

**Clean Water Act Section 401 Certification
for the
Klamath River Renewal Corporation
License Surrender and Removal of
the Lower Klamath Project
(FERC No. 14803)
Klamath County, Oregon**

Upon Federal Energy Regulatory Commission (FERC) issuance of a surrender order for the removal of the Lower Klamath Project (the "Project"), the Klamath River Renewal Corporation (KRRRC or Licensee) must comply with the following section 401 water quality certification conditions:

1. Proposed Action

The KRRRC proposes to remove J.C. Boyle Dam, J.C. Boyle powerhouse, and all appurtenant facilities consistent with the procedures and schedule described in the Klamath Hydroelectric Settlement Agreement (KHSA) and associated Detailed Plan, the application for section 401 water quality certification, and the September 30, 2017 Technical Support Document, which by this reference, are incorporated in their entirety (the "Proposed Action").¹ In accordance with applicable law, the Licensee shall notify DEQ if FERC authorizes modification to the Proposed Action so as to allow DEQ to determine whether such changes may affect compliance with water quality standards that may require amendment of this certification.

2. Water Quality Management Plan

The Licensee shall submit to DEQ a Water Quality Management Plan (WQMP) for review and approval within 90 days of issuance of the surrender order. Upon approval by DEQ, the Licensee shall file the WQMP with FERC and implement the WQMP in accordance with its terms.

At a minimum, the WQMP shall include the following information:

- a) Water Quality Monitoring Plan Content
 - i. Data collection protocol, analytical methods, and laboratory method reporting limits;
 - ii. Location and description of monitoring points;
 - iii. Flow monitoring at USGS gauges 11509500 and 11510700;
 - iv. Applicable compliance criteria and associated compliance time schedule;
 - v. Instrument calibration schedule and procedures;
 - vi. Data validation procedures and quality assurance methodology;
 - vii. Contingency procedures for inoperable or malfunctioning equipment; and
 - viii. Data interpretation procedures, and
 - ix. Adaptive management plan.

¹ DEQ expects the Licensee will update the proposed action in a Definite Plan by July 1, 2018. DEQ will consider the proposed actions as presented in the Definite Plan prior to issuing a final section 401 water quality certification decision.

b) Monitoring Locations

The Water Quality Management Plan shall establish monitoring stations at the following monitoring locations:

Station	Existing USGS Location	Approximate River Mile	Measurement Type
Keno	USGS 11509500	RM 231.9	Flow, data sonde, grab
JC Boyle Powerhouse	USGS 11510700	RM 219.7	Flow, data sonde, grab
Stateline	none	To be determined	Data sonde, grab

- i. The Licensee shall secure all field equipment as necessary to ensure safe reliable placement, stability, and retrieval during seasonally high flows and drawdown conditions;
- ii. The Licensee shall install monitoring equipment as necessary to meet data collection schedule as described in Section 3(d) or an alternate schedule approved by DEQ;
- iii. The Stateline station shall be located as close as practicable to the Oregon-California border at a location deemed representative of water quality. Final placement of station shall be coordinated with the DEQ in coordination with the California State Water Resources Control Board.

c) Parameters

The WQMP shall include monitoring for the following parameters:

Continuous Data Sonde Collection. The Licensee shall maintain operable data sondes and collect continuous measurements for the following parameters:

- i. Temperature;
- ii. Conductance;
- iii. pH;
- iv. Dissolved oxygen, oxygen saturation; and
- v. Turbidity

Grab Sample Collection. The Licensee shall collect grab samples for the following parameters:

- vi. Nitrogen: ammonia, nitrate, nitrite, total nitrogen;
- vii. Phosphorus: orthophosphate, organic phosphorus, total phosphorus;
- viii. Carbon: dissolved organic carbon, particulate carbon;
- ix. Chlorophyll-a; and
- x. Suspended sediment concentration.

d) Monitoring Frequency and Duration

- i. Initiating data collection: The Licensee shall begin sample and data collection at least 12 months prior to initiating drawdown of J.C. Boyle Reservoir unless otherwise approved by DEQ;
- ii. Data sonde Sample frequency: The Licensee shall record hourly data averaged from 15-minute interval measurements.
- iii. The Licensee shall collect grab samples for suspended sediment concentrations per the following schedule:

- Weekly during January and February of the drawdown year
 - Twice monthly from March 1 through September of the drawdown year;
 - Monthly beginning October 1 of the drawdown year.
- iv. The Licensee shall collect all other grab samples monthly;
- v. Duration: The Licensee shall monitor water quality in accordance the schedule in WQMP for a minimum of four years after initiating reservoir drawdown. Upon receipt and review of annual water quality monitoring reports DEQ may, at its discretion, continue or discontinue the requirement to monitor certain water quality parameters as warranted by water quality conditions.
- e) **Suspended Sediment Load**
The Licensee shall propose procedures to quantify sediment export during and following reservoir drawdown based on suspended sediment concentrations and flow measurements recorded at USGS gauges 11510700 and 11509500. Upon approval by DEQ, the Licensee shall implement this methodology.
- f) **Non-Reservoir Drawdown Activities**
The Licensee shall propose procedures to monitor turbidity at the locations of actions that may discharge or increase sedimentation in runoff to the Klamath River and its tributaries. Except for activities that occur within the 24-month compliance time period identified in Section 3, the Licensee shall monitor turbidity approximately 100 feet upstream and 300 feet downstream during proposed activities at the following locations:
- i. Activities to maintain fish passage as required by Section 5(b);
 - ii. J.C. Boyle scour hole restoration as required by Section 10(c);
 - iii. Removal of recreation areas required by Section 10(d);
 - iv. Removal and restoration of the J.C. Boyle power canal as required by Section 10(e);
 - v. Backfilling and restoring the J.C. Boyle powerhouse tailrace as required by Section 10(f).
- g) **Water Quality Reporting**
The Licensee shall present, summarize, and interpret water quality data in the Annual Compliance Report prepared in accordance with Section 4 of this certification. Water quality data shall be presented using graphs, tables, or other means to clearly demonstrate trends, relationships, and compliance. Raw data must be submitted as electronic spreadsheet files.

3. Compliance Time Schedule

Pursuant to OAR 340-041-0185(5), DEQ establishes a compliance time schedule of 24 months following drawdown after which dam removal is not expected to cause an exceedance of Oregon water quality standards. If water quality monitoring demonstrates that project actions may contribute to exceedances of the applicable water quality standards beyond the compliance time schedule established by this certification, DEQ may require the Licensee to develop an adaptive management plan in consultation with DEQ, which includes alternative measures, an assessment of impacts, and a schedule to achieve compliance. Once approved by DEQ, the Licensee shall implement the plan in accordance with its terms, including any modifications made by DEQ as conditions of its approval.

4. Miscellaneous Measures Protective of Beneficial Uses

- a) Fish Passage
 - i. The Licensee shall provide or maintain fish passage at all artificial obstructions created or affected by the Proposed Action that prevent or delay the migration of native migratory fish;
 - ii. The Licensee shall, in consultation with ODFW and subject to approval by DEQ, remove or modify fish barriers created or affected by the Proposed Action at all locations where native migratory fish are currently or have historically been present. The Licensee shall reduce or eliminate project-related obstructions such as sediment barriers and erosional head cuts resulting in a vertical step higher than six inches;
 - iii. Potential barrier locations include but are not limited to the following:
 - A. Topsy Grade Road culverts;
 - B. Unnamed tributary north of Keno Access Road;
 - C. Spencer Creek.
- b) Aquatic Resource Measure AR-6: Sucker
The Licensee shall implement Aquatic Resource Measure AR-6 presented in Appendix H of the Technical Support Document (KRRRC 2017) to mitigate project effects on adult Lost River Sucker and Shortnose Sucker in J.C. Boyle Reservoir prior to drawdown.
- c) Western Pond Turtle Mitigation
In consultation with ODFW and subject to approval by DEQ, the Licensee shall conduct abundance and overwintering studies. The Licensee shall, as DEQ deems warranted, implement appropriate mitigation actions to reduce potential impacts to Western Pond Turtle populations prior to drawdown of JC Boyle Reservoir.
- d) On-Site Septic Systems
To reduce the potential for bacterial pollution, the Licensee shall decommission all Lower Klamath Project on-site septic systems in accordance with Oregon Administrative Rule Chapter 340, Division 71.
- e) NPDES Construction Stormwater Permit
The Licensee shall register with DEQ for coverage under National Pollution Discharge Elimination System general permit 1200-C before any construction activities occur that cumulatively disturb more than one acre of and may discharge stormwater to surface waters of the state.

5. Reservoir Drawdown and Diversion Plan

Within 90 days of issuance of the surrender order, the Licensee shall submit to DEQ for review and approval a Reservoir Drawdown and Diversion Plan. Upon approval by DEQ, the Licensee shall file the Reservoir Drawdown and Diversion Plan with FERC and implement the plan upon receipt of all required authorizations. The Reservoir Drawdown and Diversion Plan shall propose drawdown procedures, schedule, and monitoring efforts. At a minimum, the plan shall include the following elements:

- a) Drawdown Procedure
The plan shall include the following minimum information:
 - i. Description of all relevant reservoir drawdown facilities;
 - ii. Flood frequency evaluation;
 - iii. Anticipated drawdown rates and schedule;
 - iv. Slope-stability analysis;

- v. Schedule for the sequenced removal of structural elements whose removal will affect discharge during drawdown.
- b) Monitoring
- The plan should include the following:
- i. Location, schedule, and installation procedures for piezometer wells proposed for the upstream shell and core of J.C. Boyle Dam and procedures to monitor water levels and pore pressure at these locations;
 - ii. Description of all proposed survey monuments and inclinometer installations to monitor slope stability during and following drawdown;
 - iii. Visual monitoring schedule for evidence of potential slumping, cracking, or slope failure of dam embankment during and following dam removal;
 - iv. Monitoring of J.C. Boyle Reservoir elevation and stream flow at USGS gauge 11509500 below Keno Reservoir and USGS gauge 11509500 below J.C. Boyle powerhouse during drawdown.
- c) Contingency and Notification Procedures
- The plan shall include procedures to assess and respond to confirmed or suspected issues including but not limited to the following:
- i. Obstructions to reservoir discharge caused by physical blockages, mechanical failure, or other conditions that may restrict outflow;
 - ii. Embankment instability, slumping, loss of erosion protection;
 - iii. Cultural resource discovery;
 - iv. Other events that directly or indirectly affect reservoir drawdown schedule.
- d) Notification
- KRRC shall notify DEQ within 72 hours of an event that may substantially delay drawdown or cause the timeline to complete drawdown to exceed the anticipated schedule.

6. Reservoir Area Management Plan

Within 90 days of issuance of a license surrender order from FERC, the Licensee shall submit to DEQ a Reservoir Area Management Plan for review and approval. Upon approval by DEQ, the Licensee shall file the Reservoir Area Management Plan with FERC and implement the plan upon receipt of all required authorizations. The plan shall include the following elements.

- a) Reservoir Restoration Activities
- The plan should include procedures to stabilize and restore the reservoir embankment following dam removal. The plan should include the following:
- i. Performance criteria for evaluating restoration efforts to meet the following objectives:
 - A. Unobstructed stream continuity;
 - B. Fish passage;
 - C. Sediment stability;
 - D. Invasive exotic vegetation abatement and native vegetation cover establishment.
 - ii. Proposed actions for meeting plan objectives including:
 - A. Actions to ensure tributary connectivity following drawdown;
 - B. Strategies to create or enhance wetlands, floodplain, and off-channel habitat features;
 - C. Actions to improve revegetation success by enhancing floodplain roughness;

Locations for placement of large wood or other structures to improve channel margin complexity;

- ii. The Licensee shall not use nitrogen- or phosphorus-based fertilizers in hydroseeding applications unless expressly authorized by DEQ.

b) Monitoring

- i. The Licensee shall annually conduct aerial LiDAR reconnaissance surveys of the affected area to measure sediment stability and estimate the volume of sediment export following reservoir drawdown. Annual sediment stability monitoring shall be supplemented with visual inspections, physical measurements, and photo-documentation at monitoring locations identified in the Reservoir Area Management Plan;
- ii. The Licensee shall twice annually conduct surveys to determine the area of invasive exotic vegetation and native vegetation cover in the reservoir restoration area;
- iii. The Licensee shall annually inspect mainstem Klamath River and affected tributaries for the presence of physical barriers to volitional fish passage. Annual inspections shall occur following the wet season.
- iv. Monitoring is required for a minimum of three years following completion of reservoir drawdown.

c) Adaptive Management

If monitoring demonstrates that runoff from exposed embankment areas may cause erosion, sedimentation, or a lowering of water quality DEQ may require the Licensee to analyze the situation and propose an appropriate corrective response. Corrective actions may include measures to increase soil stability through additional plantings, irrigation to maintain revegetated areas, contouring sediment to reduce slope, adding energy dissipating features such as large wood or boulders, modifying stream channel slope, or other methods deemed appropriate to achieve the goals and objectives of the plan. Upon DEQ approval, the Licensee shall implement the corrective measures.

7. Remaining Facilities Plan

Within six months of license surrender and prior to initiating the Proposed Action, the Licensee shall submit to DEQ a Remaining Facilities Plan for review and approval. Upon approval by DEQ, the Licensee shall implement the plan in accordance with its terms, including any modifications made by DEQ as conditions of its approval. The Remaining Facilities Plan shall include, at a minimum, the following information:

- a) A description of all Project facilities and/or structures that will not be physically removed or permanently modified during project implementation;
- b) A description of all potential water quality impacts associated with retaining proposed project structures;
- c) Proposed measures, including but not limited to potential modifications and best management practices, to reduce potential water quality impacts associated with retaining Project facilities and/or structures.

8. Site Restoration, Erosion and Sediment Control

a) Erosion and Sediment Control Plan

Within 90 days of issuance of a surrender order, the Licensee shall submit to DEQ an Erosion and Sediment Control Plan for review and approval. Once approval by DEQ, the Licensee shall implement the plan in accordance with its terms, including any modifications made by DEQ as conditions of its approval. The ESCP shall include best

management practices to minimize pollution from sediment erosion caused by facilities removal and restoration activities. The Licensee and its contractors shall ensure the following actions are implemented to minimize sediment runoff during project activities:

- i. Maintain an adequate supply of materials necessary to control erosion at the project construction site;
 - ii. Deploy compost berms, impervious materials, or other effective methods during rain events or when stockpiles are not moved or reshaped for more than 48 hours. Erosion of stockpiles is prohibited;
 - iii. Inspect erosion control measures daily and maintain erosion control measures as often as necessary to ensure the continued effectiveness of measures. Erosion control measures must remain in place until all exposed soil is stabilized;
 - iv. If monitoring or inspection shows that the erosion and sediment controls are ineffective, the Licensee must make repairs, install replacements, or install additional controls as necessary;
 - v. If sediment has reached 1/3 of the exposed height of a sediment or erosion control the Licensee must remove the sediment to its original contour;
 - vi. Use removable pads or mats to prevent soil compaction at all construction access points through, and staging areas in, riparian or wetland areas to prevent soil compaction, unless otherwise authorized by DEQ;
 - vii. Flag or fence off wetlands not specifically authorized to be impacted to protect from disturbance and/or erosion;
 - viii. Place dredged or other excavated material on upland areas with stable slopes to prevent materials from eroding back into waterways or wetlands;
 - ix. Place clean aggregate at all construction entrances, and utilize other BMPs, including, but not limited to truck or wheel washes, when earth moving equipment is leaving the site and traveling on paved surfaces. The tracking of sediment off site by vehicles is prohibited.
- b) J.C. Boyle Borrow Pit
- i. The Licensee shall place earthen material generated during deconstruction of J.C. Boyle Dam in the original borrow pit located near the right abutment of the dam. Final contours, elevation, and slope of the disposal site shall reflect the design specifications presented in the J.C. Boyle Right Abutment Disposal Site Plan & Section diagram presented as Figure 5.2-8 of the Technical Support Document (KRRRC 2017) or subsequent version approved by DEQ;
 - ii. The Licensee shall implement inspection procedures to identify and divert non-earthen material from placement in the J.C. Boyle borrow pit location;
 - iii. Site preparation, grading, and vegetative restoration shall be performed in accordance with the ESCP to reduce the potential for erosion and sediment runoff;
 - iv. The Licensee shall inspect the J.C. Boyle borrow pit disposal site annually for at least five years following completion or an alternate schedule approved by DEQ. The Licensee shall submit to DEQ an Annual Report in accordance with Section 11, which includes inspection records documenting the physical condition of cover placement, status of revegetation, evidence of erosive conditions or sediment runoff, and corrective actions performed or proposed to ensure long-term stability.
- c) J.C. Boyle Scour Hole Restoration
- i. The Licensee shall restore the eroded scour hole beneath the J.C. Boyle emergency spillway based on the design specifications presented in the J.C. Boyle Forebay Spillway Scour Hole Backfill Plan & Sections diagram presented as Figure 5.2-9 in the Technical Support Document (KRRRC 2017) or subsequent version approved by DEQ;

- ii. The Licensee shall prepare the site and source material as necessary to achieve stable, long-term placement of fill, cover material, and revegetation;
 - iii. Site preparation, grading, and vegetative restoration shall be performed in accordance with the ESCP to reduce the potential for erosion and sediment runoff;
 - iv. The Licensee shall inspect the restored scour hole for annually for at least five years. The Licensee shall submit to DEQ an Annual Report in accordance with Section 12, which includes inspection records documenting the physical condition of cover placement, status of revegetation, evidence of erosive conditions or sediment runoff, and corrective actions performed or proposed to ensure long-term stability.
- d) Recreation Areas
- i. Topsy Campground
The Licensee shall remove all permanent improvements at Topsy Campground including boat launches, floating dock, fishing pier and concrete. Compacted surface areas shall be prepared in a manner that increases surface permeability and reduces surface runoff. The Licensee shall grade, seed and replant affected areas in a manner that promotes riparian revegetation. Site restoration shall be performed according to the ESCP prepared in accordance with Section 9(a).
 - ii. Pioneer Park
The Licensee shall remove all features at the two separate day use areas on the east and west side of J.C. Boyle Reservoir identified as Pioneer Park. Compacted surface areas shall be prepared in a manner that increases surface permeability and reduces surface runoff. The Licensee shall grade, seed and replant affected areas in a manner that promotes riparian revegetation. Site restoration shall be performed according to the ESCP prepared in accordance with Section 9(a).
- e) J.C. Boyle Power Canal
The Licensee shall remove all concrete portions of the J.C. Boyle power canal except for shotcrete applied to the upstream wall to maintain stability against erosion. Concrete shall be placed in the J.C. Boyle emergency spillway scour hole in accordance with Section 9(c). The Licensee shall restore the former canal area by decompacting the canal floor and placing side-cast earthen material from the downslope side in the former canal to support revegetation.
- f) J.C. Boyle Powerhouse Tailrace
- i. The Licensee shall deploy a turbidity curtain at the downstream end of the tailrace to reduce sediment and turbidity in the mainstem Klamath River while backfilling the tailrace channel unless otherwise agreed to by DEQ;
 - ii. The Licensee shall select and place material near the mouth of the former tailrace channel in a manner that resists erosion and scour;
 - iii. Tailrace backfill material sourced from beneath industrial areas such as the adjacent substation and maintenance building must first be screened for the presence of hazardous materials prior to use as fill material in the tailrace. Soils containing oil or hazardous substances may not be used as fill below the ordinary high water level.
 - iv. The Licensee shall perform all restoration activities in accordance with the ESCP to reduce the potential for erosion and sedimentation.

9. Waste Disposal and Management Plan

Within 90 days of issuance of a surrender order, the Licensee shall submit to DEQ a Waste Disposal and Management Plan for review and approval. Once approval by DEQ, the Licensee shall implement the plan in accordance with its terms, including any modifications made by DEQ as conditions of its approval. The plan shall describe procedures for characterizing and

appropriately managing all waste streams generated during facilities removal. The plan shall, at a minimum, include the following components:

a) Hazardous Materials

The plan must include the following information:

- i. Prior to drawdown, the Licensee shall commission a Phase I Environmental Site Assessment to identify the presence, nature, and quantities of hazardous substances associated with Lower Klamath Project facilities;
- ii. Prior to drawdown, the Licensee shall implement recommendations of the Phase I ESA including, as necessary, a Phase II ESA to characterize the magnitude, extent, and risk of hazardous materials in the environment. In consultation with DEQ, the Licensee shall undertake remedial actions to mitigate risks from residual hazardous materials in accordance with applicable state and federal law;
- iii. Procedures to manage disposal of hazardous and solid wastes in compliance with applicable state and federal law;
- iv. Comprehensive investigative and sampling procedures to confirm adequate abatement of hazardous materials;
- v. Procedures to manage all records, disposal receipts and/or manifests confirming transportation and disposal of hazardous materials.

The Licensee shall file a report with DEQ documenting the investigation, management and disposal of hazardous materials within 90 days of completing actions or an alternate schedule approved by DEQ.

b) Deleterious Waste Materials:

The Licensee is prohibited from placing biologically harmful materials and construction debris including, but not limited to petroleum products, chemicals, cement cured less than 24 hours, welding slag and grindings, concrete saw cutting by-products, sandblasted materials, chipped paint, tires, wire, steel posts, asphalt and waste concrete where such materials could enter waters of the state, including wetlands. The Licensee must do the following:

- i. Cure concrete, cement, or grout for at least 24 hours prior to any contact with flowing waters;
- ii. Use only clean fill, free of waste and polluted substances;
- iii. Employ all practicable controls to prevent discharges of spills of deleterious materials to surface or ground water;
- iv. Maintain at the project construction site, and deploy as necessary, an adequate supply of materials needed to contain deleterious materials during a weather event;
- v. Remove foreign materials, refuse, and waste from the project area; and
- vi. Employ general good housekeeping practices at all times.

10. Spill Response

a) The Licensee shall maintain a Spill Prevention, Control, and Countermeasure Plan in effect at all times in accordance with 40 CFR Part 112. The following specific requirements apply during site activities:

- i. Vehicle staging, cleaning, maintenance, refueling, and fuel storage must be performed at least 150 feet from waters of the state. An exception may be authorized upon written approval by DEQ if all practicable prevention measures are employed and this distance is not possible because:

A. Physical constraints that make this distance not feasible (e.g., steep slopes,

- rock outcroppings);
 - B. Natural resource features would be degraded as a result of this setback;
 - C. Equal or greater spill containment and effect avoidance is provided even if staging area is less than 150 feet of any waters of the state.
 - D. If staging areas are within 150 feet of any waters of the state, as allowed under subsection (a)(iii) of this condition, full containment of potential contaminants must be provided to prevent soil and water contamination, as appropriate.
- ii. All vehicles operated within 150 feet of any waters of the state must be inspected daily for fluid leaks before leaving the vehicle staging area. Any leaks detected in the vehicle staging area must be repaired before the vehicle resumes operation;
 - iii. Before operations begin and as often as necessary during operation, equipment must be steam cleaned (or undergo an approved equivalent cleaning) until all visible external oil, grease, mud, and other visible contaminants are removed if the equipment will be used below the bank of a waterbody;
 - iv. All stationary power equipment (e.g., generators, cranes, stationary drilling equipment) operated within 150 feet of any waters of the state must be covered by an absorbent mat to prevent leaks, unless other suitable containment is provided to prevent potential spills from entering any waters of the state
 - v. An adequate supply of materials (such as straw matting/bales, geotextiles, booms, diapers, and other absorbent materials) needed to contain spills must be maintained at the project construction site and deployed as necessary;
 - vi. All equipment operated in state waters must use biodegradable hydraulic fluid. A maintenance log documenting equipment maintenance inspections and actions must be kept on-site and available upon request.
- b) Spill Incident Reporting:
- i. If petroleum products, chemicals, or any other deleterious materials are discharged into state waters, or onto land with a potential to enter state waters, the Licensee must promptly report the discharge to the Oregon Emergency Response System (OERS), at 1-800-452-0311);
 - i. If a release of petroleum products, chemicals, or other materials results in distressed or dying fish, the Licensee must immediately do the following: cease operations; take appropriate corrective measures to prevent further environmental damage; collect fish specimens and water samples; and notify DEQ, ODFW and other appropriate regulatory agencies.

11. Annual Compliance Report

The Licensee shall prepare and submit to DEQ an Annual Compliance Report by April 1 for the preceding year in which activities are performed pursuant to conditions required by this certification. The Annual Compliance Report shall include, as appropriate:

- a) Monitoring data including graphical representations, as appropriate;
- b) Records documenting required consultations and/or approvals;
- c) Narrative interpretation of results;
- d) Compliance evaluations;
- e) Efforts undertaken by the Licensee to achieve the objectives of the Aquatic Resource mitigation measures set forth in section 5 of this certification
- f) A comprehensive presentation of all actions performed in accordance with the Reservoir Area Management Plan and include all data, observations, measurements, photo-documentation, findings and recommendations. The report shall compare reservoir restoration conditions with the objectives of the Reservoir Area Management Plan and

document corrective or adaptive methods performed or recommended to meet those objectives.

- g) Efforts undertaken by the Licensee to achieve the objectives of the Groundwater Well Management Plan, including all well installations, field activities, outreach efforts, and monitoring results. The report shall include drill logs and well as-builts for project-installed monitoring wells; a comparison with installation depths and techniques from representative nearby wells; the results of any pumping or drawdown tests; an interpretation of the results; mitigation to improve water quality or quantity from affected wells; and findings and recommendations; and
- h) Efforts undertaken and anticipated completion of site restoration activities required in this certification.

The Licensee may also include a request for DEQ to consider approval of alternative or additional measures. As used in this section, alternative measures are methods or approaches not included in the Proposed Action that will provide or assist in providing, reasonable assurance that the Proposed Action will not cause or contribute to a violation of water quality standards beyond the compliance schedule described in Section 3. DEQ shall respond to any request for consideration of alternative measures within 60 days of receipt. DEQ shall notify the Licensee in writing of its approval or denial of the proposed alternative measures. Following DEQ approval, the Licensee shall implement the plan in accordance with the approved plan's terms and schedule, including any modifications made to the plan by DEQ as a condition of approval.

12. General

a) Section 401 Certification Modification

ODEQ, in accordance with Oregon and Federal law including OAR Chapter 340, Division 48 and, as applicable, 33 USC 1341, may modify this Certification to add, delete, or alter Certification conditions as necessary to address:

- i. Adverse or potentially adverse Project effects on water quality or designated beneficial uses that did not exist or were not reasonably apparent when this § 401 certification was issued;
- ii. TMDLs (not specifically addressed above in these section 401 certification conditions);
- iii. Changes in water quality standards;
- iv. Any failure of these § 401 Certification Conditions to protect water quality or designated beneficial uses as expected when this § 401 Certification was issued; or
- v. Any change in the Project or its operations that was not contemplated by this § 401 Certification that might adversely affect water quality or designated beneficial uses.

b) Project Modification

The Licensee shall obtain DEQ review and approval before undertaking any change to the Proposed Action that may affect water quality other than modifications authorized or required by this certification.

c) Inspection

The Licensee shall allow DEQ such access as necessary to inspect the Project area and Project records required by these section 401 Certification Conditions and to monitor compliance with these section 401 Certification Conditions, upon reasonable notice and subject to applicable safety and security procedures when engaged in such access.

- d) Posting
The Licensee shall maintain a copy of the section 401 water quality certification at the project site for the duration of the project. The certification shall be available for review by the Licensee and its contractors, as well as by DEQ, the US Army Corps of Engineers, National Marine Fisheries Service, Oregon Department of Fish and Wildlife, and other appropriate state and local government inspectors for the duration of the project.
- e) Water Quality Standards Compliance
Notwithstanding the conditions of this Certification, no wastes shall be discharged and no activities shall be conducted which DEQ deems will violate state water quality standards.
- f) Conflict Between Certification Conditions and Application
To the extent that there are any conflicts between the terms and conditions in this certification and how the Proposed Action, activities, obligations, and processes are described in the Application, the terms and conditions in this certification, as interpreted by ODEQ, shall control.

13. Project Specific Fees

In accordance with ORS 543.080, the Licensee shall pay project-specific fees, in 2018 dollars adjusted according to the formula in Section 13b below, to DEQ for costs of overseeing implementation of this certification. The licensee shall pay an initial pro-rated payment to DEQ within 30 days of license surrender for the period from the date of license surrender to the first June 30, which follows license surrender.

- a) Schedule
The Licensee shall pay project-specific fees to DEQ, made payable to State of Oregon, Department of Environmental Quality, according to the following schedule:

FERC License Surrender	Annual Project-Specific Fee Subject to Adjustment	Due
Year 1	\$ 42,578	Within 30 days
Year 2	\$ 40,000	July 1
Year 3	\$ 33,219	July 1
Year 4	\$ 7,254	July 1
Year 5	\$ 7,254	July 1

- b) Annual Adjustment
Fee amounts shall be adjusted annually, according to the following formula:

$$AD = D \times (CPI-U)/(CPI-U-June\ 2018)$$

Where:

AD = Adjusted dollar amount payable to agency.

D = Dollar amount pursuant to Section 13a and Section 13b above,

CPI-U = the most current published version of the Consumer Price Index-Urban. The CPI-U is published monthly by the Bureau of Labor Statistics of the U.S. Department of Labor. If that index ceases to be published, any reasonably equivalent index published by the Bureau of Economic Analysis may be substituted by written agreement between DEQ, ODFW, and the Licensee.

c) Payment Schedule

Fees for each Agency shall be paid pursuant to a written invoice from DEQ. Except as provided below, project-specific fees shall be due on July 1 of each year following issuance of the new FERC License. The Licensee shall pay an initial prorated payment to DEQ within 30 days of license issuance, for the period from the date of license issuance to the first June 30 which follows license issuance. The Licensee shall begin payments to ODFW on the first July 1 after the new FERC license is issued.

d) Credits

DEQ will credit against this amount any fee or other compensation paid or payable to DEQ, directly or through other agencies of the State of Oregon, during the preceding year (July 1 to June 30) for DEQ's or ODFW's costs of oversight.

e) Expenditure Summary

DEQ shall, on a biennial basis, provide the Licensee with a summary of project specific expenditures.

f) Duration

The project-specific fee shall expire 5 years after the first July 1 following the issuance of the new FERC license, unless DEQ terminates it earlier because oversight is no longer necessary. One year before the expiration of the fee, or earlier if mutually agreed, DEQ and the Licensee shall review the need, if any, to modify, extend, or terminate the fee, in accordance with ORS 543.080. The Licensee shall pay any project-specific fee required after such review as provided in ORS 543.080.

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

Linda Hayes-Gorman
Eastern Region Administrator

Date