

SIMILKAMEEN RIVER, WA

ENLOE HYDROELECTRIC PROJECT (P-12569)



Photo courtesy of Hydropower Reform Coalition

This summary was produced by the

Hydropower Reform Coalition

and

River Management Society

SIMILKAMEEN RIVER, WA

ENLOW HYDROELECTRIC PROJECT (P-12569)

DESCRIPTION:

The Enloe Hydroelectric project is one for which a new license has been issued to construct, operate and maintain by the Public Utility District No. 1 of Okanogan County (Okanogan PUD). The project site is located on land managed by the Bureau of Land Management (BLM).

A. SUMMARY

1. License application filed: August 22, 2008
2. License Issued: July 9, 2013
3. License expiration: July 1, 2063
4. Capacity: 9.0 MW - Estimated annual generation is 45 gigawatt- hours (GWh)
5. Waterway: Similkameen River
6. Counties: Okanogan
7. Licensee: Public Utility District No. 1 of Okanogan County (Okanogan PUD).
8. Licensee Contact: Nick Christoph, Environmental Coordinator
Okanogan County PUD No. 1
1331 2nd Ave. N
PO Box 912
Okanogan, WA 98840-0914
Tel: 509-422-3310
Email: enlow@okpud.org
9. Project Website: <https://www.okanoganpud.org/environmental/enloe-dam-project-background>
10. Project area: The project occupies approximately 35.47 acres of federal land in north-central Washington administered by the US Bureau of Land Management. The dam is situated roughly 3.5 miles northwest of Oroville, Washington on the Similkameen River, a tributary to the Okanogan River which in turn flows into the Columbia River east of Brewster, Washington. Coyote Falls, also known as Similkameen Falls, is located about 370 feet below Enloe Dam, forms a 20-foot-high barrier impassable to anadromous fish.

11. Project Facilities:

The proposed Enloe Project will consist of:

- the existing concrete gravity arch Enloe Dam with an integrated central overflow spillway;
- three new automated steel crest gates with 5-foot-high flashboards;

- an existing 76.6-acre reservoir; a new 190-foot-long intake canal on the east abutment of the dam diverting flows into the new penstock intake structure;
- a new 35-foot-long by 30-foot-wide penstock intake structure with trashracks; two new 150-foot-long above-ground steel penstocks that carry flows from the intake to the powerhouse; a new powerhouse containing two vertical Kaplan turbine/generator units with a total installed capacity of 9.0 MW;
- a new 180-foot-long tailrace channel emptying downstream of Coyote Falls;
- a new substation adjacent to the powerhouse; a new 100-foot-long, 13.2-kilovolt primary transmission line connecting the substation to an existing distribution line;
- about 2 miles of new and upgraded access roads; and
- related facilities.

The run-of river operation would bypass the 370-foot-long section of the river to Coyote Falls. Okanogan PUD will install flashboards and automated crest gates that adjust to regulate spills and maintain a nearly constant reservoir elevation. When inflows exceed 16,500 cubic feet per second (cfs) (approximately 1 percent of the time), the crest gates will be fully opened.

B. IMPORTANT PROVISIONS AND REQUIREMENTS IN LICENSE

The license includes drawings of the structures, fixtures, equipment, and facilities use to operate the project, and is subject to the “Terms and Conditions of License for Unconstructed Major Projects Affecting Lands of the United States (L-2, October, 1975).

It is also subject to the Water Quality Certificate Conditions submitted by the Washington Department of Ecology (Appendix A) and the incidental take terms of the biological opinion submitted by the National Marine Fisheries Service (Appendix B).

Headwaters Benefits (Article 204) If the project benefits from construction in the project headwaters, Okanogan must reimburse the owner of the improvements once assessed.

Since this is a new project, the license requires Okanogan PUD to file the following to Commission:

- Project Lands Progress Report (Article 205) - The status of acquiring title in fee and the rights regarding lands leased or projected to be acquired within the project boundary, by July 3, 2017;
- Documentation of Project Financing (Article 206) – Evidence of sufficient assets, credit and projected revenues to cover project construction, operation and maintenance, by 90 days prior to construction.

The Okanogan PUD may be asked to modify its plan and shall

- Provide access to the project site to authorized agencies and tribes (Article 404)
- Accept a requirement to provide for fishways (Article 405)
- Alter project structures and operations to address accredited fish and wildlife programs

1. Construction (Articles 301 - 307, 401, and 402) – The following are requirements related to project construction:

- Construction Timing (Article 301) – Construction shall begin by July 9, 2015 and be completed before July 9, 2018
- Cofferdam and Deep Excavation Construction Drawings (Article 302) – Confirmation that the cofferdam and deep excavation plans are consistent with the approved design at least 30 days before cofferdam and deep excavation construction begins.
- Contract Plans and Specifications (Article 303) – Submission of plans, specifications and supporting design document, including a Quality Control and Inspection Program, Temporary Construction Emergency Action Plan, a Blasting Plan, and Soil Erosion and Sediment Control Plan, at least 60 days prior to construction.
- As-built Drawings (Article 304) – Submission of exhibits that show how the project was constructed by 90 days after completion.
- Inspection by Independent Consultant (Article 305) – An inspection of the project is due by July 3, 2015, per Part 12 of the Commission's Regulations.
- Owner's Dam Safety Program (Article 306) by October 3, 2013
- Public Safety Plan (Article 307) shall be submitted by October 3, 2013 – This should include the following measures:
 - 1) Signage where public access is limited during project construction
 - 2) Signage at the put-in and take-out upstream of the dam regarding an alternate access location;
 - 3) Options and a preferred alternative for prohibiting access to the historic Enloe powerhouse.
- Project Modification Resulting from Environmental Requirements (Article 308) – Shall be coordinated with the Commission Division of Dam Safety and Inspections.
- Filing of Plans and Reports (Article 401) are as follows:
 - 1) 90 days prior to post-construction instream work:
 - a. Post-construction water quality protection plan
 - b. Spill prevention control and countermeasures plan
 - c. Blasting plan
 - d. Tailrace barrier net plan
 - e. Spoils disposal plan
 - 2) Compliance documents due by January 31st of each year:

- a. Annual report of activities undertaken during the previous year as part of the Fish Plan
 - b. Annual report of monitoring data collected during the previous year as part of the water quality management plan
- 3) A report to NMFS in the case of dead or injured salmon or steelhead trout is due within two days of observance.

- Spoils Disposal Plan (Article 402)

2. Operation and Compliance - The license requires the following to be prepared:

- Revegetation and Wetlands Management Plan (Article 407) upon license issuance. An initial report of completion and suggested best practices is due February 15, 2014 and years one, two, three, four, five, seven and 10 after that first report filing.
- Operation and Compliance Monitoring (Article 403) by July 3, 2014
- Ute Ladies'-tresses Monitoring Plan (Article 408) by February, 2014
- Wildlife Management Plan (Article 409) by at least 90 days before starting construction that shall address transmission line pole spacing, important to minimize the likelihood of raptor electrocution; bald eagle nesting and habitat; and staff training.
- Recreation Management Plan (Article 410) by July 3, 2014 that addresses coordination with the Recreation Management Plan, snow plow schedule, river take-out access at Miner's Flat
- Recreation Monitoring Plan (Article 411) by 90 days of completion of project construction, to include proposed methods of monitoring use; an implementation schedule; and a provision for filing a relevant recreation report.
- Fire Suppression Plan (Article 412) by July 3, 2014 that includes prevention measures; collaborative fire suppression efforts with managing agencies; emergency notification process; rehabilitation for burned areas; and wildfire education signage for public visitors.
- Removal of Deteriorated Building (Article 413) by July 3, 2014
- Aesthetics Plan (Article 414) by July 3, 2014 in coordination with the Revegetation and Wetlands Management Plan to include monitoring of the construction areas and reviewing and updating the plan every 6 years as needed.

3. **Programmatic Agreement** – A final Historic Properties Management Plan (Article 415) shall be filed based on the May 2009 plan.
4. **Use and Occupancy**– Okanogan PUD may grant permission for certain types of use and occupancy (Article 416) of project lands.

Okanogan PUD may grant permission for

- Landscape plantings
- Non-commercial piers, landings, boat docks and similar structures;
- Shoreline erosion control structures; and
- Wildlife enhancement such as food plots.

Okanogan PUD may convey easements, rights of way or leases for

- Replacement, expansion, realignment, or maintenance of bridges or roads where all necessary state and federal approvals have been obtained;
- Storm drains and water mains;
- Sewers that do not discharge into project waters;
- Minor access roads;
- Telephone, gas, and electric utility distribution lines;
- Non-project overhead electric transmission lines that do not require erection of support structures within the project boundary;
- Submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69 kilovolt or less); and
- Water intake or pumping facilities that do not extract more than one million gallons per day from a project impoundment.

They shall submit a report describe for each conveyance during the prior calendar year by the end of January.

Okanogan PUD may convey fee title to, easements or rights-of-way across, or leases of project lands for:

- Construction of new bridges or roads for which all necessary state and federal approvals have been obtained;
- Sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained;
- Other pipelines that cross project lands or waters but do not discharge into project waters;
- Non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained;

- Private or public marinas that can accommodate no more than 10 water craft at a time and are located at least one-half mile (measured over project waters) from any other private or public marina;
- Recreational development consistent with an approved report on recreational resources; and
- Other uses, under certain circumstances.

C. MAP

There are two convenient ways to become familiar with this project on the Hydropower Reform Coalition website, www.hydroreform.org.

- Go directly to the project <http://hydroreform.org/projects/enloe-p-12569>
- To understand the geographical context of the project, visit the *On Your River* section of the site. This link (<http://www.hydroreform.org/on-your-river/Northwest>) will take you to the section for rivers in the Pacific Northwest. Zoom into Washington and look for a marker barely south of the Canadian border slightly east of midway between the Pacific Coast and Idaho near the town of Oroville.