

## Category A Analysis (Reasonably Complete Review)

Updated 04-12-18

### Question 5

Question paraphrase: What has the Department done to reduce salmon predation?

Policy citation: ...reduced predation by fish, birds, and marine mammals. (pg. 9)

Specific question: *What has the Department done to reduce salmon predation by these three animal groups over the course of the Policy?*

### Analysis:

- Fish – Considerable effort, with significant positive results.
  - WDFW is the lead agency for the Columbia River Predator Control Program (Pikeminnow sport-reward and dam angling components) that is funded by Bonneville Power Administration and has been implemented system wide since 1991. Recent evaluations indicate that the Pikeminnow Program has consistently achieved the program exploitation goal of annually harvesting 10-20% of predator sized ( $\geq 250$ mm FL) Northern Pikeminnow from within the program area. Analysis of our most recent recapture data indicates that 2017 exploitation was 17.4%. Based on this level of exploitation, it is estimated that 2018 predation levels on juvenile salmonids will be 24% (range: 17-41%) lower than pre-program levels.
  - WDFW Implemented new warmwater recreational fishery regulations that should increase harvest and decrease predation. There has not been an evaluation of their efficacy.
- Birds – Agency involvement in regional efforts, with mixed results.
  - Sand Island Caspian Tern colony predation rate has greatly diminished due to relocation and Bald Eagle predation. In 2016, predation on steelhead smolts was 6% compared to the long-term average of 22%. New colonies are forming upstream in the Columbia Basin.
  - WDFW supported US Army Corps program for lethal removal of part of the population of Double-crested Cormorants nesting on Sand Island, however some portion of the colony has simply relocated to the Megler Astoria Bridge, creating new problems.
- Marine Mammals – Considerable effort, but ongoing negative trend.
  - Regional efforts are still underway to gain additional authority under the Marine Mammal Protection Act to reduce predation by California and Steller Sea Lions, and Harbor Seals. Marine mammal predation effects continue to be significant, with recent papers in scientific journals estimating more Columbia River origin adult salmonids taken by marine mammals than taken in sport and commercial fisheries combined (Chasco, B.E., et al. 2017).

- In 2017, at Bonneville Dam, Washington Department of Fish and Wildlife and Oregon Department of Fish and Wildlife removed 24 California Sea Lions. Still, steelhead impact was considerable. The Army Corp of Engineers estimated that Sea Lions consumed 9% of the very poor 2017 return of steelhead in the Bonneville Dam area. No estimate of downstream impacts on steelhead are available. The executive Summary of 2017 report by the U.S. Army Corps of Engineers can be found in the Image 1.
- 2016 and 2017 the National Marine Fisheries Service’s studies of spring Chinook predation in the lower Columbia provided estimates of losses of 19k and 24k respectively, or 7% and 11% of the total run, respectively.

### Question 6

Question Paraphrase: Has the Department met the needs of the Colville Tribe and terms of the agreements?

Policy citation: Meet Colville tribal subsistence and ceremonial needs consistent with agreements with the Confederated Tribes of the Colville Reservation (pg. 9)

Specific question: *Has this occurred over the course of Policy 3620 being in effect?*

Analysis: WDFW and the Colville Confederated Tribes (CCT) developed an agreement in 2007 for management of salmon and steelhead stocks originating from the Colville Reservation. That agreement (“Agreement between the Confederated Tribes of the Colville Reservation and the Washington Department of Fish and Wildlife on Jointly managed salmon and steelhead populations”) is currently the working document that WDFW and CCT use in annual fishery management. The agreement focuses on conservation objectives and harvest sharing above Priest Rapids Dam between sport and tribal fisheries, but also includes harvest allocation guidelines between sport and CCT for summer/fall Chinook, spring Chinook, and sockeye. CCT harvest of summer steelhead is limited to incidental harvests during other tribal fisheries. The parties to this agreement are in the process of updating the agreement.

This analysis only focused on that part of the agreement that deals with allocation of summer Chinook above and below Priest Rapids Dam. The agreement referenced above, includes a harvest rate schedule for sport and tribal fisheries above Priest Rapids Dam based on run size. During 2013-2017, based on the post-season run size, the Colville Tribe got at least their allocation during three of the five years. Their fisheries were not constrained in the other two years. Their average allocation during these years was 53% and their actual harvest averaged 50% (Appendix Table A, shown below).

Appendix Table A: Colville Tribal Summer Chinook Allocation

	Colville Planned Allocation	Colville Actual Allocation
2013	50%	54%
2014	55%	55%
2015	>55%	68%
2016	55%	46%
2017	50%	27%
Average	53%	50%

Question 7

Question paraphrase: Has the Department met the needs of the Wanapum Tribe?

Policy citation: Provide Wanapum Band fishing opportunity consistent with RCW 77.12.453 ("Salmon fishing by Wanapum (Sokulk) Indians"). (pg. 10)

Specific question: *Has this occurred over the course of Policy 3620 being in effect?*

Analysis: Yes, this has occurred. In 1981, the legislature recognized that salmon fishing was culturally important to the Wanapum Indians and authorized the WDFW Director to issue ceremonial and subsistence permits. RCW 77.12.453 states "The director may issue permits to members of the Wanapum band of Indians to take salmon for ceremonial and subsistence purposes. The department shall establish the areas in which the permits are valid and shall regulate the times for and manner of taking the salmon. This section does not create a right to fish commercially."

During 2013-2017, the Wanapum Band harvested an average of 28 spring Chinook, 210 summer Chinook, 470 sockeye and 251 fall Chinook (Appendix Table B).

Appendix Table B: Harvest by Wanapum Band

	Spring Chinook	Summer Chinook	Sockeye	Fall Chinook
2013	8	240	92	475
2014	37	152	814	238
2015	58	284	522	221
2016	35	218	659	242
2017	2	158	263	78
Average	28	210	470	251

## Question 16

Question paraphrase: Are Washington and Oregon policies and regulations the same?

Policy citation: Seek to maintain consistent and concurrent policies between Oregon and Washington. (pg. 11)

Specific question: *What policies and regulations are inconsistent or non-concurrent between the States of Washington and Oregon for Columbia River fisheries, as of December 31, 2017?*

Analysis: Appendix Table C shows differences between the two state's policies as of June 27, 2017. Summer Chinook, sockeye, coho and chum have the same or very similar policies/regulations between the two states. The differences are:

- Spring Chinook – Washington Policy provides for mainstem recreational fisheries but no mainstem commercial fisheries. Oregon regulations allow for mainstem fisheries with tangle net or other selective gear if impacts are not needed in Select Areas.
- Fall Chinook

During 2017-2018, WDFW will assign no more than 75% of the ESA-impact for lower Columbia River tule and Upriver Bright fall Chinook to mainstem recreational fisheries to meet management objectives and the balance (not less than 25%) to commercial fisheries. Oregon will assign no more than 70% of the ESA-impact for lower Columbia River tule and Upriver Bright fall Chinook, whichever is the most constraining, to mainstem recreational fisheries to meet management objectives and the balance (not less than 30%) to commercial fisheries; 2% of the commercial allocation impacts can be used for alternative gear.

Beginning in 2019, WDFW will assign no more than 80% of the ESA-impact for lower Columbia River tule and Upriver Bright fall Chinook to mainstem recreational fisheries to meet management objectives and the balance (not less than 20%) to mainstem commercial fisheries; only alternative commercial gear can be used in the mainstem. Oregon will assign no more than 70% of the ESA-impact for lower Columbia River tule and Upriver Bright fall Chinook, whichever is the most constraining, to mainstem recreational fisheries to meet management objectives and the balance (not less than 30%) to commercial fisheries; 2% of the commercial allocation impacts can be used for alternative gear; gill nets may be used in Zones 4-5.

- Other – Washington policy includes additional guidance under the general provisions section of the policy such as buy back and logbooks, whereas Oregon does not provide guidance.

## Question 17

Question paraphrase: Has the Department made progress in implementing the Marine Stewardship Council certification program?

Policy citation: Develop a program that seeks to implement Marine Stewardship Council or other certification of salmon fisheries in the Columbia River as sustainably managed fisheries. (pg. 11)

Specific question: *What has been done over the course of the Policy to develop this program?*

Analysis: Nothing was done on this component of the Policy during 2013-2017.

This section below will be moved to the Supplemental Staff comments section.

This program was reviewed by the two states around 2008-2009 with the commercial fishers to determine if some of the fisheries in place at that time could be certified under the MSC program. The conclusion at that time was that there were fisheries that would likely meet the criteria but there was no effort to work on this, primarily because of the cost of certification.

In recent years, alternatives to the MSC process have been developed. Alaska has developed a Responsible Fishery Management (RFM) program for many of their fisheries, which has been certified by the UN Food and Agriculture Organization's Global Sustainable Seafood Initiative (GSSI). It is a much less costly alternative than MSC, and has similar benefits. At present, it is exclusively for Alaskan fisheries, but within the next year, it may broaden to include other fisheries. Even though it may be a less costly alternative to MSC, it may still be most beneficial if it is done on a regional basis as it likely will never be cost effective for small fisheries such as the lower Columbia commercial fishery without including other fisheries in the program.

## Question 18

Question paraphrase: Has the Department made progress in implementing a buyback program for non-tribal gill net permits?

Policy citation: Gill Net License Buyback Program: Aggressively pursue a program to buyback non-tribal gill net permits...(and)...other tools to reduce the number of gillnet permits. (pg. 11)

Specific question: *What has been done over the course of the Policy with regard to this paragraph?*

Analysis: In December 2016, the department collaborated with Responsive Management, a firm specializing in attitudes toward natural resources. The firm was hired to help evaluate a potential program to buy back state-issued Columbia River gill net licenses, and asked for input from selected commercial fishers to help develop a survey. The survey was subsequently

abandoned, and the Department has begun a new process starting with involvement from commercial stakeholders. Washington Department of Fish and Wildlife staff met with commercial stakeholders beginning in 2017. The most recent meeting occurred in February 2018 and staff are now working on a schedule of regular meetings and are in the process of working with the stakeholders to develop a plan moving forward including goals, objectives and options for a program. Oregon Department of Fish and Wildlife staff have agreed to be involved in the discussions.

#### Question 25

Question paraphrase: Has the Department made any progress on the use of logbooks in the recreational fisheries?

Policy citation: **Logbooks: Evaluate the benefits of requiring licensed recreational fishing guides and charters to maintain and use logbooks.** ...evaluate the use of volunteer trip reports in private boat fisheries. (pg. 13)

Specific question: What has been done over the course of the Policy with regard to this paragraph?

Analysis: Nothing was done on this component of the Policy during 2013-2017.

#### Question 29

Question paraphrase: What has the Department done to improve fishery management tools?

Policy citation: **Improve Management Tools.** Explore and develop alternative approaches to improve pre-season forecasts of run size and timing; in-season updates of run-size estimates; and in-season estimates of the harvest impacts by fishery. (pg. 14)

Specific question: *What has been done to achieve these three objectives?*

Analysis: WDFW staff, in partnership with co-managers, are continuously trying to advance methods to improve estimates of run forecasts, run timing and harvest impacts in fisheries. This is an on-going, continuous process that occurs as part of the regular activities of the fishery managers. Improvements in the management tools as described in the Policy, relies on reliable data input, such as accurate accounting of run sizes and harvest.

WDFW has have been working on a variety of tasks to improve our management tools that would ultimately lead to improved estimates of run forecasts, timing and harvest impacts. One example is shown below:

- Forecasting models are ranked according to a simple forecast performance metric. For each model considered, hypothetical forecasts for past years are generated and the absolute prediction error (APE) as a percent of the actual return is calculated:

$$\text{APE} = (|\text{predicted} - \text{actual}| / \text{actual}) * 100$$

The model with the smallest median APE can be used when considering which model is selected for the forecast, and provides a more objective criterion for selecting competing forecast models. Environmental variables will continue to be explored and incorporated to improve predictability in the forecasts.

#### Question 40

Question paraphrase: What regulations or policies are not concurrent with Oregon?

Policy citation: Concurrent regulations between the two states (pg. 21)

Specific question: *What regulations or management policies are currently not concurrent between the two states?* This question is a cross reference with question/footnote 16.

Analysis: See answer to Question #16.