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October 1, 2024

MEMORANDUM

TO: Council Members

FROM: Maureen Hess, Kate Self, and Patty O'Toole

SUBJECT: Fish and Wildlife Program performance: Artificial Production categorical assessment

BACKGROUND:

Presenters: Maureen Hess, Kate Self, and Patty O'Toole

Summary: Staff will present excerpts from the second categorical assessment focused on implementation of the Columbia River Basin Fish and Wildlife Program's (Program) Artificial Production (AP) measures. This assessment covers major AP actions called for in the Program over the last 40 years and implementation of those actions. This overview of the Program's AP facilities and production programs will highlight how the Program fits within the broader landscape of the Basin's hatchery mitigation for dams and development impacts to fish, and how managers adaptively use best management practices to improve artificial production while working toward meeting mitigation and conservation objectives. We highlight examples from the Program that demonstrate how AP is critical to maintaining harvest opportunities, and preventing and/or restoring extirpation of fish populations. We include Program-scale observations and topics for the region to consider ahead of the next Program amendment process. This assessment, along with other categorical assessments, will provide critical information to the Council and region on the implementation and performance of the Program in anticipation of the upcoming Program amendment.

Relevance: Beginning with the first Program in 1982, every fish and wildlife Program has included references to aspects of Program performance. The 2020 Program addendum addresses Program performance through (1) reorganizing and compiling Program goals and objectives and (2) developing strategy performance indicators. Council staff are assessing Program performance through three complementary efforts: the first is the [Program Retrospective](#) (presentations in 2022 and 2023), the second is assessments of implementation by major category of work (Categorical Assessments), and the third is an evaluation of progress toward reaching Program Goals and Objectives.

Workplan: Item 4.3 Program Performance- Artificial Production Categorical Assessment

Background: The Northwest Power and Conservation Council's Columbia River Basin Fish and Wildlife Program represents a 40-year effort to mitigate the effects of the hydropower system on fish and wildlife in the Columbia Basin. The scope of and investment in this Program make it one of the largest fish and wildlife mitigation efforts in the world and a significant part of the tapestry of mitigation efforts in the Columbia Basin. There is limited precedent for assessing the performance of a program of this size. Given this scale, we developed an overall approach to manage the volume and complexity of information.

The performance assessment includes three complementary efforts- the Program Retrospective, assessments of Program implementation by major category of work (Categorical Assessments), and an evaluation of progress toward Program Goals and Objectives.

In 2024, staff released a retrospective of the Northwest Power and Conservation Council's Fish and Wildlife Program that included a review of the Program's history and key events. This historical context provided information on why different elements have been included in the Program over time, what kind of changes were expected to occur, where those changes could occur, and when they could occur. In preparing this retrospective, we went through a detailed process to assemble the full set of measures called for across 40 years of Programs. These were organized by topic so that we could determine how the Program has changed over time and when different topics came to prominence, along with identifying major topics in each Program. Staff presented on the Retrospective in 2022 and 2023 and it was a one-time review of past Programs.

The categorical assessments provide more detailed information on implementation of the major topics identified in the retrospective. These are organized according to four main *categories* in the Program:

Hydrosystem, Habitat, Artificial production, and Program Adaptive Management. For 2024, we will present a summary of the first three categories. In each assessment, we describe (1) what was called for in the Program, (2) what was implemented, and (3) how implementation compares to available benchmarks. These assessments incorporate content from existing summaries (e.g., the Program Tracker with Strategy Performance Indicators, published research or reports, and dashboards on particular topics) and also include new summaries from a variety of information sources. Strategy Performance Indicators are updated annually on Program Tracker, and categorical assessments will be updated prior to Program amendments, approximately every five years.

The third piece of program performance is evaluating progress toward the goals and objectives described in the 2020 addendum. The status and trends of these goals and objectives will be presented in December 2024 and will be available on the Council's expanded Program Tracker web tool at that time. Evaluating progress relies on multiple sources of data, including the SPIs. Goals and objectives will be updated annually on Program Tracker.

In this inaugural Artificial Production categorical assessment, over 90 Program actions were reviewed following the approach described above. For this presentation, we selected a subset of actions that include emphasis on hatchery production for upriver interior-basin Salmon and Steelhead, producing fish to support harvest and conservation, resident fish substitution programs in blocked areas, and native fish conservation efforts. This overview of the Program's AP facilities and production programs will highlight how the Program fits within the broader landscape of the Basin's hatchery mitigation for dams and development impacts to fish, and how managers adaptively use best management practices to improve artificial production while working toward meeting mitigation and conservation objectives. We highlight examples from the Program that demonstrate how AP is critical to maintaining harvest opportunities, and preventing and/or restoring extirpation of fish populations. We include Program-scale observations and issues or challenges for the region to consider ahead of the next Program amendment process.

Staff will release supplementary documentation on the Artificial Production assessment prior to the call for recommendations to amend the Fish and Wildlife Program. The staff considers this work to be iterative and welcomes feedback even as this particular category of work wraps up for 2024 in order to assess implementation of other categories before the start of the amendment process. In future years, assessments will build off the framework developed this year and will include additional measures, expanded documentation, and further opportunities for feedback.

Collectively, the retrospective, categorical assessments, and status and trends assessment will provide critical information to the Council and

region on the Fish and Wildlife Program and serve as an educational resource leading up to the next Program amendment.

More Info: <https://www.nwcouncil.org/fish-and-wildlife/hatcheries/>

Highlights from the first categorical assessment focused on the Hydrosystem were presented to the Council in October 2023 and September 2024. The slides and presentations are available here:

https://www.nwcouncil.org/fs/18487/2023_10_f4.pdf

<https://vimeo.com/874878458#t=143m59s>

Link to September 2024

The full presentations on the Program Retrospective were delivered to the Fish and Wildlife Committee in 2022 and the full Council in 2023. Those presentations are available here:

August 2022: https://www.nwcouncil.org/fs/17876/2022_08_f1.pdf

September 2022: https://www.nwcouncil.org/fs/18031/2022_09_f2.pdf

May 2023: https://www.nwcouncil.org/fs/18305/2023_05_1.pdf

The retrospective is available on the Council's website here:

<https://www.nwcouncil.org/fs/18802/retrospective.pdf>