

REVIEW OF APPLICATION FOR LIHI RECERTIFICATION OF THE PROSPECT NO. 3 HYDROELECTRIC PROJECT, LIHI #109

FERC Project No. 2337 South Fork, Rogue River – Jackson County, OR



May 29, 2020 Maryalice Fischer, Certification Program Director

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FINAL REVIEW OF APPLICATION FOR LIHI RECERTIFICATION OF THE PROSPECT NO. 3 HYDROELECTRIC PROJECT, LIHI #109

This report provides final review findings and recommendations related to the recertification application submitted to the Low Impact Hydropower Institute (LIHI) by Pacificorp Energy (Applicant) for recertification of the Prospect No. 3 Hydroelectric Project, LIHI #109 (Project). The final recertification application package was filed on March 24, 2020 and is subject to review under the current 2nd edition LIHI Handbook (Revision 2.03, December 20, 2018).

I. INTRODUCTION

The Project was first certified by LIHI in 2013 based on an application that had been submitted in 2009 with the application review completed in September 2010. The review concluded that the Project satisfied all criteria except for water quality due to the Project's lack of a 401 Water Quality Certification. With approval from Oregon Department of Environmental Quality (ODEQ) based on water quality monitoring conducted by the Applicant in 2012, the certification for Prospect No. 3 was approved in July 2013 with a term from December 31, 2009 to December 31, 2014. The Project was recertified in 2015 for another term of five years, which expired on December 31, 2019. The term was extended to May 31, 2020 to allow time to complete the recertification process. The prior certification included the following condition.

Condition 1. The current FERC license for the facility will expire in early 2019, before the end of the term of the new LIHI certificate. LIHI certification does not imply any judgment or recommendation on what the terms of future FERC licenses should be. If the facility owner receives a new FERC license before the end of the new LIHI certification, the facility owner shall provide LIHI with notification of that fact within 30 days of the relevant FERC Commission Order and describe all differences between the pervious and new licenses that are relevant to the LIHI criteria. LIHI staff will review those differences and decide whether any changes will be required to the current LIHI certificate. LIHI reserves the right to modify its certification of the facility to maintain consistency with future FERC requirements and the agency recommendations therein.

<u>Status:</u> The Project received a new 40-year FERC license on September 27, 2019. The condition was deemed satisfied with submittal of this LIHI recertification application which included updated information related to the new license.

II. RECERTIFICATION PROCESS AND MATERIAL CHANGE REVIEW

Under the 2016 LIHI Handbook (rev 2.03, December 20, 2018), reviews are a two-phase process starting with a limited review of a completed LIHI application, focused on three questions:

(1) Is there any missing information from the application?

(2) Has there been a material change in the operation of the certified facility since the previous certificate term?

(3) Has there been a change in LIHI criteria since the Certificate was issued?

In accordance with the Recertification Standards, if the only issue is that there is some missing information, a Stage II review may not be required. These standards also state that "material changes" mean non-compliance and/or new or renewed issues of concern that are relevant to LIHI's criteria. If the answer to either question (2) or (3) is "Yes", a more thorough review of the application using the LIHI criteria in effect at the time of the recertification application, and development of a complete Stage II Report, is required. As a result, all Projects currently applying for renewal must go through a full review unless their most recent certification was completed using the 2016 Handbook.

A review of the initial application, dated November 2019, resulted in a Stage I review report, dated January 29, 2020. The Stage I assessment indicated that in addition to the LIHI Handbook changes in the 2nd Edition, the new FERC license constitutes a "material change" at the Project. The Stage 1 review recommended that the application be updated to reflect additional new post-license information.

The Applicant reported that the new license includes protection, mitigation, and enhancement measures that are different from the previous license, which was effective during the current LIHI certification term prior to September 1, 2019. The only immediate change at the time of license issuance was an increase in the minimum flow to the bypassed reach from 10 cfs to 30 cfs. The Applicant is also required to adhere to an operational ramping rate of 0.2 feet per hour in the bypassed reach. Other facility and/or operational changes are being implemented in accordance with the schedules indicated in the new license.

The response to the Stage I Report was provided in the form of a revised application which was posted for public comment on March 24, 2020. This Stage II assessment included review of the application package, supplemental information provided by the Applicant, review of the new FERC license and related documents, and review of the annual compliance statements received by LIHI during the past term of Certification.

III. PROJECT LOCATION AND SITE CHARACTERISTICS

Prospect No. 3 is one of four hydroelectric developments operated by PacifiCorp in the Rogue River basin. The 7.2 MW Project is located on the western slope of the Cascade mountain range in southwestern Oregon near the town of Prospect. The other three developments, Prospect Nos. 1, 2, and 4 are operated under FERC License No. 2630 and are not subjects of this application.

The Rogue River Basin is located in southwestern Oregon and consists of five sub basins: Lower Rogue River, Middle Rogue River, Upper Rogue River, Illinois, and Applegate. The Rogue basin has a watershed area of about 5,156 square miles (Figure 1).



Figure 1. Rogue River watershed

The Prospect No. 3 Project diversion dam is located at river mile 10.5 on the South Fork Rogue River which is a 25-mile long tributary to the Rogue River. The Project descends 895 feet in elevation from east to west with the diversion dam located at 3,375 feet above mean sea level (msl) and the powerhouse and substation at 2,635 feet and 2,480 feet, respectively. The Project runs through federal lands, private timber company holdings and rural developments. Water diversion and release activities affect the South and North Forks of the Rogue River. Prospect No. 3 diverts water from the South Fork at the South Fork dam located at river mile (RM) 10.5 (Figure 2).

A water conveyance system and an inverted siphon pipe ("sag-pipe") move water to the Middle Fork Canal of the Prospect No. 1, 2, and 4 Project (those powerhouses located near the identified substation on Figure 3). Water diverted from the South Fork Rogue to the powerhouse (Project water) is discharged from the tailrace to the Middle Fork Canal of the Prospect Nos. 1, 2, and 4 Hydroelectric Project (FERC No. P-2630) located north of the Middle Fork Rogue River on the slope opposite the Project powerhouse. This water is ultimately discharged from Middle Fork Canal into the North Fork Rogue at North Fork Reservoir mixing with diversions from Middle Fork Rogue and Red Blanket Creek into the canal. In general, Project waters are not discharged to either the South Fork Rogue or Middle Fork Rogue.



Figure 2. Diversion dam and canal

The bypassed reach encompasses the South Fork Rogue River for 10.5 river miles to its confluence with the North Fork Rogue River. The ultimate disposition of Project waters is subject to the flow regimes and discharges from the North Fork Reservoir under the P-2630 license, but the influence of Project waters within North Fork Reservoir is limited.

The Middle Fork flows into the South Fork bypassed reach and at Lost Creek Lake, the South and North forks also combine into the Rogue River which flows about 160 miles to the Pacific Ocean. The watershed area at South Fork dam is about 84 square miles. There are no dams upstream of the Project on the South Fork. The one downstream dam on the mainstem Rogue River is the William L. Jess Dam, owned and operated by U.S. Army Corps of Engineers, at Lost Lake Creek on Rogue River mainstem at RM 157.¹ That dam was constructed in 1977 and does not have upstream fish passage.

The Project was originally constructed in 1931-1932 and an original FERC license was issued at that time. The Project boundary includes 367.2 acres including 52.5 acres within the Rogue River-Siskiyou National Forest.² Project works include:

- South Fork dam, a 24.7-foot-high, 172-foot-long concrete dam with an integral 98-foot long ogee spillway. The dam creates a 1-acre impoundment with a gross storage capacity of 19 acre-feet.
- An intake structure at the dam and a 3-mile-long conveyance system consisting of a 273foot-long concrete-lined canal section, a 66-inch diameter, 5,448-foot-long wood stave pipeline (flowline), a 5,805-foot-long concrete-lined canal section, a 698-foot-long concrete-lined horseshoe type tunnel 5 feet wide by 6.5 feet high, a 416-foot-long canal to penstock transition (forebay) with a 2,486-foot-long side channel spillway that discharges to Daniel Creek, and a 3,254-foot-long steel penstock ranging from 66 inches to 48 inches in diameter. The existing wood stave flowline and sag pipe will be replaced with steel pipe in 2021.
- A 66-inch, 887-foot-long, inverted siphon (sag-pipe) routes flow from the Project tailrace to the Middle Fork Canal of the Prospect Nos. 1, 2, and 4 Hydroelectric Project (FERC Project No. P-2630). The existing siphon is primarily wood-stave construction with the exception of an approximately 250-foot-long section of steel pipe over the Middle Fork Rogue River.
- The powerhouse contains one 47-inch diameter, 10,700-hp, vertical-shaft, Francis-type turbine operating under 693 feet of net head. The unit capacity is 7.2 MW and average annual generation is 35,050 MWh. The Project operates in run-of-river mode.

¹ <u>https://www.nwp.usace.army.mil/Locations/Rogue-River/Lost-Creek/</u>

² <u>https://www.fs.usda.gov/rogue-siskiyou/</u>



Figure 3. Project Layout

IV. REGULATORY AND COMPLIANCE STATUS

The Project was issued a new FERC license in September 2019.³ The license contains articles related to the LIHI criteria that are discussed in more detail in Section VII below.

- Article 401 requires the licensee to file various plans required by resource agencies and to file license amendment applications for any longer-term changes currently contemplated by the resource agencies.
- Article 402 requires construction of an auxiliary minimum flow release system.
- Article 403 requires the project to operate in run-of-river mode, and minimize impoundment fluctuations, and restrict ramping rates into the bypassed reach, with allowance for certain planned and unplanned deviations with proper notification, reporting, and prior agreement by resource agencies (for planned events).
- Article 404 requires an Operations Compliance Monitoring Plan.

³ <u>https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=15363858</u>

- Article 405 requires notification and reporting of emergencies and unanticipated events that affect project operations or the environment.
- Article 406 requires a sediment and dredging plan for any impoundment dredging associated with proposed road construction.
- Article 407 requires the licensee to manage large woody debris.
- Article 408 requires a Fish Salvage Plan for dewatering events.
- Article 409 limits dewatering of the water conveyance system to the period from July 1 to September 30.
- Article 410 reserves authority to prescribe fishways.
- Article 411 requires a Vegetation Management Plan.
- Articles 412 and 413 require a Wildlife Crossing Plan and a wildlife crossing fencing and inspection program.
- Article 414 requires an Avian Protection Plan for the Project's transmission line.
- Article 415 requires implementation of the Programmatic Agreement and a Historic Properties Management Plan.

The Project received a Water Quality Act Section 401 Water Quality Certification (WQC) from ODEQ on February 6, 2020.⁴ The final WQC was revised from the original version dated February 7, 2019.⁵ The final WQC reflects a settlement agreement (Appendix A) reached between Pacificorp and ODEQ and based on Pacificorp's formal state-level appeal of certain conditions in the original WQC. FERC granted rehearing on January 23, 2020⁶ in response to Pacificorp's October 25, 2019 rehearing request asking that FERC amend the license to incorporate the new WQC conditions and the settlement agreement. To date, the license has not been amended; however, the final WQC is now in effect.

The settlement agreement modified some of ODEQ's original conditions that required upgrades to fish passage facilities that studies had shown were reasonably effective without upgrades, and that required longer seasonality of higher minimum flow discharges. In addition, the Applicant agreed to undertake off-site mitigation measures including replacing three culverts on US Forest Service lands, installing fish screening on a private irrigation system, and most importantly, funding for removal of three private non-hydro dams downstream to open fish habitat. These measures were determined to provide better outcomes for fish and aquatic habitat in the Project vicinity.

The Forest Service issued section 4(e) conditions that include as related to the LIHI criteria, an Erosion and Sediment Control Plan, site-specific plans for habitat and ground-disturbing

⁴ <u>https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=15464585</u>

⁵ https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=15239407

⁶ <u>https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=15448348</u>

activities, and annual consultation and reviews of special status species lists for potential effects on newly listed species that could result from Project operations.

V. PUBLIC COMMENTS RECEIVED OR SOLICITED BY LIHI

The application was publicly noticed on March 24, 2020 and notice of the application was forwarded to resource agency and stakeholder representatives listed in the application. No public comments were received by LIHI during the 60-day comment period which ended on May 23, 2020. Based on the completeness of the application and the newness of the FERC license and related consultation documentation, no direct outreach to resource agencies or other stakeholders was conducted as part of this review.

VI. ZONES OF EFFECT

The Applicant delineated the Project into three Zones of Effect (ZoEs) as shown in Figures 3 and 4:

- ZoE 1 consists of the Project facilities within the FERC Project boundary from the South fork impoundment to the discharge of the sag-pipe at the Middle Fork Canal (the canal is not part of the Project). See Figure 5.
- ZoE 2 consists of the 10.5 river miles within the ordinary high-water mark of the bypassed reach from the South Fork diversion dam to the confluence of the South Fork with the North Fork.
- ZoE 3 includes the portion of the North Fork reservoir that receives the discharge of Project water via the Middle Fork Canal, represented by the area within a 200-foot radius of the discharge point. The North Fork reservoir receives the majority of its hydro-related inflow from the Prospect No. 1, 2, and 4 Project which also owns some land at the reservoir. See Figure 6.

The Applicant selected the following standards to satisfy the LIHI criteria. The reviewer found these standards to be appropriate with one exception for recreation in Zone 3 as shown by a **red X**. In other cases, such as for ecological flows and fish passage, other standards could also be considered appropriate as well, as shown by a **brown X** in the tables.

ZoE 1 – Project Facilities Zone

CRITERION		ALTERNATIVE STANDARDS					
		1	2	3	4	PLUS	
А	Ecological Flow Regimes	X	X				
В	Water Quality	X		X			
С	Upstream Fish Passage	X					
D	Downstream Fish Passage			X	X		
Е	Watershed and Shoreline Protection		X				
F	Threatened and Endangered Species Protection		X				
G	Cultural and Historic Resources Protection		X				
Н	Recreational Resources			X			

ZoE 2 – Bypassed Reach

CRITERION		ALTERNATIVE STANDARDS					
		1	2	3	4	PLUS	
А	Ecological Flow Regimes		X				
В	Water Quality		X	X			
С	Upstream Fish Passage			X	X		
D	Downstream Fish Passage	X					
Е	Watershed and Shoreline Protection		X				
F	Threatened and Endangered Species Protection		X				
G	Cultural and Historic Resources Protection	X					
Н	Recreational Resources			X			

ZoE 3 – North Fork Reservoir

CRITERION		ALTERNATIVE STANDARDS					
		1	2	3	4	PLUS	
А	Ecological Flow Regimes		X				
В	Water Quality	X					
С	Upstream Fish Passage	X					
D	Downstream Fish Passage	X					
E	Watershed and Shoreline Protection	X					
F	Threatened and Endangered Species Protection		X				
G	Cultural and Historic Resources Protection		X				
Н	Recreational Resources		X	X			



Figure 3. Conceptual Zones of Effect



Figure 4. Overview of Zones of Effect



Figure 5. ZoE 1, impoundment and Project facilities



Figure 6. ZoE 3, extent of zone within North Fork Reservoir

VII. DETAILED CRITERIA REVIEW

A: Ecological Flow Regimes

Goal: The flow regimes in riverine reaches that are affected by the facility support habitat and other conditions suitable for healthy fish and wildlife resources.

Assessment of Criterion: The Applicant selected Standard A-2, Agency Recommendation for all ZoEs, although Standard A-1, Not Applicable/De Minimis Effect could also be used for ZoE 1, the impoundment and project facilities zone. In addition, Standard A-4, Site-Specific Studies could be used for ZoE 2, the bypassed reach.

Discussion: The WQC and FERC license require the Project to be operated in instantaneous runof-river mode to minimize fluctuation of the impoundment surface elevation. At normal maximum pool, the impoundment has a surface area of approximately one acre with a retention time of less than one hour. The impoundment has a gross storage capacity of approximately nineteen acre-feet and useable capacity of less than five acre-feet. The total diversion from the South Fork Rogue River cannot exceed 150 cfs into the Project.

In ZoE 1, a Programmable Logic Controller (PLC) adjusts the turbine wicket gates to maintain a constant forebay elevation in response to input from level sensors at the forebay. The adjustments directly affect the rate of water diversion at the dam, and ultimately result in a near-constant reservoir level for much of the year. When natural inflows exceed the sum of the Project's hydraulic capacity and the bypass reach minimum flow requirement, spill occurs at the diversion over the un-gated, ogee-style weir. Article 404 of the license requires an Operation Compliance Monitoring Plan within one year of license issuance (by September 2020) and annual compliance reporting to document run-of-river operations, minimum flows, and ramping rates (see below).

Article 408 of the license requires a Trout Salvage Plan that was submitted to FERC on January 23, 2020. The plan covers relocation of fish trapped in the diversion canal or fish ladder during planned maintenance activities that necessitate dewatering. The plan includes two-week advance notice of planned dewatering to ODFW and US Fish and Wildlife Service, maintenance of a Scientific Takings permit to relocate fish, salvage procedures, and annual reporting of details of the fish relocated.

Articles 412 and 413 of the license require a Wildlife Crossing Plan and crossing improvements, and a wildlife crossing fencing and inspection program, respectively. Both are intended to enhance wildlife habitat connectivity along the water conveyance system. The plan and inspection program are required to be in place by 2021, within two years of license issuance. Improvements include widening six existing canal crossings to accommodate large animals and installing eight new crossings for small animals. Annual inspections and photographic documentation of wildlife use, including gray wolves (see Section VII.F below) are also required.

In ZoE 2, the WQC requires a continuous minimum flow released from the diversion dam to the bypassed reach of 30 cfs from March 1 through July 31, and 20 cfs from August 1 through February 28 (as measured at the downstream USGS gage 143320000). The minimum flow was increased from 10 cfs that had been required in the prior license. If natural inflow to the Project is less than the minimum flow requirement, then all flow is discharged into the bypassed reach. Ramping is restricted to a rate of 0.2 feet per hour in the bypassed reach. The WQC requires reporting of all ramping deviations and if requested by ODEQ, an adaptive management plan to reduce the frequency of ramping events that exceed 0.2 feet per hour. The Applicant reported three unplanned ramping rate deviations, two in January 2020 and one in April. All three events were of very short duration. Two were related to PLC programming or sensor issues and one occurred at the transition to spill conditions. To date, ODEQ and FERC have not commented on those deviations.

An instream flow analysis was conducted for relicensing to assess expected changes in hydraulic conditions and fish habitat under various bypassed reach minimum flow scenarios. The analysis considered the effects of different flows on habitat of all life stages of cutthroat and rainbow trout, the primary species of interest. The analysis was directed at the upper section of the bypass reach from RM 10.5 (just below the dam) downstream to RM 7.0 (at the Butte Falls Highway Bridge). This upper section represents the portion of the bypassed reach that is directly influenced by Project operations, prior to any downstream tributary input. This upper 3.5-mile section of the bypass reach consists of a 2.8-mile reach below the diversion dam where instream baseflows are comprised only of releases from the dam, and the next 0.70-mile reach where springs and groundwater inflows contribute to baseflow. During study plan development, resource agencies requested that the Applicant measure baseflow augmentation between RM 7.7 and 7.0 to confirm that appreciable baseflow augmentation in the lower reach lessens the Project's operational influence over instream flows.

The instream flow analysis modeled hydraulic parameters (e.g. water surface elevation, velocity, wetted perimeter, etc.) under varying instream flow scenarios and computed the area of habitat expected under various flow scenarios. The study used the System for Environmental Flow Analysis (SEFA) model to develop hydraulic models that predict velocity and depth across study transects in different habitat types in the bypassed reach. The output of the hydraulic models was then used in conjunction with agency-approved habitat suitability curves to produce habitat-flow relationships for target rainbow trout and cutthroat trout life stages, including fry, juvenile, adult, and spawning. Results of the analysis indicate that there is a lack of suitable trout spawning habitat which may be an important limiting factor to native trout in the bypassed reach. Spawning habitat may only be available in small patches in and around boulders, behind fallen logs, and other areas that allow gravel to accumulate.



Figure 7. Bypassed Reach

The original WQC required 30 cfs minimum flow from March through October and 20 cfs from November through February; however the settlement agreement revised the final WQC allow for reduced flows of 20 cfs from August through October, based on the fact that that higher flows would not result in an added habitat benefit for some life stages of one or both fish species.

Article 402 of the new license required the Applicant to file with FERC) a construction schedule for an auxiliary minimum flow release system. That schedule was filed on March 5, 2020 and construction is expected to be complete in 2022. The system will reliably provide minimum flows to the bypass reach, and this bypass system will also permit safe passage of fish moving downstream to a pool at the base of the fish ladder. The auxiliary flow release system will be located in the canal approximately 150 feet downstream of the intake headgate to provide minimum flows to the bypassed reach. It will include a 3-foot-wide, adjustable, automated, downward-opening slide gate installed on the downstream end of the existing canal overflow. The gate will work in tandem with the backwater gate downstream of the fish screen to maintain sufficient water surface elevation in the canal and provide flows to both the fish return bypass at the fish screen and auxiliary flow system. The gate opening will spill into an 8-

foot-long and 5-foot-wide plunge pool before entering a 2-foot-diameter pipe that will discharge at the existing fishway entrance in the tailrace.

In ZoE 3, flows into the North Fork Reservoir are a small portion of inflow relative to inflow from the Prospect No. 1, 2, and 4 Project. During March through June, the period when the Prospect No. 3 Project can attain the maximum diversion of 150 cfs, in water year 2019, Project waters accounted for, on average, less than 9% of the total inflow assuming maximum diversions from Prospect No. 1, 2, and 4 (total maximum diversion of 225 cfs) and hourly average inflow of 1,488 cfs from the North Fork Rogue upstream of the dam. That project also operates in run-of-river mode for the protection of aquatic resources and to minimize fluctuation of North Fork Reservoir surface elevations such that the sum of outflows approximates the sum of inflows to the reservoir.

Based on the application, supporting documentation, and FERC elibrary documents, this review finds that the Project is in compliance with science-based flow requirements and operates to protect aquatic habitat, and therefore continues to satisfy the ecological flow regimes criterion. Although agencies initially recommended higher minimum flows over the summer period, this review finds the modified flows acceptable since they form the most recent agency recommendation and are science-based regarding overall benefit to fish life stages of most concern. A condition is recommended to ensure that LIHI is notified of any adaptive management measures implemented to reduce ramping rate deviations.

B: Water Quality

Goal: Water Quality is protected in waterbodies directly affected by the facility, including downstream reaches, bypassed reaches, and impoundments above dams and diversions.

Assessment of Criterion: The Applicant selected Standard B-1, Not Applicable/De Minimis Effect in ZoEs 1 and 3, the impoundment and North Fork Reservoir, and Standard B-2, Agency Recommendation in ZoE 2, the bypassed reach. Standard B-3, Site-Specific Studies could also be used to meet this criterion in ZoEs 1 and 2.

Discussion: Under state water quality standards, beneficial uses designated for the South Fork Rogue River in the Project vicinity include water supply; irrigation and livestock watering; fish and aquatic life; wildlife and hunting; fishing; boating; water contact recreation; aesthetic quality; and hydropower. There are no impaired waters listed in the state's 2018/2020 Integrated Report.⁷

In ZoE 1, the retention time of impounded water is less than one hour, and therefore, the impoundment is unlikely to alter the physical, chemical, or biotic characteristics necessary to support fish and wildlife resources or human water uses. Project relicensing studies and agency

⁷ <u>https://www.oregon.gov/deq/wq/Pages/2018-Integrated-Report.aspx</u>

recommendations did not identify any water quality impacts within the impoundment or Project waterway.

In ZoE 2, the WQC notes that dissolved oxygen (DO) monitoring conducted for relicensing showed that the state standard of 11 mg/l DO during the fish spawning season may not always be met under the prior license's 10-cfs minimum flow regime, although the lower 8 mg/l standard during non-spawning periods was maintained. The WQC requires dissolved oxygen and temperature monitoring at locations just upstream of the impoundment, and just downstream of the diversion dam within the bypassed reach. An adaptive management approach must be developed if needed to confirm or attain the state standard is being met. The Applicant submitted the DO Monitoring Plan to ODEQ for approval, and subsequently filed it with FERC on February 27, 2020. The study is expected to be conducted in 2020.

The WQC also requires the Applicant to submit annual water quality monitoring reports to ODEQ summarizing the frequency of spill events to Daniels Creek, a tributary to the Middle Fork Rogue immediately upstream of the Project powerhouse. The Middle Fork Rogue is ultimately a tributary to the bypassed reach of the South Fork Rogue. The first annual report was submitted to ODEQ on January 30, 2020. At ODEQ's discretion, the Applicant may be required to develop and implement a Total Dissolved Gas (TDG) Monitoring Plan. If ODEQ determines monitoring indicates state TDG criteria are not met, the Applicant must develop a TDG adaptive management plan.

No potential concerns with TDG at the forebay and tailrace overflow spillways were raised during the relicensing process including during water quality study plan development, until issuance of the draft Certification. The Applicant states that supersaturation of water is unlikely to occur since the turbine pressure relief valve (PRV) automation eliminated routine spill from the forebay overflow spillway to Daniels Creek. Similarly, automation of the tailrace backwater gate has eliminated spill from the tailrace overflow to Daniels Creek. Any spill to these receiving waters from the forebay or tailrace overflow spillways would be on an emergency or non-routine basis only. Therefore, normal operation would not result in forebay or tailrace spills, nor would the circumstances of any such spill be likely to create TDG saturation levels in excess of the water quality standard in Daniels Creek or Middle Fork Rogue River.

Lastly, the WQC requires the Applicant to develop and implement a Macroinvertebrate Monitoring Plan since there is no existing data available. The monitoring is intended to assess macroinvertebrate communities in the upper 3.5 miles of the bypassed reach to determine if the resident biological communities are impaired or in poor condition. If ODEQ determines that the water quality biocriteria standard is not met, ODEQ may require the Applicant to develop and implement a biocriteria adaptive management plan. The Applicant submitted the plan to ODEQ for approval, and subsequently filed it with FERC on April 29, 2020. The study is expected to be conducted in 2020.

In ZoE 3, North Fork Reservoir, water quality impacts are addressed via the WQC for the Prospect No. 1, 2 and 4 Project in compliance with the conditions of its respective certification.

Since the Prospect No. 3 Project contributes a minimal amount of inflow to the reservoir, Project-related impacts on water quality in this ZoE are de minimis.

Based on the application, supporting documentation, and FERC elibrary documents, this review finds that the Project does not appear to adversely impact water quality and therefore continues to satisfy the water quality criterion. However, a condition is recommended to ensure that results of upcoming studies provide confirmation that the Project meets applicable state water quality standards. A condition is also recommended to ensure that LIHI is notified of any adaptive management measures implemented related to DO, TDG or macroinvertebrates.

C: Upstream Fish Passage

Goal: The facility allows for the safe, timely, and effective upstream passage of migratory fish. This criterion is intended to ensure that migratory species can successfully complete their life cycles and maintain healthy, sustainable fish and wildlife resources in areas affected by the facility.

Assessment of Criterion: The Applicant selected Standard C-1, Not Applicable/De Minimis Effect in ZoE 1, impoundment and ZoE 3, North Fork Reservoir, and Standard C-3, Best Practice/Best Available Technology in ZoE 2, bypassed reach. Standard C-1 is appropriate for the impoundment reach since once above a dam there is no further impediment to upstream movement.

Discussion: According to the draft WQC, there are no anadromous or catadromous fish species in the Project area since the William L. Jess Army Corps of Engineers dam located about 22 river miles downstream of the Project at Rogue River mile 159. It creates a barrier to migration of salmon and steelhead up to the Project. That dam effectively blocked passage when constructed in 1997. While it does not pre-date the Prospect No. 3 Project, there were numerous other dams farther downstream dating back to the 1800's that also blocked passage until all had been subsequently removed by 2009.^{8,9}

Resident native species include rainbow and cutthroat trout, both of which spawn in the South Fork Rogue river upstream and downstream of the diversion dam. Both species require migration to complete their life cycles. Brown and brook trout are also present as introduced species. All four species have self-sustaining populations in the Project vicinity.

The Project has an upstream passage facility that consists of an 86-foot-long pool and weir type fishway as shown in Figure 8.

⁸ <u>https://en.wikipedia.org/wiki/Rogue River (Oregon)</u>

⁹ https://www.oregonlive.com/environment/2010/10/early_signs_good_for_dam_remov.html



Figure 8. Fish ladder with South Fork Rogue River in background at left

In ZoE 2, the Applicant selected Standard C-3 because the Project is not in compliance with recommendations issued by appropriate resource agencies, in this case the Oregon Department of Fish and Wildlife (ODFW). FERC did not adopt ODFW's 10(j) recommendations with respect to fish passage in the new license. The Applicant noted that Standard C-4, Acceptable Mitigation for the bypassed reach could also be selected, and this review finds that Standard more appropriate as discussed below. With regard to Standard C-3, the Applicant contended, and FERC agreed based on relicensing studies that the existing upstream fish passage facilities provide appropriate and sufficiently effective fish passage for the majority of migrating fish in the Project area. ODFW disagreed about passage effectiveness, particularly for small fish.

The draft WQC required modifications to the upstream fish passage facility to better accommodate smaller fish by reducing weir jump heights and providing more consistent water flow through the ladder. A Fish Passage Facilities Operations and Maintenance Plan is also required, within 18 months of license issuance (by April 2021). The negotiated WQC settlement agreement later eliminated fishway modifications in favor of several off-site mitigation measures. ODFW had stated, and ODEQ agreed in the draft WQC that the primary benefits of providing improved passage at the Project would be to mitigate for habitat fragmentation and increase population and genetic connectivity. The off-site mitigation measures would provide these overall fish and aquatic habitat improvements within the Rogue River watershed and would likely far exceed those potentially gained through fish passage improvements. Mitigation locations are shown on Figure 9 and, include the following related to upstream passage:

- Replacing two culverts on Big Ben Creek with a new culvert and replacing one culvert on Imnaha Creek, both on Forest Service lands. The new culverts will be designed to allow upstream fish passage. The Applicant will be responsible for permitting, installation, post-construction monitoring, and preparation of a final report regarding the projects. Construction is expected to be completed by 2021.
- Removal of three small privately-owned diversion dams on Slate Creek and Welter Creek and under the Harboldt Dam Removal Project. The Applicant is responsible for funding of \$177,770 and \$10,000 in in-kind labor for the project which will cover costs for permitting, dam removal, follow-up monitoring, and preparation of a final report at project completion. The funding is to be provided by the end of 2020 with field work to commence upon permit authorization.

The dam removal project will restore approximately 15 miles of habitat for native fish, including anadromous coho (federally threatened species) and steelhead, resident trout, and lamprey. The project includes surrender of existing water rights, thereby adding water into the stream downstream of the current points of diversion. The dams are within the Applegate Sub basin, which is subject to a Total Maximum Daily Load (TMDL) Water Quality Management Plan.¹⁰ One of the affected waterways, Slate Creek, is a CWA Section 303(d)-listed impaired water for summer temperature. The project will result in net increases in beneficial uses of the listed waters. The presence of listed, native, migratory fish and increases in fish species diversity within these stream reaches increases the priority ranking scores for fish passage barriers in ODFW's fish passage priority list.¹¹ The commensurate, qualitative benefits for all life stages of fish outweigh the environmental benefits that modifications to the Project's fish ladder would provide.

¹⁰ <u>https://ofmpub.epa.gov/waters10/attains_impaired_waters.show_tmdl_document?p_tmdl_doc_blobs_id=76144</u>

https://www.dfw.state.or.us/fish/passage/docs/2013 Fish Passage Priority List Methods Background Supporting Informati on.pdf



Figure 9. Off-site mitigation measure locations

In ZoE 3, fish in the North Fork reservoir are unimpeded from migrating farther upstream into the North Fork Rogue River or Middle Fork Canal. Fish cannot access the reservoir from the North Fork Rogue River downstream of the North Fork dam, but the dam and downstream reach are not part of the Prospect No. 3 Project.

There are no passage facilities associated with that dam which is part of the Prospect No. 1, 2 and 4 Project. However, in 2003, PacifiCorp and ODFW entered into a fish passage waiver agreement for the North Fork Dam under that Project. In lieu of fish passage at that dam, PacifiCorp agreed to fund off-site mitigation measures including pre-construction monitoring and evaluation, construction, operation, maintenance, and post-construction monitoring and evaluation of fish passage improvements at Butte Mill Dam on Little Butte Creek in Jackson County, Oregon. Butte Mill Dam is the lowermost artificial obstruction in Little Butte Creek and restricted upstream fish passage to approximately 68 miles of productive habitat for native migratory fish including anadromous salmonids. In its net benefit analysis memorandum of April 1, 2003, ODFW concluded that "the fish passage improvements in Little Butte Creek will result in a net benefit to native migratory fish in the Rogue River Basin compared to constructing a fish ladder at North Fork Dam." Fish passage improvements at Butte Mill Dam were completed in 2005.

Based on the application, supporting documentation, and FERC elibrary documents, this review finds that the Project continues to satisfy the upstream fish passage criterion. Although the mitigation measures are part of the WQC settlement agreement and in lieu of Project-specific upstream passage provisions, this review finds that they constitute acceptable mitigation that will support increases in the abundance and sustainability of the migratory riverine species in the river system. A condition is recommended to ensure that planned mitigation efforts are completed in a timely manner.

D: Downstream Fish Passage

Goal: The facility allows for the safe, timely, and effective downstream passage of migratory fish. For riverine (resident) fish, the facility minimizes loss of fish from reservoirs and upstream river reaches affected by Facility operations. All migratory species can successfully complete their life cycles and to maintain healthy, sustainable fish and wildlife resources in the areas affected by the Facility.

Assessment of Criterion: The Applicant selected Standard D-3, Best Practice/Best Available Technology for the impoundment ZoE and Standard D-1, Not Applicable/De Minimis Effect for the bypassed reach and North Fork Reservoir ZoEs. Standard D-1 is appropriate in the downstream North Fork Reservoir ZoE since once below a project there is no further Projectrelated impediment to continued downstream movement. This review finds that Standard D-4, Acceptable Mitigation is more appropriate for the impoundment ZoE.

Discussion: The Project's downstream fish passage facilities (Figure 10) consist of a 0.25-inch wedge-wire, inclined plane fish screen with an effective surface area of 193.3 square feet

located in the Project waterway. The screen serves to eliminate entrainment into the waterway and powerhouse. Baffles were installed to create a more uniform flow through the screen. Fish moving down the intake canal and past the fish screen are directed to an 18-inch diameter bypass pipe that transports them to Pool 6 of the fish ladder, where fish may follow flows downstream through the ladder to the bypassed reach. Flow through the bypass pipe is used to increase attraction flow to the fish ladder.

Studies conducted for relicensing indicate that the existing facilities meet current state criteria for fish passage for all measured parameters except for screen approach velocity. However, biological evaluation of the existing fish passage facilities demonstrated that the facilities do provide effective, safe downstream passage for most resident, native trout. During the studies, all fish recovered were alive and in good condition, and no fish were impinged on the screen.

ODEQ stated in the draft WQC that the current bypass outflow location in the sixth pool of the ladder increases fry mortality and causes delayed or blocked migration with increased associated mortality and reduced productivity, although the Applicant notes that there is no documentation to support ODEQ's contention. ODEQ also raised concerns about larger fish feeding on smaller fry as they exit the fish ladder, but the Applicant contends that moving the fish bypass return pipe outlet from Pool 6 to another location in the river would only relocate those effects, to the extent they exist, to another location in the river. In addition, the fish bypass flow provides beneficial attraction flows to the upstream fish ladder, as specified in the ladder's design, which was originally developed in consultation with ODFW and the U.S. Fish and Wildlife Service. Removing this attraction flow from the ladder could also reduce its effectiveness.



Figure 10. Fish screen

The settlement agreement eliminated the requirement to modify downstream passage facilities in favor of another mitigation measure to construct and install a self-cleaning, rotary drum screen on an irrigation ditch to prevent downstream migrating fish entrainment. The irrigation ditch (Nye Ditch in Figure 9) diverts flows from Mill Creek near Prospect, OR into the North Fork Rogue River. The Applicant will be responsible for permitting, installation, post-construction monitoring, and preparation of a final report regarding the projects. Construction is expected to be completed by 2021.

Fish within ZoE 2, the bypassed reach are unrestricted in their downstream migration to the North Fork Rogue River at its confluence with the South Fork Rogue River (i.e., upper Lost Creek Reservoir). In ZoE 3, fish from the South Fork Rogue River basin are generally screened from the Project waterway and, therefore, are not present in the North Fork Reservoir. However, fish less than 60 mm and/or fish present in the waterway during screen cleaning cycles may enter the waterway and subsequently enter the North Fork Reservoir. Fish migrating downstream in the North Fork Rogue River to the North Fork Reservoir encounter one of two potential downstream barriers: North Fork Dam and/or North Fork Canal, both of which are licensed facilities of the Prospect No. 1, 2, and 4 Project. Migratory fish can access the North Fork Rogue River bypassed reach via spill through the North Fork Rogue River. The North Fork Canal routes flows and fish to the Prospect No. 2 forebay, project flowlines, and one or more of the three project powerhouses, which all ultimately discharge to the North Fork Rogue River upstream of its confluence with the South Fork Rogue. There are no fish screens at those facilities.

Based on the application, supporting documentation, and FERC elibrary documents, this review finds that the Project provides safe and effective downstream passage both on-site and through the upcoming off-site mitigation, and therefore continues to satisfy the downstream fish passage criterion. A condition is recommended to ensure that planned mitigation efforts are completed in a timely manner.

E: Shoreline and Watershed Protection

Goal: The facility has demonstrated that sufficient action has been taken to protect, mitigate or enhance the condition of soils, vegetation and ecosystem functions on shoreline and watershed lands associated with the facility.

Assessment of Criterion: The Applicant selected Standard E-2, Agency Recommendation for ZoEs 1 and 2, and Standard E-1, Not Applicable/De Minimis Effect for ZoE 3.

Discussion: The approximately one-acre Project impoundment and the South Fork Rogue watershed upstream of the Project are located on federal lands administered by the Forest Service. There are no known existing erosive conditions, mass soil movement, slumping, or other unstable conditions associated with Project impoundment shorelines and stream banks. There are no shoreline buffer zones, shoreline management plans, aesthetics management

plans, or developed recreation facilities associated with the Project. The Project waterway downstream of the impoundment does not exhibit any native-surface shorelines.

The FERC license requires a Vegetation Management Plan to promote the establishment and maintenance of native plant communities and to minimize the spread of noxious weed species within the Project boundary. The plan was filed as Appendix C of the Final License Application Exhibit E and was approved by FERC in license article 411. A Sediment and Dredging Plan is required under license article 406 and is expected to be filed with FERC by December 31, 2022. The Sediment and Dredging Plan will address impoundment dredging and placing the dredged material along the bypassed reach stream bank to enhance downstream trout spawning habitat. The Wildlife Crossing Plan required by license article 412 is expected to be filed with FERC by September 27, 2021.

Forest Service 4(e) condition 8 requires revision to the Project's existing Erosion and Sediment Control Plan. That revision was filed with FERC on December 6, 2019. The plan includes initial and annual surveys of Project-affected lands to inventory and assess erosion sites, implementation of erosion control measures, and monitoring of the effectiveness of those measures. The Applicant states that the Project will comply with agency recommendations associated with the identified management plans.

The shorelines of the bypassed reach are on federally-owned lands administered by the US Forest Service and Bureau of Land Management and private timber lands outside of Project ownership. There are no known existing erosive conditions, mass soil movement, slumping, or other unstable conditions associated with bypassed reach shorelines and stream banks. Project effects on bypassed reach shorelines are limited by the operational ramping rate of 0.2 feet per hour required by the WQC.

The only shoreline of the North Fork Reservoir within ZoE 3 is the transmission line right-of-way which crosses and intersects with the shoreline. The remaining shoreline immediately near the North Fork dam is part of the Prospect No. 1, 2, and 4 Project.

Based on the application, supporting documentation, and FERC elibrary documents, this review finds that the Project with its run-of-river operation, ramping restrictions, and various management plans is likely to have little to no impact on the shoreline and therefore continues to satisfy the shoreland and watershed protection criterion.

F: Threatened and Endangered Species

Goal: The facility does not negatively impact federal or state listed species.

Assessment of Criterion Passage: The Applicant selected Standard F-2, Finding of No Negative Effect for all ZoEs.

Discussion: Two federally-listed species potentially occur near the Project: the endangered

gray wolf (*Canis lupus*) and the threatened northern spotted owl (*Strix occidentalis caurina*). Gray wolves have been observed within the Project boundary. Critical habitat is also designated for northern spotted owl near, but outside of, the Project boundary.¹² No state-listed animal species occur within the Project boundary, however, two state-listed plant species, Umpqua mariposa lily (*Calochortus umpquaensis*) and wayside aster (*Eucephalus vialis*), potentially occur in the Project boundary, but these plant species were not identified during botanical surveys conducted during relicensing. The FERC Environmental Assessment¹³ notes that gray wolves are infrequent transients within the Project area and there is no occupied spotted owl habitat in the Project area. Further, Project-related vegetation management and construction activities would not occur within the area of critical habitat for the owl.

Forest Service 4(e) condition 7 requires annual consultation and reviews of special status species lists for potential effects on newly listed species that could occur on National Forest lands within the Project boundary and that could be directly affected by Project operations. Special status species include federal and state listed species as well as state species of special concern. If newly listed species are likely to be present, the Applicant must develop and implement a study plan to assess potential Project impacts. If special status species are found before or during construction, operations, or maintenance activities, whether on National Forest lands or not, the Applicant must notify resource agencies for consultation on management of potential impacts.

Lands associated with the North Fork Reservoir are part of the Prospect No. 1, 2, and 4 Project. Two listed species in the Project vicinity are bald eagle (*Haliaeetus leucocephalus*) and northern spotted owl. In relicensing of that Project, FERC determined that the Project may affect, but is unlikely to adversely affect either species.

Based on the application, supporting documentation, and FERC elibrary documents, this review finds that the Project is unlikely to affect listed species that are or may be present. Therefore, the Project continues to satisfy the threatened and endangered species protection criterion.

G: Cultural and Historic Resources Protection

Goal: The Facility does not unnecessarily impact cultural or historic resources that are associated with the facility's lands and waters, including resources important to local indigenous populations, such as Native Americans.

Assessment of Criterion: The Applicant selected Standard G-2, Approved Plan for ZoEs 1 and 3, and Standard G-1, Not Applicable/De Minimis Effect for ZoE 2, the bypassed reach.

¹² <u>https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14842760</u>

¹³ <u>https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=14889484</u>

Discussion: The Applicant conducted cultural resource surveys within the Project boundary during relicensing. Project facilities are contributing elements to the overall Prospect Hydroelectric Project Historic District which also includes elements of the Prospect No. 1, 2 and 4 Project. The Oregon State Historic Preservation Office (SHPO) concurred that these elements are eligible for listing in the National Register of Historic Places. The surveys identified five archaeological sites. One was found to be outside the Project area of potential effects and the other four were determined to be not eligible for listing on the National Register. No traditional cultural properties were identified.

License article 415 requires implementation of a Programmatic Agreement (PA). The PA, license article 415, and US Forest Service 4(e) Condition 10 require revision of the Project's Historic Properties Management Plan (HPMP) which was submitted with the final license application. The revised HPMP was prepared in consultation with the SHPO, the Forest Service, and Cow Creek Band of Umpqua Tribe of Indians and was filed with FERC on February 7, 2020. The plan includes measures to mitigate adverse effects related to new Project construction and modifications, and to protect known and previously undiscovered cultural and historic resources. The HPMP also includes an agency consultation process for newly discovered resources.

Based on the application, supporting documentation, and FERC elibrary documents, this review finds that operation and maintenance of the Project under the HPMP is unlikely to adversely impact cultural or historic resources. Therefore, the Project continues to satisfy the cultural and historic resources protection criterion.

H: Recreational Resources

Goal: The facility accommodates recreation activities on lands and waters controlled by the facility and provides recreational access to its associated lands and waters without fee or charge.

Assessment of Criterion Passage: The Applicant selected Standard H-3, Assured Accessibility and Use for ZoEs 1 and 2, and Standard H-2, Agency Recommendation for ZoE 3. This review finds that Standard H-3 is more appropriate for ZoE 3.

Discussion: There are no developed recreational facilities and no requirements for such facilities at the Project and private land in the lower portion of the Project limits public access. Because of the limited recreational use at the Project, and no expectation of future increases in use, on March 3, 2010, FERC exempted PacifiCorp from the requirement to file Form 80 recreation use reports.

The Rogue River-Siskiyou National Forest lands surrounding the upper portion of the Project provide opportunities for various recreational uses including hunting, fishing, camping, hiking, birdwatching and picnicking, but areas within the Project boundary see little use. Hunting is the primary recreational activity that occurs near the Project. The South Fork Rogue River Trail

traverses a bluff above the Project impoundment at the confluence of Imnaha Creek and the South Fork.

In ZoE 2 the Applicant conducted a relicensing whitewater boating study of a 7-mile-long stretch of the South Fork from Butte Falls Prospect Bridge to the confluence of the North and South Forks to assess boating use and demand and the feasibility of providing flows for whitewater boating. Boater flow preferences were also obtained through a focus group meeting and a questionnaire survey of experienced boaters. Questionnaire responses showed that a small majority of boaters favored 200 cfs as the lowest acceptable flow for running the reach and 350 cfs as an optimal flow. The lowest identified minimum flow was 150 cfs with the highest optimum suggested flow being 400 cfs. Respondents reported the need for frequent portages due to numerous rocks and wood obstacles in the river preventing passage in certain areas. Study results also showed that there are no safe or readily accessible put-in or take-out locations downstream of the Butte Falls Prospect Road Bridge due to private property ownership and the steep topography of the South Fork Canyon.

Flows of at least 200 cfs are typically naturally available for one month in the spring (generally between April 29 and May 29) but bypass flows during the rest of the year are 20 or 30 cfs, well below boatable flows. Other than the occasional use of the bypassed reach by a few skilled whitewater boaters, recreational use of the Project area remains limited. Numerous whitewater boating opportunities on the nearby North Fork Rogue River appear to be meeting existing needs. Because recreation at the Project is low and is expected to remain low for the foreseeable future. Continuing to provide for the operation and maintenance of the USGS stream gage to monitor minimum flows will benefit the few paddlers that may use the bypassed reach by providing real-time flow information.

There are no recreation facilities associated with ZoE 3; however, article 412 of the FERC license for the Prospect No. 1, 2, and 4 Project required a plan to enhance recreation resources at North Fork Park, which is immediately adjacent to the ZoE on the northeast bank of the reservoir. Facilities include a group picnic area, a barrier-free picnic area, a barrier-free interpretive trail from North Fork Park to the Rogue River-Siskiyou National Forest boundary to the north, a barrier-free single vault restroom, an information kiosk, and directional signs.

Based on the application, supporting documentation, and FERC elibrary documents, this review finds that the Project continues to satisfy the recreational resources criterion by allowing free access to the river where safe to do so.

VIII. CERTIFICATION RECOMMENDATION

This review included evaluation of the application and additional information provided, a review of the FERC elibrary during the current LIHI term and since issuance of the new license, and review of other publicly available information. Based on this evaluation, the Reviewer recommends that the Prospect No. 3 Project be recertified for a term of five (5) years. Two

conditions are recommended to ensure that the Project remains in compliance with state water quality standards and the WQC.

Condition 1: The facility Owner shall submit results of the 2020 dissolved oxygen and macroinvertebrate monitoring study reports to LIHI within 60 days of report finalization. Submittals shall include all agency correspondence and consultation related to study results. LIHI reserves the right to modify or rescind the Certification depending on study results. The facility Owner shall provide to LIHI in annual compliance submittals, a summary of all resource agency consultation, and any agency determinations that adaptive management measures are required for ramping rates, dissolved oxygen, macroinvertebrates, or total dissolved gas. The summaries shall include copies of approved adaptive management plans and schedules for their implementation.

Condition 2: The facility Owner shall provide to LIHI in annual compliance submittals, a summary of activities related to the four off-site fish passage mitigation measures until all measures have been installed and related post-construction monitoring has been completed. Submittals shall include all agency consultation during project planning and implementation, and approvals of installed measures.

Appendix A

APPENDIX A – WQC SETTLEMENT AGREEMENT



Kate Brown, Governor

Department of Environmental Quality Office of Compliance and Enforcement 700 NE Multnomah Street, Suite 600 Portland, OR 97232 (503) 229-5696 FAX (503) 229-5100 TTY 711

February 6, 2020

John P. Sample PacifiCorp 825 NE Multnomah, Suite 1800 Portland, OR 97232 John.sample@pacificorp Michael Campbell Stoel Rives LLP 760 NW Ninth Avenue, Suite 3000 Portland OR 97205 Michael.campbell@stoel.com

VIA EMAIL AND US MAIL

Re: Prospect No. 3 Hydroelectric Project Clean Water Act Section 401 Certification Contested Case Hearing Request, Case No. WQ/I-NWR-2019-037 Settlement Agreement and Final Order

Dear Mr. Sample and Mr. Campbell:

The Department of Environmental Quality (DEQ) issued its Final Certification Decision for the Prospect 3 Project today, on February 6, 2020 (401 Certification), consistent with the parties' Settlement Agreement, dated December 31, 2019. Accordingly, DEQ has issued its Final Order incorporating by reference that 401 Certification and Settlement Agreement, attached herein. DEQ shall withdraw the contested case hearing matter from the Office of Administrative Hearings and copy PacifiCorp on that correspondence. Please contact me should you have any questions.

Sincerely,

Anzie St. Clair Environmental Law Specialist Office of Compliance and Enforcement

Enclosures (Final Order, Settlement Agreement, and 401 Certification) cc: Marilyn Fonseca, DEQ Steve Mrazik, DEQ Keith Andersen, DEQ Anika Marriot, DOJ

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION

OF THE STATE OF OREGON

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IN THE MATTER OF:

PacifiCorp

FINAL ORDER AND SETTLEMENT AGREEMENT OAH Case No.: 2019-ABC-02999

DEQ Case No. WQ/I-NWR-2019-037

SETTLEMENT AGREEMENT

The Oregon Department of Environmental Quality ("DEQ" or the "Department") and PacifiCorp ("PacifiCorp") (collectively, "Parties") do hereby stipulate and agree as follows. The Department incorporates the Parties' stipulations and agreements into the accompanying Final Order. pursuant to ORS 183.417(3).

A. Background

1. DEQ issued a Clean Water Act Section 401 Water Quality Certification ("401 WQC") to PacifiCorp, pertaining to its Prospect 3 Hydroelectric Facility (FERC Project No. P-2337) ("Project"), on February 7, 2019.

2. On February 21, 2019, PacifiCorp filed its request for hearing regarding certain conditions of the 401 WQC pursuant to OAR 340-048-0045(2), and DEQ referred the matter to the Office of Administrative Hearings on July 30, 2019. PacifiCorp filed an amended request for hearing on December 12, 2019.

3. On September 27, 2019, the Federal Energy Regulatory Commission ("FERC") issued a new license for the Project pursuant to the Federal Power Act ("License"). The License incorporated the conditions of the 401 WQC, including the conditions that are the subject of PacifiCorp's request for hearing. PacifiCorp on October 25, 2019 filed a request for rehearing with FERC, requesting that FERC reserve its authority to modify the License after the resolution of PacifiCorp's request for hearing on the 401 WQC. On November 25, 2019, FERC granted the request for rehearing for the limited purpose of further consideration.

4. The Project is located in the Rogue Basin, on the South Fork of the Rogue River near the community of Prospect in northeastern Jackson County, Oregon. The Project diversion dam is located at river mile 10.5 on the South Fork Rogue River in the approximately 1,616 square-mile Upper Rouge River sub-basin.

B. Consent

1. Each Party to this Settlement Agreement certifies that it has read the entire Settlement Agreement, and understands and agrees with the contents thereof.

2. Each Party to this Settlement Agreement understands and agrees that this Settlement Agreement and all documents incorporated by reference set forth the entire agreement of the parties.

3. Each Party to this Settlement Agreement understands and agrees that this Settlement Agreement and the resulting non-appealable Final Order that is consistent with the Settlement Agreement constitute the complete and final resolution of the issues in the above-captioned Matter.

4. The Parties agree to jointly and immediately request a stay of the contested case proceeding.

5. Effective upon the signing of this Settlement Agreement by the Parties, PacifiCorp waives its right to request reconsideration, petition for judicial review, or appeal the Final Order to the extent the Final Certification Decision, as defined in section C.9, is consistent with the Settlement Agreement. PacifiCorp reserves its right to request reconsideration, petition for judicial review, or appeal the Final Order if the Final Certification Decision is inconsistent with the Settlement Agreement or the Final Order if the Final Certification Decision is inconsistent with the Settlement Agreement or the Final Order (or Final Certification Decision incorporated therein) is revised pursuant to an appeal or other challenge by a third party.

C. Terms of the Agreement

The Parties to this Settlement Agreement wish to resolve their dispute in a manner that avoids further litigation on this matter. Therefore, in consideration of the promises and mutual covenants contained herein the receipt and sufficiency of which are hereby acknowledged, the Parties agree to the following terms, as well as those in Section B:

1. PacifiCorp agrees to provide, no later than December 31, 2020, \$187,770 to WaterWatch of Oregon to fund implementation of or otherwise support the removal of three small, privately-owned diversion dams on Slate Creek and its tributary, Welter Creek ("Harboldt Dam Removal Project"). This amount will be provided through \$177,770 in direct funding and \$10,000 of in-kind labor to implement removal of or otherwise prepare, submit, and manage any necessary in-water permit applications required to implement the project. PacifiCorp will undertake follow-up monitoring to confirm that the dams have been removed and to provide a final report to DEQ, copying the Oregon Department of Fish and Wildlife (ODFW), at the completion of that project.

2. PacifiCorp agrees to replace the two existing round, corrugated metal pipe culverts on Big Ben Creek below Forest Road 37 (T34S, R4E, S2, NESW) with a new culvert designed to U.S. Forest Service aquatic organism passage stream-simulation standards to restore upstream fish passage; provided further that PacifiCorp (a) agrees to replace the culverts by December 31, 2021, including timely obtaining all needed permits and approvals to carry out that work, subject to factors outside PacifiCorp's reasonable control; and (b) undertakes follow-up monitoring to confirm that the new culvert has been installed as designed to restore upstream fish passage and to provide a final report to the Department, copying the ODFW, at the completion of that project. PacifiCorp shall not own and shall not be responsible for maintaining the culvert.

3. PacifiCorp agrees to replace the existing round, 67' X 10', corrugated metal pipe culvert on Imnaha Creek below Forest Road 3775 (T33S, R4E, S17, NENW) with a new culvert designed to U.S. Forest Service aquatic organism passage stream-simulation standards to restore upstream fish passage; provided further that PacifiCorp (a) agrees to replace the culvert by December 31, 2021, including timely obtaining all needed permits and approvals to carry out that work, subject to factors outside PacifiCorp's reasonable control; and (b) undertakes follow-up monitoring to confirm that the new culvert has been installed as designed to restore upstream fish passage and to provide a final report to the Department, copying the ODFW, at the completion of that project. PacifiCorp shall not own and shall not be responsible for maintaining the culvert.

4. PacifiCorp agrees to construct and install a self-cleaning, rotary drum screen that meets the 2011 National Marine Fisheries Service fish screening criteria to prevent fish entrainment in an irrigation ditch that diverts flows from Mill Creek into the North Fork Rogue River; provided further that PacifiCorp (a) agrees to construct and install the fish screen by December 31, 2021, including timely obtaining all needed permits and approvals to carry out that work, subject to factors outside PacifiCorp's reasonable control; and (b) undertakes follow-up monitoring to confirm that the fish screen has been installed as designed to prevent fish entrainment and to provide a final report to the Department, copying the ODFW, at the completion of that project. PacifiCorp shall not own and shall not be responsible for maintaining the screen.

5. If the actions specified in sections C.1 through C.4 cannot be implemented due to the refusal of the property owner to give permission or due to other factors beyond PacifiCorp's reasonable control, the Parties agree to confer in good faith to reach agreement on replacement projects that will be of equal or greater environmental value and of equal or less cost to implement. PacifiCorp agrees to implement such mutually agreed-upon replacement project(s).

6. DEQ has evaluated the actions specified in sections C.1 through C. 4. DEQ agrees to remove existing certification conditions IV.i and IV.j, which would require modifications to the Project's existing fish ladder at the South Fork Diversion Dam, and to revise the second sentence of existing certification condition IV.e. to read: "The minimum flow released to the South Fork Rogue River shall be equal to or greater than 30 cubic feet per second from March 1 through July 31 and equal to or greater than 20 cubic feet per second from August 1 through February 28 as measured at the United States Geological Survey gage at RM 10.25." Notwithstanding section C.14, PacifiCorp may present evidence of the actions specified in sections C.1 through C.4 in any future proceeding for the sole and limited purpose of establishing beneficial change in habitat conditions due to such actions.

7. The Parties agree that DEQ will issue a revised certification decision to make the changes specified in section C.6. PacifiCorp will implement the requirements of sections C.1 through C.4 in accordance with this Settlement Agreement, but those requirements shall not be included in the revised certification.

8. The Parties understand and agree that, if DEQ does not issue a revised certification decision by February 7, 2020 that is consistent with this Settlement Agreement, PacifiCorp may terminate this Settlement Agreement and DEQ will not issue the Final Order incorporating the Settlement Agreement.

9. The Parties agree that upon DEQ's issuance of a revised certification decision consistent with this Settlement Agreement ("Final Certification Decision"), DEQ shall issue the Final Order.

10. Within 7 days of DEQ's issuance of a Final Certification Decision that is consistent with this Settlement Agreement, PacifiCorp shall submit a request to FERC to modify the License to conform to DEQ's Final Certification Decision; provided further that DEQ will file a supporting comment in the FERC docket to the same effect.

11. DEQ shall withdraw this matter from the Office of Administrative Hearings upon the issuance of a Final Certification Decision that is consistent with this Settlement Agreement.

12. If FERC does not issue a modified license to make all changes set forth in section C.6, PacifiCorp shall have no obligation to undertake the actions set forth in sections C.1. through C.4: provided however that PacifiCorp will comply with all certifications conditions included in the License unless and until amended by FERC, and if FERC modifies its license to partially include changes set forth in section C.6, then the Parties shall confer in good faith to reach agreement on PacifiCorp's obligation to undertake actions set forth in sections C.1 through C.4 that were not included in the modified license to maintain the Parties' bargained-for benefits of this Settlement Agreement. Provided further that if FERC issues a modified license that makes all changes set forth in section C.6 and the Final Order (or Final Certification Decision incorporated therein) is subject to an appeal or other challenge by a third party, then PacifiCorp. following the conclusion of all administrative appeal(s) or judicial review, if any, shall submit a request to FERC to modify its license to conform to final conditions determined by such process. if any, but only to the extent that the final conditions reinstate the conditions of the 401 WOC issued on February 7, 2019. If these conditions are reinstated, in whole or in part, then PacifiCorp's obligations will be as provided in the first sentence of this section.

13. Each Party to this Settlement Agreement represents, warrants, and agrees that the person who executes this Settlement Agreement on its behalf has the full right and authority to enter into this Settlement Agreement on behalf of that Party and bind that Party to the terms of this Settlement Agreement.

14. The Parties agree that nothing in this Settlement Agreement establishes factual, legal, or policy precedent. Without limiting the generality of the foregoing, this Settlement Agreement establishes no principle or precedent with regard to any issue addressed herein or otherwise limits any Party's participating in any other pending or future licensing proceeding; provided further that this Settlement Agreement shall not be offered in evidence or cited as precedent by any Party to this Settlement Agreement in any judicial litigation, arbitration, or other adjudicative proceeding, except in a proceeding to establish the existence of or to enforce or implement this Settlement Agreement. This section shall survive any termination of this Settlement.

15. This Settlement Agreement is binding upon, and inures to the benefit of, the parties and their respective successors and assigns.

16. This Settlement Agreement may be signed in counterparts. Facsimile or scanned signatures on this Settlement Agreement shall be treated the same as original signatures.

17. This Settlement Agreement is effective on the date of the final signature.

Keith Andersen, Oregon Department of Environmental Quality

li

Tim Hemstreet, Managing Director, PacifiCorp

12/31/2019 Date

Dec. 30, 2019 Date

FINAL ORDER

The Environmental Quality Commission hereby issues this Final Order incorporating by reference in their entirety its Final Certification Decision for the Prospect 3 Project and the Settlement Agreement attached hereto. Pursuant to ORS 183.417, this Final Order is not subject

to appeal.

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Keith Andersen On behalf of the Oregon Department of Environmental Quality On behalf of the EQC pursuant to OAR 340-011-0505

2/6/2020 Date





Kate Brown, Governor

Department of Environmental Quality

Western Region Eugene Office 165 East 7th Avenue, Suite 100 Eugene, OR 97401 (541) 686-7838 FAX (541) 686-7551 TTY 711

February 6, 2020

VIA EMAIL, CERTIFIED MAIL, and U.S. FIRST CLASS MAIL

Steve Albertelli PacifiCorp, License Program Manager 925 South Grape Street, Building 5 Medford, OR 97501

Re: Prospect No. 3 Hydroelectric Project FERC Project No. P-2337 Certification Pursuant to Section 401 of the Federal Clean Water Act

Dear Mr. Albertelli:

On February 13, 2018, PacifiCorp submitted a Clean Water Act Section 401 Water Quality Certification (401 WQC) Application for the continued operation of the Prospect No.3 hydroelectric facility. DEQ issued a 401 WQC to PacifiCorp on February 7, 2019.

On February 21, 2019, PacifiCorp filed its request for hearing regarding certain conditions of the 401 WQC pursuant to OAR 340-048-0045(2) and DEQ referred the matter to the Office of Administrative Hearings on July 30, 2019 for a contested case hearing.

On September 27, 2019, the Federal Energy Regulatory Commission (FERC) issued a new license for the project pursuant to the Federal Power Act (License). The License incorporated the conditions of the 401 WQC, including the conditions that were the subject of PacifiCorp's request for a contested case hearing.

On December 31, 2019, DEQ and PacifiCorp signed a Settlement Agreement to resolve the dispute over the conditions in the 401 WQC whereby PacifiCorp modified its proposed actions that were subject of DEQ's water-quality compliance evaluation.

DEQ's evaluation of these proposed actions was conducted pursuant to Section 401 of the Clean Water Act, 33 USC §1341, ORS 468B.035 through 468B.047, and DEQ's certification rules found in Oregon Administrative Rules 340, Division 048.¹ To certify the Project, DEQ must have reasonable assurance that the proposed activities will be conducted in a manner that will not violate the applicable provisions of Sections 301, 302, 303, 306, and 307 of the Clean Water Act, and Oregon water quality standards in Oregon Administrative Rules 340, Division 041, adopted to implement these sections.

After consideration of public comment and effective as of the date of this letter, DEQ approves PacifiCorp's request for water quality certification, as conditioned in the attached certification decision, and for the reasons specified in the associated Evaluation and Findings Report.

¹ DEQ designates the agency file, including but not limited to all materials submitted by PacifiCorp, as the record.

The certification is valid for PacifiCorp only and is not transferable without written approval from DEQ, in accordance with OAR 340-048-0042(6).

In accordance with OAR 340-048-0045(2), PacifiCorp may request a contested case hearing to be conducted in accordance with the Oregon Administrative Procedures Act (Oregon Revised Statute, chapter 183 and OAR 137-003-0501 to -0700) if dissatisfied with the certification decision, including any conditions to the approved certification. Such a request must be made in writing and comply with OAR 340-011-0530(2) and OAR 340-048-0045(2). The request for hearing must be mailed to and received by the Department of Environmental Quality within 20 days of the date of mailing (set forth above):

Oregon Department of Environmental Quality Attn: Marilyn Fonseca 700 NE Multnomah, Suite 600 Portland, OR 97232

If a written request for hearing is not received within the 20-day period, your right to a hearing shall be considered waived. If a timely request for hearing is received by the Department, you will be notified of the time and place of the hearing and provided information on the procedures by which contested cases are heard, your rights, the import and effect of such a hearing, and your rights and remedies. As a corporation, you must be represented by legal counsel at this hearing, if any. In accordance with OAR 340-048-0045(3), this certification decision is effective upon the issuance of this decision, notwithstanding a request for a contested case hearing or other judicial review, if any.

Sincerely,

Keith Andersen Western Region Administrator

Attachment:Clean Water Act Section 401 ConditionsEnclosures:Evaluation and Findings Report

Ec: David Belyea, DEQ Chris Stine, DEQ Marilyn Fonseca, DEQ Mary Grainey, OWRD Ken Homolka, ODFW Anika Marriott, ODOJ

NOTICE TO ACTIVE DUTY SERVICEMEMBERS

Active duty service members have a right to stay these proceedings under the federal Service members Civil Relief Act. For more information, contact the Oregon State Bar at 800-452-8260, the Oregon Military Department at 800-452-7500 or the nearest United States Armed Forces Legal Assistance Office through:

http://legalassistance.law.af.mil/content/locator.php

Clean Water Act § 401 Certification Conditions

For the Prospect 3 Hydroelectric Project

(FERC No. P-2337)

Rogue River Basin

Jackson County, Oregon

February 2020

Upon Federal Energy Regulatory Commission (FERC) issuance of a license for the Prospect 3 Hydroelectric Project (Project), PacifiCorp must comply with the following § 401 Certification conditions:

I. Project Operation

a. Throughout the life of the FERC license, PacifiCorp must continue to run the Prospect 3 hydroelectric Project in "run-of-river" mode with a maximum diversion of 150 cubic feet per second from the South Fork Rogue River. In accordance with applicable law, PacifiCorp shall notify DEQ if FERC authorizes modification to these operations so as to allow DEQ to determine whether such changes may affect compliance with water quality standards.

II. Dissolved Oxygen

- a. Within 90 days of FERC License issuance, PacifiCorp shall submit a Dissolved Oxygen Monitoring Plan to DEQ, which addresses the dissolved oxygen monitoring and reporting requirements presented below. Upon DEQ approval, PacifiCorp shall submit to FERC this Monitoring Plan as part of the required § 401 Certification Conditions for the Project for the purposes of any federal license or permit.
- b. At a minimum the dissolved oxygen monitoring plan shall contain the following:
 - i. Identification of monitoring locations. PacifiCorp shall monitor at locations that are representative of dissolved oxygen levels in the South Fork Rogue River above and below the diversion dam.
 - ii. PacifiCorp shall measure dissolved oxygen, percent saturation, temperature and flow in the Project at monitoring locations in the South Fork Rogue River above and below the diversion dam. Dissolved oxygen shall be measured continuously at a minimum interval of one hour from April 1 through July 31 of the first project year of new project operations.
 - iii. The Dissolved Oxygen Monitoring Plan shall describe the equipment, calibration procedures, monitoring methods, monitoring locations, and frequency of monitoring necessary to quantify the effects of project operations on dissolved oxygen.

- c. PacifiCorp shall implement the Dissolved Oxygen Monitoring Plan in accordance with DEQ's approval.
- d. Dissolved Oxygen Reporting:
 - i. Subject to this section II.e.ii, PacifiCorp shall submit annual water quality monitoring reports to DEQ by January 31 of each year. Each report shall include an analysis of dissolved oxygen monitoring data from each station including graphical representation of daily minimum, maximum, and average temperature measurements. To evaluate dissolved oxygen data with the applicable criteria given in Table 21 of OAR 340-041-0016, PacifiCorp shall also present data as 7-day mean minimum (7D).
- e. Dissolved Oxygen Adaptive Management Plan:
 - i. If DEQ determines monitoring indicates the project is causing or contributing to a violation of the dissolved oxygen criteria, PacifiCorp shall develop and propose measures to address the dissolved oxygen deficit as part of an adaptive management plan. PacifiCorp shall develop and submit to DEQ an adaptive management plan to ensure that project does not cause or contribute to a violation of the dissolved oxygen criteria. Following DEQ approval, PacifiCorp shall implement the plan in accordance with DEQ's approval.
 - ii. If DEQ determines monitoring demonstrates that the project does not cause or contribute to a violation of dissolved oxygen criteria, then DEQ may allow PacifiCorp to cease monitoring for a period of time or for the remaining term of the license.

III. Total Dissolved Gas

- a. Following FERC License issuance, PacifiCorp shall submit annual water quality monitoring reports to DEQ by January 31 of each year summarizing the frequency of spill events to Daniels Creek. Following DEQ review of the annual report, DEQ may request PacifiCorp meet with DEQ to discuss the spill events.
- b. Following the meeting, if requested by DEQ, PacifiCorp shall submit a Total Dissolved Gas Monitoring Plan to DEQ, which addresses the total dissolved gas monitoring and reporting requirements presented below. Upon DEQ approval, PacifiCorp shall submit to FERC this Monitoring Plan as part of the required § 401 Certification Conditions for the Project for the purposes of any federal license or permit. At a minimum PacifiCorp shall measure total dissolved gas in Daniels Creek and Middle Fork Rogue River during an overflow or other non-routine discharge of diverted flows via the forebay and tailrace spillways to Daniels Creek and the Middle Fork Rogue River.
- c. The monitoring plan shall include the following minimum components:
 - i. Proposed data collection procedures including description of equipment and methods.
 - ii. Identification of monitoring locations.
 - iii. Proposed evaluation procedures.

- d. PacifiCorp shall implement the Total Dissolved Gas Monitoring Plan in accordance with DEQ's approval.
- e. Total Dissolved Gas Reporting:
 - i. Subject to this section III.f.ii, PacifiCorp shall submit annual water quality monitoring reports to DEQ by January 31 of each year.
- f. Total Dissolved Gas Adaptive Management Plan:
 - If DEQ determines monitoring indicates the total dissolved gas criteria are not met, PacifiCorp shall develop and propose measures to address the total dissolved gas criteria exceedance as part of an adaptive management plan. PacifiCorp shall develop and submit to DEQ an adaptive management plan to ensure that project does not cause or contribute to a violation of the total dissolved gas criteria. Following DEQ approval, PacifiCorp shall implement the plan in accordance with DEQ's approval.
 - ii. If DEQ determines monitoring demonstrates that the total dissolved gas criteria are met, then DEQ may allow PacifiCorp to cease monitoring for a period of time or for the remaining term of the license.

IV. Biological Criteria; Statewide Narrative Criteria; Protection of Designated Beneficial Uses; Antidegradation; Compliance with Other Appropriate Requirements of State Law

- a. Within 180 days of FERC License issuance, PacifiCorp shall submit a Macroinvertebrate Monitoring Plan to DEQ that addresses the macroinvertebrate monitoring and reporting requirements presented below. Upon DEQ approval, PacifiCorp shall submit to FERC this Monitoring Plan as part of the required § 401 Certification Conditions for the Project for the purposes of any federal license or permit. At a minimum, PacifiCorp shall include the following components in the monitoring plan:
 - i. A description of an appropriate sampling technique for macroinvertebrate monitoring below the diversion dam, which shall include standard bioassessment metrics including densities, abundance, richness and tolerance.
 - ii. Identification of monitoring locations below the diversion dam, which shall include, at a minimum, two sampling locations in the South Fork Rouge River between the diversion dam release point and river mile 7.
 - iii. Identification of the frequency of macroinvertebrate monitoring below the diversion dam, which shall include proposed sampling from mid to late summer.
- b. PacifiCorp shall implement the Macroinvertebrate Monitoring Plan in accordance with DEQ's approval.
- c. Macroinvertebrate Reporting:
 - i. Subject to this section IV.d.ii, PacifiCorp shall submit annual monitoring reports to DEQ by January 31 of each year.
- d. Macroinvertebrate Adaptive Management Plan:

- i. If DEQ determines monitoring indicates the resident biological community below the diversion dam is impaired or in poor condition based on comparison of the standard bioassessment metrics to the monitoring results, PacifiCorp shall develop and propose measures to address compliance with the biocriteria standard as part of an adaptive management plan. PacifiCorp shall develop and submit to DEQ an adaptive management plan to ensure that the project does not cause or contribute to a violation of biocriteria standard. Following DEQ approval, PacifiCorp shall implement the plan in accordance with DEQ's approval.
- ii. If DEQ determines monitoring demonstrates that the resident biological community below the diversion dam is in fair or good condition, then DEQ may allow PacifiCorp to cease monitoring for a period of time or for the remaining term of the license.
- e. PacifiCorp shall discharge a continuous minimum flow from the Project diversion dam into the South Fork Rogue River. The minimum flow released to the South Fork Rogue River shall be equal to or greater than 30 cubic feet per second from March 1 through July 31 and equal to or greater than 20 cubic feet per second from August 1 through February 28 as measured at the United States Geological Survey gage at RM 10.25. If natural inflow to the Project is less than the minimum flow requirement, then all the flow will be discharged into the bypass reach.
- f. PacifiCorp shall implement an operational ramping rate of 0.2 foot per hour all year.
- g. Ramping Rate Reporting:
 - i. PacifiCorp shall report any operational ramping rates in excess of 0.2 foot per hour within 24 hours of discovery to DEQ and ODFW via electronic mail.
 - PacifiCorp shall submit an annual report to DEQ and ODFW by January 31 of each year summarizing the frequency of operational ramping events exceeding 0.2 foot per hour.
 PacifiCorp shall meet annually with DEQ and ODFW to discuss the frequency of operational ramping events exceeding 0.2 foot per hour.
- h. Ramping Rate Adaptive Management Plan:
 - i. If requested by DEQ, PacifiCorp shall develop and submit to DEQ an adaptive management plan to reduce the frequency of operational ramping events exceeding 0.2 foot per hour. PacifiCorp shall implement this plan in accordance with DEQ's approval.
- i. Within 18 months of FERC license issuance, PacifiCorp must update the Fish Passage Facilities Operations and Maintenance Plan, which must include among others components, the design, operation, and construction of an auxiliary bypass flow system.
- j. After approval of the Fish Passage Facilities Operations and Maintenance Plan, PacifiCorp shall operate and maintain the fish passage facilities in accordance with the approved terms of that Plan, including but not limited to the operation of the auxiliary bypass flow system.
- k. PacifiCorp shall integrate its obligations set forth in this section into any plans, proposals, or proposed activities for review by other government agencies.

V. <u>General Conditions:</u>

- a. **Implementation:** PacifiCorp must provide DEQ evidence that PacifiCorp has received all required permits and approvals before Project construction activities commence.
- b. **§ 401 Certification Modification:** Without limiting DEQ's discretion to take other actions in accordance with 33 USC 1341, DEQ may modify the Certification to add, delete, or modify Certification conditions as authorized by OAR 340-048-0050.
- c. **Project Changes.** PacifiCorp shall notify DEQ of any change in ownership, scope, or operation of the Project. PacifiCorp shall obtain DEQ's review and approval before undertaking any such change to the Project, including but not limited to changes to Project structures, construction, operations, and flows, which, among other changes, may potentially affect water quality.
- d. **Project Repair or Maintenance.** PacifiCorp shall obtain DEQ's review and approval before undertaking Project repair or maintenance activities that may potentially affect water quality (other than repair or maintenance activities authorized by the new FERC license). DEQ may, at PacifiCorp's request, approve specified repair and maintenance activities on a periodic or ongoing basis.
- e. **Project Inspection.** PacifiCorp shall allow DEQ such access as necessary to inspect the Project area and Project records required by this Certification at reasonable times as necessary to monitor compliance with § 401 Certification conditions.
- f. **Posting of § 401 Certification.** PacifiCorp shall post a copy of these Certification conditions in prominent locations at the Project Powerhouse.
- g. Water Quality Standards Compliance. Notwithstanding the conditions of this Certification, no wastes shall be discharged and no activities shall be conducted which will violate state water quality standards.
- h. **Conflict Between Certification Conditions and Application.** To the extent that there are any conflicts between the terms and conditions in this Certification and how activities, obligations, and processes are described in the Application, the terms and conditions in this Certification, as interpreted by DEQ, shall control.
- i. **Project Specific Fee.** PacifiCorp shall pay the project-specific fee as required by applicable law and in the manner and amount as particularly described in Exhibit A, which is incorporated here in its entirety by this reference.

EXHIBIT A

Project-Specific Fees: In accordance with ORS 543.080, PacifiCorp must pay a Project-specific fee for DEQ's costs of overseeing implementation of the conditions of this Certification as follows:

Project-Specific Fee

To implement the conditions of this Certification, PacifiCorp must pay project-specific fees of \$5,000 during each of the first five (5) years beginning July 1 of each year following issuance of a FERC License in 2018 dollars adjusted according to the formula below, made payable to State of Oregon, Department of Environmental Quality.

Adjustment

Fee amounts must be adjusted annually, according to the following formula: AD = -D x (CPL II)/(CPL II November 2018)

AD = D x (CPI-U)/(CPI-U-November 2018)

Where:

AD = Adjusted dollar amount payable to agency.

D = Dollar amount pursuant to Project Specific Fee 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 and PacifiCorp.

Payment Schedule

Fees must be paid pursuant to a written invoice from DEQ. Except as provided below, project-specific fees will be due on July 1 of each year following issuance of a FERC License. PacifiCorp must pay an initial prorated payment to DEQ within thirty (30) days of license issuance, for the period from the date of license issuance to the first June 30 which follows license issuance.

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 costs of oversight.

Expenditure Summary

DEQ shall, on a biennial basis, provide PacifiCorp with a summary of project-specific expenditures.

Duration

PacifiCorp will pay a Project-specific fee following FERC license issuance and for five (5) years after the first July 1 following FERC license issuance, 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 PacifiCorp shall review the need, if any, to modify, extend, or terminate the fee, in accordance with ORS 543.080. PacifiCorp must pay any project-specific fee required after such review as provided in ORS 543.080.