Northwest **Power** and **Conservation** Council

February 8, 2022

MEMORANDUM

TO: **Fish and Wildlife Committee Members**

FROM: **Cathy P. Kellon**

SUBJECT: **Progress and next steps under the Willamette River Biological Opinion**

BACKGROUND:

Presenter: Ida Royer, Columbia River Fish Mitigation Program Manager, US Army Corps of Engineers Portland District

Summary: Ida Royer of the U.S. Army Corps of Engineers (Corps) will present an update on operations and actions required of the Willamette Valley Project to meet their obligations under the 2008 Biological Opinion (BiOp) and protect Endangered Species Act-listed populations of Chinook salmon, bull trout, and steelhead in the Willamette River basin. This will be the first presentation to the Council on the Willamette BiOp since November 2017.

Relevance: Actions required under the 2008 Willamette BiOp address Council strategies for habitat, mainstem hydrosystem flow and passage, anadromous fish mitigation in blocked areas, the use of hatcheries for reintroduction of salmon and steelhead stocks, and monitoring of fish passage at hydropower dams as articulated in the 2014 Fish and Wildlife Program. Specifically, on page 86: "*The Corps and Bonneville should support and implement anadromous fish passage measures prioritized through the Willamette River Basin Flood Control Project Biological Opinion*."

In addition, the 2014 Program references the Willamette BiOp in the following goal: *Achieve the delisting and recovery criteria for ESA-listed species in the biological opinions, including for listed salmon and*

steelhead in NOAA Fisheries' 2008 FCRPS, Upper Snake and Willamette River biological opinions, and those for listed Kootenai River White Sturgeon, bull trout, and Oregon chub in the U.S. Fish and Wildlife Service's FCRPS (2000), Libby Dam (2006) and Willamette River (2008) biological opinions. Pursuant to this goal, the Program sets the following objective: *Restore the widest possible set of healthy, naturally reproducing and sustaining populations of salmon and steelhead in each relevant geographic level*. Over time, the Council will track progress under this goal using the Strategy Performance Indicators.

The 2014 Program's investment strategy (Section II, page 114-) also urges the action agencies to meet their Willamette BiOp obligations, including not to let actions go unfunded because of competing priorities between the Columbia/Snake hydropower projects and the Willamette Basin projects.

Background: The Willamette River flows 180 miles, draining 11,487 square miles or nearly 12% of the state of Oregon. The basin is the traditional homeland to Indigenous people, including the Kalapuya, Mollala, and Upper Chinook, and current home to descendants of these and many more Native American tribes. Today, over 70% of all Oregonians live in the Willamette River basin.

The Willamette Valley Project (Project), part of the Federal Columbia River Power System (FCRPS), is operated and maintained by the US Army Corps of Engineers (Corps). It includes 13 federal multipurpose dams across four subbasins and approximately 43 miles of revetments. The dams were constructed between 1941 and 1969 to reduce flood risks in the Willamette Valley and provide hydropower generation, recreation, water quality, municipal drinking water, and irrigated agriculture benefits. Most of the dams are "high head" dams, over 250 feet tall and as a result, the Project blocks approximately 70% of Chinook and 33% of steelhead historic habitat in the upper Willamette basin while also modifying downstream habitat. In key subbasins, 90% of Spring Chinook and nearly 40% of winter steelhead historic spawning habitat is blocked.

Declines in populations of Upper Willamette spring Chinook and winter steelhead, resident bull trout and Oregon chub led to Endangered Species Act (ESA) listings in 1999, 1998, and 1993, respectively. Oregon chub qualified for delisting in 2014 and are no longer considered threatened.

As a result of listing, the Corps, Bonneville Power Administration (BPA), and the Bureau of Reclamation (BuRec), initiated ESA Section 7 consultation with NMFS in 2000. Eight years later, NMFS issued a Biological Opinion that outlines a series of operational and structural changes, with associated deadlines, to dam operations and maintenance to avoid jeopardizing the survival and recovery of listed salmonids.

The BiOp outlines reasonable and prudent alternative (RPA) actions or measures that address, among other things, improving downstream habitat and water quality conditions and making juvenile and adult fish passage possible. The RPAs vary considerably in terms of the cost, time, and difficulty required for implementation. In addition, there is uncertainty about the potential efficacy of different solutions, in particular specific methods for assuring survival of fish past the dams. Thus, the 2008 BiOp sets forth an adaptive management approach with an emphasis on research, monitoring, and evaluation. It also recommends a collaborative team approach with the Corps and other concerned parties, including the states and tribes, to foster cooperation and oversee implementation.

To date, the Corps and action agencies have initiated or completed several of the measures. Most adult salmon and steelhead upriver passage actions have taken place or are in process. BPA funds salmonid habitat restoration ($800,000/year) through a competitive solicitation process. Juvenile fish passage alternatives are being studied, including the use of drawdowns, spills, and fish collectors. And downriver water temperatures are better regulated in several tributaries.

However, the management of a system of 13 dams in accordance with multiple authorized purposes – one of which is to protect life and property from flooding – while also avoiding jeopardy to threatened fish species, is complicated. Progress under some of the RPAs has been slow, notably no permanent downstream passage structures are yet operating, while Upper Willamette Chinook and steelhead remain imperiled. Ten years after the BiOp was issued, a series of legal and regulatory processes began:

- In March 2018 conservation groups sued the Corps for ESA violations, alleging that the Corps was not implementing the BiOp and therefore operations were jeopardizing the survival of ESA-listed fish.

- In April 2018, the Corps reinitiated Section 7 consultation with NMFS to develop the next BiOp, in anticipation of the current BiOp's term ending in 2023.

- In 2018-19, the plaintiffs pursued injunctive relief, asking the District Court of Oregon to direct the Corps to immediately make feasible and achievable operational adjustments while the litigation proceeded and while working on the next BiOp.

- In April 2019, unrelated to the litigation, the Corps published a notice of intent to prepare an Environmental Impact Statement (EIS) under the National Environmental Policy Act (NEPA). The last time the Corps produced a relevant EIS on the Willamette Project was in the 1980s and operations have changed substantially in the intervening forty years. It is expected that a NEPA analysis of alternative operations and maintenance will help inform the next ESA consultation and BiOp.

- In August 2020, the court found the Corps to be in violation of the ESA on most of the grounds alleged in the 2018 case.

- In September 2021, the U.S. District Court for Oregon issued a final order on the 2019 injunction which listed a set of interim measures that the Corps, in coordination with BPA, BuRec, and USFWS, must do to "sufficiently mitigate irreparable harm" while it and NMFS prepare a new BiOp. Measures include: Expedited plans for fish passage and out plantings overseen by an expert panel; prioritizing dam operations such as increased spill and cool water discharges to benefit threatened fish except as necessary for managing public health and flood risk; and deep reservoir drawdowns at Detroit, Cougar, Fall Creek, and Lookout Point dams to aid fish passage (the judge provided a legal explanation of why the Corps does have legal authority to conduct deep drawdowns).

In this presentation, the Corps will provide a status update on its efforts to reduce mortality and harm to wild Upper Willamette spring Chinook and winter steelhead from the Willamette Project's operations and maintenance. They will share accomplishments under the 2008 BiOp; progress since the recent injunction order; and plans for the forthcoming NEPA and ESA consultations.

More Info:

2014 Columbia River Basin Fish and Wildlife Program and the 2020 Addendum, see page notes in "Relevance" section above.

U.S. Army Corps of Engineers Portland District webpage on the interim injunction and on the Willamette Valley Project

2004 Willamette Subbasin Plan

NOAA Fisheries, *Biological Opinion: Consultation on the "Willamette River Basin Flood Control Project"* (July 2008) https://www.fisheries.noaa.gov/resource/document/consultation-willamette-river-basin-flood-control-project

U.S. Fish and Wildlife Service, *Biological Opinion on the Continued Operation and Maintenance of the Willamette River Basin Project and Effects to Oregon Chub, Bull Trout, and Bull Trout Critical Habitat Designated Under the Endangered Species Act* (July 2008). https://usace.contentdm.oclc.org/digital/collection/p16021coll7/id/8227/