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May 31, 2017

### MEMORANDUM

**TO: Council members**

**FROM: Karl Weist**

**SUBJECT: Presentation on Willamette Biological Opinion, High Head Dam Passage and Flow Measures**

### BACKGROUND:

**Presenter:** Ian Chane, Columbia River Fish Mitigation Program Manager, US Army Corps of Engineers Portland District

**Summary:** In 2008, the US Fish and Wildlife Service and the National Marine Fisheries Service issued Biological Opinions to address ESA-listed populations of Oregon chub, bull trout, salmon and steelhead. Those BiOps feature upstream and downstream passage actions and actions designed to address downriver temperature effects from operation of the Willamette Valley Project.

**Relevance:** Actions taken under the Willamette Biological Opinions address Council strategies articulated in the 2014 Fish and Wildlife Program regarding anadromous fish mitigation in blocked areas and the use of hatcheries for reintroduction of salmon and steelhead stocks. Specifically, the actions taken under the BiOps address Fish and wildlife Program measure for reintroductions above projects in the Willamette River Basin – “The Corps and Bonneville should support and implement anadromous fish passage measures prioritized through the Willamette River Basin Biological Opinion.”

Background: The Willamette Valley Project consists of 13 federal dams developed to provide flood control, hydropower generation (power share purposes run from 23% at Cougar to 100% at Big Cliff), recreation, water quality, and irrigation benefits. Declines in populations of Willamette spring chinook and steelhead, along with resident bull trout and Oregon chub led to Endangered Species Act listings in 1993, 1998 and 1999. The 2008 Biological Opinion for the Willamette Basin Flood Control Project set forth a series of proposed actions with a Reasonable and Prudent Alternative to mitigate for the effects of the Willamette Valley Project upon those listed fish populations. Based upon many of the actions taken under the BiOp, the US Fish and Wildlife Service delisted Oregon chub on February 17, 2015. Oregon chub became the first delisted fish species due to recovery.

RPA's include both adult upstream and juvenile salmonid downstream passage. The BiOps set forth a series of actions to deal with downstream temperature effects, proscribed the development of hatchery genetics management plans for the continued production of hatchery fish in the Willamette basin, called for improved habitat for species below the projects, and established the Willamette Action Team for Ecosystem Restoration (WATER) to help oversee the implementation of the BiOp provisions.

The Corps created the Configuration/Operation Plan (COP) to help analyze and sequence the appropriate passage actions. Currently, most adult upstream passage actions have taken place or are in process. Juvenile passage alternatives are being studied by various WATER teams. Evaluations and designs should be in place in the near future, with construction to begin on certain juvenile passage facilities around 2020 and continuing through the term of the BiOps in 2023.

Ian Chane of the Corps will brief the Council on all these passage efforts and the plans for Willamette BiOp implementation.

More Info: Please see attached excerpt from the Executive Summary of the Configuration and Operations Plan Phase II Report, October 2015.

[http://www.nwp.usace.army.mil/Portals/24/docs/environment/biop/WillametteBiOp\\_Overview\\_FS.pdf](http://www.nwp.usace.army.mil/Portals/24/docs/environment/biop/WillametteBiOp_Overview_FS.pdf)

<https://www.salmonrecovery.gov/BiologicalOpinions/WillametteBiOp.aspx>

[http://www.westcoast.fisheries.noaa.gov/fish\\_passage/willamette\\_opinion/](http://www.westcoast.fisheries.noaa.gov/fish_passage/willamette_opinion/)

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