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April 5, 2022

MEMORANDUM

TO: Council Members

FROM: Patty O'Toole

SUBJECT: Presentation by federal agencies regarding the Upper Columbia blocked area

BACKGROUND:

Presenter: Roland Springer, Bureau of Reclamation

Panelists: Michael Langeslay, Corps of Engineers; Ben Zelinsky, Bonneville; Michael Tehan, NOAA Fisheries and Judith Gordon, USFWS.

Summary: The Council will hear from the Bureau of Reclamation, Corps of Engineers, Bonneville Power Administration, NOAA Fisheries and US Fish and Wildlife Service on their work on blocked area issues over the last several years.

Relevance: The Council's Program calls for a science-based, phased approach to investigating the reintroduction of anadromous fish above Chief Joseph and Grand Coulee dams.

Workplan: Program Planning and Policy, A- Coordination; Program Implementation: H-Implementation of 2014 Program and 2020 Addendum including Council Priorities

Background: A call for an investigation of the feasibility of anadromous fish passage above Chief Joseph and Grand Coulee dams has been included in

Council fish and wildlife programs since the [2003 Mainstem Amendments to the Columbia River Basin Fish and Wildlife Program](#). The 2014 Fish and Wildlife Program contains the strategy '[Anadromous fish mitigation in blocked areas](#).' One of the measures under this strategy calls for a science-based and phased approach to investigating the reintroduction of anadromous fish above Chief Joseph and Grand Coulee dams. The Council identified this work as a priority for implementation in its 2014 Program and its 2020 Addendum.

Bonneville, the Corps of Engineers, and the Bureau of Reclamation all have legal obligations to the Council's Columbia River Basin Fish and Wildlife Program under the Northwest Power Act. Bonneville is to use its fund and authorities to protect, mitigate and enhance fish and wildlife affected by the hydropower system "in a manner consistent with" the Council's program (4h10A). All three action agencies along with FERC are to exercise their responsibilities in managing or regulating the hydropower facilities while "taking into account [the fish and wildlife program] at each relevant stage of decisionmaking processes to the fullest extent practicable" (4h11Aii).

Representatives of the federal agencies will provide the Council an update on their related activities in the region. At the April Council meeting the agencies will:

- Provide an overview of the blocked area, including location, fish stocks, and history of development
- Identify and discuss federal facilities associated with the blocked area
- Briefly discuss ESA, fisheries, and other FWS authorities relative to the blocked area
- Describe federal agency mitigation associated with the blocked area
- Describe establishment of UC BAAF working group and associated activities
- Describe other activities related to the blocked area

Additional related information:

November Council briefing [memo](#)

Upper Columbia Blocked Area

Federal Agencies Presentation to the
Northwest Power and
Conservation Council

April 13, 2022



Agenda

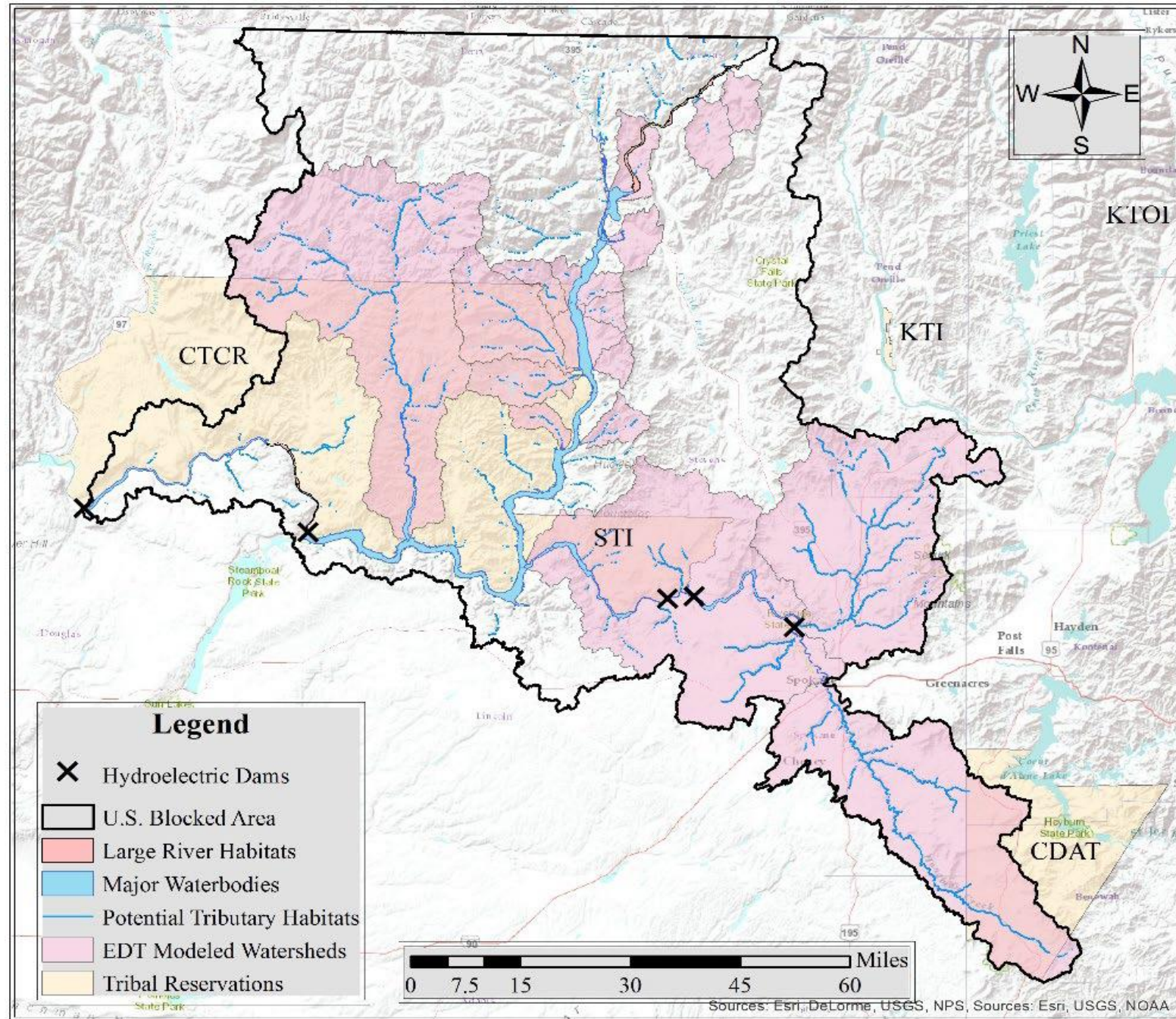
- Blocked area overview
- Facilities
- Fisheries
- Mitigation
- Current activities



Blocked Area Overview

Upper Columbia Fish Stocks

- Spring Chinook – endangered
- Summer Chinook – unlisted
- Fall Chinook – unlisted
- Coho – extirpated
- Sockeye – unlisted
- Steelhead – threatened
- Bull Trout - threatened



History of development in the blocked area

- 1880-1890s – Commercial fisheries and canneries deplete runs
- 1910 – Little Falls Dam (non-federal) blocks Spokane River at mile 29
- 1941 – Grand Coulee Dam – built knowing it would eliminate 20,000-25,000 annual adult salmon returns
- 1958 – Chief Joseph Dam

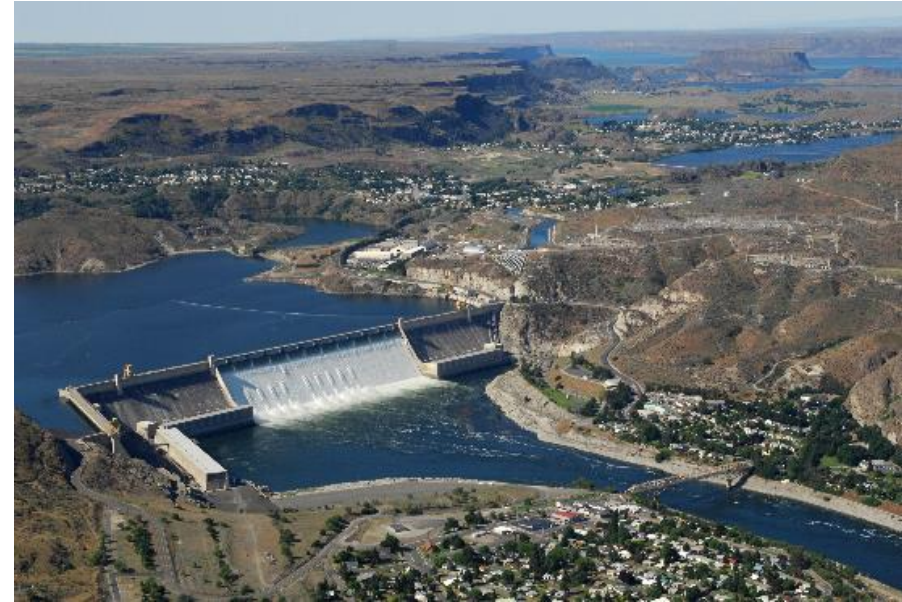


*The Little Falls Dam, finished in 1910, was constructed on an important Indian fishing site.
(Photo and caption from The Spokesman-Review)*

Grand Coulee Dam



- Constructed from 1933 through 1941
- Operations for:
 - Flood risk management
 - Power generation (24 generators)
 - Irrigation/water supply
 - ESA-listed anadromous fish
 - Resident fish
 - Recreation (Lake Roosevelt NRA)
- 550 ft high, 5,223 ft long
- ~151-mile-long reservoir
- Active storage (5.35 million acre-feet)
- Diversion structure for the Columbia Basin Project
 - 1.029 million acres authorized
 - Current delivery to 720,000 acres
- Provides majority of US storage for flood risk in the Columbia





Chief Joseph Dam



- Authorized in 1946 for hydropower and in 1952 for recreation
- Construction completion
 - 1955 units 1-8
 - 1958 units 9-16
 - 1979 units 17-27
- 236-ft-high, 5,962-ft-long run-of-river dam
- Lake Rufus Woods, 51 miles long
- Recreation – hunting, fishing, boating, swimming, camping



Carbon-free power and transmission considerations – Grand Coulee & Chief Joseph dams

- 45% of installed capacity on the Columbia River System (9,693 megawatts)
- 47% (on average) of the Columbia River System generation
- 3,800 average megawatts (sufficient for about 2.8 million homes)
- Help maintain grid stability
- Carbon-free power to fight climate change

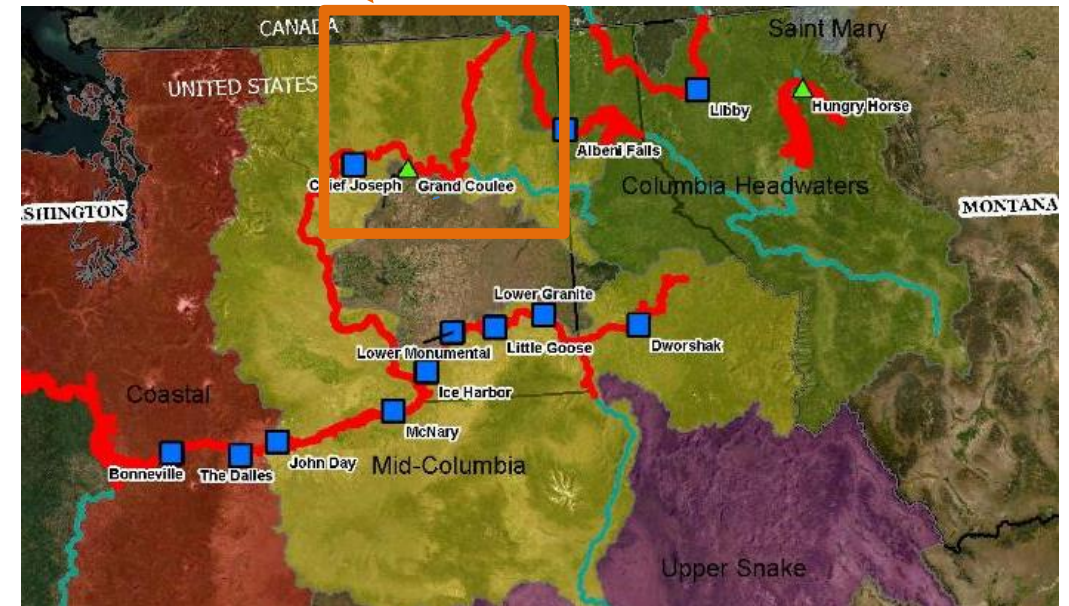


Endangered Species Act Implications



- Currently no ESA-listed Pacific salmon in blocked area
 - Upper Columbia United Tribes Phase 2 Implementation Plan efforts focused on non-listed salmon
 - Potential future NOAA ESA Section 7 consultation
- Bull Trout – threatened in blocked area
 - 2015 recovery plan
 - Rare in blocked area
- FWS other authorities - migratory birds, refuges, hatcheries

Bull Trout Research Needs Area



Columbia Basin Partnership Adult Abundance Goals for the Upper Columbia

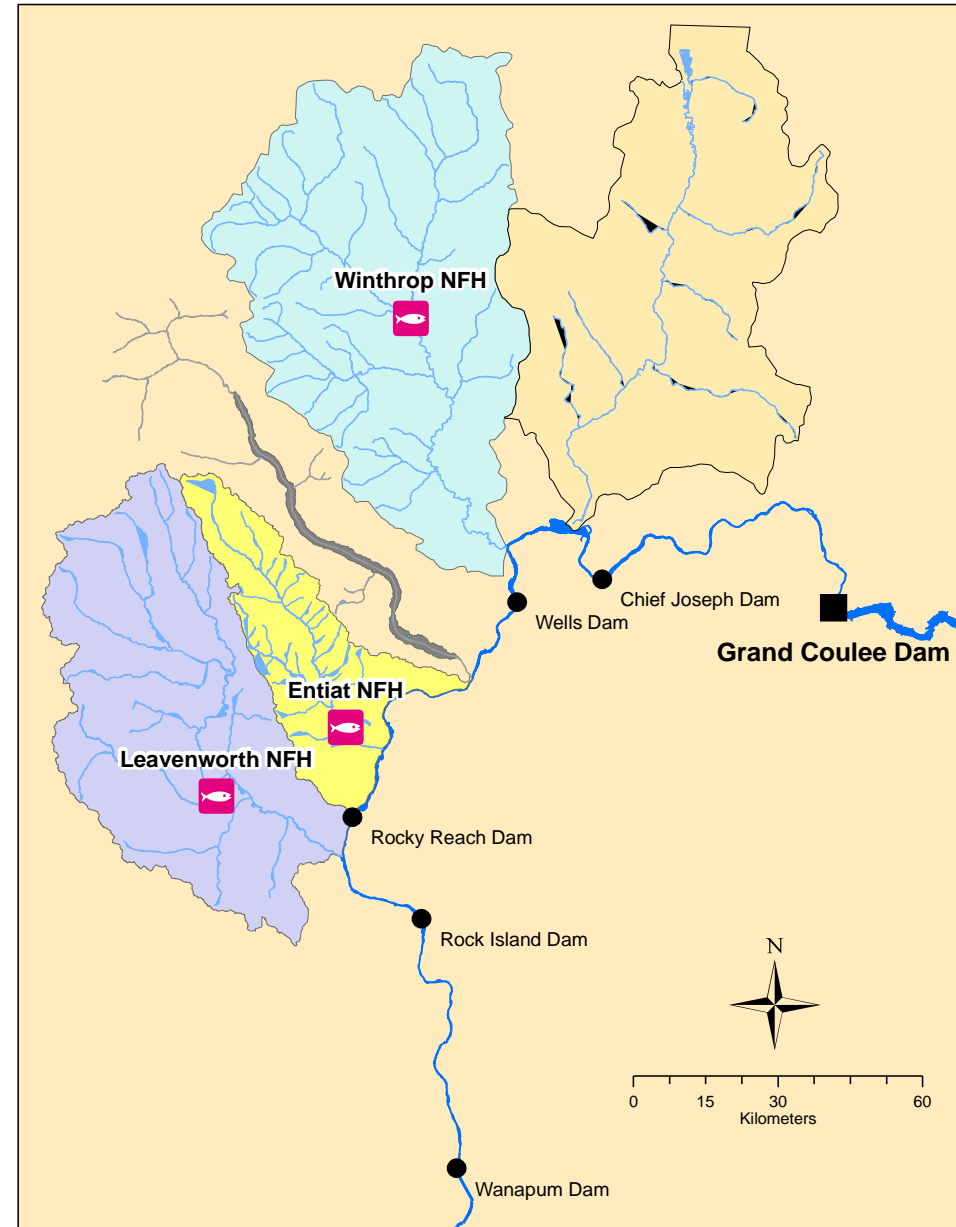


Stock	Current	Historical	Low goal	Medium goal	High goal	High as % of historical
Spring Chinook	1,430	259,450	11,500	19,840	30,135	12%
Summer Chinook	16,920	733,500	9,000	78,350	131,300	18%
Fall Chinook	92,400	680,000	9,200	62,215	87,835	13%
Coho	392	44,500	7,500	15,000	26,000	58%
Sockeye	79,511	1,800,000	31,500	580,000	1,235,000	69%
Steelhead	1,480	1,121,400	7,500	31,000	47,000	4%

Surplus Fish from National Fish Hatcheries for Releases



- Leavenworth, Entiat, and Winthrop National Fish Hatcheries constructed for Grand Coulee mitigation
- US v. OR production agreement
- Annually provide surplus production for tribal uses
 - Fertilized eggs/juveniles for release
 - Adults for broodstock support, ceremonial, subsistence, and educational purposes



Bonneville Fish and Wildlife Program

Mitigation in the Blocked Area



Resident fish

- Conservation and supplementation hatchery programs
- Support efforts to mitigate effects of invasive Northern Pike on native resident fish
- Habitat restoration, including culvert replacement

Wildlife

- Approximately 225,000 acres of wildlife habitat protected or enhanced
- Funding for ongoing maintenance of wildlife habitat

Chief Joseph Hatchery

- Construction and annual operation funding for Colville Tribes' Chinook production to enhance populations in Okanogan and Columbia rivers



Corps and Reclamation Mitigation

- Corps provides \$948K O&M funds annually
 - Habitat mitigation program
 - BPA directly funds O&M
- BPA directly funds Reclamation for Leavenworth Fishery Complex
 - Leavenworth, Entiat, and Winthrop National Fish Hatcheries
 - Improvements at Leavenworth NFH



Upper Columbia Blocked Area Anadromous Fish (BAAF) Working Group

- Established Fall 2020
- Collaborative effort among sovereigns (Tribes, States, Federal Agencies)
- Quarterly plenary meetings, more frequent sub-group meetings
- Sub-groups
 - Studies and Actions Team
 - Implementation Strategies and Principles Team
 - Communications Team
- Current focuses on communication, planning and implementing UCUT studies
- Opportunities and risks
- Related efforts



*A delegation of upper Columbia tribal members views the nearly completed Grand Coulee Dam.
Photo: UCUT Tribes, posted on the Northwest Power and Conservation Council website.*



Questions?