

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the Matter of Water Quality Certification for the

PACIFICORP ENERGY
IRON GATE DAM LOW LEVEL OUTLET SLIDE GATE TEST PROJECT

SOURCE: Klamath River

COUNTY: Siskiyou

WATER QUALITY CERTIFICATION FOR FEDERAL PERMIT OR LICENSE

BY THE EXECUTIVE DIRECTOR:

I. Project Description

PacifiCorp Energy (PacifiCorp or Applicant) filed a water quality certification application with the State Water Resources Control Board (State Water Board) for the Iron Gate Dam Low Level Outlet Slide Gate Test Project (Project) on February 18, 2015. The Project is located at Iron Gate Dam, approximately 25 miles north of Yreka in Siskiyou County (Figure 1). The Project consists of testing Iron Gate Dam's low level outlet slide gate (slide gate) in conformance with PacifiCorp's January 31, 2013, Dam Safety and Surveillance and Monitoring Plan and as directed by the California Department of Water Resources' Division of Safety of Dams.

Iron Gate Dam is a 189-foot-tall earthen dam with two outlets and a spillway. Iron Gate Dam is part of PacifiCorp's Klamath Hydroelectric Project which is undergoing relicensing with the Federal Energy Regulatory Commission (FERC), FERC Project No. 2082. Iron Gate Dam's low level outlet is comprised of a five-foot-tall slide gate connected to a 16-foot-diameter tunnel that extends 20 feet before intersecting a flange gate. The low level outlet tunnel continues past the flange gate for an additional 575 feet and discharges into the Klamath River (Figure 2). The low level outlet's maximum capacity is 5,800 cubic feet per second (cfs).

II. Project Activities

As part of the Project, prior to beginning Project activities, PacifiCorp will verify:

1. Iron Gate Reservoir is spilling sufficient flow to meet downstream flow requirements¹; and
2. Iron Gate Dam's spill is projected to continue to meet downstream flow requirements for the duration of Project activities.

¹ Flow requirements below Iron Gate Dam are dictated by the Bureau of Reclamation's (BOR) Klamath Irrigation Project (KIP) 2013 Biological Opinion (BO). The KIP operates upstream of PacifiCorp's Klamath Hydroelectric Project. PacifiCorp makes releases at Iron Gate Dam based on BOR's direction.

Additionally, per PacifiCorp's Project description, during Project activities PacifiCorp will supply the Iron Gate Hatchery with cold water from Iron Gate Reservoir as needed.

In order to conduct the Project, people will need to enter the low-level outlet tunnel (entering from the downstream side of Iron Gate Dam) to seal and unseal the flange gate, survey the tunnel for the presence of fish, and place sediment control measures in the tunnel. Project activities will occur as follows:

- To provide safe access to the tunnel, PacifiCorp will use an existing weir as a downstream cofferdam. The weir is located inside the low level outfall tunnel, approximately ten feet from where the tunnel discharges to the Klamath River. The water level inside the tunnel will be controlled by pumps that will pump water over the weir and into the Klamath River. Equipment necessary to seal the flange gate will be floated into the tunnel.
- Prior to pumping water out of the tunnel, a California Department of Fish and Wildlife (CDFW) biologist will survey the tunnel from the flange gate to the weir for salmonids. If salmonids are present, the pumps will be screened with the appropriate screen size, as recommended by the CDFW biologist. If listed species are found, a fish rescue will be conducted by the CDFW biologist prior to pumping activities.
- PacifiCorp will seal the flange gate by bolting the flange gate closed. Sealing the flange gate will reduce the amount of flow exiting the low level outlet during Project activities. The slide gate leaks approximately 9 cfs. Leakage from the slide gate will fill the 20-foot long portion of the low level outlet between the slide gate and flange gate with approximately 4,500 cubic feet of water in roughly 40 minutes. Filling the low level outlet with water will provide equal pressure on each side of the slide gate which will reduce the potential to mobilize sediment from Iron Gate Reservoir during the slide gate test.
- Once the low level outlet is flooded, PacifiCorp staff will fully open the slide gate to test its ability to operate, and will then return the slide gate to a fully closed position.
- Following slide gate closure, PacifiCorp will drain the 20-foot section of the low level outlet through an 18-inch diameter pipe that extends from the flange gate approximately 15 feet into the outlet tunnel. The 20-foot section of the outlet tunnel will be drained slowly to reduce the potential to transport sediment into the Klamath River. PacifiCorp will place silt fencing and fiber rolls inside the tunnel to reduce the potential to transport sediment into the Klamath River. Silt fencing and fiber rolls will be anchored in place with sandbags.
- After the outlet tunnel is drained, PacifiCorp staff will remove the sediment control measures and unseal the flange gate.

The Project will take approximately four days to complete.

III. Regulatory Authority

Water Quality Certification and Related Authorities

The Federal Clean Water Act (CWA) (33 U.S.C. §§ 1251-1387) was enacted “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” (33 U.S.C. § 1251(a).) Section 101 of the CWA (33 U.S.C. § 1251 (g)) requires federal agencies to “co-operate with the State and local agencies to develop comprehensive solutions to prevent, reduce and eliminate pollution in concert with programs for managing water resources.”

Section 401 of the CWA (33 U.S.C. §1341) requires every applicant for a federal license or permit which may result in a discharge into navigable waters to provide the licensing or permitting federal agency with certification that the project will be in compliance with specified provisions of the CWA, including water quality standards and implementation plans promulgated pursuant to section 303 of the CWA (33 U.S.C. § 1313). CWA section 401 directs the agency responsible for certification to prescribe effluent limitations and other limitations necessary to ensure compliance with the CWA and with any other appropriate requirement of state law. Section 401 further provides that state certification conditions shall become conditions of any federal license or permit for the Project. The State Water Board is designated as the state water pollution control agency for all purposes stated in the CWA and any other federal act. (Wat. Code, § 13160.) The State Water Board’s Executive Director has been delegated the authority to issue a decision on a water quality certification application. (Cal. Code Regs., tit. 23, § 3838, subd. (a).)

The State Water Board received PacifiCorp’s application for certification on February 18, 2015. On February 24, 2015, the State Water Board provided notice of receipt of a complete application for the Project to the applicable parties pursuant to California Code of Regulations, title 23, section 3835(c). The State Water Board provided public notice of the application pursuant to California Code of Regulations, title 23, section 3858 by posting information describing the Project on the State Water Board’s website on February 25, 2015. No comments were received.

The State Water Board forwarded the portions of the application that have the potential to cause adverse water quality impacts other than specific impacts resulting from alterations to instream flows to the North Coast Regional Water Quality Control Board (North Coast Regional Board) on April 16, 2015. (See Cal. Code Regs., tit. 23, § 3855, subd. (b)(2)(B)). North Coast Regional Board staff responded with comments on April 16, 2015, which have been incorporated.

The United States Army Corps of Engineers (ACOE) has determined a Nationwide Permit No. 18 under section 404 of the CWA is required for the Project. The ACOE identification number for the Project is SPN 2015-00127.

Pursuant to North Coast Regional Board Resolution R1-2004-0087, Total Maximum Daily Load Implementation Policy Statement for Sediment-Impaired Receiving Waters within the North Coast Region, the North Coast Regional Board Executive Officer (Executive Officer) is directed to “rely on the use of all available authorities, including existing regulatory standards, and permitting and enforcement tools to more effectively and efficaciously pursue compliance with sediment-related standards by all dischargers of sediment waste.”

The federal antidegradation policy requires that state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The North Coast Regional Board's *Water Quality Control Plan for the North Coast Region* (North Coast Basin Plan) implements, and incorporates by reference, both the State and federal antidegradation policies. This certification is consistent with applicable federal and State antidegradation policies, as it does not authorize the discharge of increased concentrations of pollutants or increased volumes of treated wastewater.

The Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (Thermal Plan) sets forth additional temperature requirements in interstate waters like the Klamath River, and prevents elevated temperature waste discharges. This certification is consistent with the Thermal Plan in that it does not authorize discharge of water with elevated temperatures.

Water Quality Control Plans and Related Authorities

The California Regional Water Quality Control Boards (Regional Water Boards) adopt, and the State Water Board approves, water quality control plans (basin plans) for each watershed basin in the State. The basin plans designate the beneficial uses of waters within each watershed basin, and water quality objectives designed to protect those uses pursuant to Section 303 of the CWA. (33 U.S.C. § 1313.) The beneficial uses together with the water quality objectives that are contained in the basin plans, the Thermal Plan, and state and federal anti-degradation requirements constitute California's water quality standards.

The North Coast Regional Board has adopted, and the State Water Board and the U.S. Environmental Protection Agency have approved, the North Coast Basin Plan. The North Coast Basin Plan designates the beneficial uses of water to be protected along with the water quality objectives necessary to protect those uses.

The North Coast Basin Plan identifies existing beneficial uses for the Klamath River Iron Gate Hydrologic Subarea as: freshwater replenishment; navigation; hydroelectric generation; water contact recreation; non-contact recreation; commercial and sport fishing; warm freshwater habitat; cold freshwater habitat; wildlife habitat; migration of aquatic organisms; shellfish harvesting; aquaculture; spawning, reproduction, and/or early development; and rare, threatened, and endangered species. The North Coast Basin Plan also identifies potential beneficial uses for the Klamath River Iron Gate Hydrologic Subarea as: municipal and domestic supply; agricultural supply; industrial service supply; and industrial process supply.

Iron Gate Reservoir and the Iron Gate Hydraulic Subarea (excluding Iron Gate Reservoir) are listed on the State Water Board's CWA Section 303(d) list. Iron Gate Reservoir is listed for microcystin. The Iron Gate Hydrologic Subarea is listed for temperature, nutrients, and dissolved oxygen. The Project will transport water from Iron Gate Reservoir's low level outlet into the Klamath River. The Project could mobilize and transport Iron Gate Reservoir sediments, which may contain nutrients, into the Klamath River. To reduce the potential to transport sediments and associated nutrients from Iron Gate Reservoir, the Project includes steps to: (1) equalize pressure on each side of the slide gate prior to testing its ability to operate; (2) slowly release

water from the low level outlet to allow sediments to settle in the outlet tunnel; and (3) install sediment control measures in the outlet tunnel to reduce the potential to transport sediment into the Klamath River. The Project will release approximately 4,500 cubic feet of water, providing only a small fraction of flow² when compared to the required flow releases that will be made through the Iron Gate Dam spillway. Minimum flows for the Klamath River in May are approximately 1,175 cfs³.

Since December 2010, the North Coast Regional Board has been implementing the Klamath River Total Maximum Daily Load (TMDL) to establish: (1) site-specific dissolved oxygen objectives; (2) an Action Plan for the Klamath River TMDL addressing temperature, dissolved oxygen, nutrient, and microcystin impairments; and (3) an Implementation Plan for the Klamath and Lost River Basins. The Klamath River TMDL Implementation Plan and dissolved oxygen objectives are in effect. The Project will comply with the Klamath River TMDL.

The State Water Board has reviewed and considered the plans and Project description provided by PacifiCorp. Further, the State Water Board has considered the Basin Plan, the existing water quality conditions and Project-related controllable factors.

California Environmental Quality Act

The State Water Board is the lead agency for the purpose of California Environmental Quality Act (CEQA) compliance. The State Water Board has reviewed the proposed Project and conditions incorporated into the Project to protect the environment and beneficial uses designated for the Klamath River. The State Water Board has determined that this Project involves the operation of existing structures involving no expansion of use in accordance with Class 1 of the CEQA Guidelines. The State Water Board finds that there is no substantial evidence in the record that the Project will have a significant effect on the environment. The State Water Board will issue a Notice of Exemption (NOE) for Categorical Exemption under section 15301 (Class1) of the CEQA Guidelines (Cal. Code Regs., tit. 14, Section 15000 et.seq) within five days of issuance of this certification. The NOE reflects the State Water Board's independent judgment and analysis.

All documents and other information that constitute the public record for this Project shall be maintained by the Division of Water Rights and shall be available for public review at the following address: State Water Board, Division of Water Rights, 1001 I Street, Sacramento, CA 95814.

IV. Discussion

As discussed above, the Project as proposed meets water quality standards. In order to ensure that the Project meets water quality standards as anticipated, this certification imposes conditions regarding monitoring, enforcement, and potential future revisions. Additionally, California Code of Regulations, title 23, section 3860 requires imposition of certain mandatory conditions for all water quality certifications, which are included in this certification.

² The Project's release is anticipated to contribute less than 0.5% (approximately 5 cfs or less) of the total Klamath River flow.

³ As listed in the KIP BO.

ACCORDINGLY, BASED ON ITS INDEPENDENT REVIEW OF THE RECORD, THE STATE WATER RESOURCES CONTROL BOARD CERTIFIES THAT PACIFICORP ENERGY'S IRON GATE DAM LOW LEVEL OUTLET SLIDE GATE TEST PROJECT will comply with sections 301, 302, 303, 306, and 307 of the Clean Water Act, and with applicable provisions of State law, if the Applicant complies with the following terms and conditions during the Project activities certified herein.

1. During Project activities, PacifiCorp will continue to meet downstream flow requirements as directed by the Bureau of Reclamation (BOR). Prior to beginning Project activities, PacifiCorp will verify that Iron Gate Reservoir is spilling sufficient flows to meet downstream flow requirements, and that spill from Iron Gate Reservoir is projected to continue to meet downstream flow requirements for the duration of Project activities.

If Project activities have begun and spill from Iron Gate Reservoir is insufficient to meet downstream flow requirements, then PacifiCorp will cease Project activities and resume normal Iron Gate Dam operations to maintain downstream flow requirements.

2. During Project activities, PacifiCorp will continue to supply the Iron Gate Hatchery, as needed, with cold water from Iron Gate Reservoir.
3. Prior to pumping water out of the tunnel, a CDFW biologist will survey the tunnel from the flange gate to the weir for salmonids. If salmonids are present, pumps will be screened with the appropriate screen size, as recommended by the CDFW biologist. If listed species are found, a fish rescue shall be performed as directed by CDFW staff.
4. Turbidity increases associated with Project activities shall not exceed the water quality objectives for turbidity in the Klamath River, as documented in the North Coast Basin Plan. Turbidity levels are defined in nephelometric turbidity units (NTUs). According to the North Coast Basin Plan, turbidity levels shall not be increased by more than 20 percent above naturally occurring background levels.

To provide turbidity information on the naturally occurring background levels, the Applicant shall monitor the turbidity of flow being discharged via Iron Gate Dam's spillway. The Applicant can submit a request to the Deputy Director to modify the turbidity background monitoring location for approval. In addition, PacifiCorp will monitor turbidity in the Klamath River 500 feet downstream of Project activities to evaluate if Project activities are impacting turbidity in the Klamath River. Turbidity monitoring shall occur at least hourly during Project activities that involve discharges to the Klamath River. If the grab sample results indicate that turbidity levels exceed the threshold standard, the associated Project activities shall cease immediately and the violation shall be reported to the Deputy Director and Executive Officer promptly and no later than 24 hours after the monitoring results. In addition, any and all actions shall be implemented to reduce and maintain turbidity at or below threshold standards. Potential actions include implementation of additional best management practices (BMPs). Construction activities may not re-start without the permission of the Deputy Director.

Turbidity monitoring results shall be provided to the State Water Board's Project Manager within two weeks of initiation of monitoring.

5. Appropriate sediment control measures (e.g., silt fencing, fiber rolls, gravity bag filter, etc.) shall be implemented and installed prior to the discharge of water from the tunnel following the slide gate test and as necessary during the Project in order to prevent sediment discharges to surface waters. Sediment control measures shall be installed following the CDFW biologist fish survey, and following the fish rescue, if a fish rescue is necessary.
6. All BMPs described in the application for water quality certification and supplemental information are hereby incorporated by reference and are conditions of approval of this certification. Notwithstanding any more specific conditions in this certification, the Applicant shall comply with all measures described in the application for water quality certification and its supplements.
7. Any substances which could be hazardous to aquatic life resulting from Project-related activities shall be prevented from entering surface waters.
8. All wash water shall be contained and disposed of in compliance with State and local laws, ordinances, and regulations.
9. All equipment must be washed prior to transport to the Project site and must be free of sediment, debris and foreign matter.
10. Any maintenance or refueling of vehicles or equipment occurring on-site will be done in a designated area with secondary containment, located away from drainage courses to prevent the runoff of stormwater and the runoff of spills. All equipment using gas, oil, hydraulic fluid or other petroleum products shall be inspected for leaks prior to use and shall be monitored for leakage. Stationary equipment (motors, pumps, generators, etc.) and vehicles not in use shall be positioned over drip pans or other types of containment. Spill and containment equipment (oil spill booms, sorbent pads, etc.) shall be maintained onsite at all locations where such equipment is used or staged.
11. All trash shall be contained and regularly removed from the work area to the staging area during construction activities. Upon completion, all Project-generated debris, building materials, excess material, waste, and trash shall be removed from all the Project sites for disposal at an authorized landfill or other disposal site in compliance with State and local laws, ordinances, and regulations.
12. A copy of this certification shall be provided to all contractors and subcontractors conducting Project activities and copies shall remain in their possession at the Project site. The Applicant shall be responsible for work conducted by its contractors or subcontractors.
13. The Deputy Director and Executive Officer shall be notified promptly and in no case more than 24 hours after the commencement of Project activities. Upon request, a Project schedule shall be provided to agency staff.
14. This certification requires compliance with all applicable requirements of the North Coast Basin Plan. If at any time an unauthorized discharge to surface waters (including rivers or streams) occurs or monitoring indicates that the Project has or could soon be in

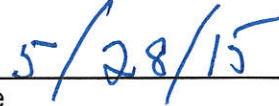
violation with water quality objectives, the associated Project activities shall cease immediately and the Deputy Director and the Executive Officer shall be notified within 24 hours of the unauthorized discharge to surface waters. Associated activities may not resume without approval from the Deputy Director.

15. Unless otherwise specified in this water quality certification or at the request of the State Water Board, data and/or reports must be submitted electronically in a format accepted by the State Water Board to facilitate the incorporation of this information into public reports and the State Water Board's water quality database systems in compliance with California Water Code section 13167.
16. The State Water Board's approval authority includes the authority to withhold approval or to require modification of a proposal or plan prior to approval. The State Water Board may take enforcement action if the Applicant fails to provide or implement a required plan in a timely manner.
17. Notwithstanding any more specific conditions in this certification, the Project shall be operated in a manner consistent with all water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act. The Applicant must take all reasonable measures to protect the beneficial uses of waters of the Klamath River and tributaries.
18. This certification does not authorize any act which results in the taking of a threatened, endangered or candidate species or any act, which is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (ESA) (Fish & Game Code §§ 2050-2097) or the federal ESA (16 U.S.C. §§ 1531 - 1544). If a "take" will result from any act authorized under this certification or water rights held by the Applicant, the Applicant must obtain authorization for the take prior to any portion of the Project that may result in a take. The Applicant is responsible for meeting all requirements of the applicable ESAs for the Project authorized under this certification.
19. In the event of any violation or threatened violation of the conditions of this certification, the violation or threatened violation is subject to any remedies, penalties, processes or sanctions as provided for under applicable state or federal law. For the purposes of section 401(d) of the Clean Water Act, the applicability of any state law authorizing remedies, penalties, processes or sanctions for the violation or threatened violation constitutes a limitation necessary to ensure compliance with the water quality standards and other pertinent requirements incorporated into this certification.
20. In response to a suspected violation of any condition of this certification, the State Water Board or Regional Water Board may require the holder of any federal permit or license subject to this certification to furnish, under penalty of perjury, any technical or monitoring reports the State Water Board deems appropriate, provided that the burden, including costs, of the reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports (California Water Code sections 1051, 13165, 13267 and 13383). The State Water Board may add to or modify the conditions of this certification as appropriate to ensure compliance.

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21. No Project activities shall commence until all necessary federal, state, and local approvals have been obtained.
22. Any requirement in this water quality certification that refers to an agency whose authorities and responsibilities are transferred to or subsumed by another state or federal agency, will apply equally to the successor agency.
23. The Applicant must submit any changes to the Project which would have a significant or material effect on the findings, conclusions, or conditions of this certification, to the State Water Board for prior review and written approval. If the State Water Board is not notified of a significant change to the Project, it will be considered a violation of this certification.
24. The Applicant must provide State Water Board and Regional Water Board staff access to Project sites to document compliance with this certification.
25. The State Water Board shall provide notice and an opportunity to be heard in exercising its authority to add to or modify any of the conditions of this certification.
26. This certification is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to California Water Code Section 13330 and California Code of Regulations, Title 23, Division 3, Chapter 28, Article 6 (commencing with Section 3867)
27. Certification is not intended and shall not be construed to apply to any activity involving a hydroelectric facility and requiring a FERC license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to Subsection 3855(b) of Article 4, Title 23 of the California Code of Regulations and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
28. This certification is solely for the testing of the Iron Gate Dam Low Level Slide Gate, and shall not be used for or construed to apply, without limitation, to any other aspect of operation, maintenance, or relicensing of the Klamath Hydroelectric Project under a FERC license or for any permits necessary to implement the Klamath Hydroelectric Settlement Agreement.
29. Nothing in this certification shall be construed as State Water Board approval of the validity of any water rights, including pre-1914 claims. The State Water Board has separate authority under the Water Code to investigate and take enforcement action if necessary to prevent any unauthorized or threatened unauthorized diversions of water.
30. Certification is conditioned upon total payment of any fee required under Article 4, Title 23 of the California Code of Regulations.


Thomas Howard
Executive Director


Date

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Attachments:

Figure 1: Project Area

Figure 2: Low Level Outlet Discharge into Klamath River at Base of Iron Gate Dam

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Figure 1: Project Area

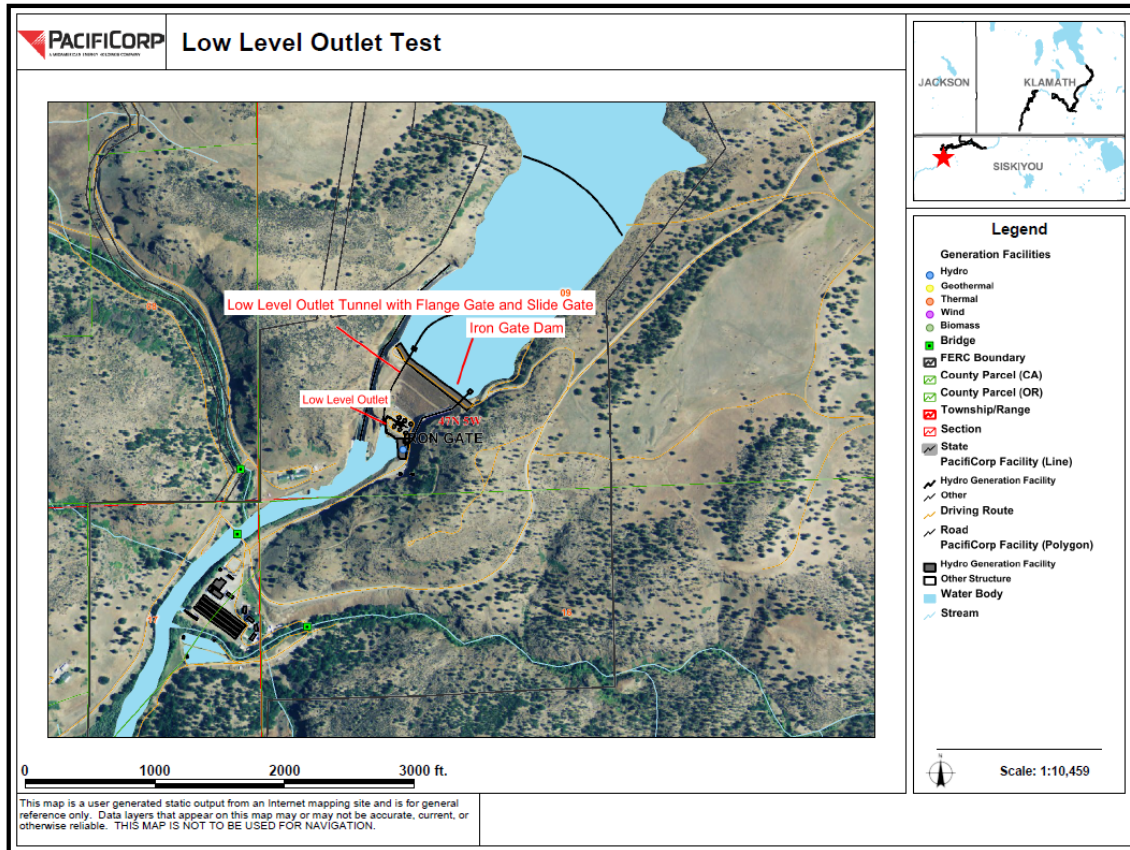


Figure 2: Low Level Outlet Discharge into Klamath River at Base of Iron Gate Dam



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