

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426
July 14, 2017

OFFICE OF ENERGY PROJECTS

Project Nos. 2082-063 and 14803-001—
Oregon and California
Klamath Hydroelectric Project
PacifiCorp

Ms. Sarah Kamman
Vice President and General Counsel
PacifiCorp
825 NE Multnomah Street, Suite 2000
Portland, OR 97232

Mr. Michael Carrier, President
Klamath River Renewal Corporation
423 Washington Street, 3rd Floor
San Francisco, CA 94111

Reference: Klamath Hydroelectric Project—Request for Additional Information

Dear Ms. Kamman and Mr. Carrier:

On September 23, 2016, PacifiCorp and the Klamath River Renewal Corporation (Renewal Corporation) filed a joint application for a license transfer and license amendment for the Klamath Hydroelectric Project (P-2082). On the same day, the Renewal Corporation filed an Application for surrender of the license.¹ The amendment/transfer application requests that the Commission amend the license for the project by removing the J.C. Boyle, Copco No. 1, Copco No. 2, and Iron Gate developments from the license and transferring them from PacifiCorp to the Renewal Corporation, thereby creating a new project, the Lower Klamath Project (FERC No. 14803), with the Renewal Corporation as the sole licensee. The surrender application states that it was made in accordance with the amended Klamath Hydroelectric

¹ As explained in the Commission's November 10, 2016 public notice of the applications, pending Commission action on the license amendment and transfer request, the surrender application is deemed to be filed by both PacifiCorp and the Renewal Corporation.

Settlement Agreement (amended KHSA)² to decommission and remove the Lower Klamath Project developments.

The surrender application relies heavily on information contained in the U.S. Department of the Interior and the California Department of Fish and Game's³ 2012 Klamath Facilities Removal Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR)⁴ and earlier studies that the EIS/EIR cites as the basis for most of the analyses in the EIS/EIR. Various factors that could influence some of the economic and environmental effects of the proposed surrender and decommissioning have changed since 2012 when the EIS/EIR was prepared. Additionally, the EIS/EIR effects analysis and recommendations were based on the assumption that certain restoration activities contained in the now-expired Klamath Basin Restoration Agreement (KBRA) would be implemented. Because it is not clear which, if any, of the KBRA's restoration activities will be conducted, it is not clear which of the EIS/EIR's conclusions and recommendations remain applicable. Therefore, based on our preliminary review of the September 23, 2016 surrender application, additional information is needed for Commission staff's analyses of the proposed surrender.

Pursuant to Section 4.32(g) of the Commission's regulations, please include the additional information requested in the enclosed schedule A with the supplemental information you plan to file as described in the surrender application.⁵ Within 5 days of receipt of this letter, please provide a copy of this letter and the enclosed schedule A to all agencies with whom you will consult in response to this request. Then, when you file the requested information with the Commission, you also should provide exact copies of the filings to those agencies.

If the submission of any additional information causes any other part of the surrender application to be inaccurate, please revise that part and refile it by the due date. Also, please be aware that further requests for additional information may be sent to you at any time before final action on your application is taken.

² The amended KHSA was executed on April 6, 2016.

³ Now the California Department of Fish and Wildlife (California DFW).

⁴ U.S. Department of the Interior and California Department of Fish and Game. 2012. Klamath Facilities Removal Final Environmental Impact Statement/Environmental Impact Report Volume I. State Clearinghouse # 2010062060. December 2012.

⁵ The surrender application states that this supplemental information will be filed by December 31, 2017.

The Commission strongly encourages electronic filing. Please file the requested information using the Commission's eFiling system at <http://www.ferc.gov/docs-filing/efiling.asp>. For assistance, please contact FERC Online Support at FERCOnlineSupport@ferc.gov, (866) 208-3676 (toll free), or (202) 502-8659 (TTY). In lieu of electronic filing, please send a paper copy to: Secretary, Federal Energy Regulatory Commission, 888 First Street, NE, Washington, D.C. 20426. Please put the docket numbers, P-2082-063 and P-14803-001, on the first page of your response.

If you have any questions regarding this letter or the contents of your required contents of the surrender application, please contact John Mudre at (202) 502-8902 or at john.mudre@ferc.gov.

Sincerely,

Timothy Konnert, Chief
West Branch
Division of Hydropower Licensing

Enclosure: Schedule A—Additional Information

cc: Mailing List
Public Files

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ADDITIONAL INFORMATION

The following is a list of additional information needs identified during staff's preliminary review of the application for license surrender and decommissioning of the proposed Lower Klamath Project (i.e., the existing J.C. Boyle, Copco No. 1, Copco No. 2, and Iron Gate developments and appurtenant features of the Klamath River Project No. 2082). Please file the requested information by December 31, 2017. The requested information may be incorporated into an amended surrender application, a decommissioning plan, or any accompanying environmental analyses, as appropriate.

Initial Statement

1. The Initial Statement, pursuant to section 4.51(a) of the Commission's regulations, states that: "Applicant [(Klamath River Renewal Corporation)] will today file requests for water quality certification with Oregon Department of Environmental Quality (Oregon DEQ) and the California Water Resources Control Board (California Water Board), for the purpose of this License Surrender Application." On October 21, 2016, the California Water Board filed a copy of its letter acknowledging receipt of your application on September 23, 2016. Please file documentation as to when Oregon DEQ received your application.

Exhibit B

2. Exhibit B of the surrender application indicates that PacifiCorp is voluntarily operating Project No. 2082 as described in the 2011–2014 Klamath Hydroelectric Settlement Agreement (KHSA) Implementation Reports. The amended KHSA⁶ includes an update on the implementation status of all interim measures for both the original KHSA and the Habitat Conservation Plan along with a timetable for those not yet completed. According to that update, as of the amended KHSA's effective date (April 6, 2016), interim measures 7 (funding), 9, 11 (studies), 13, 17, and 21 had been fully implemented, but the other interim measures were in varied states of completion. Please file an updated status report and implementation schedule

⁶ Ady District Improvement Company, et al. 2016. Klamath Hydroelectric Settlement Agreement. February 18, 2010, amended April 6, 2016, pages E2-1 through E2-6.

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for the interim measures in the amended KHSA and the Habitat Conservation Plan⁷ so staff has a thorough understanding of their status.

Exhibits C and D

3. The surrender application includes (as Exhibit E.3) the “Detailed Plan for Dam Removal – Klamath River Dams, Klamath Hydroelectric Project, FERC License No. 2082, Oregon – California” (Detailed Plan) prepared by the U.S. Bureau of Reclamation in 2012. Although this plan provides substantial information on the planned approach for permitting, implementing, and remediating the removal of project facilities, section 7.2.1 of the amended KHSA indicates that the Detailed Plan will be superseded by a “Definite Plan for Facilities Removal” (Definite Plan), which will be consistent with the Commission’s requirements for surrender and include consideration of prudent cost overrun management tools, such as performance bonds. Please revise exhibit E.3 to replace the Detailed Plan with the Definite Plan.
4. The surrender application proposes the simultaneous removal of the four lower dams with the dewatering periods⁸ scheduled to minimize sediment release into downstream areas during critical times for important aquatic species and life stages (e.g., anadromous fish spawning, rearing, and in- and out-migration). The schedule indicates that the deconstruction period, including dewatering and facilities removal, would occur over about 20 months.⁹ The EIS/EIR prepared in support of the original KHSA¹⁰ states

⁷ PacifiCorp. 2012. PacifiCorp Klamath Hydroelectric Project Interim Operations Habitat Conservation Plan for Coho Salmon. Prepared by PacifiCorp Energy, Inc., Portland, OR. Submitted to the National Marine Fisheries Service, Arcata Area Office, Arcata, CA. February 16, 2012. Available at: http://www.westcoast.fisheries.noaa.gov/habitat/conservation_plans/pacificorps_energy_hcp.html. Accessed July 5, 2012.

⁸ The dewatering period is the time from when water releases intended to drain the reservoir begin to when the dam is sufficiently removed such that it no longer retains water.

⁹ EIS/EIR, page 2-35.

¹⁰ U.S. Department of the Interior and California Department of Fish and Game. 2012. Klamath Facilities Removal Final Environmental Impact Statement/Environmental Impact Report Volume I. State Clearinghouse # 2010062060. December 2012.

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that the deconstruction period drawdown length could vary depending on water year type, with longer drawdowns occurring during wet years and shorter drawdowns during dry years.¹¹ To reduce the uncertainty regarding the length of time over which flows with high suspended sediment concentrations would occur and potentially negatively affect aquatic resources, please provide the following information:

- a. Your proposed measures for ensuring that reservoir dewatering is completed by the end of February to avoid high suspended sediment concentration after March 15.
- b. An assessment of the extent to which a wet year would extend the reservoir dewatering period, the potential effects on downstream environmental resources of deconstruction implementation during a wet year, and the increase in the cost of deconstruction, if it occurred in a wet year. In addition, please provide a detailed discussion of the process and rationale that would be used to determine if any adjustments to the dewatering schedule are needed to minimize the release of sediment during the previously identified critical times for important species and life stages.

Exhibit E

Agreements and Biological Opinions

5. The Upper Klamath Basin Comprehensive Agreement (UKBCA),¹² which was signed April 18, 2014, was developed in concert with the original KHSA and the Klamath Basin Restoration Agreement (KBRA) to provide a “comprehensive solution” for water, fishery, and power issues in the Klamath River Basin. We understand that progress was made in implementing the UKBCA’s water use and riparian programs during 2014 and 2015. Publicly available documents describe some of this progress, although the complete and current status of implementing the UKBCA is unclear. To ensure that

¹¹ EIS/EIR, page 2-33.

¹² Signatories to the UKBCA include the State of California, California Department of Fish and Wildlife, California Natural Resources Agency, State of Oregon, Oregon Department of Environmental Quality, Oregon Department of Fish and Wildlife, Oregon Water Resources Department, Klamath Water Users Association, American Rivers, California Trout, Trout Unlimited, National Marine Fisheries Service, U.S. Department of the Interior, and Sustainable Northwest.

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Commission staff has a thorough understanding of the effects of the UKBCA on water availability, please provide a status report documenting the current schedule and status for implementation of the measures described in the UKBCA.

6. The EIS/EIR's evaluations for the Full Facilities Removal of Four Dams and the Partial Facilities Removal of Four Dams (Alternatives 2 and 3, respectively) incorporated the KBRA as a connected action. Since the KBRA was terminated at the end of 2015, Commission staff needs an update on which KBRA actions will be conducted and when they will be implemented. The Fifth Annual Report for the Klamath Settlement Agreements,¹³ which was released less than 2 months before the KBRA's termination at the end of December 2015, provides the status of implementation of KBRA measures at that time. For each action in the KBRA, please describe the likelihood of it being implemented, the responsible party, any potential limitations on implementation, and the schedule for implementation. Also, please revise any EIS/EIR conclusions and recommendations that were based on the assumption that the KBRA would be implemented.
7. The original KHSA was predicated on passage of federal legislation. Because no federal legislation was enacted, to implement the KHSA measures, the States of Oregon and California, the United States Departments of the Interior (Interior) and Commerce, and PacifiCorp amended the KHSA on April 6, 2016. Subsequently, Interior, the National Marine Fisheries Service (NMFS), and other KBRA and UKBCA signatory parties signed the 2016 Klamath Power and Facilities Agreement (KPFA) to address the interests of irrigators in the upper basin. Our understanding is that congressional authorizations are required for the federal agency parties to fully participate in certain actions supported in the KPFA. Therefore, please file a list of the KPFA's activities that require congressional authorization to enable implementation, along with the status of receiving each congressional authorization.
8. The biological opinions incorporated into the EIS/EIR have not been finalized. The EIS/EIR assumed implementation of the U.S. Fish and Wildlife

¹³ Klamath Basin Coordinating Council. 2015. Fifth Annual Report Implementing the Klamath Basin Settlement Agreements. November.

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Service's (FWS's) 2008 biological opinion¹⁴ for suckers and NMFS's 2010 biological opinion¹⁵ for coho salmon. In 2012, NMFS and FWS released a joint preliminary biological opinion¹⁶ for all species listed under the Endangered Species Act, which addressed the effects of dam removal as described in the Detailed Plan, but did not include implementation of the KBRA as part of the proposed action.

To ensure that Commission staff has an understanding of the current status of the various biological opinions pertaining to the proposed removal of the Klamath River dams under the amended KHSA and of operation of Reclamation's Klamath Irrigation Project, please provide an update of the current status of the relevant biological opinions.

Geology and Soils

9. The EIS/EIR predicts response of the channel bed elevation between J.C. Boyle Dam and the Pacific Ocean to removal of the four dams with implementation of the KBRA, based on the results of several extensive modeling efforts, including broad-scale one-dimensional models (SRH-1D and DREAM-1) and a two-dimensional model of Copco No. 1, which draw on prior studies of the Klamath River system. The analyses¹⁷ generally predict

¹⁴ FWS. 2008. Biological/conference opinion regarding the effects of the Bureau of Reclamation's proposed 10-year Operation Plan (April 1, 2008–March 31, 2018) for the Klamath Project and its effects on the endangered Lost River and shortnose suckers. U.S. Fish and Wildlife Service, Klamath Falls Fish and Wildlife Office, Klamath Falls, OR, and Yreka Fish and Wildlife Office, Yreka, CA.

¹⁵ NMFS. 2010. Biological opinion on the operation of the Klamath Project between 2010 and 2018. Prepared for U.S. Bureau of Reclamation. Prepared by NMFS, Southwest Region. March 15, 2010.

¹⁶ NMFS and FWS. 2012. Joint preliminary biological opinion on the proposed removal of four dams on the Klamath River. NMFS, Southwest Region and FWS, Region 8. November 2012.

¹⁷ Refer to pages 9-33 to 9-37 of Technical Report No. SRH-2011-02. Reclamation. 2011. Hydrology, hydraulics and sediment transport studies for the Secretary's Determination on Klamath River dam removal and basin restoration. Prepared for Mid-Pacific Region, US Bureau of Reclamation, Technical Service Center, Denver, CO.

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that two years following removal of the dams a channel will be cut through the dam-stored sediments and the maximum aggradation (1.1 to 1.6 feet depending on water year type during dam removal) will occur in the reach between Bogus Creek and Willow Creek. Predicted aggradation is 0.6 to 0.9 foot for Willow Creek to Cottonwood Creek, and less than 0.25 foot downstream of Cottonwood Creek, which is 8 miles downstream of Iron Gate Dam. Although the EIS/EIR states that 2-year SRH-1D simulations estimate “up to 1 foot of reach-averaged deposition of fine and coarse sediment between Iron Gate Dam and Bogus Creek (RM 189.8),” Figure 3.3-15 in the EIS/EIR and Appendix F of the EIS/EIR indicate degradation, not aggradation, in this reach.¹⁸ To resolve this conflicting information, please revise the text and/or Figure 3.3-15 to clarify whether aggradation or degradation is expected to occur in the Iron Gate Dam to Bogus Creek reach.

10. Although the EIS/EIR and supporting studies address the effects of dam removal on general streambed elevation and the storage of sediment in bars and channel fringes between J.C. Boyle Dam and the Pacific Ocean, modeling is not sufficient to evaluate whether the release of dam-stored sediment would aggrade at tributary mouths and form obstacles/barriers to the upstream and/or downstream migration of trout and salmon. Please describe whether and where any such effects are expected and how long such effects would persist. Please also include a proposed approach for monitoring and mitigating any impacts that such obstacles/barriers would have on fish populations downstream of Iron Gate Dam.
11. The conclusion in the EIS/EIR that channel morphology will be restored quickly following dam removal is based on the results of broad-scale, one-dimensional models; a focused, two-dimensional model of Copco No. 1; and flume experiments conducted by Stillwater Sciences in 2008. The conclusions of the models were expressed in general terms. As a result, the time frame for the expected persistence of deposited sediments in pool habitats, which are holding habitat for salmonids, is unclear. Please provide the rationale and assumptions used in estimating the time for reestablishment of pool depths in the reach between Iron Gate Dam and Willow Creek and the establishment of pools in the currently impounded reservoir reaches. In addition, provide a proposed monitoring plan and mitigation measures to address reestablishment of pools to support ESA-listed species after year one of deconstruction.

¹⁸ Refer to pages 3.3-108 and 3.3-109 of the EIS/EIR and page F-17 of Appendix F to the EIS/EIR.

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12. The effects of removing the dams on channel response in the vertical direction is evaluated in the Technical Report No. SRH-2011-02, which includes an evaluation of impacts to infrastructure.¹⁹ This infrastructure evaluation is limited to bridges, culverts, and a pipeline near the river and reservoirs between J.C. Boyle Dam and Iron Gate Dam, and does not appear to address potential lateral migration of the channel on infrastructure and private property downstream of Iron Gate Dam. Please provide an assessment of potential damage to infrastructure/property due to channel wandering.
13. Technical Report No. SRH-2011-02 includes an evaluation of sediment transport under the dam removal alternative, which includes both one-dimensional and two-dimensional modeling.²⁰ The two-dimensional model (SRH-2D) was applied to Copco No. 1 to assess erosion patterns that may occur during reservoir dewatering and to verify the assumptions inherent in the one-dimensional simulations. However, when the SRH-2D model was used to predict sediment erosion and deposition processes during the Elwha Dam removal, Reclamation concluded that the model did not simulate delta channel processes accurately.²¹ Reclamation's subsequent model improvements successfully simulated the vertical and lateral erosion processes of the delta for dam removal, although Reclamation found that the improved model still missed some of the details of delta erosion. Please provide an evaluation of the extent to which these model limitations may have affected the two-dimensional modeling for the Klamath Dam removals.
14. Section 3.2.5 of the EIS/EIR states that "while the Alternatives Formulation Report identified the option of mechanical sediment removal as mitigation for sediment erosion impacts associated with removal of the Four Facilities, subsequent analysis found this measure to be infeasible (Lynch 2011)." So we understand options for mitigating sediment erosion impacts associated with dam removal, please file a copy of Lynch (2011).

Water Quantity

¹⁹ Refer to pages 10-1 to 10-25 of Technical Report No. SRH-2011-02.

²⁰ Refer to pages 9-3 to 9-92 of Technical Report No. SRH-2011-02.

²¹ Reclamation. 2014. Modeling of delta erosion during Elwha Dam removal with SRH-2D. Prepared by Yong G. Lai. Peer reviewed by Jennifer Bountry. Technical Report No. SRH-2014-31.

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15. Since preparation of the EIS/EIR, a number of actions and other factors may have changed water availability conditions, including: increased groundwater pumping in the upper Klamath Basin,²² retirement of irrigated agriculture lands, improvements in estimating evapotranspiration from wetlands around Upper Klamath Lake,²³ changes in Klamath Irrigation Project operation, changes in Lewiston Dam operations,²⁴ and the Oregon Water Resources Department's completion of Phase One of the Klamath River Basin Adjudication of water rights in the Klamath Basin.²⁵ Because an accurate understanding of the water available to support anadromous fishes is crucial to evaluating the response of salmonids to dam removal, please update the information provided in the EIS/EIR to reflect any changes in the availability of water for release to the Klamath River under the current environmental and regulatory regime.
16. Simultaneous dewatering of the reservoirs would increase river flows during the high-flow period over naturally-occurring levels. To facilitate Commission staff's evaluation of the effect of reservoir dewatering on flooding, please provide simulated Klamath River flows at the USGS gages below Iron Gate Dam, near Seiad Valley, at Orleans, and near Klamath for normal and wet water year types that includes flow contributions from reservoir dewatering.

²² Gannett, Marshall W. and Katherine H. Breen. 2015. Groundwater levels, trends, and relations to pumping in the Bureau of Reclamation Klamath Project, Oregon and California. U.S. Geological Survey Open-File Report 2015-1145.

²³ Stannard, David I., Marshall W. Gannett, Danial J. Polette, Jason M. Cameron, M. Scott Waibel, and J. Mark Spears. 2013. Evapotranspiration from marsh and open-water sites at Upper Klamath Lake, Oregon, 2008–2010. U.S. Geological Survey Scientific Investigations Report 2013–5014.

²⁴ Refer to https://www.usbr.gov/mp/nepa/nepa_base.cfm?location=ncao.

²⁵ Refer to <http://www.oregon.gov/owrd/pages/adj/index.aspx>.

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Water Quality

17. To support our review of the proposed surrender and decommissioning, please provide the current status of any required state or federal permit applications related to water quality,²⁶ including: Clean Water Act section 401 water quality certifications, section 402 National Pollutant Discharged Elimination System permits, section 404 dredge and fill permits, California DFW section 1602 California streambed alteration permits, and any required water quality permits under the Hoopa Valley Tribe Water Quality Control Plan.
18. Several studies concerning water quality have become available since preparation of the EIS/EIR. These studies include baseline monitoring of water quality and algae communities, an evaluation of the effectiveness of turbine venting at Iron Gate Dam in increasing DO concentrations, and evaluation of several methods for reducing nutrient concentrations in project waters.^{27,28} New guidelines for posting public health advisories for toxic algae blooms^{29,30} have also been released. To ensure that Commission staff has an accurate understanding of the environmental baseline, please provide up-to-date information on water quality data trends, the status of contaminants in sediments and biota, and algae in the Klamath River Basin. The information for algae should include characterization of the dominant algal species within the Klamath River Basin, and the potential limiting factors for blue-green algae and associated nuisance algal blooms.

²⁶ See list of regulations in table 6.1 of the EIS/EIR.

²⁷ PacifiCorp Energy. 2014. Klamath Hydroelectric Settlement Agreement Implementation Report, FERC Project No. 2082. June 2014.

²⁸ Otten, Timothy G., Joseph R. Crosswell, Sam Mackey, and Theo W. Dreher. 2015. Application of molecular tools for microbial source tracking and public health risk assessment of a *Microcystis* bloom traversing 300 km of the Klamath River. *Harmful Algae* 46:71-81.

²⁹ Oregon Health Authority. 2016. Oregon Harmful Algae Bloom Surveillance (HABS) Program Public Health Advisory Guidelines Harmful Algae Blooms in Freshwater Bodies. May 2016.

³⁰ Yurok Tribe. 2016. 2016 Posting Guidelines for Public Health Advisories.

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19. Appendix E of the EIS/EIR provides an analysis of the potential effects of suspended sediment resulting from dam removal on certain fish species (fall and spring runs of Chinook salmon, coho salmon, summer and fall/winter runs of steelhead, Pacific lamprey, and green sturgeon). Daily time series of suspended sediment concentrations were developed using the median and 10-percent (referred to as “worst case” for the Proposed Action) exceedance values for each day of the year based on output from the SRH-1D 2.4 sediment transport model, which was run for water years 1961 through 2008. Although this appendix provides figures that display time series for the median and 10-percent exceedance suspended sediment concentrations, it does not provide information on suspended sediment concentrations, lake levels, or river flows that would occur with less than a 10 percent frequency. To provide for a comprehensive understanding of the simulated timing for each year’s drawdown, along with the resulting simulated river flows and simulated suspended sediment concentration values, please provide in Excel format the entire dataset for stream flows, reservoir water elevations, and simulated suspended sediment concentrations used for water years 1961 through 2008.
20. The EIS/EIR³¹ states that suspended sediment concentrations would begin to decline in late March of the deconstruction year and would continue declining through that year’s early summer during normal to dry years, but that a wet year may prolong the dewatering of reservoirs and result in high suspended sediment concentrations for a longer period of time. Because the dewatering is scheduled for late fall-winter to minimize effects on aquatic biota, extending the duration of high suspended sediment concentrations beyond that period has the potential to have adverse effects on life stages of sensitive species present in the river at the time.³² In order to provide Commission staff with adequate information to evaluate the risks associated with a prolonged dewatering period in a wet year, please provide an assessment of the potential adverse effects on water quality and aquatic resources that would result from high suspended sediment concentrations continuing after mid-March of the deconstruction year.

³¹ On page 3.3-102 of the EIS/EIR.

³² Sensitive life stages present in spring are out-migrating smolts, adult green sturgeon, and in-migrating steelhead and spring-run Chinook adults. In the summer, rearing juvenile salmonids, green sturgeon adults, and in-migrating spring-run Chinook salmon adults.

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21. The EIS/EIR evaluates contaminant concentrations in sediment and aquatic biota³³ based on research conducted during or before 2011 to determine whether sediment mobilization caused by dam removal had the potential to adversely affect aquatic biota and consumers of aquatic biota, including humans. While Camp Dresser & McKee (CDM) (2011)³⁴ was conducting its evaluation, the freshwater sediment screening levels being used were under review and were subsequently finalized. Since CDM's 2011 evaluation, the U.S. Army Corps of Engineers (Corps),³⁵ Northwest Regional Sediment Evaluation Team (RSET),³⁶ and U.S. Environmental Protection Agency (EPA)³⁷ have revised screening levels for both fresh and marine sediments. Please confirm whether the contaminant screening levels used in the EIS/EIR still represent the accepted criteria for evaluating risks to the freshwater or marine environment posed by sediment resulting from the removal of the Klamath River dams and for fish consumption. If newer criteria are more appropriate, please provide a reassessment of the effects of sediment contaminants on aquatic biota using the currently-accepted criteria. Also, please provide a proposed monitoring and mitigation plan to manage contamination risks caused by dam removal.

³³ On pages 3.2-33 to 3.2-36 of the EIS/EIR.

³⁴ CDM. 2011. Screening-level evaluation of contaminants in sediments from three reservoirs and the estuary of the Klamath River, 2009-2011. Prepared with assistance from Stillwater Sciences. Prepared for U.S. Department of the Interior, Klamath Dam Removal Water Quality Sub Team. September 2011.

³⁵ Corps. 2016. Dredged material evaluation and disposal procedures user manual. Prepared by the Dredged Material Management Office, Corps, Seattle District. August 2016.

³⁶ RSET. 2016. Sediment evaluation framework for the Pacific Northwest. Prepared by the RSET Agencies. July 2016.

³⁷ EPA. 2016. EPA risk assessment, regional screening levels (RSLs)—Generic tables (May 2016) web page. Available at: <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables-may-2016>. Accessed February 3, 2017.

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22. A 2012 USGS report³⁸ summarized available information concerning contaminants in the Klamath River basin and identified data gaps. One of the conclusions of the report was that “the myriad of ecological stressors on the basin’s resources can complicate predicting the trajectory and success of restoration efforts, thus it is important to inventory those stressors and identify critical data gaps prior to implementing actions.” Given that the report was published in 2012, please provide relevant information from any subsequent studies concerning contaminants in the aquatic environment to allow us to adequately evaluate the potential effects of dam removal.

Aquatic Resources

23. Our November 10, 2016 Notice of Applications Filed With the Commission in this proceeding designated PacifiCorp and the Renewal Corporation as the Commission’s non-federal representative for carrying out informal consultation, pursuant to section 7 of the Endangered Species Act, section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act. To allow us to assess compliance with these regulations and support our environmental analysis, please provide an update on the status of these consultations, as well as the status of any pending state or federal permit applications³⁹ related to aquatic resources, including records of correspondence with relevant permitting agencies.
24. In order for staff to evaluate the current state of aquatic resources that could potentially be impacted by dam removal, please provide available information developed after publication of the EIS/EIR concerning: 1) the population status of spring and fall Chinook salmon, coho salmon, and steelhead; and 2) advancements in understanding of fish diseases, specifically the myxozoan parasites *Ceratomyxa shasta*⁴⁰ and *Parvicapsula minibicornis*, and fish disease outbreaks as they relate to survival of salmonids in the Klamath River Basin.

³⁸ Eagles-Smith, C.A. and B.L. Johnson. 2012. Contaminants in the Klamath basin: historical patterns, current distribution, and data gap identification. U.S. Geological Survey Administrative Report. 88p.

³⁹ See list of regulations in table 6.1 of the EIS/EIR.

⁴⁰ Formerly *Ceratomyxa shasta*.

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25. The Secretarial Overview Report⁴¹ states that the migration of fall-run adult Chinook salmon could be seasonally blocked in the summer by the combination of warm water and low dissolved oxygen in the Keno impoundment. Implementation of the Total Maximum Daily Load (TMDL) standards for this reach (ODEQ, 2010)⁴² pursuant to section 303(d) of the Clean Water Act, the original KHSA's Interim Measures, and a restoration component of the KBRA are intended to reduce the severity of this water quality barrier. Nonetheless, the report notes that the seasonal trap and haul of migrating fall-run adult Chinook around Keno Reach "is an envisioned component" of the KBRA in some years following dam removal, until water quality improves. Please provide an update on the status of implementing the TMDLs^{43,44} and interim measures related to water quality to further our assessment of expected water quality improvements and associated potential effects on salmonid restoration. Also, in the absence of the KBRA, how would the planned Keno water quality restoration and trap and haul programs be implemented?

Threatened and Endangered Species

26. Please provide information on any species, aquatic or terrestrial, that have been listed or proposed for listing under the federal or state Endangered Species Act since release of the EIS/EIR, as well as any previously-listed species that are now known to occur in the project area. Please also include any new designated or proposed critical habitat.

⁴¹ Refer to page 114 of the Klamath Dam Removal Overview Report for the Secretary of the Interior, An Assessment of Science and Technical Information. Version 1.1. March 2013.

⁴² ODEQ. 2010. Upper Klamath and Lost River subbasins total maximum daily load and water quality management plan. December 2010.

⁴³ North Coast Regional Water Quality Control Board. 2010. Final staff report for the Klamath River total maximum daily loads addressing temperature, dissolved oxygen, nutrient, and microcystin impairments in California the proposed site specific dissolved oxygen objectives for the Klamath River in California and the Klamath River and Lost River Implementation Plans. March 2010.

⁴⁴ Oregon Department of Environmental Quality. 2010. Upper Klamath and Lost River subbasins total maximum daily load and water quality management plan. December 2010.

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Socioeconomic Resources

27. Should the Definite Plan contain elements that differ in a significant way from those described in the Detailed Plan, provide an analysis of the potential effects of those differences on socioeconomic resources including: commercial fishing; sport fishing; whitewater boating; regional economics (including Siskiyou County employment, labor income, and output); and tribal demographics and socioeconomic conditions so that we may consider them in our environmental review.

Cultural Resources

28. Our November 10, 2016 Notice of Applications Filed With the Commission in this proceeding designated PacifiCorp and the Renewal Corporation as the Commission's non-federal representative for carrying out informal consultation, pursuant to section 106 of the National Historic Preservation Act and the Advisory Council's regulations at 36 C.F.R. § 800.2(c)(4). To allow us to ensure compliance with section 106 of the National Historic Preservation Act, as amended, please provide the status of all consultation completed, including consultation with the California State Historic Preservation Office, Interior, affected Indian Tribes, the U.S. Forest Service, and others regarding: (a) the identification and National Register of Historic Places evaluation of all cultural resources that would be affected by the proposed action, including archaeological sites, historic-era sites and structures, and historic dams and associated structures; and (b) measures to avoid, minimize, or mitigate adverse effects to all eligible properties. Please include the current status of the development of a Historic Properties Management Plan that would specify all management, treatment, protection, and mitigation measures for resources eligible for listing in the National Register of Historic Places.
29. Similarly, please also provide the status of all consultation with affected Indian Tribes and other tribal organizations with regard to the identification and National Register of Historic Places evaluation of Traditional Cultural Properties (TCPs), the Klamath Tribe's proposed Klamath Riverscape as a cultural landscape or TCP; and the management, disposition, and treatment of human remains.

Document Content(s)

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