

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

**IN THE MATTER OF GRANTING A
WATER QUALITY CERTIFICATION to:**
Public Utility District No. 1 of Okanogan County,
Washington in accordance with 33 USC 1341
(FWPCA section 401), RCW 90.48.120 and
90.48.260 and WAC 173.201A

ORDER NO. 9007
Licensing of the
Enloe Hydroelectric Project
(FERC No. 12569)
on the Similkameen River,
Okanogan County, Washington

**TO: Mr. John Grubich, General Manager
Public Utility District No. 1 of Okanogan County
1331 Second Ave. N.
PO Box 912
Okanogan, WA 98840**

On August 22, 2008, Public Utility District No. 1 of Okanogan County, Washington (Okanogan PUD) filed an application for a license with the Federal Energy Regulatory Commission (FERC) for the Enloe Hydroelectric Project (Project), FERC License No. 21569. On February 25, 2010, Washington State Department of Ecology (Ecology) received a request from Okanogan PUD for a 401 certification, pursuant to the provisions of 33 USC §1341 (§401 of the Clean Water Act). On February 17, 2011, Ecology received a request from Okanogan PUD to withdraw and reapply their application for a 401 certification. Again, on January 30, 2012, Okanogan PUD withdrew its request and reapplied. This document is a response to that request, issued as an order, under the authority of RCW 90.48.

1.0 NATURE OF THE PROJECT

The Enloe Dam is located on the Similkameen River at river mile (RM) 8.8, near the town of Oroville, Washington. The existing dam is 315 feet long and 54 feet high. The existing dam crest elevation is approximately 1,044 feet high. It is proposed to install new 5-foot-high crest gates, which would increase the reservoir elevation to 1,049 feet. The current maximum surface area of the reservoir is 76.6 acres; the proposed new surface area would be 88.3 acres. A new intake structure, new powerhouse (containing two vertical Kaplan turbine/generator units with an installed capacity of 9.0 megawatts (MW)) and new tailrace would be built on the east bank of the river. The Project would operate in run-of-the-river mode. The Project currently has a certified water right of 1,000 cubic feet per second (cfs); it is proposed to increase the Project's maximum (non-consumptive) water right by an additional 600 cfs. The Project would withdraw water from behind the dam and release it below the Similkameen Falls, about 370 feet downriver. Similkameen Falls has a vertical drop of approximately 20 feet.

Flows naturally occur in excess of 1600 cfs from about April to July. Flow in excess of the 1600 cfs used by the Project would flow over the dam and into the 370-foot-long reach of the river between the dam and the base of the Similkameen Falls; this is known as the bypass reach. From mid-July to

mid-September the Project would release 30 cfs into the bypass reach and 10 cfs the rest of the year. Releases would occur via a pipe near the base of the dam to avoid heating effects of running the water over the dam face as well as icing problems during winter.

For purposes of this 401 certification, the Project has been divided into two phases: the initial construction phase, including construction of the access roads, penstock intake, intake canal, penstocks, powerhouse, tailrace, crest gates and inflow flow outlet works structure, and the second phase: Project operation to generate electricity.

2.0 AUTHORITIES

In exercising authority under Section 401 of the Clean Water Act (33 USC 1341) and Revised Code of Washington (RCW) 90.48.120 and 90.48.260, Ecology has investigated this proposal for:

- 1) Conformance with all applicable water quality based, technology based, toxic or pretreatment effluent limitations as provided under 33 USC 1311, 1312, 1313, 1316, and 1317 (Federal Water Pollution Control Act Sections 301, 302, 303, 306 and 307);
- 2) Conformance with the state water quality standards as provided for in Chapter 173-201A WAC and by Chapter 90.48 RCW, and with other appropriate requirements of state law; and,
- 3) Conformance with all known, available and reasonable methods to prevent and control pollution of state waters as required by RCW 90.48.010.

3.0 CURRENT STANDARDS

1) Washington State Water Pollution Control Act

This Order supports the goals of the State of Washington Water Pollution Control Act (Chapter RCW 90.48). This Order describes a program to effectively monitor and evaluate conditions and progress toward achieving biological goals and water quality requirements to improve conditions for fish and water quality over existing conditions.

2) Designated Uses

Waters of the State are assigned designated uses under WAC 173-201A. Designated uses for the Similkameen River include, but are not limited to:

- Aquatic life uses: salmonid spawning, rearing, migration
- Recreational uses: primary contact
- Water supply uses: domestic, industrial, agricultural, stock water
- Miscellaneous uses, consisting of wildlife habitat, harvesting, commerce and navigation, boating and aesthetics.

3) Numeric Criteria and 303(d) list/TMDLs

Numeric criteria for the above designated uses are also found in WAC 173-201A. These include criteria for total dissolved gas (TDG), temperature, and dissolved oxygen (DO).

- a) Total Dissolved Gas (TDG). The Water Quality numeric criteria require that TDG shall not exceed 110 percent saturation.
- b) Temperature. The Water Quality numeric criteria for the Similkameen River require that water temperature not exceed 17.5°C. When natural conditions exceed these criteria, water temperatures caused by human activities shall not increase by more than 0.3°C due to a single source. Below the dam, there is an additional criterion of 13°C from February 15 to June 15. Water in the Similkameen farther downstream is currently classified as impaired for temperature under Section 303(d) of the Clean Water Act. However, this is considered outside the influence of the Project.
- c) Dissolved Oxygen (DO). Numeric criteria for the designated uses for the Similkameen require that DO exceed 8.0 milligrams per liter (mg/L) with a maximum human-caused decrease of 0.2 mg/l.
- d) Turbidity. Numeric criteria for the uses in the Similkameen River require that turbidity shall not exceed 10 nephelometric turbidity units (NTUs) over background turbidity when the background turbidity is 50 NTU or less, or have more than a 20 percent increase in turbidity when the background turbidity is more than 50 NTU.
- e) Toxics. Toxic substances shall not be introduced above natural background levels in waters of the state which have the potential either singularly or cumulatively to adversely affect characteristic uses, cause acute or chronic toxicity to the most sensitive biota dependent upon those waters, or adversely affect public health, as determined by Ecology (WAC 173-201A-240).

In the Similkameen River, arsenic was identified by Ecology as a toxic substance of concern. A Total Maximum Daily Load (TMDL) was developed for arsenic, and completed in 2004. Based on the studies, arsenic appears to be a legacy pollutant left over from upstream mining and re-suspension of the contaminated sediments.

Three contaminants were evaluated for the license application: arsenic, cadmium and copper. The standards for each are presented below. At the time of issuance of this 401 certification there are no formally established numeric criteria for freshwater sediment in Washington State regulations, so the sediment quality values (SQV) shown below are only presented for reference. SQV are in

milligram per kilogram (mg/kg). Water quality criteria are in microgram per liter ($\mu\text{g/l}$) and refer to the dissolved fraction of these metals.

- i. *Sediment Quality Standards.* For arsenic, 20; for cadmium, 0.6, and for copper, 80.
 - ii. *Water Quality Standards.* The acute criterion for arsenic is 360; for cadmium 1.82, and for copper 9.2. The chronic criterion for arsenic is 190; for cadmium 0.64, and for copper 6.5. The values for copper and cadmium are hardness dependent and have been calculated based on an average hardness of 52 mg/L.
- 4) **Antidegradation.** Existing and designated uses must be maintained and protected in accordance with WAC 173-201A-300.
 - 5) **Spills.** RCW Chapters 90.48 and 90.56 specify the required oil spill prevention and control measures.
 - 6) **Aquatic Nuisance Species.** State law defines “aquatic nuisance species” as a “nonnative aquatic plant or animal species that threatens the diversity or abundance of native species, the ecological stability of infested waters, or commercial, agricultural, or recreational activities dependent on such waters”. Prevention programs are implemented through cooperative agreements among state agencies and representatives of industry (RCW 77.60.130).
 - 7) **Wetlands.** State authorities to protect wetlands are found at WAC 173-201A-260(3)(i).
 - 8) **Shorelines.** Though Ecology does not have approval authority over the development of a FERC required shoreline management plan, Ecology is directed to represent the state’s interests before federal initiatives and proceedings including this Project. Ecology’s consultation as part of development or updates of the Shoreline Management Plan, a Land Use Policy, a Recreation Resource Development Plan, Recreation Management Plan or a Wildlife Habitat Monitoring and Information and Education Plan would fulfill Ecology’s responsibilities under this requirement. (RCW 90.58.260)

4.0 FINDINGS

Below are some findings relevant to conditions in this Order.

4.1 AQUATIC LIFE USES

1) Fish usage

- a) **Fish barrier.** The 33-foot-long, 20-foot-high falls below Enloe dam is believed to be a natural barrier to upstream fish passage (except for Pacific lamprey.) (FERC, 2011). Based on the most recent evaluations by National Oceanic and Atmospheric Administration’s National Marine Fisheries Service (NMFS) and

the Confederated Tribes of the Colville Reservation (Colvilles), passage by salmon and steelhead is extremely unlikely.

NMFS has federal responsibility for the protection and enhancement of anadromous salmon and steelhead and their supporting habitats, under the Endangered Species Act (ESA) and the Federal Power Act (FPA). NMFS, in its Comments and Preliminary Recommended Terms and Conditions (NMFS, 2010) said that it is not prescribing passage in this proceeding, but is reserving its authority under Section 18 of the FPA.

The Colvilles are a federally-recognized tribe with reserved fishing rights that include the waters of the Okanogan River from its confluence with the Columbia River to the Canadian border. The Similkameen River contributes to the Okanogan River and the Okanogan fisheries. The Similkameen River does not lie within the traditional territory of any other federally-recognized tribe. The Colvilles, in their comments on the license application, state that they believe the falls have always prevented salmon and steelhead passage; that this is consistent with information they have collected, as well as with traditional stories.

- b) Fish downstream of the falls. Native species below the falls include summer-run Chinook salmon, sockeye salmon, Upper Columbia River steelhead, bridgelip sucker, largescale sucker, mountain whitefish, longnose dace, northern pike minnow, redbside shiner, rainbow trout, and unidentified sculpin species.
- c) Fish above the dam. Native resident species include chiselmouth, peamouth, bridgelip sucker, largescale sucker, mountain whitefish, longnose dace, burbot, northern pikeminnow, redbside shiner, and unidentified sculpin species.
- d) Fish in bypass reach. In a snorkel survey on September 15, 2010, fish biologists observed small numbers of juvenile suckers, rainbow trout, one sculpin, and a northern pike minnow in the pool directly below the dam. The biologists believe the fish present in the bypass got there by being swept over the top of the dam. Fish habitat there is considered minimal due to bedrock substrate and high water velocities. Salmonid spawning and migration were deemed extremely unlikely and minimum instream flows were set accordingly (WDFW, 2010). No harm to existing fish uses is expected to occur.
- e) Pacific lamprey. Historically, significant runs of Pacific lamprey may have occurred in the Project area. Probable suitable Pacific lamprey spawning and rearing habitats are present in the Similkameen River downstream of the dam; however, recent attempts to document adult lamprey have been unsuccessful.

2) Potential Project Impacts

Potential project impacts to fish species include changes to fish habitat, including reductions in flow or sediment size or quantity, changes to water quality, entrainment, or attraction to the flows from the turbines. The attached Fish Management Plan (FMP) provides measures intended to prevent or mitigate impacts to aquatic life. This document

is attached as Appendix A. A workgroup composed of federal, state and tribal fish managers and the PUD (Fish Workgroup; or FW) will assist in reviewing and implementing measures to protect aquatic life and habitat.

3) Adaptive Management

Adaptive Management, as used in this Certification, means an iterative and rigorous process used to improve decision-making and achieve objectives in the face of uncertainty. It is intended to improve the management of aquatic resources affected by the Project in order to achieve the desired goals and objectives (compliance with State water quality standards) as effectively and efficiently as possible.

Ecology expects the conditions contained in this Certification will be adequate to protect aquatic life as required under state law and the Clean Water Act. Some of the conditions are contained in the Fish Management Plan. Specifically, the plan identifies (a) the primary conditions of concern; (b) goals and objectives (i.e., for compliance with the designated uses of the State water quality standards); (c) management measures; and (d) monitoring measures and schedules. However, if, during the course of the License, the results of monitoring show that the goals and objectives are not being achieved, the management measures may need to be modified. In those instances, as identified in the Fish Management Plan, "adaptive management" will be needed to achieve the goals and objectives.

As used in this Certification, Adaptive Management involves the following steps:

- a) Develop a hypothesis regarding Project impacts and potential protection or mitigation measures (as has been done in the Fish Management Plan);
- b) Develop and implement reasonable and feasible measures to avoid, minimize or mitigate the identified Project impacts in accordance with an established schedule (measures have been identified in the Fish Management Plan);
- c) Based on monitoring and evaluation, determine whether the goals and objectives are being achieved;
- d) Should the measures be successful at achieving the goals and objectives, then periodic monitoring would take place to confirm that such goals and objectives continue to be achieved;
- e) Should the implemented measures fail to achieved the goals and objectives over a reasonable time frame, then Okanogan PUD would develop and Ecology evaluate additional or revised measures, and Okanogan PUD would implement any additional or revised reasonable and feasible measures;

- f) If goals and objectives have not been achieved over a reasonable time frame (as determined by Ecology), Okanogan PUD may propose modified goals and objectives. These proposed new goals and objectives would be subject to review and approval by the Fish Work Group and Ecology.

4.2 WATER QUALITY NUMERIC CRITERIA

1) Total Dissolved Gas (TDG)

Studies were performed to evaluate the ability of the Enloe Project to meet the TDG numeric criterion. The study showed that, under current “natural” conditions, the dam does not increase TDG above standards. However, the falls below the dam naturally contribute to the TDG in the river. The increase caused by the 20-foot-high falls is due to natural entrainment of air as water plunges into the pool below this bedrock feature. The Okanogan PUD is therefore not responsible to address TDG created by the falls. In addition, the changes proposed by the Project would reduce flows over the dam and falls, thereby reducing the amount of TDG generated in both the bypass reach and the river below the Project.

2) Water Temperature

The 7-DAD Max temperature data recorded in 2006 indicate that the Similkameen River both upstream and downstream of the Project generally warmed to above 17.5°C (see WQS numeric criteria) from late June through mid-September, with additional exceedances in late September. Water temperatures did not increase through the Project area by more than 0.3°C at any time during the 2006 monitoring season.

A modeling analysis was conducted of temperature effects in the bypass reach under the conditions and proposed flows that would result from Project operation. If water releases were made through a 10-foot-wide head gate at the top of the dam as in one of the original proposals, and under worst-case heating conditions, a bypass pool temperature rise of from 0.1 to 0.3°C was calculated depending on pool dimensions and bypass flow rate. If water is piped to the pool at the base of the dam as under the current proposal, heating is calculated to be minimal. As these flows mix with tailrace discharge, heating of the pool at the base of the falls is not expected to be measurable. (CardnoENTRIX, 2010)

- 3) **Dissolved Oxygen.** Okanogan PUD measured DO profiles in September 2006, in the reservoir behind Enloe dam. All measurements were above the 8.0 mg/l standard.
- 4) **Toxics.** Okanogan PUD studied pesticides, arsenic, cadmium and copper in sediments in the reservoir. Pesticides were not detected. Concentrations of cadmium and copper were below Ecology’s sediment quality values (SQVs) for these parameters. However, 4 out of 15 samples exceeded Ecology’s SQV for arsenic.

Sediment elutriate analyses were also performed for the same contaminants. Again, pesticides were not detected. Cadmium and arsenic were below water quality standards. Copper exceeded both the chronic and acute criteria in 5 of the 8 samples.

Measures to avoid disruption of these sediments during any instream work are addressed in the Construction Sediment Management Plan (see below).

- 5) **Water Quality Management Plan (WQMP).** The WQMP identifies the goals and objectives of the Project with respect to the numeric criteria. The plan is attached as Appendix B.
- 6) **Construction.**
 - a) The Construction Sediment Management Plan (CSMP), attached as Appendix C, identifies measures that will be taken by the PUD to minimize water impacts during construction. Possible impacts are from sediment entering the river or impacts to water pH due to concrete work in or near a water body.
 - b) Other plans that have been prepared for the Project include:
 - i) Storm Water Pollution Prevention Plan (SWPPP; Appendix D)
 - ii) Erosion and Sediment Control Plan (ESMP; Appendix E) to address potential stormwater runoff impacts.
 - iii) Construction Quality Assurance Project Plan (Construction QAPP; Appendix F) to address specific water quality monitoring procedures.
 - iv) Spill Response Plan can be used for spills that occur during construction. This was developed by the PUD and is attached as Appendix G.
 - c) Hydraulic Permit Applications (HPAs). HPAs will be required as part of the Project construction.
- 7) **Operation.** During Project operation, it is possible that unanticipated impacts to water quality may occur. The PUD developed a water monitoring plan, called an Operations QAPP to monitor for any such impacts. This can be found in Appendix H. A Spill Prevention Control and Countermeasures Plan (SPCC) will need to be developed and approved by Ecology prior to operation of the dam.

4.3 AQUATIC INVASIVE SPECIES

No nonnative crustaceans or mollusks were found in the area. Several warm-water species of non-native fish are found in the area. Nine nonnative aquatic plant species have been found in the Project vicinity. Non-native species may compete with native species for food, create imbalances in the food chain, or damage hydroelectric equipment. Measures to limit the spread of aquatic invasive species are addressed in the Aquatic Invasive Species (AIS) plan. A plan to address potential impacts from these species is included as Appendix I.

4.4 WETLANDS

Permanent alteration of jurisdictional wetlands (including scrub/shrub wetlands) currently occupying seasonally exposed flats or benches along the reservoir will occur. Alteration may include type conversion to other wetland types or conversion to unvegetated waters. The PUD will implement the Revegetation and Wetlands Management Plan contained in Appendix J.

4.5 AESTHETICS

- 1) The primary Project effect to aesthetics with respect to water quality will be the changes in flow over the dam and falls. Flows are naturally high through much of April through July and so should remain aesthetically pleasing. Flow over the falls decreases naturally in the summer. Project operations will reduce it even more, but the Project will be operated so that water will flow over the falls year round (30 cfs through mid-September and 10 cfs until the flows start naturally increasing again in April).
- 2) The Project is to be constructed to meet both aesthetics for flow over the falls and the numeric water quality standards in the bypass for fish.

5.0 WATER QUALITY CERTIFICATION CONDITIONS

In view of the foregoing and in accordance with Section 401 of the Clean Water Act (33 USC 1341), RCW 90.48.260 and Chapter 173-201A, Ecology finds reasonable assurance that the operation of the Enloe Project pursuant to the proposed license will comply with state and federal water quality standards and other appropriate requirements of state law provided the following conditions are met. Accordingly, through this Order issued and enforceable under RCW 90.48, Ecology grants a Section 401 Water Quality Certification to the Licensee, Okanogan County Public Utility District No. 1 for the Enloe Hydroelectric Project (FERC No. 12569) subject to the following conditions. This Order will hereafter be referred to as the "Certification".

5.1 GENERAL CONDITIONS

The Project shall comply with all water quality standards (currently codified in WAC 173-201A), ground water standards (currently codified in WAC 173-200), and sediment quality standards (currently codified in WAC 173-204) and other appropriate requirements of state law that are related to compliance with such standards.

- 1) In the event of changes in or amendments to the state water quality, ground water, or sediment standards or changes in or amendments to the state Water Pollution Control Act (RCW 90.48) or changes in or amendments to the Federal Clean Water Act, such provisions, standards, criteria or requirements shall apply to the Project and any attendant agreements, orders, or permits, to the fullest extent permitted by law.
- 2) Discharge of any solid or liquid waste to the waters of the State of Washington without prior approval from Ecology is prohibited.

- 3) Okanogan PUD shall consult with Ecology before it undertakes any change to the Project or Project operations that might significantly and adversely affect compliance with any applicable water quality standard (including designated uses) or other appropriate requirement of state law. If, following such consultation, Ecology determines that such change would violate state water quality standards or other appropriate requirements of state law. Ecology reserves the right to condition or deny such Project change.
- 4) This Certification does not exempt compliance with other statutes and codes administered by federal, state and local agencies.
- 5) Ecology retains the right to modify schedules and deadlines provided under this Certification or provisions of the Management Plans that it incorporates.
- 6) Ecology retains the right to require additional monitoring, studies, or measures if it determines that there is a likelihood or probability that violations of water quality standards or other appropriate requirements of state law have or may occur, or insufficient information exists to make such a determination.
- 7) Ecology reserves the right to amend this Certification by Administrative Order if it determines that the provisions hereof are no longer adequate to provide reasonable assurance of compliance with applicable water quality standards or other appropriate requirements of state law. Such determination shall be based upon provisions in the FERC License or new information or changes in: (i) the construction or operation of the Project; (ii) characteristics of the water; (iii) water quality criteria or standards; (iv) Total Maximum Daily Load (TMDL) requirements; (v) effluent limitations; or (vi) other applicable requirement of state law. Amendments of this Certification shall take effect immediately upon issuance, unless otherwise provided in the order.
- 8) Ecology reserves the right to issue administrative orders, assess or seek penalties under state or federal law, and to initiate legal actions in any court or forum of competent jurisdiction for the purposes of enforcing the requirements of this Certification or applicable state or federal laws.
- 9) The conditions of this Certification should not be construed to prevent or prohibit Okanogan PUD from either voluntarily or in response to legal requirements imposed by a court, the FERC, or any other body with competent jurisdiction, taking actions which will provide a greater level of protection, mitigation or enhancement of water quality or of existing or designated uses.
- 10) If five or more years elapse between the date that this Certification is issued and the date of issuance of the License for the Project, this Certification shall be deemed to have been denied at such time and Okanogan PUD shall send Ecology an updated 401 application that reflects then current conditions, regulations and technologies. This provision should

not be construed to otherwise limit the reserved authority of Ecology to deny, amend or correct the Certification before or after the issuance of the License.

- 11) All documents required under this Certification to be submitted to Ecology shall be submitted to Washington State Department of Ecology, Central Regional Office, Water Quality Program, Section Manager or his/her designated project manager.
- 12) Copies of this Certification and associated permits, licenses, approvals and other documents shall be kept on site and made readily available for reference by Okanogan PUD, its contractors and consultants, and by Ecology.
- 13) Okanogan PUD shall allow Ecology access to inspect the Project and Project records required by this Certification for the purpose of monitoring compliance with the conditions of this Certification. Access will occur after reasonable notice to the person designated by Okanogan PUD as the contact for the purposes of this Certification, except in emergency circumstances.
- 14) Okanogan PUD shall, upon request by Ecology, fully respond to all reasonable requests for materials to assist Ecology in making determinations under this Certification and any resulting rulemaking or other process.
- 15) If an action required under or pursuant to this Certification requires as a matter of federal law that the FERC approve the action before it may be undertaken, Okanogan PUD shall not be considered in violation of such requirements to the extent that FERC refuses to provide such approval, provided that Okanogan PUD diligently seeks such approval and so notifies Ecology.
- 16) The reservations contained in this Certification do not preclude or limit any right of Okanogan PUD to contest the validity of any such reservation in connection with any order or any other action taken by Ecology pursuant to such reservation.
- 17) All information prepared or collected as a requirement of this Certification (e.g., plans, reports, monitoring results, meeting minutes, and data) shall be made available to the public on Okanogan PUD's website or by another readily accessible means. Where data or quantitative analysis is involved, it shall be provided in a format that allows others to efficiently validate and analyze data and results.
- 18) Where this Certification refers to "reasonable and feasible" actions or measures, Ecology retains the authority to ultimately determine if an action or measure qualifies as "reasonable and feasible."
- 19) Per RCW 90.48.422(3), Okanogan PUD shall be required to mitigate or remedy a water quality violation or problem only to the extent that there is substantial evidence the Project has caused such violation or problem.

- 20) This Certification includes and incorporates 10 (ten) management plans, attached hereto as Appendices A through J.
- 21) If, after implementing all the management measures (including adaptive management) required for a goal contained in a plan that is part of this Certification, the goal has not been attained and no reasonable and feasible measures have been identified to attain that goal (as determined by the FW and subject to approval by Ecology), then Okanogan PUD may propose an alternative procedure to achieve compliance with the state water quality standards, including procedures found at WAC 173-201A-510(5)(g)(ii).
- 22) All conditions in this Certification apply for the life of the License and any subsequent renewals of that license, unless explicitly stated otherwise in this Certification or modified by a subsequent order by Ecology.

5.2 AQUATIC LIFE

- 1) Ecology expects that the measures and processes required in this Certification will protect aquatic life as required under state law and the Clean Water Act. In the event that any of the requirements fail, or begins to fail substantially, as determined by Ecology, to adequately protect, in a timely manner, existing or designated uses of water quality, Ecology reserves the right to require such changes as it determines necessary to protect these uses or water quality.
- 2) For purposes of this Certification, goals and objectives represent important steps toward meeting the designated uses of a water body. They serve as quantifiable goals for moving toward attaining full support of designated uses. They are not intended to serve as a surrogate for the requirement to support and protect designated uses of the waters. Adaptive Management is a strategy, as described above, which may be required to obtain the goals and objectives.
- 3) Ecology reserves the right to modify the processes or decisions described herein, including timeframes. If timely progress is not made or plans or reports are not timely submitted, Ecology reserves the right to impose penalties.
- 4) Okanogan PUD shall maintain current versions of the Plans on the PUD's website and they shall be made available to the public.
- 5) Reports shall be provided to Ecology for review and approval as described in the individual plans.
- 6) Okanogan PUD shall provide a draft annual report to the Fish Workgroup (FW) summarizing the previous year's activities undertaken in accordance with the Fish Management Plan. The report will document all activities conducted within the Project and describe activities proposed for the following year. Furthermore, any decisions, statements of agreement, evaluations, or changes made pursuant to each plan will be included in the annual report. If significant activity was not conducted in a given year,

Okanogan PUD shall prepare a memorandum providing an explanation of the circumstances in lieu of the annual report.

- 7) The final report is subject to approval by Ecology for purposes of compliance with federal and state water quality standards, including designated uses.
- 8) **Listed Anadromous Fish Species.** For purposes of protecting the designated uses of the listed fish species, Ecology defers to the responsible federal agencies. However, in the event of a perceived conflict between the requirements of those agencies and this Certification, it is presumed that the responsible agencies, including Ecology, shall work together to obtain a solution that best meets the needs of all species involved, in accordance with the requirements of the Clean Water Act and the Endangered Species Act.
- 9) **Other Fish Species.** Okanogan PUD shall implement the Fish Management Plan, which is attached hereto as Appendix A, and is hereby incorporated into this Certification. The PUD shall provide a flow of at least 10 cfs from September 16 to July 15 and at least 30 cfs from July 16 to September 15 for the duration of the License. Other additional measures may be required, as described in the Fish Management Plan.
- 10) **Fish Workgroup (FW).**
 - a) **Purpose.** The purpose of the FW is to address any issues that arise related to fish management for the Project, primarily with respect to the Fish Management Plan.
 - b) **Members.** The Fish Workgroup shall be composed of the Okanogan PUD and the following agencies and tribes: Ecology, Washington State Department of Fish and Wildlife (WDFW), Washington State Department of Natural Resources (DNR), US Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), the Confederated Tribes of the Colville Reservation (Colvilles), and U.S. Bureau of Land Management (BLM).
 - c) **Decisions.** The FW shall make decisions by consensus, if possible, but each entity retains its authority as designated in state and federal law. The FW shall act solely in an advisory capacity as far as Ecology's authority under this Certification is concerned.
 - d) **Facilitator of the FW.** The PUD shall fund a neutral, non-voting Facilitator for the FW, subject to the approval of the members of the FW. The Facilitator shall facilitate meetings and prepare meeting agendas and minutes as described herein.
 - e) **Meeting Notice.** The Facilitator shall provide all members with a minimum of ten (10) business days advanced written notice of all meetings unless a member waives notice in writing or such waiver is reflected in the approved meeting minutes. The notice shall contain an agenda of all matters to be addressed and

voted on during the meeting. Means of notice will be determined by the members. Unless urgent action is required, to determine the date for a meeting, the Facilitator will poll the members in an effort to identify a meeting date on which all interested members are able to attend. If a date is not available for all members to meet within a reasonable time, the Facilitator will select the date that best accommodates the most members.

- f) Meeting Minutes. The Facilitator will provide draft meeting minutes, including any proposed or final statement(s) of agreements, within ten (10) days after each meeting. Statements of agreement shall be based on a unanimous vote. Minutes shall reflect all significant group discussions and decisions. All member representatives who were present and participated in the meeting will be allowed ten (10) days to provide corrections and comments in writing to the Facilitator. Final meeting minutes will be provided to the members of the FW as soon as reasonably possible after comments have been received. If disagreements exist as to the proposed meeting minutes, then the Facilitator will include all perspectives in the final minutes.
- g) Plans and Reports. The PUD shall make available all plans and reports required under the Fish Management Plan to all members of the FW as soon as reasonably possible. The PUD will distribute draft plans and reports to all of the FW members for review and comment. Members shall have thirty (30) days for review of the plan or report unless the FW decides otherwise. PUD shall address comments on the document, subject to approval by the FW members.
- h) Annual Report. The PUD shall compile all relevant materials into one annual calendar-year report. The annual report shall include all final study plans, reports, meeting minutes and statements of agreements, and a list of future proposed actions as agreed to by the FW. The PUD shall provide the annual report to FW members for review and approval prior to being filed with FERC. Comments on the annual report shall be provided in writing to the Facilitator within thirty (30) days of receipt unless the FW decides otherwise. Comments will be addressed within the document and subject to approval by the FW members.
- i) Database. PUD shall work with the FW to establish a central electronic database that is accessible to all of the Members. This electronic database will contain all of the documents related to implementation of the Fish Management Plan.

5.3 WATER QUALITY

Okanogan PUD shall implement the Water Quality Management Plan (WQMP), attached as Appendix B, including working to attain the identified goals and objectives.

5.3.1 Water Quality During Construction

- 1) **General Conditions.**

- a) All water quality criteria as specified in WAC 173-201A apply to any construction work needed to implement development or mitigation projects required under the FERC License.

2) Construction.

- a) All water quality criteria as specified in WAC 173-201A apply to all construction work performed to construct the Project.
- b) Construction Plans. Okanogan PUD shall implement the following plans during the construction phase:
 - i) Construction Sediment Management Plan (CSMP; Appendix C);
 - ii) Storm Water Pollution Prevention Plan (SWPPP; Appendix D);
 - iii) Erosion and Sediment Control Plan (ESCP; Appendix E) to address potential stormwater runoff impacts;
 - iv) Construction Quality Assurance Project Plan (Construction QAPP; Appendix F) to address specific water quality monitoring procedures; and
 - v) Spill Response Plan (Appendix G).
- c) The CSMP includes feasibility level engineering drawings, project maps, construction plans and detailed information regarding size of each area (including depth) to be disturbed during construction, volumes of excavation and fill, types of materials and construction equipment to be used, duration of construction, the sequence of proposed construction operations, and the types of sediment management measures to be used for each of the following. In the event there is significant change in design of Project components listed in the plan that may cause of violation of water quality standards, the PUD shall submit updated information for the corresponding portion of the CSMP to Ecology for Ecology to review and approve prior to earth moving for that component.
 - i) Access roads
 - ii) Intake canal
 - iii) Penstock intake
 - iv) Penstocks
 - v) Powerhouse
 - vi) Tailrace
 - vii) Crest gates
 - viii) Instream flow outlet works
 - ix) Recreational boat access.

- d) Construction Stormwater permit. Okanogan PUD shall contact Ecology (Water Quality Program, Central Region) with respect to the need to obtain a Stormwater Construction permit within one year prior to start of construction.
- e) HPA. Okanogan PUD shall obtain a Hydraulic Project Approval (HPA) per Chapter 77.55.021 RCW for work that involves instream work.

3) Post-Construction Instream Work

- a) All water quality criteria as specified in WAC 173-201A apply to any construction work needed to implement development or mitigation projects required for the Project under the FERC License.
- b) It is intended that this 401 certification cover all construction and operation activities associated with this Project under this License. However, it is possible that minor, additional Project-related work may be needed that has the potential to impact water quality and was not anticipated by this 401 certification. In that case, the applicant shall file for a separate, additional 401 certification application or request an amendment, to the Department of Ecology, Water Quality Program, Central Regional Office.
- c) For future construction activities requiring a separate 401 certification (e.g., those requiring a 404 permit from the Army Corps of Engineers), Okanogan PUD shall comply with all conditions in that additional 401 certification.
- d) For post-construction in-water construction activities, a water quality protection plan (WQPP) shall be prepared and implemented. The WQPP shall include:
 - i) A copy of the Hydraulic Project Approval (HPA) per Ch. 75.20 RCW for the project;
 - ii) A description of all Best Management Practices (BMPs) to be employed for in and near-water work;
 - iii) A plan for sampling and monitoring during construction;
 - iv) A plan for implementing mitigation measures should a water quality violation occur; and
 - v) A written procedure for reporting any water quality violations to Ecology.
- e) Okanogan PUD shall submit each WQPP to Ecology for review and written approval prior to starting work.

5.3.2 Water Quality During Operations

- 1) **General Requirements.** Okanogan PUD shall implement the Operations Quality Assurance Project Plan (Operations QAPP), attached as Appendix E.
- 2) **Plans and Reports**
 - a) Study Plans. Ecology may require future revisions to the Operations QAPP based on monitoring results, regulatory changes, changes in Project operations, and/or the requirements of a TMDL. The revised QAPPs are subject to review and approval by Ecology. Implementation of the monitoring program shall begin upon Ecology's written approval of the QAPP, unless otherwise provided by Ecology.
 - b) Annual Water Quality Report. Okanogan PUD shall provide to Ecology an annual report summarizing the previous year's water quality activities and monitoring results and activities proposed for the coming year, in accordance with the requirements in this Certification. The results shall be provided in a format approved by Ecology. The report shall include any decisions, statements of agreement, evaluations, or changes made pursuant to this Certification, including the plans. The report is subject to review and approval by Ecology.
- 3) **Non-Compliance**
 - a) Okanogan PUD shall report information indicative of non-compliance with numeric criteria immediately to Ecology for regulatory discretion.
 - b) Ecology shall evaluate the information, and, if needed, require Okanogan PUD to develop a plan to identify and address Project-related impacts, if any.
 - i) After the evaluation, if Ecology determines measures are available to achieve compliance, set up a compliance schedule to attain compliance, in accordance with WAC 173-201A-510(5).
 - ii) After the evaluation, if no reasonable and feasible improvements have been identified, Okanogan PUD may propose an alternative to achieve compliance with the standards, such as site-specific criteria, a use attainability analysis, or a water quality offset.
 - c) Ecology reserves the right to require additional measures and use all available compliance tools as appropriate.

5.4 SPILL PREVENTION AND CONTROL

1) General Spill Prevention Requirements

Okanogan PUD shall operate the Project in a manner that will minimize spill of hazardous materials and implement effective countermeasures in the event of a hazardous materials spill.

- i) Discharge of oil, fuel or chemicals into state waters or onto land where such contaminants could potentially drain into state waters is prohibited.
- ii) In the event of a discharge of oil, fuel or chemicals into state waters, or onto land where such contaminants could potentially drain into state waters, containment and clean-up efforts shall begin immediately and be completed as soon as possible, taking precedence over normal work. Clean-up shall include proper disposal of any spilled material and used clean-up materials.
- iii) Spills into state waters, spills onto land where contaminants could potentially drain into state waters, and any other significant water quality impacts, shall be reported immediately to the Washington Emergency Management Division at 1-800-258-5990 and the National Response Center at 1-800-424-8802. Notification shall include a description of the nature and extent of the problem, any actions taken to correct the problem, plus any proposed changes in operations to prevent further problems.

2) Spill Prevention Control and Countermeasures (SPCC) Plan

Okanogan PUD shall prepare and update the Project Spill Prevention Control and Countermeasures Plan (SPCC) pursuant to FERC requirements plus recommendations provided by Ecology. This plan shall be completed prior to start of operation of the Project. Okanogan PUD shall comply with and operate the Project in accordance with the updated version(s) of the SPCC.

Okanogan PUD shall provide Ecology, Central Region Office, Spills and Water Quality Programs, with copies of its most up-to-date SPCC version. Copies of the Spill Prevention Control and Countermeasures Plan (SPCC) shall be kept on site by Okanogan PUD and made readily available for reference by the PUD, its contractors and consultants, and Ecology.

3) Inspections

Okanogan PUD shall, upon reasonable notice, allow Ecology staff or representatives access to inspect the Project, including inside the dam, for the purpose of assessing Spill Prevention and Control measures. Following inspection, Okanogan PUD shall address oil and hazardous material prevention and control issues identified by Ecology.

4) Participation in the Columbia and Snake River Spill Response Initiative

Okanogan PUD shall continue participation in the Columbia and Snake River Spill Response Initiative (CSR-SRI). The CSR-SRI is a collaborative effort made up of the local, state, and federal oil spill response community as well as members of industry and was developed to address the immediate need for oil spill preparedness and response in the area along the Columbia and Snake Rivers.

5.5 AQUATIC INVASIVE SPECIES

Okanogan PUD shall implement the Aquatic Invasive Species Plan, attached as Appendix I.

5.6 WETLANDS

- 1) Okanogan PUD shall implement the Revegetation and Wetlands Mitigation Plan. If changes to the plan are proposed by the PUD either before, during or after construction and/or planting of a wetland mitigation site has begun, Okanogan PUD shall obtain written approval from Ecology before proceeding further.
- 2) If the Okanogan PUD has not met all conditions and goals and objectives for the mitigation site at the end of the monitoring period, Ecology may require additional monitoring, additional mitigation, or both. Until the PUD has received written notification from Ecology that the Mitigation Plan has been fully implemented, the PUD's obligation to mitigate for wetland impacts is not met.

5.7 SHORELANDS

If FERC requires the development or update of a Shoreline Management Plan, a Land Use Policy, a Recreation Resource Development Plan, Recreation Management Plan, or a Wildlife Habitat Monitoring and Information and Education Plan, Okanogan PUD shall consult with Ecology before submitting the plan to FERC. Consultation with Ecology, for purposes of this Certification, means that the PUD shall provide Ecology with a draft of any such plan before submitting it to FERC and shall give Ecology a reasonable time to comment on it, not less than 30 days. The purpose of this paragraph is to provide consistency between the PUD's proposed plans and local (city and county) laws that protect water quality.

5.8 AESTHETICS

The PUD shall provide a minimum flow of 10 cfs from September 16 to July 15 and of 30 cfs from July 16 to September 15 for the duration of the License, for aesthetic purposes as well as fish and other aquatic life.

6.0 PENALTIES AND APPEAL

Any person who fails to comply with any provision of this Certification shall be liable for criminal and civil penalties as provided under state and/or federal law.

You have a right to appeal this Order to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of this Order. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal you must do the following within 30 days of the date of receipt of this Final Order:

File your appeal and a copy of this Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.

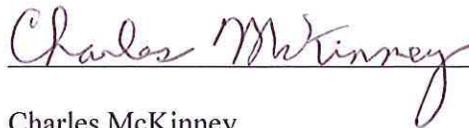
Serve a copy of your appeal and this Order on Ecology in paper form - by mail or in person (see addresses below.) E-mail is not accepted.

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

ADDRESS AND LOCATION INFORMATION

| Street Addresses | Mailing Addresses |
|--|--|
| <p>Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503</p> <p>Pollution Control Hearings Board 1111 Israel RD SW STE 301 Tumwater, WA 98501</p> | <p>Department of Ecology Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608</p> <p>Pollution Control Hearings Board PO Box 40903 Olympia, WA 98504-0903</p> |

Dated this 13th day of July 2012, at Yakima, Washington.



Charles McKinney
Water Quality Section Manager
Central Regional Office
Washington State Department of Ecology

REFERENCES

CardnoENTRIX, 2010. Analysis of the Proposed Minimum Instream Flow Requirements of the Public Utility District No. 1 of Okanogan County for the Enloe Project under P-12569. November 10, 2010. See filing with FERC by GKRSE; dated November 10, 2010.

FERC, August 2011. Environmental Assessment for Hydropower License. Enloe Hydroelectric Project – FERC Project No. 12569

National Oceanic and Atmospheric Administration, 2010. National Marine Fisheries Service's Comments and Preliminary Recommended Terms and Conditions for an Application for a Major New License for the Enloe Hydroelectric Project, FERC No. 12569-001. See filing with FERC; dated February 26, 2010

WDFW, 2010. Enloe Dam (FERC 12569) fish habitat protection measures. Memo from Hal Beecher to Pat Irle. Document dated October 18, 2010. See filing with FERC by GKRSE; dated November 10, 2010.

Ziontz, Chestmunt, Varnell, Berley and Slonim, 2010. Comments of the Colville Confederated Tribes on August 22, 2008, license application for the Enloe Hydroelectric Project (FERC No. 12569-001); See filing with FERC dated February 26, 2010

APPENDICES

Appendix A.....Fish Management Plan

Appendix B... Water Quality Management Plan

Appendix C..... Construction Sediment Management Plan

Appendix D.....Storm Water Pollution Prevention Plan

Appendix E.....Erosion and Sediment Control Plan

Appendix F..... Construction QAPP

Appendix G.....Spill Response Plan

Appendix H.....Operation QAPP

Appendix I.....Aquatic Invasive Species Plan

Appendix J..... Revegetation and Wetlands Mitigation Plan