Executive Summary

The Washington Fish and Wildlife Commission adopted the Columbia River Basin Salmon Management Policy (C-3620) in January 2013 and included direction for a comprehensive five-year review by the end of 2018. The comprehensive review began in January 2018, with written questions from the Fish and Wildlife Commission focused on whether the provisions of the Policy were implemented or not and whether the stated purposes and goals of the Policy were successfully achieved. During the course of the review (January to September 2018), Department staff met frequently with commissioners, and as a result, additional questions and information requests were incorporated into the review.

The intent of this review was to assist the Commission in their evaluation of a) whether the Policy was successful in achieving the stated objectives, principles, and provisions; b) areas where the Policy failed or has not been working well, and c) to provide information that might help explain reasons why these potential outcomes may have occurred. The intent can be abbreviated as follows: Has the policy been implemented as written, and what has occurred as a result of policy changes?

The analytical approach was to provide information and analysis for each of the written questions, and then to organize the analysis into seven overarching theme categories. Detailed responses to those questions, as well as public comments on each question, are located in the following seven themed sections of this report: General Fishery Management, Recreational Fisheries, Commercial Fisheries, Tribal Fisheries, Allocation, and Economics.

General Fishery Management

This theme encompassed questions about conservation, fishery management, predation and concurrency.

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*. Meeting *U.S. v Oregon* requirements was an overarching principle, and all fisheries were conducted consistent with the *U.S. v Oregon* court order. 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. Very few additional mark-selective fisheries were implemented during the Policy.

During the Policy implementation period, the proportion of hatchery fish on spawning grounds (pHOS) decreased compared to the pre-policy average in five primary Lower Columbia River fall Chinook populations, however; the bulk of this reduction was attributed to the use of weirs, as there were only limited mark-selective mainstem recreational and commercial fisheries that occurred.

Concurrent regulations and/or policies between Oregon and Washington are critical to effectively manage fisheries in the Columbia River. There are several instances where achieving concurrency is difficult due to substantive differences between 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. These challenges are described in a synopsis at the end the General Fishery Management section.

Though not a direct result of the Policy, predator reduction programs and improvements in management tools are occurring consistent with C-3620's Guiding Principles.

Recreational Fisheries

This theme encompassed questions about the goals to prioritize recreational fishing in the mainstem of the Columbia River, implementation of barbless hooks in mainstem and tributary salmon fisheries, and the charge to evaluate the use of logbooks.

Recreational fisheries have been prioritized in the mainstem as a result of changes to allocations that result in a high proportion of their allocation being utilized. A barbless hook requirement was implemented in the mainstem Columbia River and tributary recreational fisheries with some exceptions where ESA-impacts are negligible. Staff is 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. Legislation has occurred to allow Washington Department of Fish and Wildlife to require logbook use for the guide industry but has not been implemented.

Commercial Fisheries

This theme encompassed questions about the goals to explore new Select Areas, monitor the fishery, seek certification as a sustainably managed fishery, and pursue commercial license buy-backs.

Exploration of new Select Areas occurred by Oregon Department of Fish and Wildlife 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. A new Select Area site in Washington was attempted in Cathlamet Channel but was not successful due to poor smolt survival and resulted in no new fishery.

The commercial fishery was monitored in 2017, and results were similar to expectations. A certification for a sustainably managed fishery was not attempted during the Policy. A commercial license buy-back program was initiated, but the effort was abandoned and a new approach has begun.

Tribal Fisheries

The objectives of the Policy included meeting the subsistence and ceremonial needs of the Confederated Tribes of the Colville Reservation and the Wanapum Band (RCW 77.12.453). The Colville Tribes and Wanapum Band were allocated sufficient catch to meet their annual needs.

Allocation

This theme primarily encompassed questions about allocation between sport and commercial fisheries and allocation within the sport fishery, including area-specific allocations.

Recreational and commercial fisheries have been prioritized in the mainstem and off-channel areas, respectively, through ESA-impact allocations. All of the fisheries were planned pre-season using the Policy allocations. As fisheries occurred, changes to run sizes and actual harvests resulted in alterations to the pre-season plan. Comparing ESA impact sharing may not be the most appropriate way to view how the Policy performed. For most sport and commercial fisheries and within geographic areas, a high percentage of their catch allocation was used, with the exception of the upriver/lower river sharing for spring Chinook.

Alternative Gear

This theme primarily encompassed questions about development and implementation of alternative gears while phasing out gillnets in the mainstem Columbia.

Implementation of alternative gear was a key component to the success of the Policy, but did not materialized. There have been substantial resources invested to develop and test alternative fishing methods for Lower Columbia River commercial fisheries. Catch rates, bycatch, post-capture fish condition and survival, and gear investment costs have been evaluated for purse seines and beach seines for summer and fall fisheries. Unfortunately, despite these efforts, no alternative gear types have been fully adopted, though coho and spring Chinook tangle net and fall seine net (beach and purse) fisheries have been operated under the Washington Administrative Code and RCW 77.70.180, respectively. There are a number of issues associated with successful implementation of alternative gears, including high handle of non-target species (specifically steelhead,) high release mortality rates, ESA impact limitations, and high cost to operate the gear. Some commercial licensees have made notable investments to use alternate gears; to date, there has been no return from those investments.

Economics

The Policy endeavored to "enhance the overall economic well-being and stability of Columbia River fisheries" by prioritizing use of alternate commercial gear types in the Columbia River mainstem, increasing commercial harvest in off-channel fishing areas, and boosting recreational angling opportunity. This theme primarily encompassed

questions about whether the expected economic benefits have accrued as a result of Policy implementation and whether adaptive adjustments to the Policy have occurred if the expected benefits were not realized, as prescribed in the Policy.

Estimating economic impacts for this assessment is challenging for a number of reasons. The Columbia River Fishery Management Workgroup process included a multitude of assumptions during the development of their report intended for the Commission, 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. 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 Select Areas and implementation of alternative gears.

It is important to note that the analysis of economic benefit that has accrued as a direct result of the Policy is complicated by factors affecting the economic value of both recreational and commercial fisheries that are not under control of the Policy, such as unexpected changes in the abundance of fish returning to the Columbia Basin, changes in the price of commercially caught salmon, and other factors. Nevertheless, when analytical corrections and normalizations regarding such factors are attempted, it remains apparent that the goal of enhancing the overall economic well-being and stability of Columbia River fisheries was not achieved as expected.

After standardizing the data for total salmon returns to the Columbia Basin (angler trips/fish returns), the annual number of angler trips to mainstem fisheries downstream of Bonneville Dam decreased overall during the post policy period despite a slight increase in total fishing days.

Lower than expected commercial landings for spring and summer Chinook were offset by a relatively high price per pound. A small proportion of landings were made via experimental seine and tangle net fisheries. The majority of gillnet ex-vessel value was derived from mainstem fisheries (which Policy C-3620 terminates after 2018), and increased slightly relative to the economic contribution of mainstem fisheries during the pre-policy period. Ex-vessel value derived from off-channel fisheries did not increase as expected during the policy implementation period and primarily benefited Oregon fishers. Overall, the commercial fishery saw a decrease in ex-vessel value after standardizing for run size.

Conclusions

The large economic benefits for both commercial and recreational fisheries expected from the Policy were not observed during the implementation period. Commercial Select Area enhancements and alternative gear development have not replaced mainstem fisheries. Recreational fisheries have only seen marginal benefits to changes in allocations. The expectations in the development of the Policy were not met.