

**REVIEW OF APPLICATION FOR LIHI CERTIFICATION
OF THE WELLS DAM PROJECT, FERC No. 2149**



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August 15, 2024**

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I. INTRODUCTION

Public Utility District No. 1 of Douglas County (Douglas PUD) owns and operates the Wells Dam Project (Wells Project or the Project) on the Columbia River in Washington. The Project's total installed generating capacity is 843.6 megawatts (MW). Based on records from 1991 to 2022, the Project generates an average annual generation of 4,262,714 megawatt-hours (MWh) of renewable electric energy. The power from the Project serves 17,000 customer-owners with reliable power and will also be used to produce green hydrogen in late 2024.¹

Douglas PUD is applying for LIHI certification to participate in Washington State's Renewable Portfolio Standard program, participate in the voluntary Renewable Energy Certificate (REC) market (e.g., Green-e), and satisfy direct energy buyers' purchasing requirements.

The Federal Energy Regulatory Commission (FERC) relicensed the Wells Dam Project, No. 2149, on November 9, 2012, for 40 years. Before that, the Federal Power Commission, FERC's predecessor, issued the original project license for 50 years on July 12, 1962. The Wells Project and the downstream Priest Rapids and Rocky Reach project licenses expire in 2052.

Before issuing the current Project license, FERC prepared an environmental impact statement for the Project in 2006 pursuant to the National Environmental Policy Act (NEPA). Douglas PUD also entered into a comprehensive settlement agreement (Settlement Agreement) with federal and state resource agencies, Tribes, and other stakeholders. FERC approved and incorporated the comprehensive settlement into the current license. FERC also included conditions necessary to protect water quality required by the state of Washington pursuant to Section 401 of the Clean Water Act (CWA).

FERC required the Douglas PUD to implement a Habitat Conservation Plan for Anadromous Fish (HCP) in the new license. The HCP is an adaptive management plan² that is very important because it commits Douglas PUD to a 50-year program to ensure that the Wells Project has no net impact on mid-Columbia salmon and steelhead runs. The HCP also constitutes the parties'³ terms, conditions, and recommendations for Plan Species under Sections 10(a), 10(j), and 18 of the Federal Power Act; the Fish and Wildlife Conservation Act; the Essential Fish Habitat provisions of the Magnuson-Stevens Fishery Conservation and Management Act; the Pacific Northwest Electric Power Planning and Conservation Act; and Title

¹ See <https://bit.ly/3Ws3Fu1>, using well water for electrolysis not river water.

² See HCP introduction at <https://bit.ly/3Aa3qv3>

³ Parties include NMFS, USFWS, WDFW, the Confederated Tribes of the Colville Reservation, the Confederated Tribes and Bands of the Yakama Nation, Douglas PUD, and the Wells Project Power Purchasers (Puget Sound Energy, Portland General Electric, PacifiCorp and Avista Corporation)

77 RCW of the State of Washington. Finally, FERC considered the HCP a comprehensive plan under Section 10(a)(2)(A) of the Federal Power Act.⁴

The Project's new FERC license requires Douglas PUD to implement measures to protect and enhance the Project's water quality, fish, wildlife, cultural, and recreation resources. These measures include:

- 1) Protecting and enhancing Columbia River salmon and steelhead trout populations by continuing to implement the Wells HCP,
- 2) Implementing the Aquatic Settlement Agreement's White Sturgeon, Bull Trout, Pacific Lamprey, Resident Fish, Aquatic Nuisance Species, and Water Quality Management Plans,
- 3) Implementation of a Wildlife and Botanical Management Plan, and
- 4) Implement Avian Protection, Historic Properties and Cultural Resources, Recreation Management, and Land Management plans.
- 5) Implement the Colville Settlement Agreement, which compensates the Colville Tribe for past, present, and future use of tribal lands within the Project boundary (see Section VI.G) including providing a 5.5% slice of generation output from the Wells Project and marketing and resale services, as directed by the CCT, for its share of Wells Project output. Proceeds from these power sales go directly to the CCT.

Further details are discussed under the FERC Licensing Requirements section below.

As discussed in detail in this review, Douglas PUD's implementation of the Wells Project HCP is designed to achieve "no net impact" on upstream and downstream fish passage of threatened and endangered salmonids at the project dam (NOAA Fisheries 2003).

Douglas PUD also has a number of contractual agreements with the Confederated Tribes of the Colville Reservation (CCT) developed during relicensing. There is a cost-sharing agreement for the operation and maintenance of CCT's Chief Joseph Hatchery. The District provides funding for hatchery and in exchange the CCT rears and releases Chinook salmon smolts, as mitigation, on behalf of Douglas PUD. The PUD also has a cost-sharing contract with the CCT for the capture and delivery of juvenile sturgeon. Douglas PUD rears and releases these fish back into the Wells Reservoir as part of the White Sturgeon restoration program. Excess fish are provided back to the CCT for use in their regional restoration efforts. The PUD and CCT have a Facility Use Agreement whereby the CCT are able to use the PUD's hatchery and fish collection facilities in order to support tribal salmon restoration activities upstream of Wells Dam and including the areas upstream of Chief Joseph and Grand Coulee dams.

⁴ See section 5.5 of the Final Environmental Impact Statement for Wells Project issued in October 2011.

Although not required by the FERC license and water quality certificate, Douglas PUD has and continues to voluntarily rear and provide live adult salmon to members of the Upper Columbia United Tribes (UCUT)⁵ for release in the Upper Columbia River Basin for educational and cultural purposes.

II. PROJECT GEOGRAPHIC LOCATION

The Wells Project is located on the Columbia River at river mile (RM) 515.6 near the cities of Pateros and Brewster in Douglas, Okanogan, and Chelan counties, Washington. The Project occupies 9,740 acres of water and 2,664 acres of land of which 1,035 acres are within the boundary of the Confederated Tribes of the Colville Reservation but owned by Douglas PUD, 8.60 acres are administered by the U.S. Department of the Interior (Interior) and 6.55 acres are administered by the U.S. Army Corps of Engineers (Corps). A portion of the reservoir is located within the boundary of the Colville Indian Reservation. The Wells Project is located in the Mid-Columbia River, which has undergone extensive hydropower development by the federal government and non-federal owners since the 1930s (Figure 1). Proceeding downstream from the Canadian-U.S. border, the first two dams on the Columbia River are Grand Coulee and Chief Joseph, at river mile (RM) 596.6 and RM 545.1, respectively. Both of these dams are federally owned and operated.

The Wells Project is integral to the seven-dam mid-Columbia River hydroelectric system. The next five dams downstream are all non-federal projects under FERC license:

1. 843.6 MW Wells Project No. 2149 at RM 515.6;
2. 866-MW Rocky Reach Project No. 2145 at RM 473.7;
3. 623-MW Rock Island Project No. 943 at RM 453.4; and
4. 1,893-MW Priest Rapids Project No. 2114, which includes the Wanapum Dam at RM 415.8 and Priest Rapids Dam at RM 397.1.

⁵ The UCUT member tribes include the Coeur d'Alene, Colville, Kalispel, Kootenai, and Spokane tribes. See <https://ucut.org/>

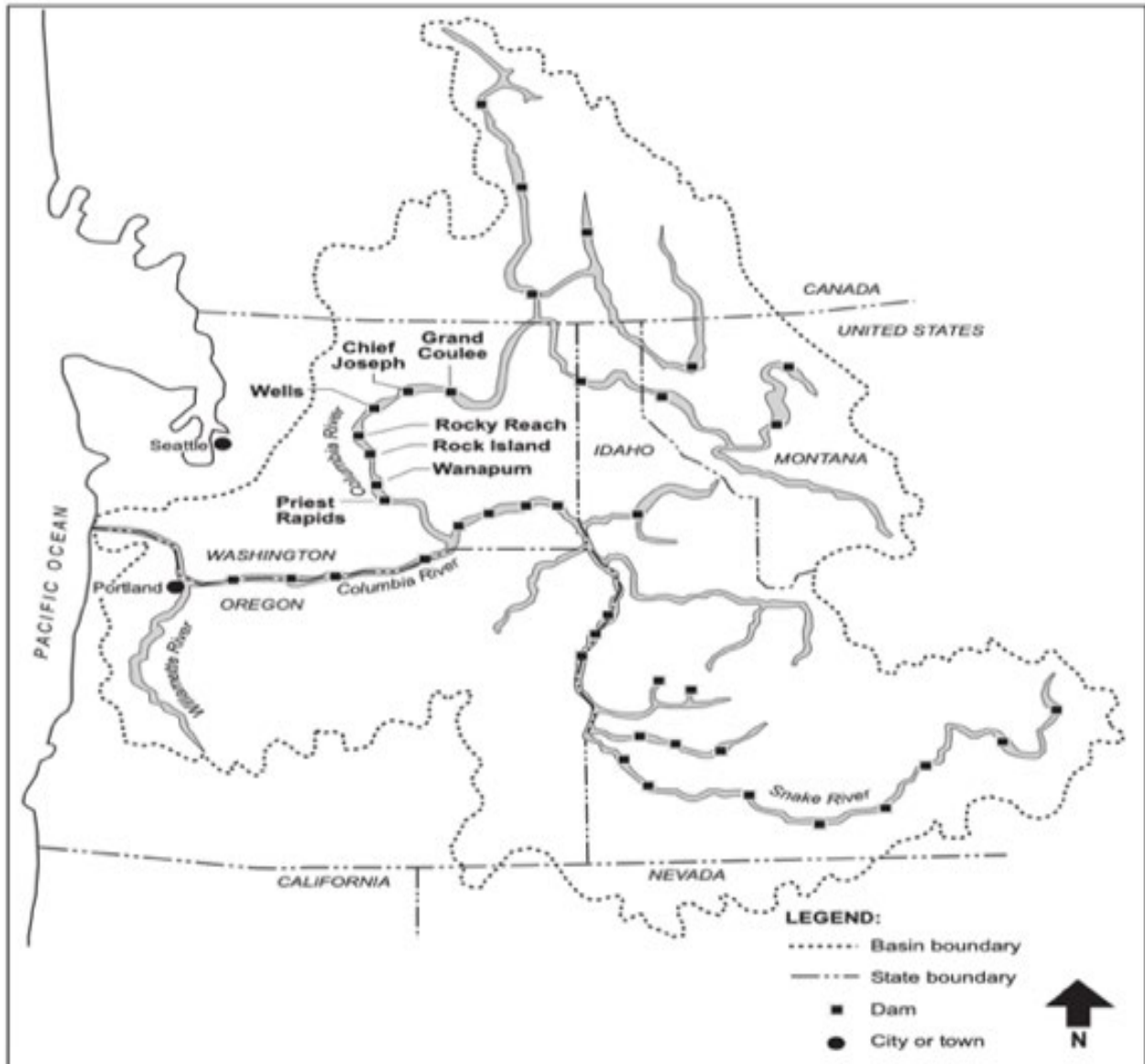


Figure 1. Location of the Wells Dam Project in the Mid-Columbia River Basin

III. PROJECT SITE CHARACTERISTICS

The Wells Project consists of a dam, reservoir, tailrace, switchyard, and upstream and downstream fish passage facilities collectively called a hydrocombine (Figure 2).⁶ The dam is 1,165-foot-long and 160-foot-high with ten vertical Kaplan turbines, generators, and 11 spillways.

⁶ The hydrocombine is a unique design incorporating all these features in one unit instead of in separate structures.



Figure 2. Important Features of the Wells Hydroelectric Dam Hydrocombine

Other project facilities include a 41.8-mile-long high-voltage transmission line, a fish hatchery, and numerous recreational facilities.

At elevation 781 feet above mean sea level (msl), the 20-mile-long Project reservoir, Lake Pateros, has a surface area of 9,740 acres, a gross storage capacity of 331,200 acre-feet, and a useable storage of 97,985 acre-feet (Figure 3). Each of the 10 Kaplan turbines has a hydraulic discharge ranging from 13,000 (minimum load) to 22,000 cubic feet per second (cfs) (total hydraulic capacity). Each spillway is 46 feet wide, with the spill controlled by a 66-foot-high gate. Each Kaplan unit has 15 trash racks, each with 5.25-inch clear spacing.

In 2007, Douglas PUD implemented a Turbine Runner Refurbishment and Generator Upgrade Project (Upgrade Project) that they expect to complete in 2027. Six of the ten generating units have been refurbished and have a new nameplate capacity of 89 MW. Each of the remaining four units has a nameplate capacity of 77.4 MW. On January 13, 2023, FERC issued an order approving the generator nameplate capacity changes (upgrades) associated with the Upgrade Project.

The fish passage facilities include two upstream fish ladders and a downstream juvenile bypass system. One fish ladder is located at each end of the hydrocombine. Each ladder consists of a pump system that provides attraction flows to the ladder entrance, a counting station, a fish trap and sorting facility, and Passive Integrated Transponder (PIT) tag detection equipment.



Figure 3. Wells Project Reservoir looking upstream

The downstream juvenile bypass system consists of fabricated steel barriers seasonally inserted into spillway bay numbers 2, 4, 6, 8, and 10. The steel barriers are 72 feet high and block all but a 72-foot-high by 16-foot-wide vertical slot through each spillway entrance. The barriers are designed to collapse when the spillway gates are opened more than six feet. The Project also includes the Wells Hatchery, located on the downstream side of the west abutment of the Wells Dam.

The switchyard, located on top of the hydrocombine section, is connected to two single-circuit, 230-kilovolt (kV) transmission lines that extend about 41 miles to the Douglas switchyard, operated by Douglas PUD, where it interconnects with the electric grid (Figure 4).



Figure 4. 230-kV transmission lines of the Wells Project

The Project's FERC boundary includes about 2,664 acres of land and generally follows the 781-foot-msl elevation contour line along the Lake Pateros Reservoir. It comprises the project dam, powerhouse, tailrace area, transmission lines, fish passage facilities, the Wells Hatchery, wildlife management areas, and recreational facilities.

IV. REGULATORY AND COMPLIANCE STATUS

Douglas PUD has operated the Project in accordance with the terms of the State of Washington's 2012 water quality certificate and FERC license. Based on FERC's annual reviews, the Project remains in compliance.

A. Water Quality Certificate

On February 27, 2012, the Washington Department of Ecology (WDOE) issued a water quality certificate (WQC) in Order 8981⁷ for the Project pursuant to Section 401 of the Clean Water Act (CWA). FERC attached WQC conditions in Appendix A of the license. On May 15, 2024, Douglas PUD provided correspondence from the WDOE confirming that the WQC issued in 2012 for the Wells Project is still valid (See Appendix A).

B. FERC Licensing Requirements

The FERC license⁸ for the Wells Project includes special articles intended to restore, protect, and enhance natural resources and improve public access and recreation. These articles, summarized below, enforce conditions in WDOE's water quality certificate and the terms of the Aquatic Settlement Agreement. Article 202 of the FERC license also requires Douglas PUD, the licensee, to compensate the Confederated Tribes of the Colville Reservation for the taking and use of tribal lands and waters by the Project reservoir pursuant to the Colville Settlement Agreement and the Colville Power Sales Contract.

Article 202. *Compensation for the Confederated Tribes of the Colville Reservation.* The license required compensating the Confederated Tribes of the Colville Reservation pursuant to the terms of the Colville Settlement Agreement and the Colville Power Sales Contract, dated August 18, 2004, between Douglas County Public Utility District No. 1 and the Confederated Tribes of the Colville Reservation, filed with the Commission November 23, 2004.

Article 401 – *Commission Approval and Filing of Amendments.* The licensee was required to prepare plans, reports and file an amendment application with FERC after consultation with agencies on WDOE's water quality certification, U.S. Department of the Interior's (DOI's) section 18 fishway prescriptions, and National Marine Fisheries Service's (NMFS) incidental take statement terms and conditions. These plans and reports were submitted and approved by FERC.

Article 402 – *Bull Trout Evaluations.* The licensee was required to file for FERC approval a study plan and schedule for evaluating Bull Trout pursuant to the Aquatic Settlement Agreement to

⁷ Water Quality Certificate Letter- see <https://bit.ly/4d2QrJq>

⁸ November 9, 2012 FERC License Order- see <https://bit.ly/3LQn5CR>

include fish stranding and incidental take monitoring studies at the Wells Hatchery pursuant to the Aquatic Settlement Agreement.

Article 403 – *Notification of Deviations from Operating Requirements*. Project operations may be temporarily modified if required by operating emergencies beyond the licensee's control, or if necessary to protect water quality or aquatic resources at the Project. If Project operations are so modified, the licensee shall notify FERC as soon as possible but no later than 48 hours after the incident.

Article 404 – *Wells Hatchery Upper Columbia River Steelhead Hatchery Genetic Management Plan*. The licensee was required to prepare a Wells Hatchery Upper Columbia River Steelhead Hatchery Genetic Management Plan to address the effects of the Wells Hatchery steelhead program on Endangered Species listed salmon and steelhead.

Article 405 – *Aquatic Nuisance Species Management Plan*. The licensee was required to prepare an Aquatic Nuisance Species Management Plan.

Article 406 – *Aquatic Settlement Agreement Annual Report*. The licensee shall annually file, by May 31 of each year following license issuance, a report that documents the results of studies and the measures completed during the previous calendar year pursuant to the May 27, 2010, Aquatic Settlement Agreement's White Sturgeon Management, Bull Trout Management, Pacific Lamprey Management, Resident Fish Management, Aquatic Nuisance Species Management, and Water Quality Management Plans.

Article 407 – *Reservation of Authority to Prescribe Fishways*. Authority is reserved to the FERC to require the licensee to construct, operate, and maintain or provide for the construction, operation, and maintenance of such fishways as may be prescribed by the Secretaries of Commerce or of the Interior pursuant to section 18 of the Federal Power Act.

Article 408 – *Columbia River Basin Fish and Wildlife Program*. FERC reserves the authority to order, upon its own motion or upon the recommendation of federal and state fish and wildlife agencies, affected Indian Tribes, or the Northwest Power and Conservation Council, alterations of Project structures and operations to take into account to the fullest extent practicable the regional fish and wildlife program developed and amended pursuant to the Pacific Northwest Electric Power Planning and Conservation Act.

Article 409 – *Wildlife and Botanical Management Plan*. The licensee shall implement the Wildlife and Botanical Management Plan filed May 27, 2010, as Appendix E-3 of Exhibit E of the final license application.

Article 410 – *Programmatic Agreement and Historic Properties Management Plan*. The licensee shall implement the Programmatic Agreement Among FERC, Washington State Historic Preservation Officer, and the Confederated Tribes of the Colville Reservation Tribal Historic Preservation Officer for Managing Historic Properties.

Article 411 – *Recreation Management Plan*. The licensee shall implement the Recreation Management Plan filed May 27, 2010, as Appendix E-5 of Exhibit E of the final license application, with the following addition to section 5.1.3, *Boat-in Tent Camping and Signage*.

Article 412 – *Project Land Use Policy*. Upon license issuance, the licensee shall implement the Land Use Policy included in Appendix E-13 of Exhibit E. If changes to the Land Use Policy are proposed in the future, the licensee shall develop a revised plan in consultation with the National Marine Fisheries Service; U.S. Fish and Wildlife Service; Washington Department of Fish and Wildlife; Washington Department of Ecology; Washington State Historic Preservation Officer (Washington SHPO), the Confederated Tribes of the Colville Reservation; the Confederated Tribes and Bands of the Yakama Nation; U.S. Bureau of Indian Affairs; U.S. Bureau of Land Management; National Park Service; Washington State Parks and Recreation Commission; Washington State Recreation and Conservation Office; Washington Department of Transportation; cities of Brewster, Bridgeport, and Pateros; Port of Chelan County; Friends of Fort Okanogan; Okanogan Historical Society; U.S. Department of the Interior; and Okanogan and Douglas counties; and file the revised Douglas PUD Land Use Policy or addendum for Commission approval, and

Article 413 – *Use and Occupancy*. (a) In accordance with the provisions of this article, the licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain types of use and occupancy without prior Commission approval.

A. Comment Letters

On May 28, 2024, LIHI issued a notice on their website and via their email list that the public comment period for the application for certification of the Wells Dam Project had been opened. The notice stated, "LIHI is seeking comment on this application. Comments that are directly tied to specific LIHI criteria (flows, water quality, fish passage, etc.) will be most helpful," but all comments will be considered. The deadline for comments was July 27, 2024. One [comment email](#) was received from the CCT which noted the Tribe's overall good relationship with Douglas PUD but expressed concerns over the lack of the PUD's acknowledgement in the application of impacts to the Tribe and tribal lands from the original Project construction and inundation, and the ongoing effects of Project operations on those tribal lands (see Section VI.G).

V. ZONES OF EFFECT (ZoEs)

The Project has been divided into three ZoEs:

1. Impoundment ZoE 1, also known as Lake Pateros, extends upstream of Wells Dam to the Chief Joseph Dam (Figure 5),
2. Downstream Reach ZoE 2 extends to where the Chelan River feeds into the Columbia River (Figure 5) and
3. ZoE 3 includes the 41.8-mile-long 230-kV transmission line corridor (Figure 6). LIHI typically does not include transmission lines as a separate ZoE. The Wells project is part of a vertically integrated utility, the transmission line is quite long, and several management plans are in place that are related to the LIHI criteria. This makes it reasonable to include the transmission line in the review.

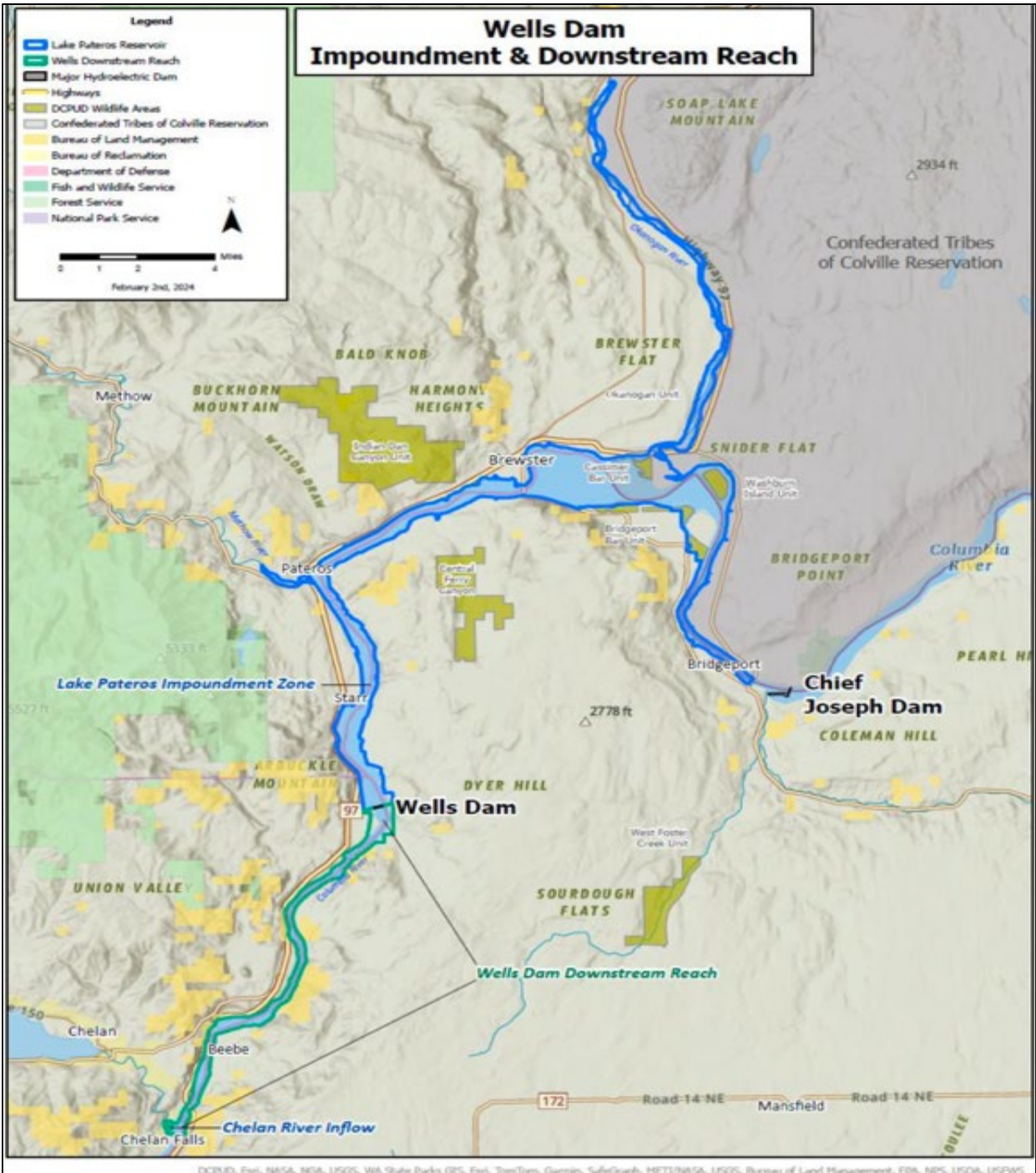


Figure 5. Zone of Effect 1: Impoundment (blue) and Zone of Effect 2: Downstream Reach (teal) of Wells Dam Project

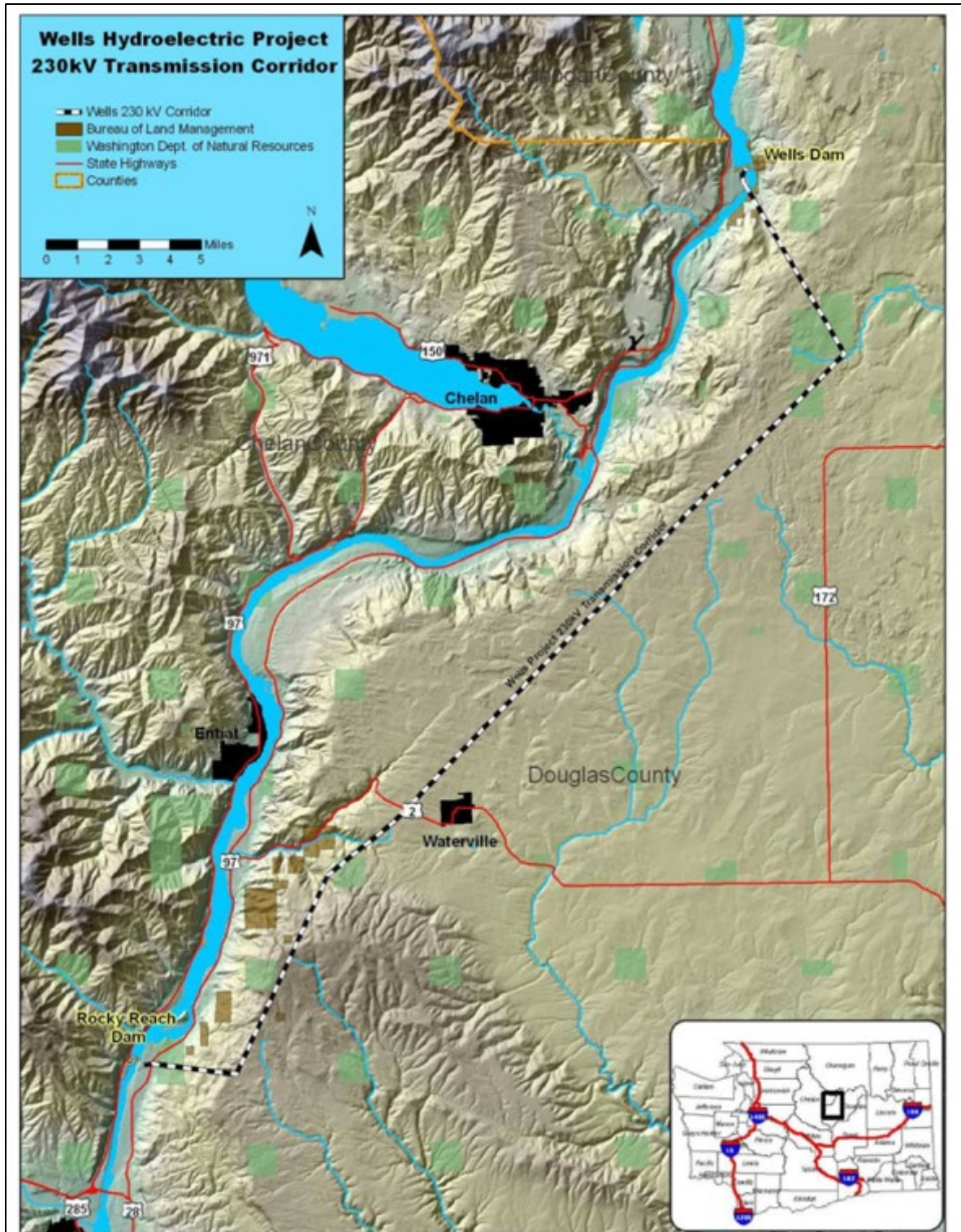


Figure 6. Zone of Effect 3: 230-kV Transmission Line Corridor of the Wells Dam Project (dotted line)

Tables 1, 2, and 3 identify the standards required to satisfy the LIHI certification criteria in each ZoE, along with Douglas PUD’s standard selection. As part of my review, I checked and independently analyzed each criterion and Douglas PUD’s selection to determine if the requirements were satisfied. All criteria were satisfied, but I did not agree with all of Douglas PUD’s selections; areas of disagreement are shown in **RED** below. My reasoning is discussed in the remainder of this review.

Table 1. Descriptions of Wells Dam Project ZoE-1, Standard Selected by Douglas PUD and Reviewer Exceptions in Red

Zone 1: Impoundment- RM 545.5 to RM 515.5		ALTERNATIVE STANDARDS				
		1	2	3	4	PLUS
A	Ecological Flow Regimes	✘	X			
B	Water Quality		X			
C	Upstream Fish Passage	X				X
D	Downstream Fish Passage		X			
E	Watershed and Shoreline Protection		X			
F	Threatened and Endangered Species Protection			X		
G	Cultural and Historic Resources Protection		X			
H	Recreational Resources		X			

Table 2. Descriptions of Wells Dam Project ZoE-2, Standard Selected by Douglas PUD and Reviewer Exceptions in Red

Zone 2: Downstream Reach- RM 515.5 to 503.5		ALTERNATIVE STANDARDS				
		1	2	3	4	Plus
A	Ecological Flow Regimes	✘	X			
B	Water Quality		X			
C	Upstream Fish Passage		X			X
D	Downstream Fish Passage	X				
E	Watershed and Shoreline Protection		X			
F	Threatened and Endangered Species Protection			X		
G	Cultural and Historic Resources Protection		X			
H	Recreational Resources		X			

Table 3. Descriptions of Wells Dam Project ZoE-3, Standard Selected by Douglas PUD and Reviewer Exceptions in *Red*

Zone 3: 230-kV Transmission Line Corridor- RM 515.5 to 473.7 but not on the river		ALTERNATIVE STANDARDS				
		1	2	3	4	Plus
A	Ecological Flow Regimes	X				
B	Water Quality	X				
C	Upstream Fish Passage	X				
D	Downstream Fish Passage	X				
E	Watershed and Shoreline Protection		X			
F	Threatened and Endangered Species Protection			X		
G	Cultural and Historic Resources Protection		X			
H	Recreational Resources	X				

VI. DETAILED CRITERIA REVIEW

This section contains my certification review of the Wells Project regarding the LIHI criteria. As part of my review, I conducted a FERC eLibrary and other searches to verify claims in the certification application. Since the Project was relicensed in 2012, my review concentrated on 2012 to the present. My review also discusses anticipated operational changes of the Project as a result of salmon restoration efforts planned upstream of the Chief Joseph Dam.

A. Ecological Flows

Douglas PUD selected Standard A-1 for ZoE 1 and 2. For the reasons discussed below, this reviewer finds Standard A-2 is more appropriate. An **A-1 Not Applicable/De Minimis Effect** means the facility operates in a true run-of-river operational mode, and there are no bypassed reaches or water diversions associated with the facility. An **A-2 Agency Recommendation** means the flow regime at the facility was developed in accordance with a science-based resource agency recommendation. Douglas PUD’s selection of A-1 for ZoE 3 is appropriate since the 230-kV transmission line corridor is unrelated to ecological flows.

Criterion A-2 is appropriate for ZoEs 1 and 2 since the Wells Project is part of the highly regulated mid-Columbia River system. Also, Douglas PUD indicated that it operates the Project in a Modified run-of-river mode under the terms of the mid-Columbia Hourly Coordination Agreement (HCA).⁹ The HCA seeks to coordinate operations for all mid-Columbia projects to make the best use of flows for generation and to meet fishery and other environmental resource needs. In addition, the Project’s operations are also subject to the provisions of the

⁹ The HCA was originally signed for a 1-year experimental period from July 1, 1972, to June 30, 1973. The agreement was extended numerous times, and the most recent renewal extends the term of the HCA to November 1, 2017. See FERC EIS, section 2.1.3.1.

Pacific Northwest Coordination Agreement (PNCA), which coordinates generation and storage projects in the Columbia River System to achieve the most efficient use of water to meet the electrical loads of the region's utilities.

Stream flows into the Project Impoundment are measured at the [Chief Joseph Dam tailrace](#) and the [Methow River](#) and [Okanogan River](#). Measurements from Wells Dam are taken in the [Project tailrace](#) (Figure 7).



Figure 7. Stream gage locations used to monitor streamflow within the Wells Dam Project area.

River flows at the Wells Project have been variable over the last 56 years (Figure 8). The mean daily flow was 165,000 cfs. A minimum daily flow of 77,400 cfs occurred in 1973, and a maximum flow of 293,000 cfs occurred in 2011.

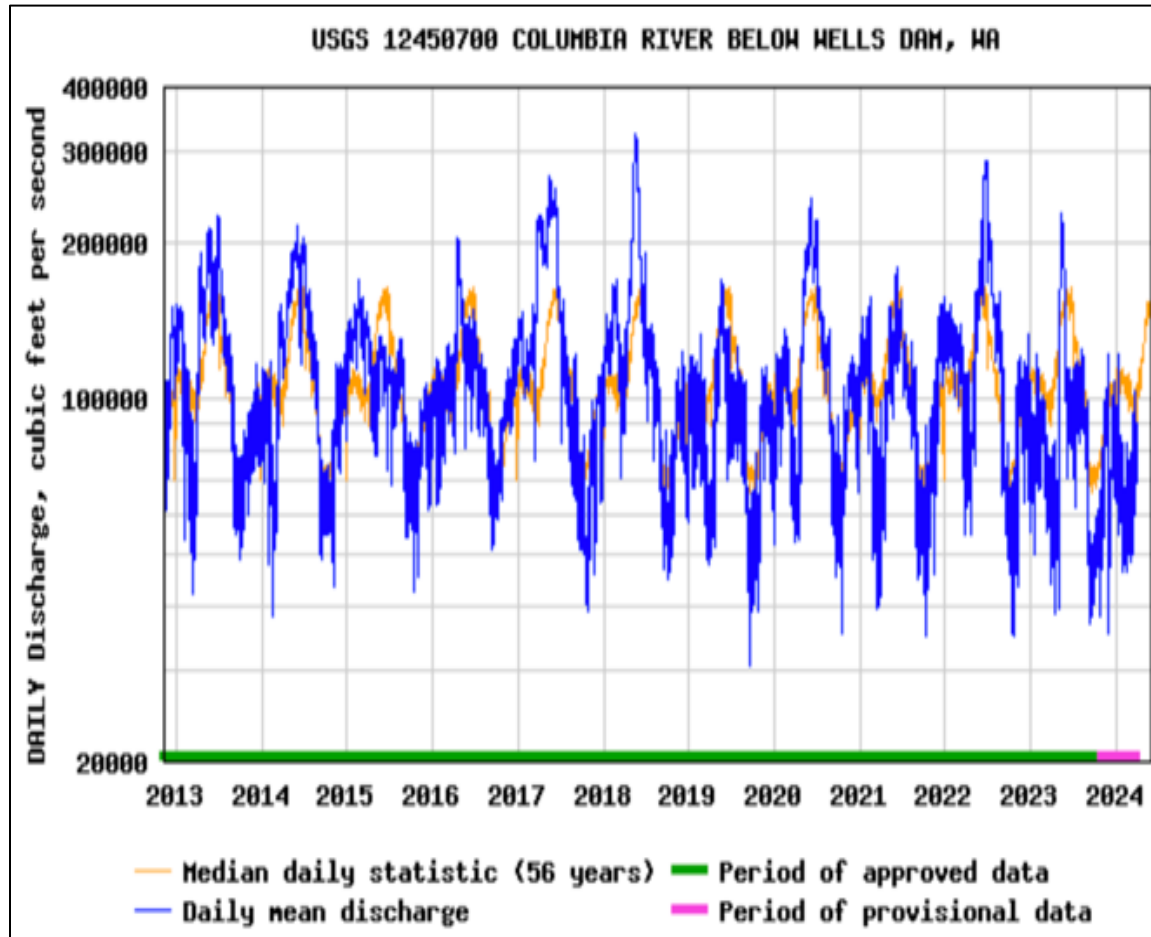


Figure 8. Average Daily Discharges from Wells Dam Project since FERC relicensing.

Data show that daily inflow is approximately equal to daily outflow at the Wells Project, although not necessarily hourly (Figure 9). The Wells Project's design is unique in that the generating units, spillways, switchyard, and fish passage facilities were combined into a single structure referred to as the hydrocombine. This design also means that there is no bypass reach.

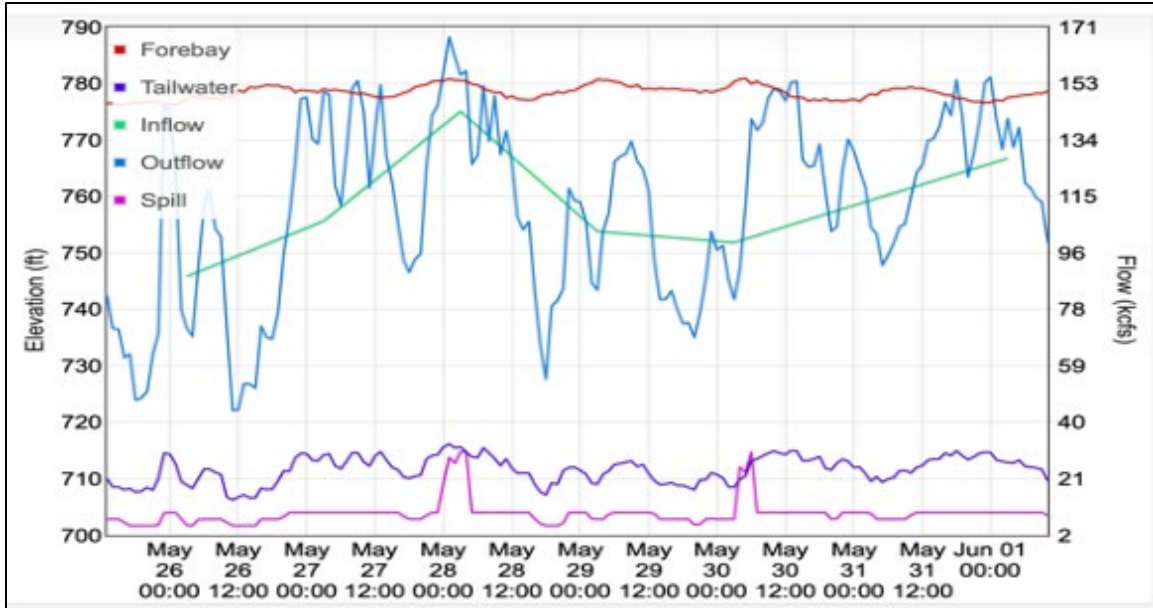


Figure 9. Hourly Flow and Water Level Elevation at the Wells Dam Project.

The Project is authorized to operate with a reservoir elevation between 771 and 781 feet msl but has minimal daily variation. Since late 2019, the reservoir level has changed less than 1.0 foot daily more than 87% of the time and less than 2.0 feet daily more than 97% of the time (Figure 10).

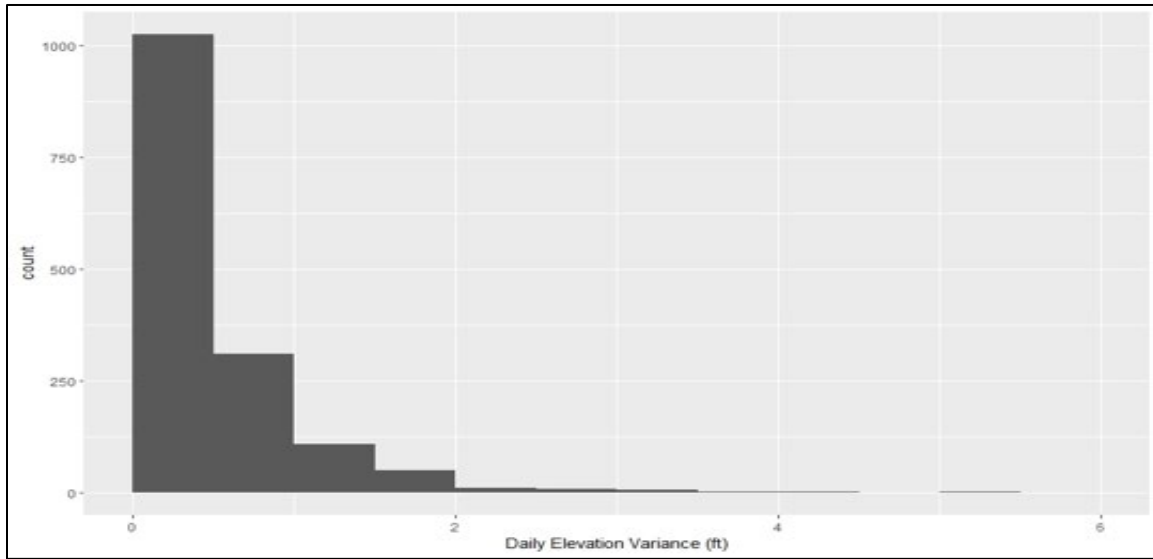


Figure 10. Count of daily variance of forebay/reservoir level measurement from September 2019 to November 2023.

The Wells Project is an integral part of the seven-dam mid-Columbia River hydroelectric system. Each of the seven dams is operated in accordance with the terms of the mid-Columbia Hourly Coordination Agreement (HCA). The agreement seeks to coordinate operations for all

mid-Columbia projects to use flows for generation and to meet fishery and other environmental resource needs.

Each day, the non-federal utility participants of the HCA provide the coordinator with an estimated schedule of the desired generation from their project(s). The Federal operators at the upstream Chief Joseph and Grand Coulee projects also provide the coordinator with an estimate of the flows that will be discharged from those two dams. Based on the anticipated flows, reservoir levels, and electric load requirements, the coordinator determines an estimated operation schedule for the following day.

The Project also operates according to the Pacific Northwest Coordination Agreement (PNCA) provisions, which coordinates generation and storage projects in the Columbia River System to achieve the most efficient water use to meet the electrical loads of the region's utilities. The agreement's annual regulation process calculates the maximum firm power expected from the regional system. The agreement then provides for the allocation of water to the parties every month, optimized as if a single owner operated all the projects in the Columbia River System.

The agreement's goals help the Wells Project meet its objectives. In order of priority, the PNCA's goals are: (1) meeting nonpower requirements such as flood control or environmental measures; (2) ensuring that parties to the agreement can produce their dependable capacities; (3) refilling the reservoirs at the end of the water year; and (4) producing as much non-firm power as possible. Because the Wells Project has limited storage, it must pass in real-time most of the water it receives from the much larger upstream Grand Coulee dam and can only alter flows hourly.

Along with the HCA and the PNCA, the Wells Project also operates under the Hanford Reach Fall Chinook Protection Program Agreement (HRFCPPA), which Douglas PUD signed in 2004. The Hanford Reach is downstream of the Priest Rapids Dam, licensed and operated by the Public Utility District No. 1 of Grant County (Grant PUD). The HRFCPPA, filed April 19, 2004, was signed by Douglas PUD, Grant PUD, Chelan PUD, Bonneville Power Administration (BPA), National Marine Fisheries Service (NMFS), US Department of the Interior (Interior), Washington Department of Fish and Wildlife (WDFW), and the Colville Tribes. The HRFCPPA includes coordination of operations among the seven mid-Columbia River hydroelectric projects, including the Wells Project. FERC has not issued any notices of violations for non-compliance with Article 403 *Notification of Deviations from Operating Requirements*.

Summary

My review of the LIHI application and FERC docket indicates that the Wells Project has been operated in accordance with LIHI's ecological flow criterion and provides flows adequate to support aquatic habitats in ZoEs 1 and 2. Therefore, this LIHI criterion is satisfied.

B. Water Quality

Douglas PUD selected Standard B-2 for ZoEs 1 and 2 and B-1 for ZoE-3. Standard **B-2 Agency Recommendation** means the facility complies with all water quality conditions contained in a recent state water quality certification or science-based resource agency recommendations, providing reasonable assurance that water quality standards will be met for all waterbodies directly affected by the facility. Douglas PUD's selection of B-1 for ZoE 3 is appropriate since the 230-kV transmission line corridor is unrelated to water quality.

The WDOE issued a CWA Section 401 WQC on February 27, 2012 ([Order No. 8981](#)). On May 15, 2024, Douglas PUD provided LIHI with correspondence from WDOE confirming that the WQC for the Wells Project is still valid (See Appendix A).

The Project's FERC license, water quality certification, and settlement agreement required the implementation of measures to maintain and improve water quality for healthy fish and wildlife populations, human uses, and recreation. The State of Washington's water quality classification system, Section 303(d) listings, WQC, mitigation measures, and required monitoring in the FERC license are explained below.

Water Quality Attainment Plan

On December 20, 2013, FERC approved the Water Quality Attainment Plan for the Wells Project pursuant to license article 401. The plan outlines a practical compliance schedule for lowering total dissolved gas saturation below the 110% state standard, as described in the state WQC condition 6.7(2)(e). Douglas PUD's plan includes the ongoing adaptation of its Spill Playbook and identifies the key Project operating factors that influence Total Dissolved Gas levels. The plan also includes measures to monitor and collect potentially beneficial data on gas bubble trauma in the Project area and contains an outline for economic analyses. The Douglas PUD continues to consult with the resource agencies and tribes regarding the success of individual components of its plan, which should ensure that the licensee maximizes its compliance with water quality standards.

Water Quality Classification

The water quality standards for surface waters of the state of Washington and associated use designations for fresh waters are defined in Chapter 173-201A WAC. The Columbia River within the Wells Dam Project area is designated for salmonid spawning, rearing, migration, and primary contact recreation. It is also designated for domestic, industrial, agricultural, and stock water supply uses. Other uses include wildlife habitat, harvesting, commerce and navigation, boating, and aesthetics. The impounded areas of the Methow and Okanogan Rivers are designated for spawning/rearing. The status of Washington's waters is available at the Water Quality Atlas.¹⁰

¹⁰ See <https://bit.ly/3KM6nnC>

Since the Wells Project operates in a modified run of the river mode, it has a minimal effect on water temperatures. USGS water temperature monitoring in the Project's forebay indicates that the reservoir does not thermally stratify during summer (Anchor QEA 2023). However, portions of the Columbia River within the Project boundary are classified as impaired for water temperature under Section 303(d) of the Clean Water Act.

On May 18, 2020, the U.S. Environmental Protection Agency (EPA) established the Columbia and Lower Snake Rivers Temperature Total Maximum Daily Load (TMDL) as required by regulations implementing Section 303(d) of the Clean Water Act. WDOE is currently working through the implementation of this TMDL. While the Columbia River can exceed 17.5°C during the summer (the state water quality standard), EPA's TMDL showed that the presence of the Wells Project had a negligible impact of 0.1°C in June, no effect in July and August and in fact, cooled the Columbia River by 0.2°C and 0.5°C, in those months respectively. Moreover, water temperature modeling conducted before the relicensing of the Project in 2012 showed that the Project did not increase water temperature in the Columbia River above water quality criteria (Chapter 173-201A WAC; West Consultants Inc. 2008).

There is also a TMDL for total dissolved gas (TDG) for the mainstem Columbia River, from the Canadian border to the Snake River confluence (Ecology 2004a). Additional information on TDG standards and monitoring is discussed below.

Within the Project area, the inundated portion of the Okanogan River is listed as impaired for 4,4'-DDE, 4,4'-DDD, PCBs, and methyl mercury. These contaminants originate from upstream sources that are outside the Project boundary. A TMDL was issued for the Okanogan River for DDT and PCBs in 2004 (Ecology 2004b).

Douglas PUD's Water Quality Management Plan (Douglas PUD 2008) is part of the Wells Project Aquatic Settlement Agreement. It has five objectives to help protect and improve water quality in the Project area. Every year, the Aquatic Settlement Work Group, an inter-agency group of stakeholders, including the WDOE, approves a Water Quality Management Plan Annual Report. The agency oversees compliance with Washington's water quality standards, including those within the Wells Project.

National Pollutant Discharge Elimination System

On May 1, 2022, WDOE issued a National Pollutant Discharge Elimination System (NPDES)¹¹ permit for the Wells Dam and Hatchery. The Wells Dam NPDES permit outlines monitoring requirements to ensure that the Wells Dam and Hatchery is not discharging wastewater contaminated with oil and grease products, is within acceptable pH limits, and is not exceeding TMDL imposed point source heat load allocations. The permit will be renewed

¹¹ Also called a Clean Water Act Section 402 Permit

after five years. Douglas PUD tests wastewater monthly, and additional tests for Polychlorinated Biphenyls (PCBs) and heavy metals are conducted annually.

The Wells Hatchery permit is a statewide general NPDES permit that was renewed in 2020. The permit requires various monthly, quarterly, and annual monitoring and reporting for total suspended and settleable solids and chemical use and temperature reporting. The waste discharges at the Wells Dam and Hatchery are within the permits' standards.

Total Dissolved Gas Monitoring

Douglas PUD continuously monitors TDG at four locations within or adjacent to the Project area: downstream of Chief Joseph Dam, in the upper-middle reservoir at Washburn Island, in the Wells Dam forebay, and in the Wells Dam tailrace (Figure 11). The data are available at Douglas PUD's [website](#) and on the Corps' [database](#) for TDG for all Columbia River hydroelectric projects.

The water quality standards for TDG vary by location and time of year. During the downstream migration period for juvenile salmon, the TDG levels are higher, so hydroelectric projects are not penalized for spilling water to facilitate fish passage through spillways or bypass systems. WDOE's regulations changed in 2020. Since the regulatory change, Douglas PUD's TDG compliance rates are usually over 95%, except in 2022, when sustained high flows made it challenging to keep TDG levels low (Table 4).



Figure 11. Total Dissolved Gas Monitoring Stations (red triangles) in Zone of Effects 1 and 2 of the Wells Project

Table 4. Summary of Total Dissolved Gas Compliance Rates for the Wells Project

	2020	2021	2022	2023
Wells Tailrace: 110% (non-fish passage season)				
Sample periods out of compliance	12	8	15	0
Total sample periods	5088	5088	5088	2160
DCPUD compliance rate	99.8	99.8	99.7	100.0
Wells Tailrace: 125% Mean 12 Highest Hourly/day (April-June)				
Sample periods out of compliance	5	0	1	0
Total sample periods	91	91	91	91
DCPUD compliance rate	94.5	100.0	98.9	100.0
Wells Tailrace 126%: Two Consecutive Hourly Values (April-June)				
Sample periods out of compliance	20	0	3	2
Total sample periods	2093	2093	2093	2093
DCPUD compliance rate	99.0	100.0	99.9	99.9
Wells Tailrace: 125% two hour mean (July and August)				
Sample periods out of compliance	0	0	3	0
Total sample periods	61	62	62	62
DCPUD compliance rate	100.0	100.0	95.2	100.0
Wells Tailrace: Mean 12 highest hourly readings over 120% (July and August)				
Sample periods out of compliance	3	0	15	0
Total sample periods	62	62	62	62
DCPUD compliance rate	95.2	100.0	75.8	100.0
Rocky Reach Forebay: Mean 12 highest hourly readings over 115% (July and August)				
Sample periods out of compliance	10	1	28	0
Total sample periods	62	62	62	62
DCPUD compliance rate	83.9	98.4	54.8	100.0

Source: LIHI Application-Data is from January 1, 2020, to August 31, 2023.

One challenge of managing TDG values at the Wells Project is that the water entering the Project area from Chief Joseph Dam is frequently above the EPA and Tribal TDG standard of 110%. In fact, in June and July between 2013 and 2023, the TDG levels of water entering the Wells forebay were over 110% more than half the time (Figure 12). When the water entering the Wells forebay is already above 110%, meeting the 115% standard at the downstream Rocky

Reach Dam forebay is challenging. The operation of the Wells Project Juvenile Bypass system modestly increases Wells Dam tailrace TDG levels. Due to the configuration of the Rocky Reach Reservoir, there is limited or no opportunity for TDG to decline (degas) before reaching Rocky Reach Dam.

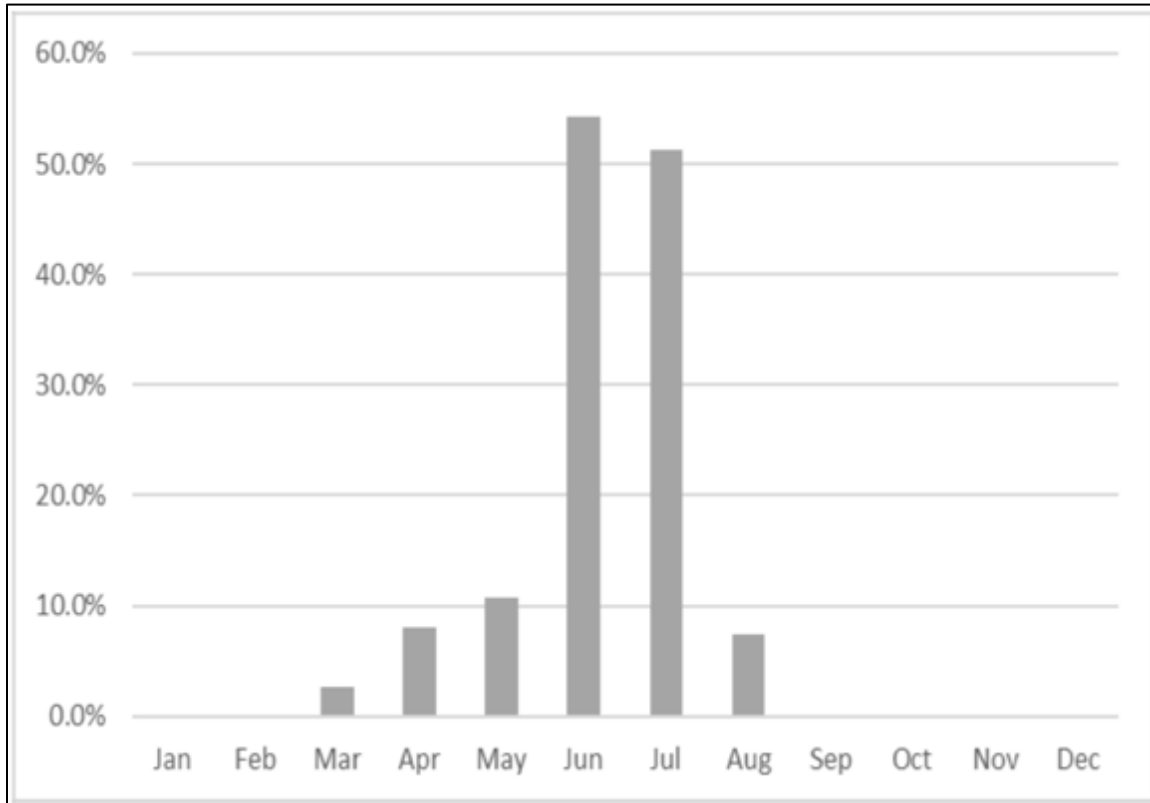


Figure 12. Percentage of Total Dissolved Gas readings in the Wells forebay that violated water quality standards of 110%

Gas Bubble Trauma Monitoring

The WQC and Water Quality Management Plan requires Douglas PUD to monitor fish for gas bubble trauma (GBT) (Figure 13). From the early 2000s to 2019, Douglas PUD monitored smolts at the Rocky Reach Juvenile Bypass Sample Site (JBS) and adult fish at the Wells Project fish ladders when TDG values in the tailrace exceeded 125%. Under the TDG criteria rule change,¹² operators applying for modification of TDG standards to protect downstream migrating salmon in April-June and July-August are required to provide a biological monitoring plan for migrating salmonids and resident fishes (Ecology 2019).

¹² See WAC 173-201A-200

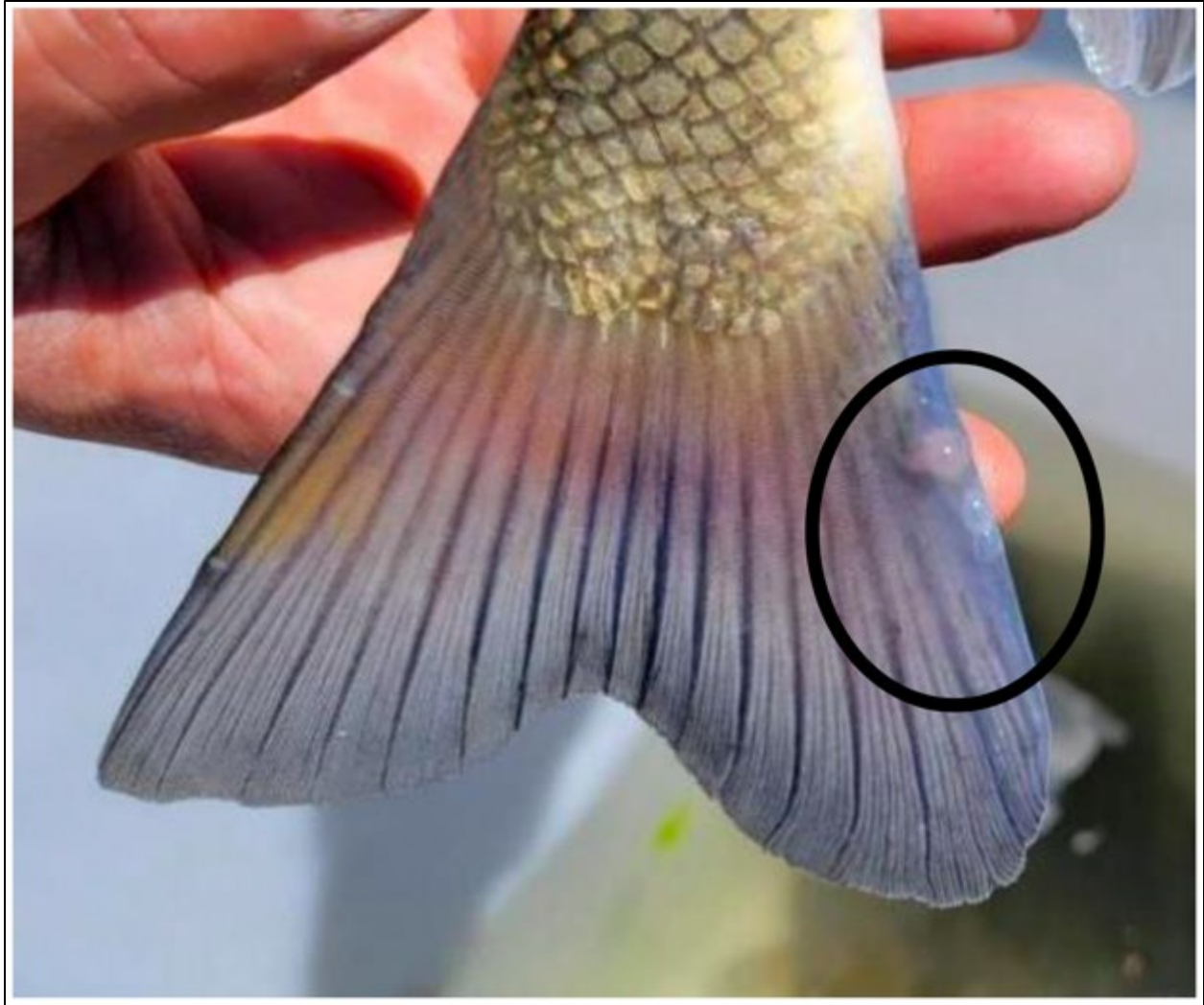


Figure 13. An example of GBT seen in <5% of the caudal fin in a Largescale Sucker sampled below Wells Dam on June 28, 2022

Beginning in 2021, Douglas PUD has evaluated a minimum of 50 salmonids collected from the Rocky Reach JBS each week from April to June. Additionally, when TDG values in the Wells Project tailrace exceed the 125% standard in the April–June or July–August period, additional sampling for GBT at the Rocky Reach JBS facility occurs on the subsequent business day to the exceedance. However, if no GBT is observed after two sampling instances within a calendar week, additional monitoring is postponed until the next calendar week, regardless of TDG concentration. Furthermore, if flood flows above 7Q-10¹³ occur within a week during the April-June or July-August period, GBT sampling only occurs once weekly.

Douglas PUD targeted Coho, Sockeye, yearling and sub-yearling Chinook, and steelhead for the juvenile salmonid GBT sampling. In 2020, Douglas PUD collected resident fish from the Wells tailrace via boat electrofishing to monitor potential GBT during the spill season. All

¹³ The 7Q10 is the lowest 7-day average flow that occurs (on average) once every ten years.

monitoring for GBT followed the examination techniques described in the 2019 Gas Bubble Trauma Monitoring Protocol (FPC 2019). The monitoring examined all fisheyes, unpaired fins, and caudal fins. Ranks of GBT expression from 0-4 were used per Fish Passage Center protocols. A rank of 0 indicated no GBT present; rank 1 indicated 1-5% of fin or eye covered with bubble; rank 2: 6-25%; rank 3: 26-50%; and rank 4: >50% bubble coverage (FPC 2019).

Out of the 8,826 fish sampled for GBT from 2013 to 2023, over 97% did not exhibit any signs of GBT (Table 5). Of the 241 fish that showed signs of GBT, most exhibited very minor bubbles (rank 1: <5%). Since 2020, only six fish out of 6,890 fish sampled (0.09%) had any expression of GBT, and all those fish were rank 1, trauma (Table 6).

Per the WQC, Douglas PUD will continue GBT monitoring until at least 2025. Douglas PUD will work with WDOE to determine if the current monitoring protocol should continue or if changes to the GBT monitoring strategy might be necessary.

Table 5. Level of gas bubble trauma (GBT) observed in sampled fish from 2013 to 2023

GBT Rank	Number of Fish	Percent of Fish
0 (no GBT)	8585	97.3
1 (1 – 5 % bubble coverage)	141	1.6
2 (6 – 25% bubble coverage)	68	0.8
3 (26 – 50% bubble coverage)	32	0.4
4 (>50% bubble coverage)	0	0.0
Total	8,826	

Source: LIHI Application

Table 6. Summary of Gas Bubble Trauma sampling data from 2020 – 2023

Species	2020		2021		2022		2023	
	# Sampled	# GBT Present	# Sampled	# GBT Present	# Sampled	# GBT Present	# Sampled	# GBT Present
Coho	5	0	10	0	40	0	16	0
Sockeye	6	0	94	0	160	0	55	0
Chinook (subyearling)	51	1	103	0	269	0	221	0
Chinook (yearling)	0	0	1,630	0	221	0	209	0
Steelhead	0	0	76	0	42	0	49	0
Non-Salmonid	0	0	138	0	1,038	2	956	0
All Species (Tailrace)	126	3	1,375	0	0	0	0	0
Total	188	4	3,426	0	1,770	2	1,506	0
Percent with GBT (total)	2.10%		0%		0.10%		0%	

Source: LIHI Application

Water Quality and Dam Operations

In 2017, Douglas PUD developed a series of software tools called the Energy Accounting System (EAS). As shown in Figure 14, the EAS pairs environmental data with Project operations to better forecast, document, and archive river operational dynamics, forebay elevation constraints, and system-wide maintenance, energy planning, and power sales.

Douglas PUD staff evaluates the expected hydro conditions at the Project, including the expected inflows. It determines the necessary action to ensure TDG compliance before the operating day. If conditions change from the forecast, Douglas PUD can market power, increase generation, sell energy, and reduce unplanned spills past unloaded turbine units. In real-time, Douglas PUD’s system operators have tools to track the incoming volume of water into the Project, the volume of discharge from upstream projects, and the reported TDG both entering the Wells Project and in the Wells tailrace. This active and hands-on system management is one way that Douglas PUD works to reduce TDG.



Figure 14. Example output of the Wells Project Energy Accounting System.

Additionally, Douglas PUD’s Natural Resources staff worked with researchers at Columbia Basin Research to develop a user-friendly web application to help predict TDG. The application uses river discharge, incoming TDG levels, and spill fraction to help system operators set spill limits and provide general guidance to staff involved in all Douglas PUD’s business areas with a nexus to Project operations (e.g., power marketing). This [model](#), developed by W. Nicholas Beer, uses all TDG data collected at the Wells Project to help predict TDG in the tailrace and is constantly being updated with current data.

Summary

My review of the LIHI application and requirements in the FERC license, state WQC, and NPDES permits indicates that the Wells Project is operating to minimize its impacts on water quality in ZoEs 1 and 2. Furthermore, Douglas PUD’s water quality monitoring system, EAS, and annual reports will ensure that the Wells Project operation does not significantly affect water quality. Therefore, this LIHI criterion is satisfied.

C. Upstream Fish Passage

Douglas PUD selected Standard C-1 in the ZoE 1 impoundment and ZoE 3 transmission line corridor, and Standard C-2 in the ZoE 2 downstream reach. A C-1 standard indicates that once above the Project dam, effects are **Not Applicable/De Minimis Effect**, and the Wells Project does not create a further barrier to upstream passage once fish are past the dam. The **C-2 Agency Recommendation** Standard in ZoE 2 indicates that the facility complies with science-based fish passage recommendations issued by appropriate resource agencies, which may include provisions for appropriate monitoring and effectiveness determinations. Douglas PUD's selection of C-1 for ZoE 3 is appropriate since the 230-kV transmission line corridor is unrelated to upstream fish passage.

However, this reviewer also believes the Wells Project warrants a Plus Standard in ZoE 1 impoundment and ZoE 2 downstream reach because Douglas PUD is implementing an adaptive management plan, an HCP that includes a basin-wide restoration strategy. Also, since 2020, Douglas PUD has voluntarily taken steps with the UCUT to reintroduce salmonids above Chief Joseph Dam and into the Columbia River's headwaters. Douglas PUD's actions are consistent with FPA section 10a and the comprehensive development of the Columbia River Basin. Detailed justification for the Plus Standard is discussed below.

Table 7 shows that the Wells Project is home to numerous migratory fish species, including anadromous salmonids, lampreys, and white sturgeon. The trout, kokanee, and land-locked Chinook programs provide excellent angling opportunities in numerous central Washington waters.

Table 7. Migratory Fish Species in the Wells Project Area

- Upper Columbia River steelhead trout (*Oncorhynchus mykiss*)
- Upper Columbia River Chinook salmon (spring and summer runs; *O. tshawytscha*)
- Sockeye salmon (*O. nerka*)
- Coho salmon (*O. kisutch*)
- Bull trout (*Salvelinus confluentus*)
- Pacific lamprey (*Entosphenus tridentatus*)
- White sturgeon (*Acipenser transmontanus*)

Source: LIHI Application [Upstream Fish Passage Overview](#)

The Wells Project is the uppermost Columbia River dam providing fish passage. The Corps owns and operates the next dam upstream of Wells Dam, Chief Joseph Dam. Chief Joseph Dam does not currently have juvenile or adult fish passage facilities.

From May 1st to November 15th, cameras record fish passages through the two fish ladder windows. These adult fish are returning to spawning areas and hatcheries in the Columbia, Methow, and Okanogan rivers. To reach Wells Dam, these fish have already migrated 515 miles from the mouth of the Columbia River and have already passed eight other federal and non-federal hydropower dams. Some adults will travel 200 miles past Wells Dam before reaching their natal rivers to spawn. The number of fish migrating upstream at the Wells Project from July 10 to July 16, 2024, is shown in Table 8.

Table 8. A snapshot of the numbers of Fish Species migrating upstream at the Wells Dam

Type	07/10/2024	07/11/2024	07/12/2024	07/13/2024	07/14/2024	07/15/2024	07/16/2024	Year Total
Bull Trout	0	0	0	0	0	0	0	22
Chinook	891	683	727	914	537	494	689	21,487
Coho	0	0	0	0	0	0	0	0
Lamprey	3	1	3	2	0	0	-1	28
Sockeye	25,052	29,931	22,930	22,093	20,096	15,306	17,782	367,739
Steelhead	8	7	2	5	12	8	10	181

Source: Columbia Basin Research (CBR) <https://bit.ly/3SigJQd>

Juvenile and adult fish passage operations for anadromous salmonids are continually reviewed, adjusted, and approved by an inter-agency group through the Douglas PUD’s Anadromous Fish Agreement and the HCP (Douglas PUD 2002). The HCP Coordinating Committee is an inter-agency group including representatives from the USFWS, NMFS, WDFW, Confederated Tribes of the Colville Reservation (CTCR), the Confederated Tribes and Bands of the Yakama Indian Nation (YN). These signatory parties oversee all aspects of implementation associated with the Wells HCP, including adult fish passage issues. Upstream fish passage is consistent with Standard C-2 in the Downstream ZoE Reach 2. As discussed under Upstream Salmonid Passage at Chief Joseph Dam, a Plus Standard is also warranted.

Description of Adult Passage Facilities

Wells Dam was constructed with two fish ladders. Since 1967, an average of 50,000 adult salmon and steelhead have ascended the dam on their way to upstream spawning grounds based on data from a Douglas PUD-funded Fish and Water Management Tool. Sockeye salmon returns have averaged more than 160,000 fish per year.

The two upstream fish passage facilities are conventional staircase-type fish ladders with 73 pools (Figure 15). The ladders are located at the east and west ends of the dam. The lower 56 pools discharge a constant 48 cfs of water. At each pool, the water drops approximately one foot until it reaches the tailwater level in the collection gallery. Supplemental water can be added at each inundated pool at the upper end of the collection gallery. The upper pools (73- 56) discharge water from one pool to another through fishway weirs. Each weir in the upper portion of the fishways contains two orifice openings. These orifices are located one foot from the base of the weir. This design provides a sanctuary pool between each of the upper fishway weirs. From pool 56 downstream to the collection gallery, The water passes from one weir to the next via a seven-foot-wide overflow section between pools and through two 18-inch by 15-inch submerged orifices.

Pool No. 64 of both fishway ladders contains facilities for counting fish. The counting facility includes five parts: 1) a counting room, 2) an observation window into the fish ladder, 3) a telescoping gate to guide the fish closer to the observation window, 4) a light panel, and 5) a bypass gate to control the flow and velocity past the observation window. Video records of fish passage are collected 24 hours daily from May 1 through November 15. The video is reviewed, and fish counts by species by ladder are made available daily in coordination with the Adult Fish Counting Program of the Corps.

At Pool No. 40, each of the two fish ladders has provisions for sorting and trapping various fish species. The west ladder sorting facility allows selected fish to travel through a flume to a holding pond at the Wells Hatchery. The east ladder sorting facility allows fish to travel to a holding container where they are anesthetized, netted, and placed in transportation containers to be moved across the dam to appropriate hatchery facilities.

The fisheries agencies and tribes develop species-specific broodstock collection protocols at the beginning of each season. Broodstock presently collected at Wells Dam includes Spring and Summer Chinook, and Summer Steelhead. The WDFW develops broodstock collection protocols. They are annually submitted to the Wells Coordinating Committee and NMFS Hydro Program for annual approval before trapping at the dam. In addition to brood stock collection, the adult fish traps are occasionally used to collect information from coded wire tag (CWT) tagged steelhead, collect sockeye scales for stock identification and age analysis, and collect adult bull trout, chinook, sockeye and steelhead for radio-tagging.

The 2000-2002 Wells Biological Opinion (Section 10.1.4, page 45) requires that the operation of the Wells ladder traps for the collection of broodstock or other fisheries

assessment be limited to a maximum of 16 hours per day for three days per week or as approved by NMFS Hydro Program, Portland, Oregon. The Biological Opinion (Section 10.1.4, page 45) requires that adult trapping facilities be staffed whenever the trap is in operation and that the collection of adults from the fishway traps be discontinued whenever river water temperature exceeds 69 F°.



Figure 15. Wells Project adult fish ladder weirs

At the bottom of the fish ladder, projecting downstream from the line of the hydrocombine is the portion of the end wall structure that incorporates the functions of fish attraction and collection. Two turbine pumps on each ladder deliver 800 to 2,500 cfs (depending upon tailwater elevation) of fish attraction flow to the water supply chamber located immediately adjacent to the collection gallery. Supply chamber water flows into the upper sections of the collection gallery, where it is used to maintain an attraction velocity of 2 feet per second, and into the main collection gallery at the foot of the ladder through diffusion gratings. The total fishway flow from the turbine pump(s) and the 48 cfs coming down the ladder from the forebay are discharged into the tailrace through two fish entrances. The fishways are inspected daily to remove debris accumulations, calibrate the automated fishway instruments properly, and maintain the fishway lights.

Upstream Passage: Salmonid Species

The 2012 Biological Opinion prepared by NMFS (NMFS 2012) indicated that upstream passage through the Wells Project is not likely to cause pre-spawning mortality or loss of condition. A brief delay at the dam is more than compensated for by a faster travel time through the reservoir (See Appendix B). Additionally, NMFS determined that upstream passage and survival rates were similar for Upper Columbia River steelhead and that the brief delay caused by the dam may even be less likely to affect steelhead because they hold in rivers and streams for extended periods before spawning (NMFS 2012). Based on these studies and studies at other Columbia River dams, Douglas PUD expects the upstream passage rates and survival to be similar for all salmonid species.

As described in Table 9, conversion rates of PIT-tagged fish confirmed the findings of the NMFS Biological Opinion with a 99% survival rate for all salmonids in the study. The conversion rates are a minimum estimate of survival because they encompass mortalities from all sources.

Table 9. Rocky Reach-to-Wells Adult Conversion Rates for PIT-Tagged Fish Originating above Wells Dam from Year 2015-2022

Stock Species	Number Detected at Rocky Reach Dam	Number Detected at Wells Dam	Rocky Reach-to-Wells Conversion Rate
Summer Steelhead	1,191	1,177	99%
Spring Chinook Salmon	1,186	1,175	99%
Summer Chinook Salmon	1,064	1,033	97%
Coho Salmon	1,716	1,640	96%
Sockeye Salmon	457	450	99%

Source: Data from Columbia Basin PIT-tag Information System (PTAGIS) queried by Douglas PUD on March 6, 2024 (<https://www.ptagis.org/>).

A 2016 – 2017 study examined the rates of Bull Trout upstream passage through Wells Dam. This study found 9 of 11 fish successfully migrated upstream through the fishways without issues (Robichaud and Gingerich 2017). These results were similar to those of other Bull Trout passage studies completed before the Wells Project's relicensing (LGL and Douglas PUD 2008).

Wells Hatchery

Wells Hatchery, adjacent to the Wells Dam, was constructed by Douglas PUD in 1967. It underwent a significant modernization project that was completed in 2017. The hatchery supplements the aforementioned upstream passage measures and downstream fish passage

measures discussed in the next section. Currently, annual production at the Wells Fish Hatchery includes:

1. 408,000 yearling Endangered Species Act-listed Summer Steelhead Trout,
2. 804,000 yearling and sub-yearling Summer Chinook Salmon,
3. 5,000 juvenile White Sturgeon, and
4. 20,000 pounds of trout, kokanee, and landlocked Chinook Salmon.

In 2012, the Douglas PUD adjusted the steelhead program to account for improvements in survival at the Wells Project. The adjustment enables more accurate estimates of the number of juvenile fish passing through the Project. About 8,000 steelhead trout were produced to achieve no net impact (NNI).

The programs include steelhead conservation programs for Omak Creek (a tributary to the Okanogan River) and the Twisp River (a tributary to the Methow River). Douglas PUD also operates two safety-net steelhead programs in the Methow and Okanogan rivers to provide additional returning adult steelhead for harvest or conservation. A fifth safety-net steelhead program operates in the Columbia River downstream of Wells Dam. This program provides fish for harvest and conservation purposes.

The Summer Chinook program at the Wells Hatchery augments the important upper Columbia population of Summer Chinook and provides substantial ocean and in-river harvest opportunities. Adult summer Chinook Salmon are collected for broodstock in July, August, and September. During these months, adult Chinook are in the hatchery holding ponds. Juvenile Summer Chinook are released from the hatchery in April and May. Adult steelhead are collected for broodstock in the fall and spring. Yearlings are released into the Twisp, Methow, Okanogan, Columbia Rivers, and Omak Creek in April and May. Juvenile sturgeon are released into the Wells Impoundment in late spring.

The White Sturgeon program focuses on enhancing the sturgeon population in the Columbia River upstream of Wells Dam.

Wells HCP Annual Report

The Wells HCP requires the preparation of an annual report that describes progress toward achieving the performance standard of “no net impact” (NNI) for each fish species covered by the plan. The NNI standard consists of two components:

- 1) 91% combined adult and juvenile Project survival achieved by improvement measures implemented within the geographic area of the Project; and
- 2) 9% compensation for unavoidable Project mortality, with 7% compensation provided through hatchery programs and 2% through tributary programs (Wells HCP, Section 3.1).

In 2023, Douglas PUD continued achieving the NNI goal for the Wells Project by successfully meeting or exceeding all NNI requirements under the Wells HCP.

Upstream Salmonid Passage at Chief Joseph Dam

The CTR, Spokane Indian Tribes, Coeur d'Alene Tribe, and UCUT have developed a Phase 2 Implementation Plan (P2IP) to test the feasibility of reintroducing Salmon into the historic habitats of the Upper Columbia River Basin. The Bureau of Reclamation (Reclamation), BPA, and Corps, also known as the Co-Lead Agencies, are preparing a NEPA programmatic environmental assessment (EA) for federal support of the P2IP. Douglas PUD supports the preparation of the EA and the P2IP since it is consistent with its FERC license and the implementation of the HCP and Aquatic Settlement Agreement for the Wells Project.

Douglas PUD has supported the P2IP since 2020 by rearing and providing 160,000 Summer Chinook Salmon from its Wells Hatchery to the Indian Tribes. Each year, Douglas PUD has collected and held adult Chinook Salmon at the Wells Hatchery so that the UCUT tribes can transport them alive for cultural and educational releases. The above measures are part of a partnership acknowledged and appreciated by the Indian Tribes and the NPCC in various letters (Appendix D).

Douglas PUD indicated that it would continue to support the P2IP program and is committed to increasing its efforts if federal funding is received after preparing the programmatic EA (Appendix D). Douglas PUD's HCP is an adaptive management plan. In a letter dated March 11, 2024, Douglas PUD indicated that even though the implementation of the P2IP is outside the Wells Project boundary, it supports the reintroduction of salmonids upstream of Chief Joseph Dam since it is consistent with the FERC license and goals of the HCP. Since this is a part of a basin-wide redevelopment strategy, Douglas PUD's actions and support are applicable to the Plus Standard.

Upstream Passage: Pacific Lamprey

Pacific Lamprey provides ecological and cultural benefits in the Middle Reach of the Columbia River (Figure 15). Pacific Lamprey densities above the Project area had significantly declined by 2015. Populations in the Okanogan Basin were likely extirpated. Passage of Pacific Lamprey is less successful than for salmonids because lampreys have a panmictic population structure, i.e., they do not desire to return to a natal stream. As such, the success of the upstream passage of Pacific Lamprey at the Wells Project has been challenging. Nevertheless, Douglas PUD has been studying how to improve passage for adult Pacific Lamprey through the fishways at the Wells Project.

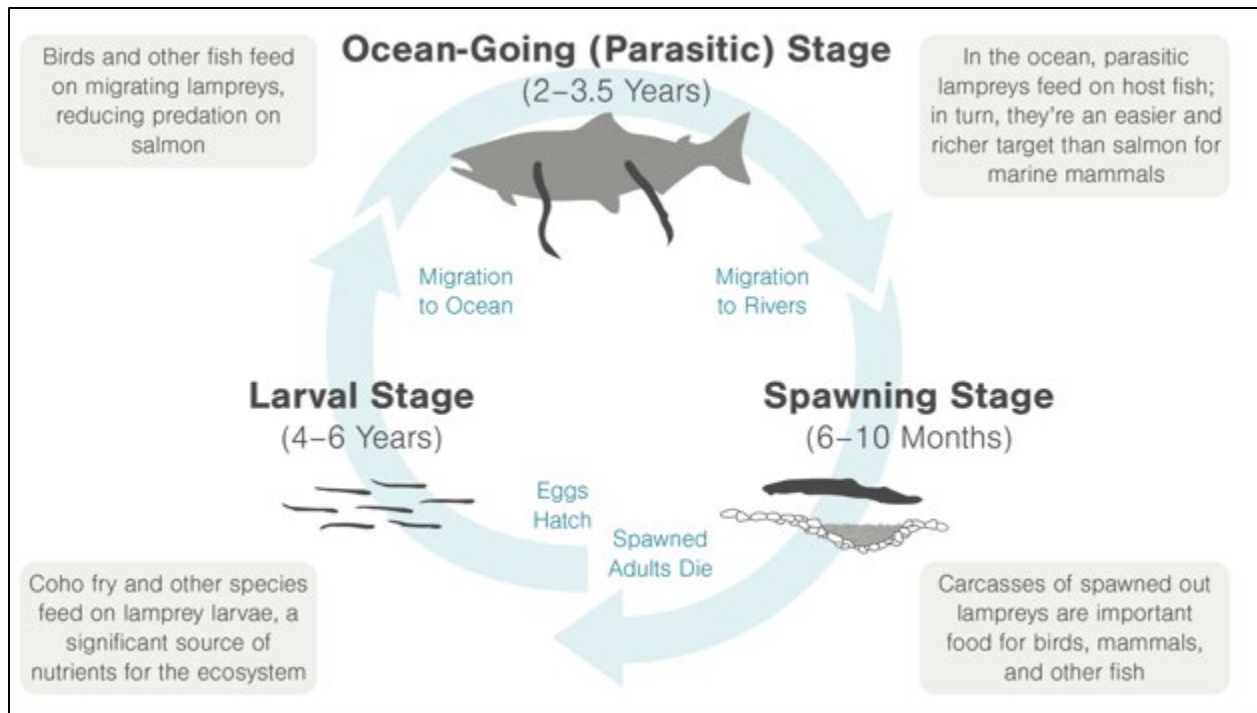


Figure 15. Pacific Lamprey Life Cycle, Illustration by Mark Garrison

Douglas PUD’s Pacific Lamprey Management Plan outlines requirements for fishway modifications to improve upstream lamprey passage and evaluation of upstream passage. Multiple studies over the years found that Pacific Lamprey passage through the lower fishway is low (14%- 33%). However, Robichaud and Kyger (2014) found that upstream passage through the upper fishway is high (67%- 100%). Douglas PUD has completed improvements to the fishways and is awaiting results from a study conducted from 2022 to 2023.

To mitigate any potential Project effects on the upstream passage of Pacific Lamprey, Douglas PUD has been translocating up to 1,000 adult Pacific lamprey per year from Priest Rapids Dam to the Wells Impoundment. The initial results have been promising. The abundance of larvae and juvenile lamprey has been increasing in the Methow and Okanogan Basins, and more adult fish have been passing Wells Dam. Douglas PUD will continue to assess any issues with fishway passage for Pacific Lamprey and make modifications as necessary.

Upstream Passage: White Sturgeon

There is no documented evidence of white sturgeon successfully using the upstream fishways. It is unknown if this is due to a lack of interest/biological need or if they cannot ascend the fishway successfully. Likely a combination of both factors, and the situation is similar at the other Mid-Columbia hydroelectric projects.

Adult white sturgeon upstream passage is an objective of the Douglas PUD’s 2008 White Sturgeon Management Plan. Douglas PUD will continue to evaluate the biological merit of providing passage and assess if there are “reasonable and appropriate means to provide

upstream passage.” Globally, passage of adult white sturgeon through fishways has been rarely documented. Within the Columbia, sturgeon may pass hydroelectric projects that operate a lock system for commercial boat traffic rather than through existing fish ladders.

Other Douglas PUD Fish Hatcheries

Several existing fish and wildlife mitigation facilities are located partly or entirely outside the Project boundary including the Methow Hatchery and the Twisp Weir.

The Methow Hatchery, a non-project fish hatchery owned by Douglas PUD, is located about 50 miles from the Project at river mile 51 on the Methow River. The hatchery currently produces up to 550,000 spring Chinook salmon smolts as mitigation for unavoidable losses at the Wells Project, Chelan PUD’s Rocky Reach and Rock Island dams, and Public Utility District No. 1 of Grant County’s Priest Rapids and Wanapum dams. Twisp Weir is an adult salmon and steelhead broodstock collection facility funded by Douglas PUD and operated by WDFW to provide broodstock for Douglas PUD’s fish hatcheries. Twisp Weir is located over 40 miles from the Project near river mile 7 on the Twisp River, a tributary to the Methow River.

Summary

The NMFS Biological Opinion and Conversion Rates for PIT-tagged salmonids show excellent upstream passage at the two fishways at the Wells Project. However, the passage of Pacific Lamprey is challenging. Douglas PUD translocates 1,000 adult Pacific Lamprey annually from Priest Rapids Dam to the Wells Reservoir based on their Pacific Lamprey Management Plan. No white sturgeon are using the Project fishways to move upstream. However, Douglas PUD has a management plan to facilitate such passage. The Wells Hatchery supplements upstream fish passage of salmonids and populations of white sturgeon, as well as resident fish in the Project area. Douglas PUD indicated it supports the reintroduction of salmonids upstream of Chief Joseph Dam since it is consistent with the FERC license, goals of the HCP and comprehensive development of the Columbia River Basin. Although not required by the FERC license or WQC, Douglas PUD indicated it will continue to rear and provide 160,000 Summer Chinook Salmon from its Wells Hatchery to the UCUT and support the implementation of the P2IP. For this reason, the impoundment warrants a Plus rating.

My review of the FERC docket, LIHI application, License Articles 403 through 407, and the Annual Summary of License Implementation and Compliance Reports indicates that the Project has been operated in accordance with upstream fish passage requirements and the LIHI criterion, and provides additional mitigation measures, including the hatchery and tributary habitat restoration that are part of a basin-wide redevelopment strategy. Therefore, the LIHI criterion for a Plus Standard has been satisfied for ZoE-1, impoundment and ZoE-2, downstream reach. Also, the LIHI criterion for ZoE 3 is satisfied.

D. Downstream Fish Passage

Douglas PUD selected Standard D-2 for the ZoE 1 impoundment and Standard D-1 for ZoE 2 downstream reach and ZoE 3 transmission corridor. A **D-2 Agency Recommendation** indicates that the facility is in compliance with science-based resource agency recommendations for downstream fish passage or fish protection, which may include provisions for appropriate monitoring and effectiveness determinations. A D-1 standard for **Not Applicable/De Minimis Effect** indicates that the facility does not create a barrier to downstream fish migration once fish have passed below the dam. Douglas PUD’s selection of D-1 for ZoE 3 is appropriate since the 230-kV transmission line corridor is unrelated to downstream fish passage.

Downstream fish passage at the Wells Project applies to salmonids, Pacific Lamprey, and White Sturgeon. An adult fish may “fallback” through the dam after it has passed upstream via the fishway. According to the NMFS, fallback rates are estimated to be low, between 3.6 % and 5%. Most of the fallback occurs through the bypass system, and downstream survival through the bypass for adults is greater than 98% (Douglas PUD and Anchor Environmental 2010). The fishery resources in the project area are rich and diverse. They include not only the aforementioned species discussed in section C, Upstream Fish Passage, but numerous native and non-native fish species (Table 10).

Table 10. Native and Non-Native Salmonid Fish in the Wells Project Impoundment and Downstream Reach

Native Species	Non-Native Species
Chiselmouth <i>Acrocheilus alutaceus</i>	Carp <i>Cyprinus carpio</i>
Longnose sucker <i>Catostomus catostomus</i>	Black bullhead <i>Ictalurus melas</i>
Bridgelip sucker <i>Catostomus columbianus</i>	Brown bullhead <i>Ictalurus nebulosus</i>
Largescale sucker <i>Catostomus macrocheilus</i>	Pumpkinseed <i>Lepomis gibbosus</i>
Prickly sculpin <i>Cottus asper</i>	Bluegill <i>Lepomis macrochirus</i>
Threespine stickleback <i>Gasterosteus aculeatus</i>	Smallmouth bass <i>Micropterus dolomieu</i>
Burbot <i>Lota lota</i>	Largemouth bass <i>Micropterus salmoides</i>
Peamouth <i>Mylocheilus caurinus</i>	Yellow Perch <i>Perca flavescens</i>
Rainbow trout <i>Oncorhynchus mykiss</i>	Black crappie <i>Pomoxis nigromaculatus</i>
Mountain whitefish <i>Prosopium williamsoni</i>	Walleye <i>Sander vitreus</i>
Northern pikeminnow <i>Ptychocheilus oregonensis</i>	Tench <i>Tinca tinca</i>
Redside shiner <i>Richardsonius balteatus</i>	Lake whitefish <i>Coregonus clupeaformis</i>
Dace <i>Rhinichthys spp.</i>	

Source: LIHI Application

Juvenile Salmonid Downstream Passage

As Wells Dam is a hydrocombine, the primary method of juvenile salmonid downstream passage is through Juvenile Bypass System (JBS). Douglas PUD developed the JBS and used a barrier system to modify the intake velocities on all even-numbered spillways (2, 4, 6, 8, and 10). Figure 16 illustrates the hydrocombine and JBS, as described below.

Ten Turbine Silos are straddled by 11 spillways, five of which are operated to function as the JBS. During juvenile salmon migration, spillway intakes for each even-numbered spillway are modified by the insertion of bypass baffles on either side of fish bypass entrances to constrict surface flows and direct fish toward the bypass exit (which is the spillway gate). Fish bypass entrances provide 64 4 x 4-foot openings in the first 75 feet of the water column and extend to the bypass spillway floor. Turbine Intakes are located approximately 75 feet below the water surface and extend to the forebay floor at approximately 130 feet.

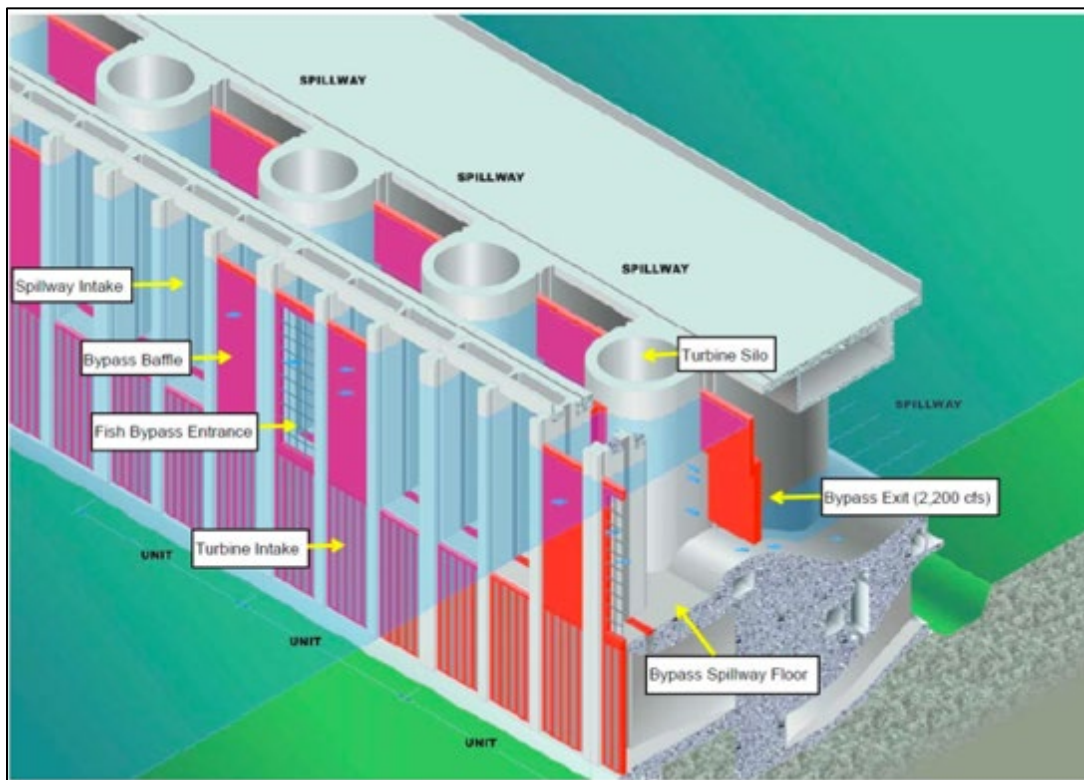


Figure 16. Artistic depiction of Wells Dam illustrating its hydrocombine design and Juvenile Bypass System (Source: LIH application)

The JPS operates from early April until over 95% of the juvenile salmonids have passed downstream of the Project. Douglas PUD determines 95% of juvenile fish passage through the use of Passive Integrated Transponder (PIT) tags, acoustic telemetry, and direct observation. The HCP details how the bypass bays will be operated, which depends on the turbine units operating, the discharge going through the project, and the time of year.

The HCP requires that 93% of all five anadromous juveniles survive passage through the impoundment, forebay, dam, and tailrace combined, and that at least 95% survive passage through the dam. Douglas PUD has conducted several large-scale survival studies to evaluate the continued achievement of the HCP’s downstream juvenile survival standards. Since the HCP was ratified in 2002, Douglas PUD has conducted five survival studies. The most recent was conducted in 2020. During that study, the estimated juvenile project survival rate for yearling spring migrating Chinook was 95.2%. The average juvenile project survival for these five studies is 96%, which exceeds the 93% juvenile project survival standard and is the highest juvenile project survival rate for any hydro project on the Columbia or Snake rivers (Gingerich et al. 2020). As shown in Figure 17, juvenile salmonid survival rates have exceeded the HCP’s standards.

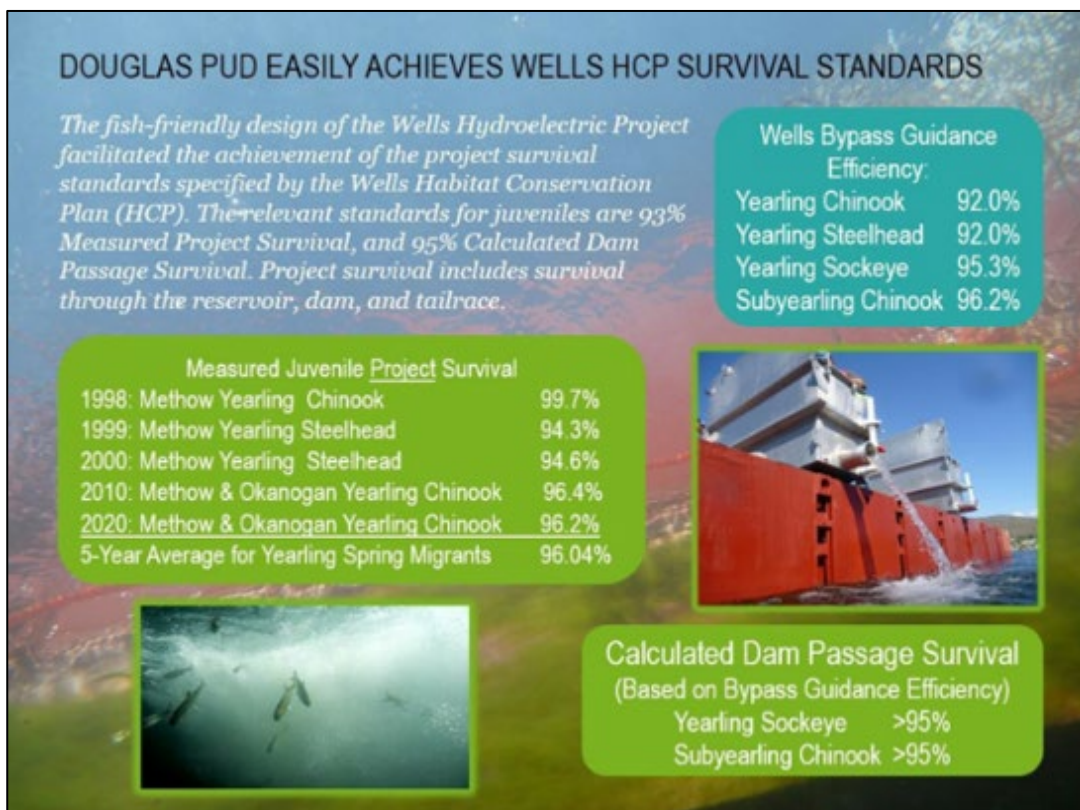


Figure 17. HCP Juvenile Salmonid Survival Rates at the Wells Project (source: LIHI application)

Based on a 2016 – 2017 radio-tagging study, 12 radio-tagged Bull Trout moved downstream through Wells Dam. All 12 fish were successful in their downstream migration and survived (Robichaud and Gingerich 2017). These results were similar to those found in studies conducted before relicensing (LGL and Douglas PUD 2008).

Downstream passage and survival rates for juvenile Pacific Lamprey are currently unknown. However, Douglas PUD believes that downstream passage rates of this species is similar to rates of salmonid species since lampreys migrate downstream at the same time as

juvenile salmonids and use the same bypass gates. As required by the Pacific Lamprey Management Plan, Douglas PUD must conduct a study once technology and study methodologies are developed. According to the PUD's 2023 Aquatic Settlement Agreement Annual Report (Appendix F)¹⁴, tag technologies and methodologies are available, but there is no reliable source of juvenile fish upstream of Wells Dam to conduct a study. However, the Aquatic Settlement Working Group will continue to discuss the available tag technology, study design, and source of study fish to determine if and when evaluating juvenile lamprey passage and survival at Wells Dam is appropriate.

Summary

Douglas PUD's fish bypass system successfully passes 96% of the five salmonid species and exceeds the HCP standard. This fish bypass system has the highest juvenile survival rate for Columbia or Snake Rivers hydro projects. Although there is no data for the Pacific Lamprey downstream passage, success rates are likely high. Bull trout also appear to be able to move downstream without any difficulty.

My review of the HCP, FERC docket, LIHI application and License Articles 403 through 407, and the Annual Summary of License Implementation and Compliance Reports indicates that the Wells Project operations are consistent with the LIHI criterion, therefore, this LIHI criterion is satisfied.

E. Shoreline and Watershed Protection

Douglas PUD selected Standard E-2 for all ZoEs. Although Shoreline Protection does not apply to the ZoE 3 transmission corridor, Watershed Protection does. Standard **E-2 Agency Recommendation** means that the facility is in compliance with all government agency recommendations in a license, water quality certificate, or other authorization, such as an approved Shoreline Management Program or equivalent for protection, mitigation, or enhancement of shoreline and watershed.

The Wells Impoundment is approximately 30 miles long. The Project boundary extends 1.5 miles up the Methow River and 15.5 miles up the Okanogan River. The normal maximum surface area of the impoundment is 9,740 acres with a gross storage capacity of 331,200 acre-feet and usable storage of 97,985 acre-feet at elevation 781 feet. Most of the shoreline is steep, with slopes rising 20 to 40 feet above the water surface. Exceptions include the shoreline in Pateros, Brewster, at the mouth of Okanogan River, Washburn Island, and the Bridgeport Bar. These shorelines vary between 3 and 10 feet above the water surface.

The Wells Project impoundment shoreline is approximately 108 miles long and includes 96 miles of natural habitat. Douglas PUD owns over 99 percent of the shoreline within the

¹⁴ https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20240515-5189

Project. Also, within the FERC Project boundary, approximately 15 miles of shoreline surround isolated ponds, the largest of which is Washburn Pond. Most lands outside the Project boundary are privately owned and primarily used for agriculture, with tracts of federal and state-owned land interspersed (Figure 18).



Figure 18. Wells Project reservoir shoreline and surrounding area

Land Use Policy

Lands within the Wells Project boundary include shrub-steppe, irrigated agriculture, wildlife habitat, and recreation lands, including parks in Pateros, Brewster, and Bridgeport.

ZoE-3 of the Wells Project has two 230-kV transmission lines that extend 41.8 miles from Wells Dam to the Douglas Switchyard. The transmission lines have a 235-ft Right of Way (ROW) Easement, totaling 1,117 acres.

Douglas PUD has implemented a Land Use Policy required by Article 412 of the FERC license to ensure that non-project uses of Wells Project lands are consistent with the FERC license. Where not inconsistent with Project purposes and within the city's suburban interface with Project lands, Douglas PUD may issue land use permits to adjacent property owners for nonexclusive uses of Project lands, including for boat docks, landscaping, and existing agriculture uses. Any ground-disturbing activities require cultural resources review and may require a cultural resources survey and mitigation at the property owner's expense before consideration for approval. The Land Use Policy can be found at <https://bit.ly/3zUFknE>.

Off-License Settlement

As part of the Wells Project's FERC relicensing, Douglas PUD and the WDFW entered into an Off-License Settlement Agreement (Off-License Settlement) on December 17, 2007. Under the terms of the settlement, Douglas PUD provides funds for the operation and maintenance of the Wells Wildlife Area (WWA).

WDFW operates the WWA which consists of six Habitat Management Units with an area of over 8,200 acres. Development of wildlife habitat for native wildlife species along with public wildlife-oriented recreation are features of the settlement. As part of the settlement, Douglas PUD also annually raises 20,000 pounds of rainbow trout for recreational fishing enhancement in non-project waters, including planting fish in 26 lakes in Okanogan, Chelan, and Douglas counties.

Wildlife and Botanical Management Plan

Implementing the Wildlife and Botanical Management Plan (WBMP) required by Article 409 of the FERC license is an essential component of the Wells Project. The WBMP guides wildlife management activities and protects rare, threatened, and endangered (RTE) wildlife and plant species on Project lands until 2052. Douglas PUD developed this plan in consultation with USFWS and WDFW.

The WBMP protects and enhances the habitat of RTE wildlife and plant species on Project lands. Douglas PUD will protect and increase the number of Bald Eagle perching opportunities. Food plots were planted annually to provide food for wintering waterfowl.

Douglas PUD also patrols the Wells impoundment to prevent unauthorized encroachment on Project land and replace damaged habitat.

Douglas PUD performs invasive plant surveys every five years to look for new species. Every ten years Douglas PUD is required to control all State Classified A and County B class-designated invasive weeds in the ROW corridor. There is a 500-ft buffer zone around these RTE plant sites where herbicide spraying, or ground-disturbing activities are prohibited. Douglas PUD found Thompson's Clover (*Trifolium thompsonii*), a state-threatened plant, and Brewer's Navarretia (*Navarretia breweri*), a state sensitive plant, in the last survey of the transmission line corridor.

Douglas PUD controls weeds on Wells Project land and the 230-kV transmission line corridor. The PUD worked with the Okanogan County Weed Control Board to identify any new infestation of weeds on Wells Project lands in the county. Terrestrial weed surveys were completed in 2017 (DCPUD 2018) in the spring and summer of 2022. Locations of class B and C weeds were mapped for the entire project (Appendix F of the Wildlife and Botanical Management Plan). Results from this study were shared with Douglas PUD's Land Services department, and certified weed control operators were dispatched to treat these areas.

Summary

My review of the LIHI application, FERC docket, Off-License Settlement, and Wildlife and Botanical Management Plan indicates that the Wells Project has been operated in accordance with LIHI's Watershed and Shoreline Protection criterion for all ZoEs. Therefore, this LIHI criterion is satisfied.

F. Threatened and Endangered Species Protection

Douglas PUD selected Standard F-3 for all ZoEs. A Standard **F-3 Recovery Planning and Action** means that the facility is in compliance with relevant conditions in a species recovery plan, with relevant conditions in an incidental take permit or statement, biological opinion, habitat conservation plan, or similar government document, and the incidental take document and biological opinion issued relevant to the facility were designed to be a long-term solution for protection of the listed species.

As discussed in sections C and D, Upstream Fish Passage and Downstream Fish Passage, respectively, Douglas PUD is implementing an HCP. This adaptive management plan targets the protection of endangered and threatened salmonids in the Columbia River. Also, since 2020, Douglas PUD has taken steps to reintroduce salmonids above Chief Joseph Dam into the Columbia River's headwaters.

The USFWS and NMFS have designated Steelhead Trout, Spring Chinook Salmon, and

Bull Trout as threatened and endangered fish species in ZoEs 1 and 2 of the Wells Project. Other federally listed threatened and endangered species found near the Wells Project are discussed below.

Steelhead Trout and Spring Chinook Salmon

Upper Columbia River (UCR) steelhead trout were listed as endangered on August 18, 1997, and reclassified as threatened with extinction on January 5, 2006. Because of a legal challenge, Steelhead Trout was reinstated to endangered status on June 13, 2007. UCR Spring Chinook Salmon were listed as *endangered* on March 24, 1999. They are found in the mainstem Columbia River and the Methow River. UCR Steelhead Trout are also present in the Okanogan River.

As discussed in the sections on Upstream and Downstream Fish Passage, the Wells Hatchery plays an important role in the recovery of Chinook Salmon and Steelhead Trout in the mid-Columbia River Basin. Article 404 of the FERC license requires Douglas PUD to prepare a Wells Hatchery Upper Columbia River Steelhead Hatchery Genetic Management Plan to address the effects of the Wells Hatchery steelhead program on Endangered species-listed salmonids.

As part of the HCP approval process, NOAA issued an Endangered Species Act incidental take statement (ITS) to Douglas PUD for the Wells Project in 2003. The ITS is valid for a term of 50 years, starting in 2004 when the FERC approved the HCP and amended the Wells Project license. According to NOAA, the species mentioned above are currently listed, and additional species could be listed during the term of the ITS (Table 11). The ITS covers all operation and maintenance activities at the Wells Project.

Table 11. Salmonids covered by the Endangered Species Act Incidental Take Statement (ITS) for the Wells Project

Steelhead Trout	Upper Columbia River
Spring Chinook Salmon	Upper Columbia River
Summer/Fall Chinook Salmon	Upper Columbia River
Sockeye Salmon	Okanogan River

Source: LIHI Application

The primary means of estimating/reporting incidental take occurs using survival estimates throughout the Project (see Upstream and Downstream Fish Passage sections above). Fish are not generally handled as they pass through the dam, except when they are salvaged from fishway maintenance dewatering or adults are handled to conduct passage studies or for hatchery brood stock. Douglas PUD reports all incidental take to NOAA annually. As part of the FERC relicensing, NOAA issued an updated biological opinion

supporting the continuation of the 2004 ITS specifically for UCR Steelhead Trout and Spring Chinook Salmon interacting with the Wells Project.

NOAA developed a recovery plan for UCR Spring Chinook Salmon and Steelhead Trout in 2007 (UCSRB 2007). This document outlines many of the recovery goals and current actions already being implemented, as discussed in this review's Upstream and Downstream Fish Passage sections. Under the terms of the HCP and FERC license, Douglas PUD is implementing:

1. Juvenile downstream fish passage and adult upstream fish passage facilities and operating the project to enhance fish survival measures,
2. Tributary habitat enhancement, and
3. Production of juvenile anadromous fish at its fish hatcheries.

The above measures ensure a “No Net Impact” and form the foundation of NOAA’s recovery plan for UCR Spring Chinook Salmon and Steelhead Trout.

Bull Trout

Bull trout were listed as threatened on November 1, 1999. The USFWS issued a biological opinion and included an ITS for Columbia River Bull Trout in 2012 (USFWS 2012). Bull trout are found in the mainstem Columbia River and the Methow River. Douglas PUD submits an annual report on the Wells Project’s impact on Bull Trout, including any incidental take that occurred in the previous year. The USFWS has developed a recovery plan for Mid-Columbia River Bull Trout. The plan identifies several potential threats to Bull Trout related to the management of the hydroelectric projects in the Mid-Columbia Basin (USFWS 2015).

As part of the Wells Project Aquatic Settlement Agreement required by Articles 402 and 406 of the FERC license, the Bull Trout Management Plan outlines several objectives related to bull trout passage, stranding during low water/reservoir drawdowns, and other objectives that support the USFWS Recovery Plan. In addition, biotelemetry studies show that passage and survival standards for bull trout traveling up, and downstream past Wells Dam are being exceeded as required by the most recent Biological Opinion and Incidental Take Statement issued by the USFWS on June 12, 2012. The Biological Opinion for the operation of the Wells Project and the associated hydro-related mitigation activities, including hatchery and habitat enhancement actions, are discussed in the upstream and downstream fish passage sections.

Other Federally listed Species

This reviewer examined the USFWS Information for Planning and Consultation (IPaC) report and found that the following endangered and threatened mammals, birds, and insects may occur in the Wells Project area (Table 12). The IPaC indicated that none of these species have critical habitat in the Project area – only bull trout does (Appendix C).

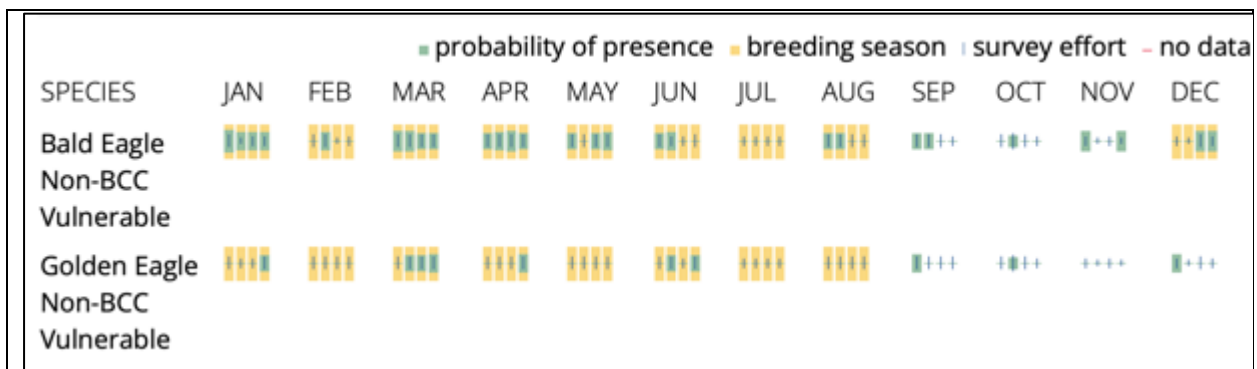
Table 12. Endangered, Threatened, and Candidate Terrestrial Species potentially affected by activities in the Wells Project Area

<p>Gray Wolf <i>Canis lupus</i>- Endangered There is final critical habitat for this species. https://ecos.fws.gov/ecp/species/4488</p>	<p>Yellow-billed Cuckoo <i>Coccyzus americanus</i>- Threatened There is final critical habitat for this species.</p>
<p>Pygmy Rabbit <i>Brachylagus idahoensis</i>- Endangered No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1126</p>	<p>Monarch Butterfly <i>Danaus Plexippus</i>- Candidate Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743</p>

Source: USFWS IPaC

Bald eagles (*Haliaeetus leucocephalus*) and Golden eagles (*Aquila chrysaetos*) are protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. Bald Eagles are likely present in the Wells Project area (Table 13). The USFWS does not consider either species a Bird of Conservation Concern (BCC) in the Wells Project Area

Table 13. Probability of Presence of Bald and Golden Eagles in Wells Project Area



Source: USFWS ICaP

There are 21 migratory species of birds that are BCC that may be present in the Wells Project during the year (Appendix C).

Douglas PUD prepared and implemented the Wells 230-kV Transmission Line Corridor Avian Protection Plan (APP) in consultation with the USFWS and WDFW. The APP is designed to conserve migratory species, rare, threatened, and endangered species, and raptors. The plan considers both avian migrants interacting with the transmission lines and birds nesting on the transmission line structures. Douglas PUD implements the following practices and protocols under the APP:

1. Reporting Protocol: All avian mortalities found in the transmission line corridor are reported to the appropriate parties;
2. Nest Management Protocol: Douglas PUD implements a Nest Management Protocol in compliance with federal and state bird protection laws;
3. Tree Removal Protocol: Tree removal as part of transmission corridor maintenance occurs between August 31 and January 31 to protect migratory birds;
4. Training Protocol: All appropriate utility personnel have been trained to evaluate avian issues when performing maintenance on the transmission lines and corridor.

Direct Contact and Electrocutation

Electrocutions occur when birds are large enough to span the distance between conductors or between an energized component and a ground. Bald eagles and golden eagles are the largest birds anticipated to interact with the 230-kV transmission line. Sandhill cranes (*Grus canadensis*) are the largest migrant birds that stop in fields in Douglas County but are not normally found near the transmission line corridor.

Suggested Practices for Avian Protection on Power Lines – The State of the Art in 2006 recommends 60 inches (152 cm) of separation between energized parts to protect eagle-sized birds from electrocution (APLIC, 2006). The transmission lines were constructed to meet the National Electric Safety Code (NESC) conductor clearances. The transmission line exceeds the minimum eagle separation recommendation with a phase-to-ground separation of 8 feet (2.4 m) and a horizontal separation of 24 feet (7.3 m) between phases. The phase-to-phase separation exceeds the maximum wingspan for an adult female eagle of 8 feet (2.4 m) (APLIC, 2006). Using suspension insulators contributes to the safety margin for eagles by suspending the conductor under the tower bridge, preventing wing tip-to-wing tip contact between the phase and ground.

Bird Collisions and Bird Flight Diverters

Bird collision risks are caused by factors related to the avian species, the environment, and the configuration or location of lines (APLIC and USFWS, 2005). Bird flight diverters (BDs) have been used in Europe and the United States since the early 1970s (APLIC, 1994). BDs are high-impact plastic spirals that wrap around the shield wire to make it more visible (Figure 19).

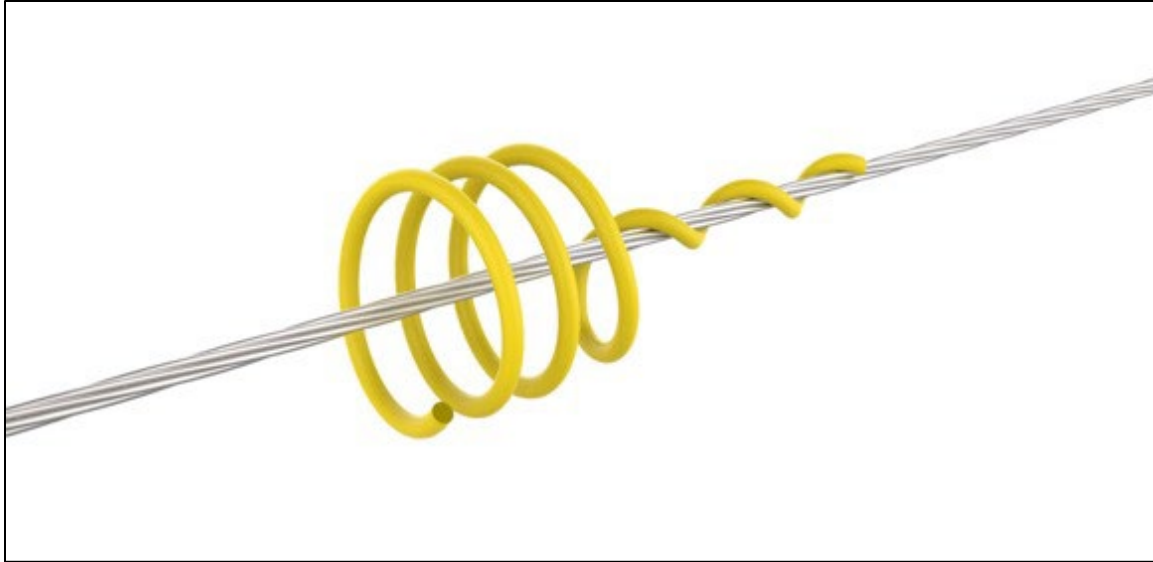


Figure 19. Bird Flight Diverters

Currently, there are no BDs on the Project's transmission lines. However, Douglas PUD will install BDs on the 230-kV river crossing if the transmission line is reconducted or the static wire or aviation markers are replaced. BDs will be spaced between the aerial marker balls to increase the visibility of the shield wire. If available, light-emitting BDs will be installed to improve low-light visibility; Puget Sound Energy is working with Tyco Electronics to develop BDs that store solar energy and emit visible light during low-light conditions.

Bird Nest Management

Transmission line structures provide perch, roost, and nest substrates, especially for eagles, hawks, and ravens in open habitats where natural substrates are limited. Nests built on transmission line structures can cause outages and possibly fire when long sticks fall and cause phase-to-ground faults. A raptor incubating or brooding young will defecate over the side of the nest, potentially causing a streamer outage if the nest is above an energized phase.

On the Waterville Plateau, the Wells transmission lines travel through 22.8 miles (36.6 km) of wheat fields with few nesting or perching opportunities. Bird nests have not been a significant problem in transmission line towers. During relicensing, surveys found two common raven (*Corvus corax*) nests, a red-tailed hawk nest, and a nest built by an unidentified occupant. Annual transmission line inspections have recorded an average of 4.75 nests per year, or 0.06 nests per mile per year, on the transmission line towers. Douglas PUD has implemented a nest management protocol to ensure compliance with federal and state laws. Douglas PUD's Wildlife Biologist is consulted before any nest is removed, and permits will be obtained from USFWS and WDFW, if necessary, before nest removal proceeds. Active nests will not be removed from the transmission lines between February 1 and August 31 without prior approval from USFWS and WDFW. Nests will only be removed if they are located above a line phase and have caused

or threatened to cause an outage, present a fire hazard or other safety hazard, or threaten tower stability due to their size and weight.

State-Listed Rare Threatened and Endangered Species (RTE)

The Washington Natural Heritage Program (WNHP), which is administered by the Washington Department of Natural Resources, has developed a list of plant species considered endangered, threatened, sensitive, possibly extirpated, and under review (lists 1 and 2) for conservation.

The four RTE plant species that were documented include two state-threatened species, Thompson's clover (*Trifolium thompsonii*) and little bluestem (*Schizachyrium scoparium*), and one WNHP Review 1 Species: northern sweetgrass (*Hierochloa hirta*). There are few known occurrences of Brewer's Navarretia (*Navarretia breweri*) even though they are on a Review list (Miller, J. E. D., Wessel, S., & Fertig, W. (2024). All RTE plant locations were documented using a handheld Global Positioning System (GPS) unit, and resulting maps are included in Appendix A of the WNHP.

In 2017, Beck Botanical Services and Douglas PUD found adder's tongue (*Ophioglossum pusillum*), a state-threatened species, on Washburn Island. In 2017, WDFW documented swamp milkweed (*Asclepias incarnata*) on the Okanogan River unit. Currently, it's the only known occurrence in Washington State. Native milkweeds are used as larval host plants by monarch butterflies (*Danaus plexippus*), a species of greatest conservation need in the state and a Federal candidate for listing.

Beginning in year five (2017) of the new FERC license and every ten years thereafter, Douglas PUD will survey and revise site boundaries for populations of little bluestem and Thompson's clover found within the Wells Project boundary. RTE surveys were completed in 2017. No further little bluestem and Thompson's clover surveys are required until spring 2027.

Wildlife and Botanical Management Plan

Douglas PUD is required by Article 409 of the FERC license to implement the Wildlife and Botanical Management Plan for the Wells Project. This plan has ensured compliance with the Endangered Species Act, Bald and Golden Eagle Protection Act, Migratory Bird Treaty Act, and plant species and State Listed RTE species of concern.

For lands owned by Douglas PUD within the Wells Project boundary, no new ground-disturbing activities are allowed within a 500-foot buffer zone surrounding the RTE plant locations, and no land use permits are issued for these buffer areas. Any weed control needed within the buffer zone utilizes the following methods in descending order of preference: biological control, hand pulling, and hand wiping of individual weeds with herbicide. Details of the Weed Control Plan can be found in Section 4.6 of the WBMP.

In 2023, Douglas PUD did not allow ground-disturbing activities to happen below the Wells Project boundary within five hundred feet of the RTE plant locations identified in the EDAW (2006a) RTE plant surveys. Douglas PUD's vegetation management employees have been informed of the RTE plant sites, and no weed control was needed at any of the RTE plant locations in 2023. Bi-monthly impoundment surveys will continue to deter future ground-disturbing activities adjacent to the RTE plants identified within the Wells Project boundary.

Douglas PUD is required by Article 409 of the FERC license to consult the WNHP annually to review their rare plant list and include an updated copy in the annual Terrestrial Report to the FERC. A current copy of the WNHP rare plant list can be found in Appendix B of the Wildlife and Botanical Management Plan. The list was compiled by the WNHP rare plant database for Chelan, Douglas, and Okanogan counties, updated by WNHP in August 2021. The most recent update is available in July 2024 (Miller, J. E. D., Wessel, S., & Fertig, W. (2024).

Summary

My review of the LIHI application, FERC docket, NOAA's Biological Opinion, Off-License Settlement, and Wildlife and Botanical Management Plan indicates that the Wells Project has been operated in accordance with LIHI's Endangered and Threatened Species Standard 3 for all ZoEs. Therefore, this LIHI criterion is satisfied.

G. Cultural and Historical Resource Protection

Douglas PUD selected Standard G-2 for all ZoEs. A Standard **G-2 Approved Plan** means that the facility is in compliance with approved state, federal, and recognized tribal plans for protecting, enhancing, or mitigating impacts to cultural or historic resources affected by the Wells Project.

Construction of the Wells Project

The Douglas PUD began construction of the Wells Project in the fall of 1963. The Project reservoir began filling in 1967, coinciding with the start of the dam's commercial operations on September 1, 1967. The construction and operation of the Project adversely affected the local Native American tribes, particularly the Confederated Tribes of the Colville Reservation (CCT). In addition, the construction of other non-federal and federal dams in the Upper Columbia River have caused cumulative adverse impacts on upstream passage of anadromous fish and the CCT's traditional lands and cultural wellbeing.

Decades later, Douglas PUD reached a settlement agreement with the CCT to compensate for the Wells Project's adverse effects on CCT's tribal lands. The agreement was established to compensate for the Wells Project's inundation of tribal lands and loss of fishing rights, burial grounds, and other culturally significant areas that were crucial to the CCT's

cultural and economic well-being. Article 202 of the FERC license required the PUD to implement the terms of the settlement agreement. The agreement included a lump sum payment of \$13.5 million, transfer of approximately 460 acres of land and access easements to the CCT, and ongoing revenue distributions.

Cultural and Religious Beliefs and Benefits to Upper Columbia River Tribes

As discussed in detail in section C, Upstream Fish Passage, the UCUT has developed a plan to test the feasibility of reintroducing salmon into the historical habitats of the Upper Columbia River Basin. Douglas PUD has supported the P2IP since 2020 by rearing and providing 160,000 Summer Chinook Salmon from its Wells Hatchery to the aforementioned Indian Tribes. Although not required by the FERC license, each year, Douglas PUD has collected and held adult Chinook Salmon at the Wells Hatchery so that the UCUT can transport them alive for cultural and educational releases (Figure 21).



Figure 200. Cultural and Educational Releases of Salmon in the Upper Columbia River Basin¹⁵

Appendix D shows that various tribes acknowledge and appreciate Douglas PUD’s support and view these contributions positively. Douglas PUD indicated in a March 11, 2024 letter that even though the implementation of the P2IP is outside the Wells Project boundary, it supports the reintroduction of salmonids.

Historic Properties Management Plan

To protect cultural resources, Douglas PUD also implements a Historic Properties Management Plan (HPMP) and programmatic agreement as part of its FERC license. The HPMP

¹⁵ See <https://bit.ly/46ay4A2>

includes provisions for the protection of resources within the Wells Project area of potential effects (APE) in compliance with the National Historic Preservation Act (NHPA) during the term of the FERC license (2012 – 2052).

FERC approved a Revised HPMP on January 8, 2024, pursuant to license Article 410. Douglas PUD filed for FERC approval, a five-year update to the Wells Project's approved HPMP. The five-year update was also filed pursuant to section 5 of the HPMP. The HPMP provides guidelines for managing historic properties potentially affected by the operation and maintenance of the Wells Project. The HPMP contains provisions for:

1. Coordination and consultation with the Washington State Historic Preservation Officer (SHPO), Confederated Tribes of the Colville Reservation Tribal Historic Preservation Officer (CCT THPO), FERC, and other parties as appropriate;
2. Education and interpretation for the public and Douglas PUD staff;
3. Inadvertent discoveries and emergency situations;
4. Management standards for monitoring and treatment of cultural resources;
5. Curation and data management; and
6. Periodic updates to accommodate for environmental and regulatory changes. The current HPMP was most recently updated in 2023.

Since 1957, Douglas PUD has conducted numerous cultural resource inventories, site evaluations, protection measures, and monitoring studies as part of the original Wells Project license. These studies identified over 200 archaeological sites. Douglas PUD continues to implement measures for identifying, evaluating, and managing cultural resources within the Wells Project. These measures include 1) annual archaeological monitoring of high-priority archaeological sites, 2) archaeological monitoring during low reservoir events, 3) evaluation of individual sites for NRHP eligibility, and 4) implementation of site protection measures for sites that Wells Project operations may impact.

During relicensing, Douglas PUD contracted with the Colville Tribes' History/Archaeology Program to conduct a Traditional Cultural Property¹⁶ (TCP) study for the Wells Project. The purpose of the TCP study was to identify locations within the APE that are associated with the cultural practices or beliefs of the Colville Tribes, and the results were presented in TCP Component of the Wells Hydroelectric Project which was filed with FERC on December 5, 2008. The May 2010 HPMP states that Douglas PUD would consult with the THPO and the Washington SHPO to identify potential effects of project activities on TCPs and develop

¹⁶ A traditional cultural property (TCP) is defined generally as one that is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community.

appropriate protection measures. The details of those measures would be determined during those consultations. This would include any agreement between Douglas PUD and the Colville Tribes for the funding of preservation programs, should such funding be considered appropriate by the consulting parties (FERC FEIS p. 195).

Douglas PUD regularly consults with the Wells Project Cultural Resources Work Group to develop strategies for monitoring and treating historic properties. The work group comprises representatives from the CCT, the Washington Department of Archaeology and Historic Preservation (DAHP), FERC, the Bureau of Land Management, the Bureau of Indian Affairs, and Douglas PUD. This group meets and corresponds regularly. Further, the CCT History/Archaeology Program conducts much of the annual archaeological monitoring work on the Wells Project under contract with Douglas PUD.

Douglas PUD implements various archaeological site treatment measures or mitigation to protect historic properties. While erosion of sediments containing archaeological deposits is typically addressed through shoreline stabilization and limited archaeological investigations, other types of treatment are considered when these standard protection and mitigation measures are not feasible.

Mitigation is a way to remedy, offset, or compensate for an adverse effect. Mitigation can take the form of, but is not limited to, public interpretation, educational opportunities, archaeological data recovery, and historical research and documentation. Creative off-site mitigation might include measures to enhance other similar resources, conduct research and analysis on collected archaeological materials, educate the public regarding endangered cultural resources, or other appropriate actions. Douglas PUD has also established an inadvertent discovery protocol for cases where previously unidentified archaeological resources are discovered. The HPMP includes two specific protocols for the discovery of both archaeological resources and human remains.

The HPMP also includes provisions for employee and public education on cultural resources. The employee education program guides Douglas PUD employees and, as necessary, contractor personnel involved with ground-disturbing projects, building repair, and other activities that could adversely affect historic properties.

Managers are informed about existing cultural resource inventories, the Wells Project inadvertent discovery plan, and the Secretary of the Interior's guidelines for the Treatment of Historic Properties, which guide working on historic hydroelectric facilities. The program also describes procedures for accidental discoveries, compliance with cultural resource regulations, and the concerns of tribes and other consulting parties.

The public education component includes measures such as developing and maintaining interpretive exhibits at the Wells Project or other suitable locations, and other measures to inform and educate the public about the full range of human history related to the Wells

Project (Figure 21).



Figure 21. Interpretive Cultural and Historic Exhibits at the Wells Project

In addition to managing and protecting archaeological resources, Douglas PUD implements a management program for historic structures within the Wells Dam Complex. In 2017, the Wells Dam Complex was determined eligible for listing on the National Register of Historic Places. As such, Douglas PUD has developed a Historic Preservation Management and Maintenance Guidelines document for activities associated with the dam, powerhouse, and other associated hydroelectric buildings or structures.

Cultural resources within the 230-kV transmission line corridor

Cultural resources within the 230-kV transmission line right-of-way (ROW) corridor are managed under the Wells Project HPMP. The 235-ft ROW Easement totals 1,117 acres. Douglas PUD identified 12 archaeological sites in the ROW. These sites are regularly monitored under the HPMP's archaeological monitoring program. All previously recorded archaeological sites along the ROW were revisited by archaeologists in 2023 to identify any change in conditions. Douglas PUD developed recommendations for future management measures after consulting with the Wells Project Cultural Resources Work Group. The monitoring program will continue during the Wells Project FERC license term.

Summary

My review of the LIHI application, Article 410 of the FERC license, and HPMP annual reports indicates that the Wells Project has been operated in accordance with LIHI's Cultural and Historic Resource Protection criterion for ZoEs 1, 2, and 3. As shown in Appendix D, various tribes acknowledge and appreciate Douglas PUD's support and efforts to restore salmon to the headwaters of the Columbia River as culturally significant. Therefore, this LIHI criterion is satisfied.

H. Recreational Resources

Douglas PUD selected Standard **H-2 Agency Recommendation** for ZoE-1 Impoundment and ZoE-2 Downstream Reach. The PUD selected a Standard **H-1 Not Applicable/De Minimis Effect** for the ZoE-3 transmission ROW corridor since it does not have any areas available for recreational purposes.

The transmission corridor is privately owned except for some small tracts of public land. Douglas PUD accesses ZoE-3 only for transmission line maintenance through easements with the landowners. Although some public land is along the corridor, the transmission line ROW does not offer specific additional opportunities for recreational access.

Overall Description

The Wells Project provides a variety of recreation opportunities for residents and visitors. Many people take advantage of the Wells Project area during the spring and summer. Recreational activities include boating, fishing, bird watching, hiking, and camping. Additionally, sportspeople visit the area during the fall months to fish for steelhead and to hunt waterfowl, upland birds, and deer.

Douglas PUD's recreation facilities include parks, boat launches, and designated wildlife areas (Figure 22). The PUD has funded and developed 20 formal recreation facilities along the Wells Reservoir in Pateros, Brewster, and Bridgeport and along the lower reaches of the Methow and Okanogan rivers. Four designated wildlife areas are also within the Wells Project FERC boundary.

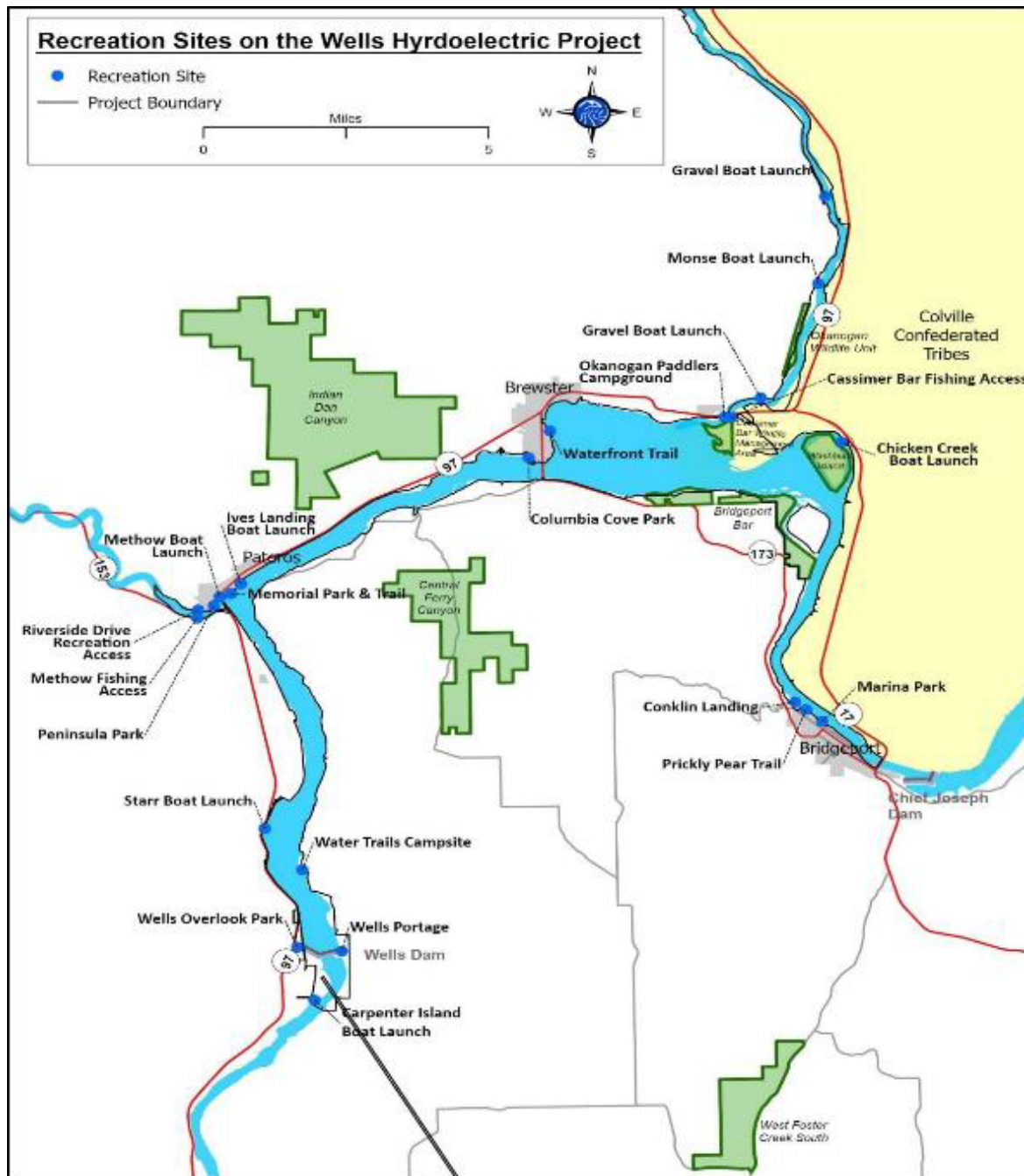


Figure 22. Recreation Facilities in the Wells Project Area

Douglas PUD owns over 95% of the shoreline, including over 2,000 acres open to the public. The PUD’s approach to developing and enhancing recreational access to the lands and waters within the FERC Project boundary has been documented in multiple plans since 1967.¹⁷ The PUD also promotes recreation and safety in the Wells Reservoir, including portage around

¹⁷ See Wells Recreation Plan (1967), Wells Recreation Plan Supplement (1974), Public Use Plan (1982), Recreation Action Plans (1987, 1992, 1997, 2002 and 2007), and the Recreation Management Plans (2012 and 2023).

the Wells Dam (Figure 23). To ensure boater safety, portage around the dam must be requested at least 15 days in advance via an online form¹⁸ and portage made with PUD personnel in attendance. A boat barrier prevents access to the powerhouse intake.



Figure 23. Boater Put-in and Take-Out Area and Powerhouse barrier at the Wells Dam

The Douglas PUD has developed and maintained about 20 recreational facilities within the Wells Project FERC boundary.¹⁹ The PUD charges no fees to use the recreational facilities, except for camping at Marina Park and Conklin Landing Park, both in the City of Bridgeport. The City conducts the day-to-day operation of the parks and is compensated with the camping fees.

Additional information and interactive maps can be found on Douglas PUD's [Parks and Recreation website](#). Douglas PUD also installed informational kiosks at all major recreation developments (Figure 24).

¹⁸ <https://douglaspud.org/environmental-stewardship/parks-and-recreation/wells-reservoir-recreation/well-dam-portage-form/>

¹⁹ See recreation area map <https://douglaspud.org/environmental-stewardship/parks-and-recreation/recreation-sites-map-d88/>



Figure 24. Wells Project informational kiosk

Selected Recreation Facilities

Peninsula Park

Peninsula Park is in Pateros near the confluence of the Methow and Columbia rivers. It includes a gazebo, a paved walking path, a covered picnic shelter, a swimming beach, restroom facilities, playground equipment, a swimming lagoon, vehicle parking, and a lawn area (Figure 25).



Figure 25. Photo of Peninsula Park in Pateros

Memorial Park

Memorial Park is also in Pateros along the Columbia River. It includes three covered picnic shelters, fishing and ski docks, vehicle parking, interpretive displays, playground equipment, a concrete water access ramp, restroom facilities, and a developed waterfront trail with park benches and lighting (Figure 26).



Figure 26. Photo of Memorial Park on the Columbia River

Conklin Landing Park

Conklin Landing Park includes recreational vehicle (RV) campsites, restroom and shower facilities, a lawn area, and a boat launch. The RV campground includes 17 full hookups. Prickly Pear Trail along the shoreline connects to Marina Park (Figure 27).



Figure 27. Conklin Landing with RV campsites

A half mile-compacted gravel walking trail meandering along the shoreline of the Columbia River, within Bridgeport city limits, connects Marina Park and Conklin Landing.

Wells Overlook

Wells Overlook Park has an outdoor interpretive center overlooking Wells Dam. The park includes vehicle and day-use RV parking, restrooms, a picnic shelter, and a one-half-mile compacted gravel walking trail. The facility also has interpretive exhibits, a Wells Project information kiosk, and an original Wells Project turbine runner (Figure 28).



Figure 28. Wells Overlook Park downstream of Wells Dam and the original Wells Project turbine runner

Carpenter Island Boat Launch

The Carpenter Island Boat Launch is a concrete plank boat launch located on the right bank of the Wells Tailrace about one mile downstream of Wells Dam. It includes a double-lane launch, handling floats, and a restroom (Figure 29).



Figure 29. Photo of Carpenter Island Boat Launch one mile downstream of Wells Dam.

Rustic Boat-In Camping Area

The Rustic Boat-In Camping Area is located at RM 517.5 on the left bank of the Columbia River. It is available for camping for non-motorized boaters and consists of two tent pads (Figure 30).



Figure 30. Photo of the Rustic Boat-In Camping Area

Recreation Facilities Maintenance and Improvements

After FERC issued the new licensee for the Wells Project in 2012, Douglas PUD began implementing the measures contained in the Recreation Management Plan required by Article 411. Those measures included various recreation facility operation and maintenance programs, capital improvements to existing facilities, and the development of new facilities. During that time, Douglas PUD also completed significant facility upgrades on aging facilities (Table 14). Since 2011, all boat launch facilities have been upgraded to modern standards.

The Recreation Management Plan also included a Recreation Facility Operation, Maintenance and Monitoring Program. In 2022, Douglas PUD conducted recreation visitor use surveys at 19 recreation sites during the peak recreation season (May 27 – September 8). During 48 days of sampling, surveys were obtained in person or online from 305 visitor groups. Automatic traffic counters were installed at seven recreation sites, and spot counts were performed at all 19 sites. Ratings of overall site satisfaction and overall area satisfaction were high, averaging 4.7 on a scale from 1 (Very Dissatisfied) to 5 (Very Satisfied). Satisfaction with site amenities was also relatively high, ranging from 4.4 to 4.7 on the 1-to-5 scale. Crowding was generally not an issue at recreation sites or on the water, with an average rating of 4.7 and 4.2, respectively, on a scale from 1 (Extremely Crowded) to 5 (Not at all Crowded). As Table 14 shows, Douglas PUD has spent approximately \$10.4 million on 33 recreational facilities associated with the Wells Project.

Table 14. Recreational Facility Expenditures made by Douglas PUD since 2011

	Project	Year	Cost*
1.	Brewster & Bridgeport Boat Launch Improvements	2011	\$716,000
2.	Peninsula Park Swim Beach	2012	\$65,800
3.	Carpenter Island Boat Launch	2015	\$2,460,000
4.	Methow Launch Dredging	2015	\$628,000
5.	Methow Launch and Chicken Creek Launch Extensions	2015	\$60,000
6.	Memorial Park Trail Repave	2015	\$62,000
7.	Marina Park RV Electrical Upgrade	2016	\$60,000
8.	Memorial Park Playground Surface Replacement	2016	\$30,000
9.	Conklin Landing Boat Launch	2016	\$130,000
10.	Wells Overlook Interpretive Center and Restroom Replacement	2017	\$1,670,000
11.	Okanogan River Paddlers Campground	2017	\$200,000
12.	Ives Landing Restroom and Parking	2017	\$180,000

	Project	Year	Cost*
13.	Peninsula Park Restroom Replacement	2018	\$123,000
14.	Memorial Park Restroom Remodel	2018	\$200,000
15.	Memorial Park and Ives Landing Dock Replacements	2018	\$750,000
16.	Columbia Cove Shoreline Improvements	2018	\$270,000
17.	Conklin Landing RV Park	2019	\$1,134,000
18.	Restroom Replacement Starr Boat Launch	2020	\$25,000
19.	Restroom Replacement Methow Access	2020	\$75,000
20.	Marina Park Trail Repave and Extension	2020	\$165,000
21.	Memorial Park Picnic Shelter Replacements	2021	\$100,000
22.	Brewster Playground Replacement	2021	\$75,000
23.	Bridgeport Trail	2022	\$40,000
24.	Pateros Trail Extension	2022	\$307,000
25.	Bridgeport Entrance Signs	2022	\$10,000
26.	Cassimer Bar Fishing Access Restroom Replacement	2022	\$42,000
27.	Chicken Creek Restroom Replacement	2022	\$42,000
28.	Wildlife Viewing Enhancements	Underway	
29.	Methow Launch Dock Replacement	2023	\$54,000
30.	Marina Park & Conklin Restroom Floor Resurface	2023	\$30,000
31.	Parks pavement sealcoat (Pateros, Carpenter Island)	2023	\$25,000
32.	Ives Landing Picnic Shelter	2023	\$60,000
33.	Columbia Cove Restroom Replacement	2024	\$550,000
	Total		\$10,338,800
*Costs do not include engineering, design, and permitting.			

Summary

My review of the LIHI application, Article 411 of the FERC license, and Recreation Management Plan indicates that the Wells Project has been operated in accordance with LIHI's Recreational Resources criterion for ZoEs 1 and 2 and that ZoE 3 is not suitable for recreation purposes. Therefore, this LIHI criterion is satisfied.

RECOMMENDATION

My review of the certification application and supporting documentation and a search of the FERC docket and Douglas PUD Wells Project website shows that the Project satisfies the LIHI criteria for all resources, as discussed in the sections above. Douglas PUD is operating and maintaining the Project under the terms of the FERC license, WQC, HCP, Aquatic Settlement Agreement, Off-License Agreement, Wildlife Plan, HPMP, and Recreation Plan. The PUD has also voluntarily worked with the UCUT and the CCT and supports their hatchery operations, and sturgeon and salmon re-introduction efforts to enhance the member tribes' cultural resources, which is consistent with FPA section 10(a) for the comprehensive development of the Columbia River Basin. Douglas PUD's compliance record with the FERC license is excellent.

Based on my review, I believe the Project meets the requirements of Low Impact facilities and recommend it be certified for 13 years, reflecting the PLUS for the upstream fish passage criterion, and with the following condition:

Condition 1:

- a) The Facility Owner shall provide results from the fishway passage improvement study conducted in 2022 to 2023 when results are available and shall provide documentation that the improvements have been accepted by resource agencies as effective.
- b) The Facility Owner shall provide to LIHI, as part of the annual compliance report, a status update on efforts to restore salmonids to the upper Columbia River upstream of Chief Joseph Dam. The report shall include: 1) the Facility Owner's efforts to rear and provide live adult salmon from the Wells Hatchery or other hatcheries to the members of the Columbia River United Tribe for cultural and educational releases, 2) the status of the Programmatic Environmental Assessment (EA) on the Phase 2 Implementation Plan (P2IP) to reintroduce salmonids to the Upper Columbia River Basin, 3) any recommendations from the aforementioned EA or requirements to implement the P2IP and 4) any changes to the Facility Owner's obligations in implementing the Habitat Conservation Plan. LIHI reserves the right to request additional details if necessary. LIHI also reserves the right to modify the Certificate condition again if needed.

VII. REFERENCES

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21. Wells Hydroelectric Project, FERC No. 2149. Initial Study Report required by FERC. Prepared for Public Utility District No. 1 of Douglas County, East Wenatchee, WA. Appendix B – Pages 1992-2047.

VIII. APPENDIX A

From: Brown, Chad [ECY] <CHBR461@ECY.WA.GOV>
Sent: Wednesday, May 15, 2024 1:52 PM
To: Cait O'Reilly <cait.oreilly@dcpub.org>
Cc: ECY RE FED PERMITS (SEA) <ECYREFEDPERMITS@ECY.WA.GOV>
Subject: RE: DOPD WQC Order No 8981

Hello Cait,

I am the Ecology's Hydropower Unit Supervisor. Our unit is responsible for issuing Section 401 Water Quality Certifications. Order No. 8981 issued by Ecology on 2/27/2012 is still in effect and was incorporated as an Order within the Wells Dam License issued by FERC on 11/9/2012 – See Order (D) on p. 43 of the license and subsequent reference to Appendix A. The incorporation of the 401 WQC into the FERC license means that it remains effective through the license unless FERC takes an action to amend the Orders of the license. That said, we work directly with DCPUD staff on the interpretation and implementation of the 401 WQC. If you have any specific questions regarding our current work with DCPUD staff regarding the 401 WQC, please feel free to contact me. Our main point of contact at DCPUD regarding 401 WQC implementation is Andrew Gingerich.

Current 401 WQCs can be found on this page: [Certifications for hydropower licenses - Washington State Department of Ecology](#)

Best regards,
Chad

Chad L. Brown

Water Quality Hydropower Unit Supervisor
Washington Department of Ecology
chad.brown@ecy.wa.gov | 360-522-6441 - mobile



IX. APPENDIX B

Excerpt and Summary of 2012 NMFS Biologic Opinion on Upstream Fish Passage at the Wells Project

“Using available telemetry studies, NMFS (2002a) compared the migration rates of adult Chinook salmon, steelhead, and sockeye salmon through both impounded (dams and reservoirs) and unimpounded reaches of the Snake, mid-Columbia, and lower Columbia rivers. In each case, migration rates (miles/day) through the mid-Columbia River generally exceeded migration rates through unimpounded reaches of the Snake or Columbia rivers and were very similar to those observed in the other impounded reaches (13 to 36 miles/day versus 6 to 19 miles/day in unimpounded reaches or 15 to 40 miles/day in other impounded reaches, respectively). Additionally, calculation of adult conversion rates (the proportion of tagged individuals detected at location (Y) that were previously detected at location (X)) illustrates the successful migration of adults through the mid-Columbia River (Table 1). Conversion rates include a combination of mortality attributable to non-project related causes (e.g., recreational and tribal harvest, predation, and disease) and dam passage, as well as non-detections resulting from straying and spawning below Wells Dam. The nearly 100 percent per-project survival of PIT-tagged adult spring Chinook through the mid-Columbia hydroelectric projects indicates the relative benign nature of adult project passage and a low mortality from all causes combined.

This body of information suggests that passage through the Wells Project is not likely to cause pre-spawning mortality or loss of condition. A brief delay at the dam is more than compensated for by a faster travel time through the reservoir NMFS (2002a). In addition, any delay that does occur is less likely to affect UCR spring Chinook, which hold in the rivers or streams for considerable periods of time prior to spawning than unlisted UCR summer/fall Chinook or sockeye salmon, which spawn soon after completing their migration.” (pages 33-34; NMFS 2012).

X. APPENDIX C

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in the Wells Dam project location.

NAME	BREEDING SEASON
American Avocet <i>Recurvirostra americana</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Apr 21 to Aug 10
American White Pelican <i>pelecanus erythrorhynchos</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/6886	Breeds Apr 1 to Aug 31
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
California Gull <i>Larus californicus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 1 to Jul 31
Calliope Hummingbird <i>Selasphorus calliope</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9526	Breeds May 1 to Aug 15

Clark's Grebe *Aechmophorus clarkii* Breeds Jun 1 to Aug 31
 This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<p>Forster's Tern <i>Sterna forsteri</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p>	Breeds Mar 1 to Aug 15
<p>Franklin's Gull <i>Leucophaeus pipixcan</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 1 to Jul 31
<p>Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680</p>	Breeds Jan 1 to Aug 31
<p>Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere
<p>Lewis's Woodpecker <i>Melanerpes lewis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9408</p>	Breeds Apr 20 to Sep 30
<p>Long-eared Owl <i>asio otus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631</p>	Breeds Mar 1 to Jul 15
<p>Marbled Godwit <i>Limosa fedoa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481</p>	Breeds elsewhere
<p>Northern Harrier <i>Circus hudsonius</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8350</p>	Breeds Apr 1 to Sep 15

Olive-sided Flycatcher <i>Contopus cooperi</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914	Breeds May 20 to Aug 31
Pectoral Sandpiper <i>Calidris melanotos</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Red Knot <i>Calidris canutus roselaari</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8880	Breeds elsewhere
Rufous Hummingbird <i>Selasphorus rufus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002	Breeds Apr 15 to Jul 15
Sage Thrasher <i>Oreoscoptes montanus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9433	Breeds Apr 15 to Aug 10
Western Grebe <i>aechmophorus occidentalis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743	Breeds Jun 1 to Aug 31

XI. APPENDIX D

The following letters of appreciation of support from the UCUT, Spokane Tribe of Indians Dept. of Natural Resources, Washington NW Power and Conservation Council, and Spokane Tribe for Douglas PUD's efforts to introduce Summer Chinook Salmon in the upper reaches of the Columbia River.



25 W. Main, Suite 434
Spokane, WA 99201
t 509.838.1057
f 509.209.2421
ucut.org

September 21, 2022

Douglas County Public Utility District Commissioners
Douglas County Public Utility District
1151 Valley Mall Parkway
East Wenatchee, WA 98802

RE: Supporting the Upper Columbia United Tribes' Efforts to Reintroduce Salmon into the Blocked Habitats of the Upper Columbia

Dear Douglas County Public Utility District Commissioners:

I am writing on behalf of the Upper Columbia United Tribes (UCUT) to express support and appreciation of Douglas PUD rearing 160,000 summer Chinook for UCUT's efforts to reintroduce salmon into the blocked habitats of the upper Columbia. The UCUT organization and its member tribes have been pursuing the development of fish passage at Chief Joseph, Grand Coulee, and Spokane River dams to reintroduce anadromous fish to the tribes' waters and people. Douglas PUD and Wells Hatchery staff have been partners in this work for several years and we thank you for your ongoing support.

Each year since 2020, Douglas PUD has collected and held adult Chinook at Wells Hatchery so that the UCUT tribes may transport them alive for cultural and educational releases and to allow the fish to remain in quarantine while awaiting fish health screening results prior to release.

In addition to the tribes' cultural and educational releases, the UCUT organization and its member tribes are beginning the formal reintroduction research described in our Phase 2 Implementation Plan. To ensure the studies are sound and that we have the appropriate resources to conduct them, we will be receiving 160,000 summer Chinook eggs from brood year 2022. Staff at Wells Hatchery have indicated that they have the hatchery space and water to incubate and rear these summer Chinook on behalf of the tribes until they can take possession of them in the fall of 2023. The UCUT organization and its member tribes are excited that Douglas PUD has the space and water to rear these fish for reintroduction research without risking their obligations for the Habitat Conservation Plan.

This is a tremendous opportunity that is appreciated. This effort by Douglas PUD will help UCUT meet the timelines described in the Phase 2 Implementation Plan and use hard-earned resources we have accumulated to date.

If you have any questions, please feel free to reach out. My contact information is dr@ucut-nsn.org and my phone number is 509.954.7631.

Sincerely,

DR Michel
Executive Director, UCUT



Spokane Tribe of Indians Department of Natural Resources

P.O. Box 480
Wellpinit, WA 99040
Phone: (509) 626-4400
Fax: (509) 258-9600

September 16, 2022

Douglas County Public Utility District Commissioners
Douglas County Public Utility District
1151 Valley Mall Parkway
East Wenatchee, WA 98802

RE: Ongoing Partnerships with Upper Columbia Tribes

Dear Douglas County Public Utility District Commissioners:

Over the past several years an unexpected partnership has grown between the Spokane Tribe, other member tribes of the Upper Columbia United Tribes ("UCUT"), and the Douglas County Public Utilities District ("PUD"). Particularly with the PUD's Wells Hatchery and staff. The Tribes have been pursuing the development of fish passage at Chief Joseph, Grand Coulee, and Spokane River dams in order to reintroduce anadromous fish to our waters and our people. Until recently, friends and allies in these efforts were few. The DPUD and Wells Hatchery staff have been an exception to this trend and have supported the Tribes' work for a number of years.

Since 2020 Wells Hatchery has made accommodations to collect and quarantine live surplus adult Chinook for transport to the Tribe's waters. These salmon have been used for cultural and educational releases; rekindling tribal traditions, informing staff research, and raised awareness of the opportunities our region poses for salmon and steelhead. Several weeks ago, this partnership culminated in a multi-tribal release of 146 summer Chinook to the Spokane River in the City of Spokane. These are the first anadromous fish to swim in that section of the Spokane River since 1909. This release was made part of the American Fisheries Society national conference and the fish drew hundreds of people to the river to witness it. The significance and sentiment of this act cannot be put into words, and Tribe is glad DPUD staff were there to see it.

The upper Columbia Tribes will continue these cultural and educational releases and are beginning the formal reintroduction research described in our Phase 2 Implementation Plan. DPUD's continued support will be critical to this next stage. Our staff are working diligently to ensure the studies are sound and that we have the resources to conduct them. This includes receiving 160,000 summer Chinook eggs from brood year 2022 and the PIT tags needed to monitor these fish. The Tribes are currently working on developing rearing facilities to raise future generations of salmon, but this takes time and there is an immediate need now. Wells Hatchery staff recognized this need. After internal consideration and analysis, Wells staff concluded the hatchery has the space and water to incubate and rear these summer Chinook on behalf of the Tribes until they can take possession of them in the fall of 2023. And this can be accomplished without interfering with DPUD's Habitat Conservation Plan obligations or other programs within their facility.

In the Tribe's opinion, the most efficient way to formalize the rearing of our 160,000 summer Chinook is to include it into the Facility Use Agreement between DPUD and our partners, the Confederated Tribes of the Colville Reservation. As CTCR has long-standing relationships with DPUD, the Spokane, and Coeur d'Alene Tribes, technical and administrative coordination is expected to be relatively seamless.

The Spokane Tribe and all upper Columbia Tribes know that fish passage and reintroduction is necessary for the tribes to heal. We also know that reintroduction will provide benefits to the ecosystem, salmon and steelhead populations, and the people of the Columbia River Basin, especially the upper Columbia. The Tribe thanks DPUD for its early recognition of the importance and benefits of these reintroduction efforts. First by facilitating our cultural and educational releases of adult Chinook. And now by supporting our Phase 2 research through rearing Chinook on our behalf until we have the means to do so ourselves.

Douglas County's support of the Tribes and our work has been exceptionally meaningful. It has taken more than 80 years to reconnect salmon with our people and our waters, and we could not have done it without the partnership of Douglas County PUD. Thank you.

If DPUD needs any assistance or has questions about the need for a Facility Use Agreement please do not hesitate to reach out. Conor Giorgi, the Tribe's Anadromous Program Manager is the point person for the Tribe, and he can be reached at (Conor.Giorgi@SpokaneTribe.com or 509-244-7031).

Sincerely,



Carol Evans
Chairwoman, Spokane Tribal Business Council
Spokane Tribe of Indians

CC: Gary Ivory, DPUD General Manager
Shane Bickford, DPUD Assistant Manager

Guy Norman
Council Chair
315 W Mill Plain Blvd,
Suite 202
Vancouver, WA 98660



KC Golden
Council Member
315 W Mill Plain Blvd,
Suite 202
Vancouver, WA 98660

September 16, 2022

Gary Ivory
Douglas PUD General Manager
1151 Valley Mall Parkway
East Wenatchee, WA 98802

Dear Gary,

The Northwest Power and Conservation Council's 2014/2020 Columbia River Basin Fish and Wildlife Program includes a measure to study the potential for reintroduction of anadromous fish above Chief Joseph and Grand Coulee dams in the reaches and tributaries of the United States. The Council is pursuing a science-based, phased approach to investigate, evaluate, and design an approach to determine how best to proceed with this effort.

The adaptive management required to implement and investigate a phased approach relies on the availability of fish for testing. The Washington members of the Northwest Power and Conservation Council understand that Douglas County Public Utility District is considering rearing fish to assist with studies required for a regional assessment of reintroduction. We further understand the Habitat Conservation Plan Hatchery Committee has evaluated the technical merits of providing these fish and there is no risk to the Habitat Conservation Plan program. We offer our support for your efforts to provide fish that are essential to testing the path forward.

Your efforts to benefit fish and wildlife are important. We look forward to working together as partners to create successful mitigation programs for the region. Any questions can be directed to Stacy Horton at shorton@nwcouncil.org.

Thank You,

A handwritten signature in blue ink, appearing to read "Guy Norman".

Guy Norman

A handwritten signature in blue ink, appearing to read "KC Golden".

KC Golden



COEUR D'ALENE TRIBE
850 "A" STREET
P.O. BOX 408
PLUMMER, IDAHO 83851
(208) 686-1800 FAX (208) 686-1182

RE: Wells Hatchery Partnership

September 16, 2022

Douglas County Public Utility District Commissioners
Douglas County Public Utility District
1151 Valley Mall Parkway
East Wenatchee, WA 98802

RE: Partnership Support with the Coeur d'Alene Tribe and the Upper Columbia
United Tribes

Dear Commissioners,

On behalf of the Coeur d'Alene Tribe ("Tribe") I write to express thanks for Douglas County PUD's ("DPUD") continued support for reintroduction efforts in the Upper Columbia. From the turn of the 20th century, the Tribe has been pursuing the reestablishment of anadromous fish back into our homelands. These fish were extirpated due to the construction and expansion of hydroelectric development throughout the upper Columbia River watershed, which has resulted in the systematic decline of our culture, along with a basin-wide decline in ecosystem health and function. The impacts from the loss of these salmon runs are felt not only in the upper Columbia River but have created a ripple effect throughout the entire Pacific Northwest and Pacific Ocean ecosystems, including an ongoing decline in health to all of the communities that reside within.

Over the last decade, efforts and support to reintroduce anadromy back into the upper Columbia basin have expanded. Local, regional and federal managers have recognized the benefits from these efforts would spread throughout the entire region, including to all Pacific Northwest tribes. Along with that, partnerships have been established between federal and state action agencies, tribes, county governments, and public utility districts. One such partnership in particular that is instrumental the reintroduction effort is the one between DPUD via Wells Hatchery and the tribes of the Upper Columbia United Tribes ("UCUT"), of which the Coeur d'Alene Tribe is a member.

Wells Hatchery and their staff have repeatedly identified excess space and water outside of their Habitat Conservation Plan ("HCP") hatchery obligations to hold surplus adult salmon before being transferred to the upper Columbia watershed for cultural releases. These releases have provided an immeasurable benefit to the Tribe, and we hope to continue to work with Wells Hatchery into the future to continue this effort. More recently, Wells Hatchery staff have identified space within their facility to support rearing of 160,000 juvenile summer chinook provided by the US Fish and Wildlife Service. The availability of these juvenile salmon is essential to the Tribe's effort. These fish will provide timely data necessary to support anadromous fish reintroduction back into the upper Columbia basin, and back to the Tribe's homeland. It is our understanding that rearing of these fish will also be done without impacting DPUD's operations and obligations under the HCP.

The Tribe believes the most effective and efficient way to proceed with the action is to do so under the existing Facility Use Agreement between DPUD and the Confederated Tribes of the Colville Reservation

("CTCR"). The Tribe will work with CTCR and the Spokane Tribe to provide compensation that will cover the cost entirely of rearing these fish under the aforementioned agreement. Moving forward on this agreement is critical to our reintroduction efforts.

On behalf of the Tribe, I would like to express my appreciation to DPUD and the staff at Wells Hatchery for providing this opportunity. Support from agencies like DPUD will continue to go a long way in moving this important endeavor forward. One of which will provide long-lasting benefits to the entire region and all communities that reside within.

For questions and clarifications, please do not hesitate to reach out to myself or to the Tribe's Anadromous Project Lead, Thomas Biladeau (thomas.biladeau@cdatribe-nsn.gov or 208-686-6307). We are happy to provide whatever resources we can to continue this collaborative effort.

Sincerely,



Gene "Heme" James
Secretary, Coeur d'Alene Tribal Council
Coeur d'Alene Tribe

CC: Gary Ivory, DPUD General Manager
Shane Bickford, DPUD Assistant Manager



Public Utility District No. 1 of Douglas County

1151 Valley Mall Parkway • East Wenatchee, Washington 98802-4497 • 509/884-7191 • FAX 509/884-0553 • www.douglaspubd.org

March 11, 2024

Melissa (Mel) Yenke,
Natural Resources Specialist
Bureau of Reclamation, Columbia-Pacific Northwest Regional Office
1150 Curtis Road
Boise, ID, 83706-1234

**Subject: Wells Hydroelectric Project – FERC Project No. 2149
Support for Phase 2 Implementation Plan and NEPA Process**

Ms. Yenke

The Bureau of Reclamation (Reclamation), Bonneville Power Administration (BPA), and U.S. Army Corps of Engineers (USACE), collectively referred to as Co-Lead Agencies, are leading the preparation of a programmatic environmental assessment (EA) under the National Environmental Policy Act (NEPA) for federal support of the "Phase 2 Implementation Plan: Testing the Feasibility of Reintroduced Salmon in the Upper Columbia River Basin" (P2IP). The P2IP was developed by the Confederated Tribes of the Colville Reservation (CTCR), Spokane Tribe of Indians, Coeur d'Alene Tribe, and Upper Columbia United Tribes (UCUT) to test the feasibility of salmon reintroduction upstream of Chief Joseph Dam into the historic salmon habitats in the United States. As part of this process, Public Utility District No. 1 of Douglas County (District) has been working directly with the UCUT tribes to provide them with access to adult and juvenile Chinook for studies in the blocked areas above Grand Coulee. As part of this ongoing collaboration, our staff attended the in-person open house meeting on February 27, 2024 in Grand Coulee, WA and appreciates the opportunity to provide public comment and support necessary to complete this permitting activity.

The District owns and operates the Wells Hydroelectric Project No. 2149 (Wells Project) located immediately downstream of the federally owned and operated Chief Joseph and Grand Coulee dams. Due to its close proximity to these projects, the District has a vested interest in the successful reintroduction of anadromous fish into the freshwater habitat located upstream of the federal projects. The Wells Project is currently the furthest upstream dam on the mainstem Columbia River that has volitional fish passage facilities for adult and juvenile fish. The District operates the Wells Project pursuant to the terms of a 40-year license issued by the Federal Energy Regulatory Commission (FERC) in 2012. The District's FERC license was approved following the development of an extensive series of conservation, protection, mitigation, and enhancement measures developed by a large number of tribal, federal, state and local agencies working together to conserve the natural resources associated with the Wells Project.

The District's most comprehensive environmental program is the Wells Hydroelectric Project's Anadromous Fish Agreement and Habitat Conservation Plan (Wells HCP). The Wells HCP provides safe and effective fish passage, hatchery compensation and tributary habitat enhancement actions intended to protect, enhance and conserve five species of anadromous salmonids interacting with the Wells Project. Species covered by the Wells HCP include spring-run Chinook, summer/fall-run Chinook, steelhead,

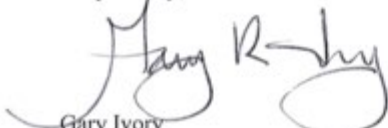
sockeye and coho. The Wells HCP is an adaptive management program that is intended to make the project invisible to anadromous salmonids through the use of a juvenile fish bypass system, adult fish ladders, hatchery compensation to mitigate for any incidental downstream juvenile passage losses, hatchery production for harvest purposes, and tributary habitat enhancement funding to benefit all life stages of salmon spawning and rearing in the Methow and Okanogan rivers. While the blocked area upstream of Chief Joseph Dam is outside the confines of the Wells HCP, the District remains committed to supporting the P2IP program because its goals are consistent with those of the Wells HCP – to conserve, restore and enhance anadromous salmonids interacting with the Wells Project.

The CTCR continues to be a key partner in the implementation of the Wells HCP and is one of the many Upper Columbia United Tribes that has worked diligently for the past decade towards the phased study and reintroduction of Pacific Salmonids above Chief Joseph and Grand Coulee dams.

The District has a long history of balancing renewable electricity production for our customer owners, while also providing No Net Impact survival conditions for anadromous salmonids. For the past several years, the District has been actively supporting CTCR and the UCUT tribes on their reintroduction efforts including providing access to adults for research and ceremonial release purposes, sharing acoustic telemetry data and infrastructure, holding adult fish for disease testing at the Wells Fish Hatchery, and now producing 160,000 yearling summer Chinook smolts per year for P2IP downstream passage studies. Given our long-standing commitments to the conservation and recovery of anadromous fish at Wells Project, it is no surprise that the District has a vested interest in supporting the reintroduction of extirpated stocks into the blocked area. As such, the District welcomes and supports the NEPA process and the various permitting actions, studies, and conservation feasibility work that is necessary to complete the P2IP effort. The District will continue to work side-by-side with the UCUT tribes on implementation of the P2IP while also continuing to meet our FERC license and Wells HCP conservation requirements. The District believes that when taken together the actions of the Wells HCP and P2IP have the potential to significantly improve the abundance, range and productivity of Pacific Salmonids in the Upper Columbia River.

Thank you for the opportunity to provide support on this important issue. Should have you have any question please do not hesitate to reach out to the District's Assistant General Manager, Shane Bickford, Shane.Bickford@dcpud.org; 509-881-2208 or Natural Resources Supervisor Andrew Gingerich, Andrew.Gingerich@dcpud.org; 509-881-2323.

Respectfully,



Gary Ivory
General Manager

Cc: Shane Bickford, Douglas PUD
Andrew Gingerich, Douglas PUD
Tom Kahler, Douglas PUD
DR Michel, Upper Columbia United Tribes
Joe Peone, Confederated Tribes of the Colville Reservation
Casey Baldwin, Confederated Tribes of the Colville Reservation
Laura Robinson, Upper Columbia United Tribes
Conor Gorgi, Spokane Tribe of Indians
Thomas Biladeau, Coeur d'Alene Tribe