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December 6, 2022

MEMORANDUM

TO: Council Members

FROM: Patty O'Toole, Fish and Wildlife Division Director

SUBJECT: Overview and Update of Syilx (Sockeye) Salmon Restoration in the Okanagan Basin

BACKGROUND:

Presenter: Casey Baldwin, Sr. Research Scientist, Colville Confederated Tribes
Chris Fisher, Principal Biologist, Colville Confederated Tribes
Ryan Benson, Fisheries Biologist and Skaha Lake Sockeye Reintroduction Program Coordinator, Okanagan Nation Alliance, Fisheries Department

Summary: The Council will hear a presentation on Okanagan Basin sockeye salmon from representatives of the Colville Confederated Tribes and the Okanagan Nation Alliance. The presentation will include an overview and update on restoration activities.

Relevance: Efforts to restore Okanagan basin sockeye are showing promising results against a backdrop of caution regarding changing climate conditions.

Workplan: Program Planning and Policy: A. Coordination of regional information.

Background:

The Columbia River sockeye population, of which the Okanogan stock is a part, may have numbered more than 4 million fish around the end of the 20th century (Fryer, 1995). Only the Okanogan stock and the Wenatchee stock in Washington State remain from the many sockeye populations which existed in the Columbia River Basin historically.

A transboundary multi-agency workshop occurred in November of 1997 to discuss the potential risks and benefits of reintroducing sockeye salmon into Okanogan Lake. These discussions were summarized into a Draft Action Plan that recommended that sockeye be re-introduced to Skaha Lake as an experimental management strategy to resolve some of these uncertainties (Peters et al. 1998).

The Council has recommended funding for projects associated with Okanogan River sockeye salmon. One project was an assessment of the risks associated with disease and exotic species passage, as well as an assessment of habitat potential. The other project was to support passage efforts at McIntyre Dam.

Beginning in 2000, the Colville Tribes in a joint effort with the Okanogan Nation Alliance (ONA), submitted a project proposal (Project #2000-013-00, Evaluate an Experimental Re-introduction of Sockeye Salmon into Skaha Lake) to the Council and Bonneville Power Administration. This project successfully secured funds and evaluated the risks associated with extending the range of anadromous salmonids, specifically sockeye, into their historical habitat in Skaha Lake. The assessment concluded that risks associated with extending the range of sockeye salmon were nominal, and that sockeye reintroduction into Skaha Lake should be pursued in an adaptive management experiment.

In the spring of 2004, fry were released into Skaha Lake beginning the process of reintroducing sockeye into their historic range. Consequently, fisheries managers have agreed that passage by anadromous fish at McIntyre Dam (downstream of Skaha Lake) should be pursued, allowing adult of sockeye salmon, Chinook salmon and steelhead to migrate in the Okanogan River, to the outlet dam at Skaha Lake. In 2006, the NPCC recommended funding for a project to investigate several fish passage options, including laddering, bypassing, or removal of McIntyre Dam (Project #2006-001-00, *McIntyre Dam – Feasibility study*). A 2006 Review by the ISRP found the Skaha Lake work “..important and... should be given highest possible priority for funding as the project will likely have highly significant benefits to fish and wildlife that will persist.”

In 2008 the Council supported a project sponsored the Columbia River Intertribal Fish Commission intended to understand the factors limiting production of Okanogan and Wenatchee sockeye salmon stocks¹.

Today funding for restoration is largely from Grant, Chelan, and Douglas Public Utility Districts, along with the Canadian Department of Ocean and Fisheries, and occasionally others.

At the December Council meeting, Council members will hear a presentation on Okanogan Basin sockeye salmon from representatives of the Colville Confederated Tribes and the Okanangan Nation Alliance. The presentation will include an overview and update on restoration activities.

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

¹ Project #2008-503-00, *Studies into Factors Limiting the Abundance of Okanogan and Wenatchee Sockeye Salmon*