

Lower Klamath Hydroelectric Decommissioning Project

### December 2023

The purpose of this staff report is to inform the Board of Supervisors and the public of the Lower Klamath Hydroelectric Decommissioning Project's (Project) progress every month. The report also includes an update on the County Staff's involvement in the Project, as well as an outline of upcoming activities. While not all areas of interest or concern may be addressed in this report, any questions, comments, or concerns can be directed to the County's email address for the project: <a href="mailto:lkdinfo@co.siskiyou.ca.us">lkdinfo@co.siskiyou.ca.us</a>.

## **Project Progress**

As a reminder, the Federal Energy Regulatory Commission (FERC) has encouraged KRRC and their contractors to endeavor to comply with local ordinances and permits, although this was not a requirement through the FERC Order. To the extent that local laws or permitting requirements make compliance with FERC's Order impossible or unduly difficult, FERC concluded that such local requirements are preempted. County Staff have been working closely with KRRC and their contractors to urge permit application submittals and good neighbor policies, particularly for those permits that are related to public safety (such as transportation and encroachment permits). For those activities that may be exempt through the FERC Order, County Staff has asked for a written factual/legal justification for why County permits are preempted. In addition, the County is asking that KRRC and their contractors follow standard permit conditions when preemption is requested.

Below is an outline of the major Project activities that occurred in December 2023. Photos of recent Project Activities are included in Appendix A.

- Continuation of pre-drawdown activities and modifications.
- Cultural and biological site surveys continuing within the Project Area during construction activities.
- Flow management coordination for pre-drawdown period is ongoing until drawdown begins in January 2024.
- Maintain temporary best management practices throughout the Project Area.
- Continued ground water well monitoring.
- Finalized the Emergency Action Plan (EAP) and FERC Dam safety preparedness actions.
- Advancement City of Yreka water pipeline nearly complete.
- Completed the following construction activities at Copco 1:
  - o Finishing diversion tunnel drilling in December.
- Completed the following construction activities at Copco 2 Village Area:
  - Maintained temporary BMPs.
  - Final tie in of the Yreka Waterline was completed. Final checks before operation are occurring.
- Completed the following construction activities at Iron Gate Dam:
  - Work has been completed for pre-drawdown activities at Iron Gate Dam.
  - Baffles installed in outlet tunnel.
  - Finished the office complex at Iron Gate.



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 Lakeview bridge is being installed to access the disposal site and office complex on the east side of the river/Iron Gate reservoir. New structure is needed as existing Lakeview Bridge isn't rated for heavy loads.

In December, KRRC updated the proposed initial drawdown schedule. The initial drawdown is defined as the opening of the low-level outlets at the dams and draining of the reservoirs to free-flowing river conditions. A graphic overview of the schedule is presented in Appendix B. There will also be a final drawdown of the reservoirs which is scheduled for spring which is defined as the period after any spring freshet and flood flows have passed, and the minimum Biological Opinion flow conditions are established. After final drawdown, the removal of the dam structures will begin. In addition, continued planning and downstream activities in preparation for the upcoming drawdown occurred in December. These activities included:

- Deployment of water quality buoys at the mouth of the Klamath in Del Norte County.
- Deployment of dissolved oxygen sensors in the mainstem of the Klamath River near the mouth of the Shasta.
- Updated the drawdown period Emergency Action Plan in coordination with emergency management agencies/organizations.
- Completed a tabletop exercise with emergency management organizations.
- Finalized project viewing areas.

On December 15, 2023 an announcement was made on KRRC's website that there is a temporary closure of Lakeview Road. The closure began on December 15, 2023 and will continue through December 31, 2024. The closure is located between the Iron Gate Fish Hatchery and 1.1 miles east of Iron Gate Fish Hatchery. The road is closed due to the heavy construction traffic that will occur during removal of Iron Gate Dam.

### **Recent FERC Actions**

FERC filings related to the Project have continued into December. Filings that occurred in December are summarized in Appendix C of this report. A more detailed explanation of each FERC filing can be found in Appendix D.

### **County Actions**

As a reminder, The Klamath Project Manager (PM) position was contracted at the end of February 2023 to help support the County with the Project. The PM has been working with County Staff to reduce their workload on the project by establishing herself as the County's main point-of-contract (POC) for KRRC, their contractors, and stakeholders (such as the California Department of Fish and Wildlife) for the Project. The County continues to have regularly scheduled update meetings with KRRC and their contractors. Specific topic meetings (i.e., roads and bridges, etc.) will continue throughout the life of the Project as the need arises. Table 2 outlines the County Project activities performed in December 2023.



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Table 1. County Project Activities - December 2023

Dept. / Staff	Activity	Involved Parties	Status
PM	Coordination with CDFW on Project	PM	Ongoing
PM, PIO	Weekly meetings with KRRC PIO	PM, PIO	Ongoing
PM	Tracking the submittal, review, and approval (or denial) of each local permit.	PM	Ongoing
PM	Project-wide permit updates to the County. This is in lieu of Camas and McMillen providing on a bi-weekly call.	PM	Ongoing
PM	Weekly project/permit update calls with McMillen & KRRC	PM	Ongoing
PM	Attending agency update meetings hosted by McMillen	PM	Ongoing
County Staff, PM, KRRC, Contractors	Continued EAP coordination	PM & County Staff	December
County Staff, PM, KRRC, Contractors	Emergency Action Plan Tabletop Exercise	PM, County Staff, Sheriff	Dec 13
PM, PIO, Deputy Administrator	Continued public outreach to residents.	PM, PIO	Ongoing
PM, County Staff	Coordination with KRRC and contractors on drawdown.	Project Wide	December
PM & Community Development	Working with RES on proper permitting for project related activities and staff housing.	PM & County Staff	Ongoing
PM, County Administration & PIO	Working together to assist the public and Board of Supervisors in receiving information and communication from KRRC & Contractors (i.e., information on new boat ramp below Iron Gate).	PM & County Staff	Ongoing
PM, PIO	Creation of Project public information materials	PM & County Staff	Ongoing
PM & Public Works	Coordination with KRRC contractors on road damage and maintenance. Ongoing discussions on potentially updating the Roads and Bridges MOU.	PM & County Staff	Ongoing
PM & Public Works	Begin work on global transportation permit	PM & County Staff	December
Public Works	Continuing to review and approve transportation permits.	Public Works	Ongoing

## **Upcoming Activities - December 2023**

Table 2 summarizes the upcoming Project-level and County-specific activities that are proposed to occur in January 2024.



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Table 2. Upcoming Project & County Activities - January 2024

Responsible Party	Activity	Location	Date
KRRC Contractors	Cultural and biological site surveys for construction activities	Project Wide	Ongoing
KRRC Contractors	Water Quality Monitoring	Project Wide	Ongoing
KRRC Contractors	Continue Dam Safety Monitoring	Copco 1 & Iron Gate	January
KRRC Contractors	Maintain temporary BMPs	Copco 2 Village	Ongoing
KRRC Contractors	Maintain temporary RV park	Copco 2 Village	Ongoing
KRRC Contractors	Final tie in of City of Yreka Pipeline	Copco 2 Village	January
KRRC Contractors	Water quality monitoring during in water work	Copco 2 Village	Ongoing
KRRC Contractors	Continued installation of Lakeview Bridge below Iron Gate	Iron Gate	January
KRRC Contractors	Removal of access road and pad.	Iron Gate	January
KRRC Contractors	Monthly & post storm monitoring of Fall and Dry Creek bridges	Fall/Dry Creek Bridges	Ongoing
PM	Weekly update calls with KRRC Contractors	Project Wide	Ongoing
PM	Continued project meetings with CDFW	Project Wide	Ongoing
PM & Community Development	Work with RES on permitting and compliance	Project Wide	Ongoing
PM, Public Information Officer (PIO) & Supervisors	Bi-weekly update call with Supervisor Criss & Supervisor Haupt	Project Wide	Ongoing
PM, PIO, and KRRC PIO	Bi-weekly call to discuss upcoming public announcements	Project Wide	Ongoing
Public Works, PM, KRRC	Continued discussion on road maintenance	Copco Road	Ongoing
Public Works, PM, PIO, County Staff, Sheriff	Public safety planning	Project Wide	Ongoing
Public Works & PM	Global Transportation Permit development	Project Wide	January

## Fish Hatchery Project Progress

As a reminder, the construction activities that are occurring as part of the relocation of the Iron Gate Fish Hatchery to the Fall Creek location, while associated with the Project, are not being completed by KRRC or their contractors. Per the FERC Order, the removal of the facilities at Iron Gate, and new build at Fall Creek is the responsibility of PacifiCorp. PacifiCorp will retain ownership of the lands occupied by the Fall Creek Hatchery, with the California Department of Fish and Wildlife (CDFW) leasing the lands and facilities need to operate the hatchery (see FERC Order, page 61, Section HH, Subsection II).

Below is an outline of the major activities that have occurred as part of the fish hatchery relocation project over the past month:

Formed equipment pads and installed the exhaust fan at the Meter Vault.



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- The Coho building has been turned over to California Department of Fish and Wildlife (CDFW). Yearlings began being moved on December 19<sup>th</sup> and 20<sup>th</sup>.
- The Coho Raceway is complete.
- Backfill at the exterior of the Chinook incubation building was completed. The building was turned over to CDFW and eggs were moved to the site on November 14<sup>th</sup>.
- Installation of fencing and bird netting at the Chinook raceways.
- Continued electrical installation at the Spawning building and flood walls installed.
- Concrete coatings completed at the adult holding ponds.
- Concrete coasting completed at the fish ladder.
- Installed traveling screen and trash rack at the intake.

### **Upcoming Fish Hatchery Activities**

- Continue to bring the hatchery site to the finished grade.
- Finish installing bird netting and fencing at the Chinook Raceway.
- Continue electrical install, and begin transfer of spawning equipment from the Iron Gate Fish Hatchery to the new spawning building.
- Backfill around the adult holding ponds.

### Additional Information:

- Initiation of reservoir drawdown is now scheduled to begin on January 11, 2024 beginning at Iron Gate Dam.
- Klamath Dam Removal Special Meetings will restart in January 2024.
  - Information can still be found on the County's Klamath Dam Decommissioning Website (<a href="https://www.co.siskiyou.ca.us/naturalresources/page/klamath-dam-decommissioning-project">https://www.co.siskiyou.ca.us/naturalresources/page/klamath-dam-decommissioning-project</a>).
- We will continue to create staff reports for the Board and the Public which can be accessed on the website.
- Additional important project information (such as upcoming activities, anticipated heavy traffic, etc.) will be communicated through social media, posted in public locations (such as community centers, grocery stores, etc.).
- Any questions or concerns related to the project, please reach out to us via email: *Ikdinfo@co.siskiyou.ca.us.*



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## Appendix A. Project Photos





Aerial view showing the overall Copco No. 1 and No. 2 complex. Full flow between two sites.





View of Copco 1 dam and completed grouted riprap pad over steel extension pipe.





Drilling Copco 1 diversion tunnel plug in preparation for blasting in February/March 2024.





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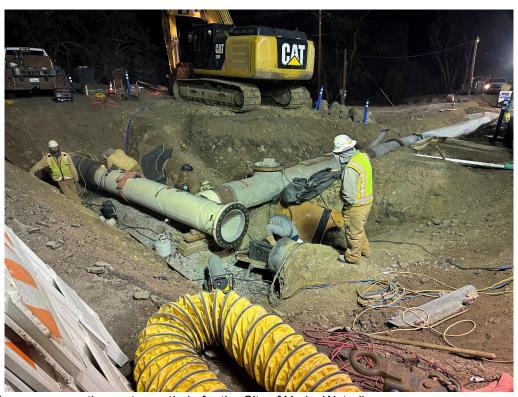
## December 2023

Placing remaining riverbed material and large boulders in the channel at Copco 2.



Aerial view of City of Yreka Waterline progress. Backfill nearing completion and tie-ins completed.





Welding in progress on the upstream tie-in for the City of Yreka Waterline.





City of Yreka Waterline thrust block placement for downstream tie-in.





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Installing metal pipe cover along the City of Yreka Waterline on the new Daggett Bridge.



Fall Creek Culvert and the upstream tie-in for the City of Yreka Waterline.





Looking upstream: Foreground: Tunnel liner surface removed where baffles will be installed. Background: re-establishing the dam upstream of the baffles to control leakage water



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Looking downstream: Drilling holes for post-tensioned anchors. Special inspectors from Knight Piesold and GeoServe present.





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Completed anchor installation. Steel casings can be seen at the bottom as well as the anchor bars and grout tubes.



Steel wrapper, anchor bolt blockouts, and downstream formwork in place and ready to pour.



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Rip rap placed at diversion tunnel outlet. Access pad and fish ladder bridge removed at Iron Gate.



Iron Gate dam ready for drawdown.





Completed office complex at Iron Gate left abutment/





Overview of Iron Gate project site, office complex, and viewing platform.





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New Lakeview Bridge under construction. The first section of bridge has been pushed over the river. Concrete placement in progress at the south abutment.



Chinook Raceways.





Dam A and hatchery intake.



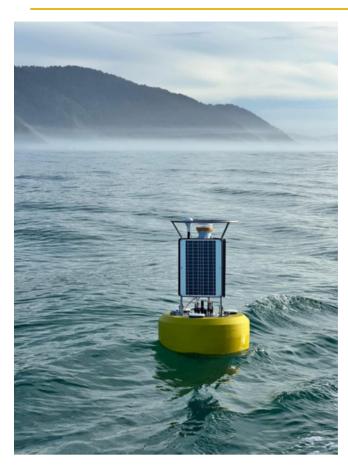
Meter Vault.





Coho Raceways





Bouy Installation.





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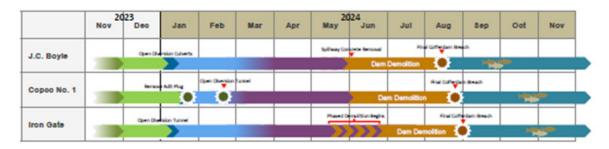
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# Appendix B. Updated Reservoir Drawdown Schedule



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## Stages of Reservoir Drawdown



1. Operational Drawdown: Lowering reservoir to its minimum operating level 2. Initial Drawdown: Reservoir water evacuation below the Operational Drawdown limits 3. Reservoir
Refilling and
Releasing Period:
Inflows exceed
outflow capacity
periodically,
causing reservoir
levels to rise and

4. Dam Demolition:
Reservoir water
elevation remains at the
top of the historic
cofferdam while dam
concrete and
embankments are
removed

5. Klamath River Reconnection: Breaching of the historic cofferdam, allowing the river to permanently flow in a riverine condition

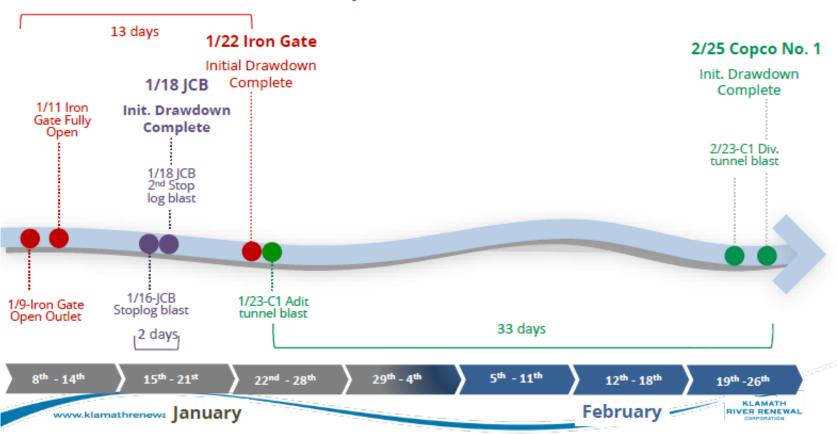






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## Lower Klamath Project Initial Drawdown Schedule





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## Appendix C. Recent FERC Filings



Table 3. Recent Project Actions Submitted Through FERC's eLibrary

Doc #	Date	Filing Type	Filer	Description	Link
1	12/1/23	Delegated Order General Correspondence	FERC	Letter authorizing Klamath River Renewal Corporation et al. to begin construction of the Lakeview Bridge at the Iron Gate Development of the Lower Klamath Project under P-14803.	https://elibrary.ferc.gov/eLibrary/filelist?accession_n um=20231130-3119
2	12/1/23	Compliance Directives, General Correspondence	FERC	Letter to Klamath River Renewal Corporation et. al. providing comments on the Powerhouse Facilities Termination Execution Report etc. for the Copco No. 2 Development et al. of the Lower Klamath Project under P-14803.	https://elibrary.ferc.gov/eLibrary/filelist?accession_n um=20231130-3118
3	12/5/23	Part 12 Consultant Safety Inspection Reports	KRRC	Klamath River Renewal Corporation submits Response to Board of Consultants Comments and Concurrence Letter re the Baffle Block Anchor Drilling Plan for the Iron Gate Development of the Lower Klamath Hydroelectric Project under P-14803.	https://elibrary.ferc.gov/eLibrary/filelist?accession_n um=20231205-5043
4	12/5/23	Dam Safety Compliance Report	KRRC	Klamath River Renewal Corporation submits Supplement to the Site-Specific Seismic Hazard Analysis for the Copco No. 1 Development of the Lower Klamath Project under P-14803.	https://elibrary.ferc.gov/eLibrary/filelist?accession_n um=20231205-5058
5	12/5/23	General Correspondence	FERC	Letter to PacifiCorp discussing the 2022 Dam Safety Surveillance and Monitoring Report for the Klamath River Project under P-2082.	https://elibrary.ferc.gov/eLibrary/filelist?accession_n um=20231205-3094
6	12/6/23	Project Operations Compliance Report	KRRC	Klamath River Renewal Corporation submits Unanticipated Effect Letter and Memorandum of Breach that occurred on November 29, 2023, for the Lower Klamath Hydroelectric Project under P-14803	https://elibrary.ferc.gov/eLibrary/filelist?accession_n um=20231206-5157
7	12/6/23	Emergency Action Plan	KRRC	Klamath River Renewal Corporation submits response to FERC's November 16, 2023 letter re 2023 Emergency Action Plan requirement for the Lower Klamath Hydroelectric Project under P-14803.	https://elibrary.ferc.gov/eLibrary/filelist?accession_n um=20231206-5164
8	12/6/23	Project Operations Compliance Report	KRRC	Klamath River Renewal Corporation submits Amended Bureau of Land Management Land's Use and Occupancy Plan for Approval for the Lower Klamath Hydroelectric Project under P-14803.	https://elibrary.ferc.gov/eLibrary/filelist?accession_n um=20231206-5163



Doc #	Date	Filing Type	Filer	Description	Link
9	12/7/23	FERC Correspondence With Government Agencies, Delegated Order	FERC	Letter authorizing Klamath River Renewal Corporation et al. to resume drilling in the Low-Level Outlet Tunnel etc. for the Iron Gate Development of the Lower Klamath Project under P-14803.	https://elibrary.ferc.gov/eLibrary/filelist?accession_n um=20231206-3078
10	12/7/23	Progress Report	KRRC	Klamath River Renewal Corporation submits Monthly Report for November 2023, for the California Terrestrial and Wildlife Management Plan for the Lower Klamath Hydroelectric Project under P-14803.	https://elibrary.ferc.gov/eLibrary/filelist?accession_n um=20231207-5011
11	12/7/23	Dam Safety Compliance Report	KRRC	Klamath River Renewal Corporation submits Resume of Ethan Guzek for the Iron Gate Low Level Outlet Baffle Block Installation for the Lower Klamath Hydroelectric Project under P-14803.	https://elibrary.ferc.gov/eLibrary/filelist?accession_n um=20231207-5229
12	12/14/23	Environmental and Recreational Compliance Report	KRRC	Klamath River Renewal Corporation submits Final Monthly Report for September 2023, for the California Water Quality Monitoring Plan for the Lower Klamath Hydroelectric Project under P-14803.	https://elibrary.ferc.gov/eLibrary/filelist?accession_n um=20231214-5154
13	12/14/23	Project Operations Compliance Report	KRRC	Klamath River Renewal Corporation submits Response to FERC's November 29, 2023, Letter re Request for Authorization to Commence Drawdown and Removal of Project Works for the Lower Klamath Hydroelectric Project under P-14803.	https://elibrary.ferc.gov/eLibrary/filelist?accession_n um=20231214-5193
14	12/14/23	Environmental and Recreational Compliance Report	KRRC	Klamath River Renewal Corporation submits Initial Monthly Report for November 2023, for the California Water Quality Monitoring Plan for the Lower Klamath Hydroelectric Project under P-14803.	https://elibrary.ferc.gov/eLibrary/filelist?accession_n um=20231214-5208
15	12/15/23	Compliance Directives General Correspondence	FERC	Letter to Klamath River Renewal Corporation et al. providing comments on the plan and schedule addressing FERC's comments re the Emergency Action Plan requirements etc. for the Lower Klamath Project under P-14803.	https://elibrary.ferc.gov/eLibrary/filelist?accession_n um=20231214-3148



Doc #	Date	Filing Type	Filer	Description	Link
		FERC Correspondence With Government Agencies			
16	12/15/23	Project Operations Compliance Report	KRRC	Klamath River Renewal Corporation submits Response to FERC's November 30, 2023, Letter re the Facility Termination Plans for the J.C. Boyle, Copco No. 1, and Iron Gate Developments of the Lower Klamath Project under P-14803.	https://elibrary.ferc.gov/eLibrary/filelist?accession_n um=20231215-5294
17	12/18/23	Dam Safety Compliance Report	KRRC	Klamath River Renewal Corporation submits Monthly Report for November 2023, for the California Slope Stability Monitoring Plan for the Lower Klamath Hydroelectric Project under P-14803.	https://elibrary.ferc.gov/eLibrary/filelist?accession_n um=20231218-5042
18	12/18/23	Progress Report	KRRC	Klamath River Renewal Corporation submits November 2023 Monthly Construction Progress Report for the Lower Klamath Hydroelectric Project under P-14803.	https://elibrary.ferc.gov/eLibrary/filelist?accession_n um=20231218-5044
19	12/20/23	FERC Correspondence With Government Agencies Delegated Order	FERC	Letter to Klamath River Renewal Corporation et al. granting the 12/05/2023 request for an extension of time to submit the plan and schedule etc. for the Copco No. 1 Development of the Lower Klamath Project under P-14803.	https://elibrary.ferc.gov/eLibrary/filelist?accession_n um=20231220-3098
20	12/22/23	EAP Testing Report	KRRC	Klamath River Renewal Corporation submits Responses to FERC's December 14, 2023, Letter re the Emergency Action Plan Requirements and Schedule and Tabletop Exercise Follow-up for the Lower Klamath Hydroelectric Project under P-14803.	https://elibrary.ferc.gov/eLibrary/filelist?accession_n um=20231222-5116
21	12/29/23	Annual Water Quality/Minimum Flow	PacifiCorp	PacifiCorp submits Annual Minimum Stream Flow Compliance Certification for the period of October 1, 2022, through September 30, 2023, for the Fall Creek Development of the Klamath River Hydroelectric Project under P-2082.	https://elibrary.ferc.gov/eLibrary/filelist?accession_n um=20231229-5244



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## Appendix D. FERC Filing Report



## Table 4. Summary of each FERC Filing in November 2023

Doc #	Document Title	Document Summary
(Table 3)	Authorization for Construction, Lakeview Bridge, Iron Gate Development, Lower Klamath Project	FERC letter acknowledging KRRC letter dated November 21, 2023. FERC did not find any significant deficiencies or errors that would affect the safety of the project works or the adequacy of the project works to perform their intended functions. The letter authorized KRRC to begin construction of the Lakeview Bridge to provide temporary construction vehicle access. It is the licensees' responsibility to confirm that the bridge is adequate for this purpose. This authorization assumes the bridge will be removed upon completion of the Lower Klamath Project dam decommissioning project. You must formally submit construction plans and specification for any structures intended for long-term public use not already included in the construction documents submitted to date. In the letter, FERC reminds KRRC that prior to the start of work, all necessary preconstruction license article requirements must be met. In addition, all of the necessary state, local, and federal permits that are required must be secured. During construction, it is your responsibility to ensure that construction practices conform to the requirements of the Project License and applicable permits, to minimize erosion and other environmental impacts.
2	Facilities Termination Plans, Lower Klamath Project	FERC letter acknowledging KRRC letter dated September 22, 2023. FERC has the following comments:  1. You must ensure proper training is provided to KRRC staff and/or their designees in the operation of any equipment that may be necessary after Facility Termination Plan execution to pass flows until the equipment is removed.  2. There is disagreement between the drawdown dates provided in the January 13, 2023 schedule and the Facility Termination Plan execution date of January 4, 2024 for the three high hazard developments. Based on a November 21, 2023 conversation between Ms. Elisabeth Jacquot-Matt of this office and Mr. Gary Lee of McMillen, the actual Facility Termination Plan execution dates for the three developments are currently being revised. Please provide the revised dates and any Facility Termination Plan updates to this office for review. Please confirm that the revised schedules resolve any conflicts between the construction schedule and Facility Termination Plans for the J.C. Boyle, Copco No. 1, and Iron Gate developments. In particular, ensure that all components needed for drawdown and/or passing inflows are still operational if/when needed.  3. You may not begin the drawdowns until the above comments are resolved and we issue a letter authorizing the drawdowns to begin.



		FERC asked that their comments be addressed within 15 days of receipt of the letter.
3	Lower Klamath Project (FERC No. P-14803-001); September 2023 Monthly Construction Report Response, Iron Gate Development, Lower Klamath Project - November 29, 2023 Submittal Concurrence Letters	Letter from KRRC to FERC acknowledging FERC BOC comments on the revised anchor plan. The letter includes a CEII document (confidential attachments) entitled "Independent Board of Consultants (BOC) Concurrence Letter".
4	Lower Klamath Hydroelectric Project (FERC No. P-14803-001) Copco No. 1, Site-Specific Seismic Hazard Analysis Supplement to the 2021 Report	A KRRC letter to FERC transmitting CEII (confidential) documents.
5	2022 DSSMRs, Klamath River Project	A letter from FERC to PacifiCorp acknowledging their August 31, 2023 letter transmitting the 2022 Dam Safety Surveillance and Monitoring Report (DSSMR, report) for the Klamath River Project, FERC No. 2082. FERC acknowledges PacifiCorp's Chief Dam Safety Engineer's conclusion that there are no developing dam safety issues, and that the dams are safe for continued operation. FERC had no additional comments on the report.
6	Lower Klamath Hydroelectric Project (FERC No. P-14803-001) Unanticipated Effect to CA-SIS-2239/3923	A letter notification from KRRC to FERC of an unanticipated effect to cultural resources site CA-SIS-2239/3923. The documents included in this submittal are a memorandum describing the effect and a notification letter to the California State Historic Preservation Officer. Both documents are filed as CUI//PRIV due to the sensitive nature of the information included.
7	Lower Klamath Hydroelectric Project (FERC No. P-14803) 2023 Requirements for Emergency Action Plans and Exercises Plan and Schedule	A letter from KRRC to FERC responding to the FERC request on November 16, 2023 asking for responses to two comments on the Emergency Action Plan (EAP) and proposed schedule.  KRRC included the following responses in the letter:  1. At this time, neither the J.C. Boyle Klamath River Campground recreation site nor the Spring Island Day Use sites have been demolished. A gate has been installed to prevent public access during construction, but that will not be closed until early January 2024. PacifiCorp conducted an audible test of the Klamath River Campground siren on November 20, 2023, the siren tested good and all systems functioned properly.  2. The Renewal Corporation and PacifiCorp are holding a joint Lower Klamath Project EAP Tabletop Exercise on December 13, 2023. The Renewal Corporation will coordinate with the FERC-Portland Regional Office on this exercise. This Tabletop Exercise will provide information on the operation of the Lower Klamath Dams and will review EAP roles and responsibilities, communication systems, contact lists, and notification charts. The Tabletop Exercise will test the Renewal Corporation, PacifiCorp, and EAP Planholder response to simulated emergency scenarios and provide the opportunity to discuss the differences, similarities, and use of the current pre-drawdown EAP and the Drawdown Period EAP.



		PacifiCorp conducted a manual notification chart call-down drill and the EAP annual review on December 4, 2023. The EAP update package is scheduled to mail to Planholders the week of December 25, 2023. PacifiCorp updated the EAP Notification Flowcharts as part of the annual review of the Lower Klamath EAP. Digital versions of the updated notification flowcharts will be distributed to the Hydro Control Center, Toketee Control Center, and Hydro Operations by December 31, 2023. The laminated notification flowcharts are scheduled to mail the week of January 8, 2024 for posting in areas designated in the Notification Flowchart Posting Plan. The EAP Status Report will be submitted to FERC by December 31, 2023.
8	Lower Klamath Hydroelectric Project (FERC No. P-14803-001) Amended Use and Occupancy Plan for Bureau of Land Management Lands – December 2023	Submittal by KRRC to FERC of the amended Use and Occupancy Plan for Bureau of Land Management Lands (Plan), which was originally approved by the Federal Energy Regulatory Commission (FERC) in Ordering Paragraph (S) of its License Surrender Order dated November 17, 2022. This amended plan is different than the approved plan in only two respects. First, during site preparation at the J.C. Boyle Development, the Renewal Corporation determined that two additional historic roads needed improvements to facilitate access during facility decommissioning construction work. One road will provide access to the base of the scour hole (Scour Hole Access Road), and the other will provide access to the upper section of the powerhouse penstocks (Upper Penstock Road). Both roads are on lands owned by the Bureau of Land Management (BLM) within the FERC boundary of the J.C. Boyle Development. This amended Plan includes measures to decommission, stabilize, and restore the road footprints following construction. See Section 2.1.1, sites OR-BLM-02 and OR-BLM-05 and Appendix A, Figures A-3 and A-4. And second, this amended Plan also includes greater detail regarding the vegetation species mixes that the Renewal Corporation will use during restoration of BLM lands throughout the J.C. Boyle Development. See Table 2-2.
9	Low Level Outlet Baffle Block Installation, Iron Gate Development, Lower Klamath Project	FERC's acknowledgement of KRRC's letter transmitting and providing additional documentation related to the Low-Level Outlet Baffle Block Installation at the Iron Gate Development of the Lower Klamath Project, FERC No. 14803. FERC's review did not find any significant deficiencies or errors that would affect the safety of the project works or the adequacy of the project works to perform their intended functions. However, they have the following clarifying comments:  1. Based on our December 6, 2023 call with representatives from KRRC, McMillen, Knight Piesold, and Drill Tech, our concerns related to the following items have been addressed: potential vibration damage to the liner, liner-condition visual monitoring during the drilling, finite element model material properties and boundary conditions, and potential annular space between the casing and the surrounding rock.



		<ol> <li>The drill rig operator's resume provided via December 6, 2023 email to Ms. Elisabeth Jacquot-Matt of this office demonstrated adequate experience for this application and is acceptable.</li> <li>Based on the December 6th discussion, we understand that Knight Piesold will have a representative on site during the drilling who will verify that the casing has been seated into competent rock and design embedment depths have been achieved. In addition, the drilling should be observed by the Geotechnical/Tunnel specialist, Mr. Bryan Duevel, as described in the June 24, 2022 Quality Control and Inspection Program.</li> <li>The letter authorizes KRRC to resume drilling at the Iron Gate Low-Level Outlet Tunnel.</li> </ol>
10	Lower Klamath Hydroelectric Project (FERC No. P-14803-001) November 2023 Monthly Report for the California Terrestrial and Wildlife Management Plan	Monthly report under the California Terrestrial and Wildlife Management Plan, a subplan of the Renewal Corporation's Terrestrial and Wildlife Management Plan. The Renewal Corporation implements the Terrestrial and Wildlife Management Plan as approved by the Commission in Ordering Paragraph JJ of its November 17, 2022 License Surrender Order (LSO). The report outlines observations of particular species including the Western Pond Turtle, Avian Nesting, bats and other species.
11	Lower Klamath Project (FERC No. P-14803-001); Low Level Outlet Baffle Block Installation, Iron Gate Development, Lower Klamath Project	Transmittal of a resume for for Ethan Guzek, a Professional Geologist and Licensed Engineering Geologist, to FERC PRO staff. Resume was requested by FERC as part of the review of the installation of the Iron Gate Tunnel Blocks. KRRC is requesting Mr. Guzek be the onsite inspector for the installation.
12	Lower Klamath Hydroelectric Project (FERC No. P-14803-001) September 2023 Final Monthly Report for the California Water Quality Monitoring	KRRC submittal of the September 2023 monthly water quality monitoring plan. In September 2023, the Renewal Corporation conducted continuous water quality monitoring at nine locations, collecting data at all stations at 15-minute intervals. The Renewal Corporation also collected grab water samples at nine locations, and laboratory results of those analyses have been included in this final version of the Report. The Report details the locations of monitoring, parameters sampled, period of record for each station, graphical data summaries, and tabular data.
13	Lower Klamath Hydroelectric Project (FERC No. P-14803-001): Klamath River Renewal Corporation's Responses to November 29, 2023 FERC letter on Request for Authorization to Begin Drawdown and Removal of Project Works	KRRC letter to FERC transmitting their responses to FERC's November 29, 2023 letter related to authorization to begin drawdown, removal, and decommissioning of the Lower Klamath Project. With this submittal, the Renewal Corporation also requests authorization by December 29, 2023 for drawdown of all project reservoirs, removal of dams and associated works at J.C. Boyle and Copco No. 1 developments, and removal of associated project works at the Iron Gate development, except for the dam itself. The Renewal Corporation's responses and supporting Attachments are filed as CUI/CEII due to the critical infrastructure information included.
14	Lower Klamath Hydroelectric Project (FERC No. P-14803-001) November 2023 Initial Monthly Report for the California Water Quality Monitoring	KRRC submittal of the November monthly water quality monitoring plan. In November 2023, the Renewal Corporation conducted continuous water quality monitoring at nine locations, collecting data at all stations at 15-minute intervals. The Renewal Corporation also collected grab water



15	Emergency Action Plan Requirements Plan and Schedule and Tabletop Exercise Follow-Up, Lower Klamath Project	samples at nine locations, and laboratory results of those analyses have been included in this final version of the Report. The Report details the locations of monitoring, parameters sampled, period of record for each station, graphical data summaries, and tabular data.  FERC letter acknowledging KRRC's December 5, 2023 letter transmitting the plan and schedule addressing our comments regarding EAP requirements, and (b) provide comments on the
	rabletop Exercise i ollow-op, Lower Mainath i roject	Tabletop Exercise for the Lower Klamath Project, FERC No. 14803. Based on FERC's review of the EAP and FERC's observations on the tabletop exercise that was held in Siskiyou County in
		December, FERC has the following comments:  1. Based on your response to our Comment No. 1, the currently accepted schedule
		<ol> <li>Based on your response to our Comment No. 1, the currently accepted schedule has been superseded, and the public is being allowed access to recreation areas until January 2024. This is acceptable because the audible Klamath River Campground siren test was successfully completed and assumes that any public safety signage</li> </ol>
		pertaining to the project and its EAP are still in place.
		2. The letter stated that KRRC will coordinate the December 13, 2023 tabletop exercise
		with this office, but no coordination was attempted. Ms. Elisabeth Jacquot-Matt of this
		office reached out to Mr. Bransom on December 12, 2023 to obtain the virtual meeting details. In the future, please coordinate critical meetings with this office with adequate notice for us to attend.
		<ol> <li>PacifiCorp and KRRC presenters/ facilitators handled the extra complexity introduced by having two entities conducting the exercise and referencing two different EAP documents well. Based on participant feedback and questions, they appear to fully understand the differences between the EAPs and when they should transition from PacifiCorp's EAP to KRRC's EAP.</li> </ol>
		4. KRRC should coordinate with the Reclamation representatives currently involved in river operations coordination and develop a means of ensuring all Reclamation personnel involved in operating the Link River and Keno Dams are fully aware of the proper protocols in communicating changes in river operations upstream of the Lower Klamath Dams.
		<ol> <li>While the exercise was attended by many relevant emergency management agencies, several were not present. KRRC should reach out to those entities not represented during the exercise to ensure the critical information is communicated.</li> </ol>
		6. The exercise scenarios for both pre- and post-drawdown involved only a failure of Iron Gate Dam. While we understand the need to avoid confusion during a complex tabletop discussion, the EAP for the Lower Klamath covers three high hazard dams. J.C. Boyle and Copco No. 1 Dam possible failure scenarios should have been presented after the



16	Lower Klamath Project (FERC No. P-14803-001); Response to November 30, 2023, FERC Letter on Facilities Termination	Iron Gate failure scenario discussion was complete. Future discussions with emergency management agencies should include emergency response procedures for failures of all three developments.  7. The exercise emphasized that EAP activation post-drawdown is extremely unlikely, which is accurate. However, an uncontrolled release of any of the three Lower Klamath reservoirs is still possible until the dams are completely removed. This should be noted during future discussions with emergency management agencies.  8. Electronic dissemination of the PacifiCorp EAP is acceptable due to the limited time it will be in effect and printing delays, but please issue KRRC EAPs to stakeholders and emergency management agencies in their preferred format.  9. Based on participant comments during the exercise and hotwash discussion, updates to the EAPs will be necessary. Please include EAP revisions in the plan and schedule requested below.  FERC requested that KRRC respond to these comments within 15 days of the letter.  KRRC transmittal letter of their responses to FERC's questions on the Facilities Termination Plan. All documents included are marked as confidential (CEII).
17	Plans, Lower Klamath Project.  Lower Klamath Hydroelectric Project (FERC No. P-14803-001)  November 2023 Monthly Report for the California Slope  Stability Monitoring Plan	KRRC submitted the 2023 CA Slope Stability Monitoring Plan to FERC. KRRC did not report any slope stability issues on the existing dam embankment at Iron Gate Dam, along the reservoir rim at Copco No. 1 or Iron Gate, along the project specific roads (not Copco or other public roadways), or along the borrow or disposal areas.
18	Lower Klamath Hydroelectric Project (FERC No. P-14803), November 2023 Monthly Construction Report	Letter from McMillen to FERC outlining the activities completed in November 2023. The work completed during November 2023 included continued early works at JC Boyle, completion of backfill over the Copco No. 1 steel extension pipe and removal of the temporary river crossing, completion of tie-ins for the new City of Yreka waterline, and initiating construction of the new Lakeview Bridge below Iron Gate Dam.
19	Extension of Time to Address 2019 Independent Consultant Safety Inspection Recommendations, Copco No. 1 Development, Lower Klamath Project	FERC's letter acknowledges KRRC's letter on s December 5, 2023 letter requesting an extension of time to submit the plan and schedule addressing 2019 Independent Consultant Safety Inspection Recommendations 2020-REC-37, 2020-REC-38, 2020-REC-43, and 2020-REC-44 for the Copco No. 1 Development of the Lower Klamath Project, FERC No. 14803. FERC granted the request.
20	Lower Klamath Hydroelectric Project (FERC No. P-14803- 001): Klamath River Renewal Corporation's Responses to December 14, 2023 FERC Letter on	KRRC's responses to FERC's December 14, 2023 letter related to the Drawdown Period Emergency Action Plan (Drawdown EAP) for the Lower Klamath Project (Project). Their response are below:



## Lower Klamath Hydroelectric Decommissioning Project November 2023

Emergency Action Plan Requirements and Schedule and Tabletop Exercise Follow-up, Lower Klamath Project

- Comment 1 Response: No Renewal Corporation response is required for this comment.
- 2. Comment 2 Response: The Renewal Corporation will coordinate closely with the FERC Portland Regional Office in the future on all critical meetings to ensure the office has adequate notice to schedule attendance.
- 3. Comment 3 Response: No Renewal Corporation response is required for this comment.
- 4. Comment 4 Response: Over the past 18 months, the Renewal Corporation has coordinated closely (monthly to weekly) with the Bureau of Reclamation (Reclamation) representatives responsible for Klamath River flow management to develop and implement reservoir and flow management operations to effectively support both the Pre-Drawdown and Drawdown construction activities. In addition, multiple Reclamation representatives attended the drawdown EAP seminar in September and workshop in October. That said, we concur with FERC that further Reclamation outreach is necessary. To establish that all necessary Reclamation staff are integrated, the Renewal Corporation will coordinate with the Klamath Basin Area Office Manager (senior-most position) to identify the appropriate Klamath Falls Reclamation staff for EAP coordination and day-to-day contacts during the drawdown and dam removal periods. Once identified, we will include the full complement of Reclamation staff responsible for EAP participation, flow management, and operation of the Link River and Keno Dams in our ongoing weekly coordination calls with Reclamation.
- 5. Comment 5 Response: The Renewal Corporation has noted several invited agencies that have not attended the emergency management exercises. Following each exercise to date, we have reached out to these agencies to communicate the importance of attending the exercise and ensure they have the critical information. The Renewal Corporation will continue to actively communicate with these non-represented entities to ensure the critical information is communicated and encourage participation in future exercises.
- 6. Comment 6 Response: The Renewal Corporation will include emergency response procedure discussions that include possible failure scenarios for all three developments in future discussions with the emergency management agencies.
- 7. Comment 7 Response: The Renewal Corporation concurs with FERC that an uncontrolled release of any of the three Lower Klamath reservoirs is still possible until the dams are completely removed. In future discussions with the emergency management agencies, the Renewal Corporation will note the potential for an uncontrolled release from any of the three reservoirs.



		<ol> <li>Comment 8 Response: The Renewal Corporation will issue the KRRC EAPs to stakeholders and emergency management agencies in a hard copy format in accordance with FERC guidelines.</li> <li>Comment 9 Response: The Renewal Corporation plans to incorporate comments an issue a revised EAP for the Drawdown Period by December 29, 2023. Both electronic and hard copies of the updated EAP will be distributed to the Planholders so that they have the revised EAP in their possession by January 6, 2024, which is in advance of</li> </ol>
		the initiation of reservoir drawdown at Iron Gate Dam planned for January 11, 2024.
21	Klamath River Hydroelectric Project (FERC No. P-2082) Fall Creek Development Annual Minimum Stream Flow Compliance Certification	PacifiCorp submitted its annual notification to report to FERC on the stream flow releases at the Fall Creek Development. The stream flow has been regularly observed to be in compliance with the license requirements for the period October 1, 2022, through September 30, 2023. Stream flow releases are monitored via daily readings of a staff gage at the Fall Creek Development because there is no continuous flow monitoring equipment. The minimum stream flow requirement is 0.5 cfs.