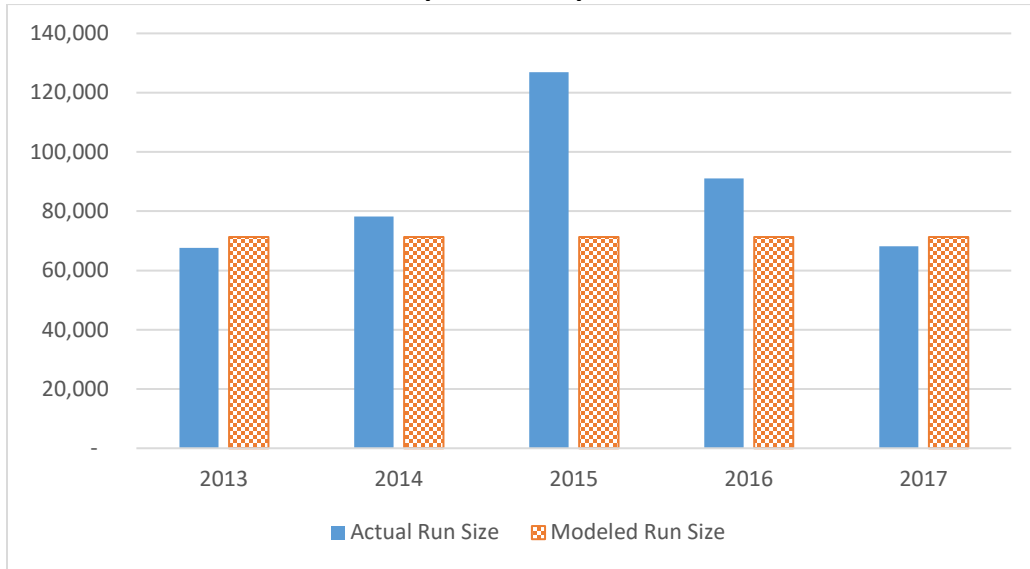
The above table was Table 22 from Oregon Department of Fish and Wildlife’s Exhibit Agenda Item Summary Updated 1-12-17.

Actual angler trips in the recreational fishery increased slightly during the Policy, and ex-vessel values in the commercial fishery declined. The benefit to increased production in SAFE areas was beneficial to Oregon fishers primarily. The increased harvest and ex-vessel values in the commercial fishery for fall Chinook and coho were due to some very large runs that occurred during 2013-2017, and not as a result of the implementation of the Policy. The recreational fishery gained fishing days based on the Policy, primarily during the fall season.

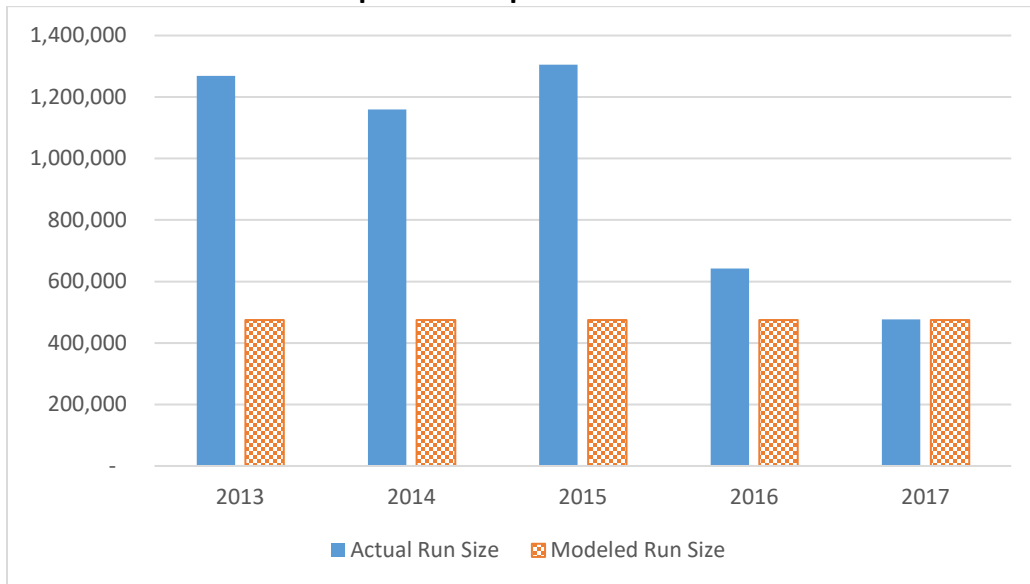
Upriver Spring Chinook Runsizes Compared to Expected



Summer Chinook Runsizes Compared to Expected



Fall Chinook Runsizes Compared to Expected



The Policy has fallen short of most of its economic objectives. For the commercial fishery, the combination Select Area enhancements and implementation of alternative gears did not offset the losses in the mainstem fisheries. For the recreational fishery, there were marginal benefits in some fisheries from increases in angler trips and fishing days.