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STATE OF CALIFORNIA
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
STATE WATER RESOURCES CONTROL BOARD

ORDER WQ 2026-XXXX

In the Matter of Petitions for Reconsideration of Water Quality Certification for the
PACIFIC GAS AND ELECTRIC COMPANY
MCLOUD-PIT HYDROELECTRIC PROJECT
FEDERAL ENERGY REGULATORY COMMISSION PROJECT NO. 2106

SOURCES: McCloud River, Pit River, and Iron Canyon Creek

COUNTIES: Shasta and Siskiyou

ORDER GRANTING IN PART AND DENYING IN PART PETITIONS FOR RECONSIDERATION AND CERTIFYING A FINAL SUBSEQUENT ENVIRONMENTAL IMPACT REPORT

BY THE BOARD:

1.0 INTRODUCTION

The Winnemem Wintu Tribe (Tribe) and North Coast Rivers Alliance (NCRA) petition the State Wate Resources Control Board (State Water Board or Board) for reconsideration of the November 8, 2019 water quality certification (2019 certification) issued by the Executive Director of the State Water Board (Executive Director) associated with the Federal Energy Regulatory Commission's (FERC) relicensing of the McCloud-Pit Hydroelectric Project (McCloud-Pit Project; FERC Project No. 2106) and the final initial study and negative declaration (IS/ND) (issued by the Board pursuant to the California Environmental Quality Act (CEQA) for the 2019 certification). Pacific Gas and Electric Company (PG&E) separately petitions the Board for reconsideration of the 2019 certification.

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The State Water Board finds that portions of each petition for reconsideration have merit and thus plans to incorporate changes to the 2019 certification as described below and shown in Attachment 1. (Cal. Code Regs., tit. 23, § 3869.)[1]

2.0 FACTUAL BACKGROUND

2.1 Certification Proceedings

PG&E owns and operates the McCloud-Pit Project, which is located on the McCloud and Pit Rivers and Iron Canyon Creek in Shasta and Siskiyou Counties. The McCloud-Pit Project commenced commercial operations in 1965. As further described in Attachment 1, the McCloud-Pit Project comprises three hydroelectric developments with an installed capacity of 368 megawatts.[2] The McCloud-Pit Project is undergoing relicensing before FERC, as the original FERC license for the McCloud-Pit Project expired on July 31, 2011. Since then, the McCloud-Pit Project has operated under annual licenses issued by FERC.

On July 16, 2009, PG&E applied to FERC for a new license for the McCloud-Pit Project. In addition to continued operations, PG&E's proposed relicensing includes revised flows, recreational facility construction/improvements, and new management plans/measures. FERC issued a draft environmental impact statement (EIS) to support its decision regarding the McCloud-Pit Project relicensing in July 2010, and issued a final EIS in February 2011.

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[1] The State Water Board is directed to order or deny reconsideration on a petition within 90 days from the date on which the Board adopts the decision or order. (Wat. Code, § 1222.) If the State Water Board fails to act within that 90-day period, a petitioner may seek judicial review, but the Board is not divested of jurisdiction to act upon the petition simply because it failed to complete its review of the petition on time. (State Water Board Order WR 2009-00612 at p. 2, fn. 1; see *California Correctional Peace Officers Ass'n v. State Personnel Board* (1995) 10 Cal.4th 1133, 1147-1148, 1150-51; State Water Board Order WQ 98-05-UST at pp. 3-4.)

[2] McCloud-Pit Project facilities include two storage reservoirs (McCloud and Iron Canyon), two regulating reservoirs (Pit 6 and Pit 7), one afterbay (Pit 7), three powerhouses (James B. Black, Pit 6, and Pit 7), five dams (Pit 6, Pit 7, Pit 7 Afterbay, Iron Canyon, and McCloud), three recreation areas (Tarantula Gulch Boat Launch and Day Use Area, Deadlun Creek Campground, Hawkins Landing Campground and Boat Launch), two tunnels, and associated equipment and transmission facilities.

PG&E first applied to the State Water Board for a Clean Water Act section 401 water quality certification for McCloud-Pit Project relicensing (Proposed Project) on January 27, 2010. PG&E withdrew and resubmitted its water quality certification application on January 5, 2011, and thereafter annually submitted and withdrew several other water quality certification applications for the Proposed Project. PG&E filed the water quality certification application for the Proposed Project that resulted in the proceedings discussed herein on November 9, 2018.

In compliance with CEQA, the State Water Board prepared an IS/ND for the Proposed Project to inform and support its decision regarding PG&E's certification application. On October 26, 2012, Board staff issued a notice of informal consultation[3] pursuant to CEQA Guidelines section 15063(g) (Cal. Code Regs., tit. 14, §§ 15000 et seq.). Several parties responded to the consultation notice, including the Tribe and NCRA, who responded by letter dated November 29, 2012. On May 2, 2012, the State Water Board released a draft IS/ND for public review and comment. Following the close of the public comment period, five comment letters were received, including comment letters from PG&E and the Tribe and NCRA. On November 8, 2019, the State Water Board, acting through its Executive Director issued a final IS/ND for the Proposed Project and the 2019 certification.

2.2 Petitions for Reconsideration and Interim Order

On December 6, 2019, PG&E (separately) and the Tribe and NCRA (jointly) filed petitions for reconsideration (Petitions) with the State Water Board. Each Petition requests Project certification changes, and the Tribe and NCRA's Petition additionally challenges the CEQA analysis and process conducted for the Project 2019 certification.

On December 30, 2020, in response to the Petitions, the State Water Board's Executive Director issued an order (Order WQ 2020-0041-EXEC[4]) directing staff to reinitiate consultation with California Native American tribes affiliated with the geographic area of the

[3] https://www.waterboards.ca.gov/waterrights/water_issues/programs/water_quality_cert/docs/mccloud_ferc2106/mccloud_not_consult.pdf

[4] https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2020/wqo2020_0041_exec.pdf

McCloud-Pit Project to inform whether, and if so, what additional CEQA work may be necessary. The December 30, 2020, order states that the Petitions would remain pending at the State Water Board, with final action to be taken after the completion of consultation with interested tribes and any necessary supplemental CEQA review. The order further provides that prior to final action on the Petitions, the petitioning parties would be provided with an opportunity to modify or supplement their Petitions and interested parties would be provided with an opportunity to respond to the Petitions.

On March 6, 2026, the State Water Board notified the Tribe, NCRA, and PG&E of their opportunity to modify or supplement their Petitions. The Tribe and NCRA submitted a supplemental petition reaffirming items previous raised in their December 6, 2019, Petition.

PG&E's Petition requests: (1) deletion or modification of several conditions, which include Condition 1(B)(1) (Minimum Instream Flows and Ramping Rates, McCloud River Below McCloud Dam), Condition 1(B)(2) (Minimum Instream Flows and Ramping Rates, Iron Canyon Creek Below Iron Canyon Dam), Condition 3 (Water Quality Monitoring and Management), Condition 10 (Whitewater Recreation), Condition 12 (Reintroduction of Anadromous Fish), and global changes regarding plan submission deadlines; (2) identifies federal authorities it claims limit the scope of the State Water Board's certification authority; (3) states that the IS/ND did not sufficiently analyze up-ramping flows and whitewater recreation flows; and (4) identifies miscellaneous minor corrections and clarifications it asserts are needed to facilitate certification implementation.

The Tribe and NCRA's original petition claims the certification: (1) violates CEQA due to lack of consultation with the Tribe, erring in the use of an IS/ND, and insufficient environmental analysis; (2) violates California's public trust doctrine; and (3) is not sufficiently protective of designated beneficial uses of the McCloud and Pit rivers, including cold freshwater habitat and cold water spawning habitat. The Tribe and NCRA's supplemental petition submitted on March 27, 2026, includes updates to the statements in the original Petition and reiterates objections to the 2019 certification. The original and supplemental petitions are collectively referred to herein as the "Tribe's Petition."

Additionally, on March 13, 2026, the State Water Board issued a *Notice of Opportunity to Respond to Petitions for Reconsideration of Water Quality Certification for McCloud-Pit Hydroelectric Project*[5] soliciting public input on the pending Petitions. Responses to the Petitions were submitted by the following parties:

- The Tribe and NCRA (Tribe response)
- California Trout, The Nature Conservancy, and the McCloud River Club (CalTrout response)
- Nikcole Whipple, Save California Salmon (SCS response)
- California Sportfishing Protection Alliance (CSPA response)
- Travis Olexiewicz (Olexiewicz response)

The Tribe response opposes PG&E's Petition and joins in the CSPA response. More specifically, it disagrees with PG&E's arguments regarding Conditions 1(B)(1) and 12 of the 2019 certification.

The CalTrout response supports the Tribe's Petition and requests that the Board require additional evaluation of turbidity impacts and actions that would reduce such impacts.

The SCS response supports the Tribe's Petition, notes the impacts reservoirs can have related to invasive species and water quality and the importance of incorporating traditional ecological knowledge and protecting tribal beneficial uses, and states that consideration of dam removal should be part of the reconsideration.

The CSPA response generally opposes PG&E's Petition and generally supports the Tribe's Petition. More specifically, the CSPA response urges the Board to reject PG&E's arguments regarding application of section 401 of the Clean Water Act and to analyze flows and other conditions to protect salmon in the McCloud River as well as flows proposed to support whitewater boating.

[5] https://waterboards.ca.gov/waterrights/water_issues/programs/water_quality_cert/docs/2026/mc-cloud-petitions-notice.pdf.

The Olexiewicz response urges the State Water Board to reconsider the certification based on concerns about "unresolved risks" including the historical impacts of mill and railroad operations in the watershed, lack of access to or availability of groundwater monitoring data, and groundwater-surface water connectivity.

2.3 Assembly Bill 52 Consultation and Subsequent Environmental Impact Report

In compliance with the Executive Director's December 30, 2020, order, Board staff sent letters offering consultation pursuant to Assembly Bill 52 (AB 52) (Stats. 2014, ch. 52) to the Winnemem Wintu and Pit River Tribes on January 6, 2021. The Pit River Tribe did not respond while the Tribe requested consultation. The Tribe and State Water Board staff conducted approximately 30 consultation meetings over the period of March 2021 through March 2026. As part of the consultation, Board staff determined that preparation of a subsequent environmental impact report (SEIR) would be appropriate to analyze impacts to tribal cultural resources that were not known and could not have been known with the exercise of reasonable diligence during the original CEQA process. Board staff issued a Notice of Preparation and Scoping Meetings[6] for the SEIR on March 10, 2022. Board staff issued a draft SEIR[7] for the Proposed Project on April 7, 2026. The deadline for comments on the draft SEIR is May 22, 2026.

2.4 Salmonid Reintroduction

Discussions and preliminary planning regarding reintroduction of salmonids above Shasta Dam have been occurring for many years. When the IS/ND was prepared and the 2019 certification issued, no salmon were present in the McCloud River and no firm plans for reintroduction were publicly available. In 2022, however, reintroduction efforts were initiated by the National Marine Fisheries Service (NMFS), United States Fish and Wildlife Service, California Department of Fish and Wildlife (CDFW), and the Tribe, resulting in the successful incubation and hatching of eggs and rearing of juvenile winter-run Chinook salmon in the

[6] https://waterboards.ca.gov/waterrights/water_issues/programs/water_quality_cert/docs/2022/mccloud-pit-nop.pdf

[7] https://waterboards.ca.gov/waterrights/water_issues/programs/water_quality_cert/docs/2026/mccloud-dseir.pdf

McCloud River. In 2023, NMFS designated a nonessential experimental population of winter-run Chinook salmon in McCloud River under section 10(j) of the federal Endangered Species Act (ESA).[8] As part of reintroduction efforts, juvenile salmon are captured in the McCloud River and released in the Sacramento River downstream of Keswick Dam, though it appears some juveniles have escaped capture and were able to reach adulthood and spawn in the Lower McCloud River as documented by CDFW in summer 2025. This egg incubation and juvenile rearing of winter-run Chinook salmon effort has annually continued since 2022 and is ongoing; though funding sources supporting the effort may shift and the extent to which existing efforts may be modified or augmented in the future are not entirely clear.

3.0 LEGAL BACKGROUND

3.1 Federal Power Act (16 USC §§ 791 et seq.)

The Federal Power Act (FPA) establishes the federal government as the paramount regulator of most hydroelectric production in the United States and establishes procedures and requirements for the issuance of termed licenses for hydroelectric projects. FERC has approval and oversight authority for these licenses, but the FPA provides for other agencies to set license conditions or provide input regarding licensing determinations. Section 4(e) of the FPA requires that licenses for projects within federal reservations (such as National Forests) include conditions determined to be necessary by the federal agency that manages the reservation. Section 10(j) of the FPA establishes a process for consideration of hydroelectric license conditions based on recommendations from federal or state fish and wildlife agencies regarding the protection or enhancement of fish and wildlife resources. Section 18 of the FPA provides that licensees must construct, operate, and maintain fishways prescribed by the secretaries of the Department of Commerce and the Department of the Interior.

[8] Under the ESA, a nonessential experimental population is a population of a species authorized for release outside of the current range of the species and determined not to be essential to the continued existence of the species." (16 USC § 1539, subd. (j)(2).)

3.2 Clean Water Act Section 401 (33 U.S.C. § 1341)

The Clean Water Act recognizes and maintains states as the primary authority over water quality within their boundaries. (33 U.S.C. § 1251 (b).) Section 401 of the Clean Water Act creates an exception to the FPA's preemption of state authority to regulate privately owned single-purpose hydroelectric projects. It requires every applicant for a federal license or permit that may result in a discharge to waters of the United States to obtain certification from the appropriate state agency that the project will comply with Clean Water Act requirements including water quality standards adopted by the state in accordance with the Clean Water Act. The state may issue a certification subject to conditions that the state determines to be necessary to comply with those Clean Water Act requirements or any other appropriate requirement of State law. If the state denies certification the federal licensing or permitting agency cannot issue the license or permit. If the state issues certification with conditions those become conditions of the federal license or permit.

The State Water Board is responsible for issuing certifications in California. Certifying state agencies have one year to take action on complete certification applications: failure to take action within one year can result in FERC determining that the state agency waived its certification authority with respect to the respective FERC proceeding.

3.3 CEQA

CEQA requires that a public agency analyze and identify mitigation measures to reduce or avoid significant environmental impacts that would result from an activity that requires a discretionary approval by the public agency. The State Water Board's issuance of a certification is a discretionary action that requires analysis under CEQA. CEQA serves an important informational purpose that helps decisionmakers and members of the public understand the environmental consequences of projects, even when those consequences cannot feasibly be avoided. CEQA analysis is focused on the effects of changes to the environment: CEQA defines "project" to mean an activity that may cause a direct or reasonably foreseeable indirect physical change in the environment, and defines "significant effect on the environment" to mean a substantial or potentially substantial adverse change in the environment. In this respect the CEQA analysis is narrower than the State Water Board's

water quality certification, which may address ongoing impacts of project operations, not just adverse changes from existing conditions.

In addition to identifying measures to mitigate a project's significant effects, environmental impact reports (EIRs) must consider a reasonable range of alternatives to the project under review, including a "no project" alternative. When the project involves a revision of an ongoing operation, CEQA Guidelines provide that the "no project" alternative is the continuation of the existing operation.

The FPA does not preempt CEQA analysis of hydroelectric projects or the use of CEQA analysis to inform the State Water Board's action on certification applications. The FPA's preemptive effect does, however, limit what the State Water Board can require of applicants through the CEQA process. Under its water quality certification authority the Board can only deny or condition certification based on water quality-related concerns. Hence, the State Water Board can require an applicant to implement mitigation measures identified in the CEQA review process only where those mitigation measures are water quality-related.

3.4 Reconsideration

An interested person may petition the State Water Board for reconsideration of the Executive Director's action or failure to act in connection with a certification request. (Cal. Code Regs., tit. 23, § 3867.) Following a petition, the State Water Board may:

(1) refuse to reconsider the action or failure to act if the petition fails to raise substantial issues that are appropriate for reconsideration;
(2) deny the petition upon a finding that the original action or failure to act was appropriate and proper;
(3) set aside or modify, if possible, the previous action or take new appropriate action; or
(4) direct the executive director to take appropriate action.

(Cal. Code Regs., tit. 23, § 3869, subd. (a).)

4.0 DISCUSSION

4.1 Certification Condition 1(B)(1) – Minimum Instream Flows and Ramping Rates

4.1.1 Issues raised by the Petitions and State Water Board response.

Condition 1(B)(1) sets requirements for minimum instream flows (MIFs) and ramping rates for flows in the McCloud River below McCloud Dam based on water year types (defined in Condition 1(A)). Condition 1(B)(1) requires PG&E to implement MIFs no later than 30 days following completion of facility modifications required by Condition 2 and install a new gage at McCloud Dam.

The Tribe's Petition states that MIFs required by the certification are insufficient for salmon habitat and therefore are not high enough to protect tribal water rights or protect the cold freshwater habitat and cold spawning habitat beneficial uses.

PG&E's comments and requests regarding Condition 1(B)(1) include the following:

1. PG&E states that the MIF table in the certification does not account for monthly Bulletin 120 updates that inform water year type between months, which could result in inconsistencies between the United States Forest Service (Forest Service) 4(e) requirements[9] and the certification's requirements.
2. PG&E states that the up-ramping flow requirement would not be feasible based on its modeling and would potentially result in conflict with Forest Service 4(e) requirements. PG&E requests that Condition 1(B)(1) be updated to remove this requirement.
3. PG&E states that the requirement to implement MIFs within 30 days of completing facility modifications could be interpreted to require PG&E to meet MIFs by releasing water through the McCloud Dam spillway, which could violate safety requirements. PG&E requests that Condition 1(B)(1) be modified to require a good faith effort to meet MIFs.

[9] The Forest Service issued the final 4(e) requirements for the McCloud-Pit Project on November 29, 2010.

4. PG&E states that the purpose of the installation of the new gage is to replace the existing MC-7 gage. PG&E requests that Condition 1(B)(1) be updated to reflect this.
5. PG&E requests that ramping rate requirements for controllable operational spills be changed since the current wording could require activities that would not be feasible. Additionally, PG&E requests changes that provide details of how ramping will be performed during low-level outlet testing. Alternatively, PG&E suggests removing the ramping rate requirements for controllable operational spills altogether.

This order agrees with PG&E's first, fourth, and fifth comments regarding Condition 1(B)(1) and changes the certification to ensure the MIF requirements are consistent with the Forest Service 4(e) requirements, note that the new gage will replace gage MC-7 for MIF compliance once it has been constructed and appropriately rated for such purpose, and to include language regarding ramping rate requirements and provide additional details regarding how ramping will be performed.

Regarding PG&E's second comment, Condition 1(B)(1) requires up-ramping prior to uncontrolled spill events to the extent feasible. Over the term of the Project's anticipated 50-year FERC license, model predictions may advance to a point that spill events can be predicted. "To the extent feasible" gives PG&E the flexibility to implement this requirement when the ability to predict high inflows has been better developed, which will allow flows to more closely mimic natural flow increases. Further, while this requirement is different from the Forest Service ramping requirement, it does not create a conflict as the Forest Service 4(e)s do not prohibit PG&E from up-ramping before spills. Condition 1(B)(1) remains in place and additional explanation regarding these points is included in the supporting rationale section of the certification.

Regarding PG&E's third comment, Condition 1(B)(1) is updated to clarify that the condition does not require PG&E to meet MIFs through spillway releases or to otherwise violate safety requirements, but does require PG&E to meet the MIFs to the fullest extent possible using capabilities of the existing McCloud-Pit Project MIF facilities in advance of infrastructure changes that will allow PG&E to consistently meet the new MIFs requirements in the certification.

Condition 1(B)(1) is changed as described above and shown in the attached amended certification. Responses to comments and requests regarding requirements for salmon and salmon habitat, including those raised by the Tribe's Petition, are discussed below in Section 4.5.

4.2 Certification Condition 1(B)(2) – Minimum Instream Flows and Ramping Rates, Iron Canyon Creek Below Iron Canyon Dam

Condition 1(B)(2) establishes MIFs for Iron Canyon Creek below Iron Canyon Dam based on water year types, requires ramping rates for valve testing, and limits valve testing to March of each year.

PG&E's Petition states that limiting valve testing to March could prevent PG&E from timing valve testing with natural high flow events, and could prevent PG&E from performing annual testing (e.g., landslides could block access to the valve during March in wet years).

To ensure annual valve testing can occur even if circumstances do not permit it to be performed in March, Condition 1(B)(2) is updated to allow valve testing to occur after March 31 if approved by the Deputy Director or if mandated by dam safety agencies. Deputy Director approval is required for evaluation of whether such testing will unreasonably impact beneficial uses (e.g., impact foothill yellow-legged frog breeding).

4.3 Certification Condition 3 – Water Quality Monitoring and Management

Condition 3 requires PG&E to develop a Water Quality Monitoring and Management Plan to ensure the McCloud-Pit Project complies with basin plan water quality objectives and specifically requires water temperature, dissolved oxygen, turbidity, and bacteria monitoring. The specific requirements of Condition 3 include a requirement for bacterial monitoring in all Project reservoirs during the recreation season and monitoring of "other potential contaminants (e.g., quagga mussels, etc.)" at key recreation locations. PG&E's Petition states that the monitoring requirement of Condition 3 is too open-ended and could require monitoring not actually related to the activity covered by the plan. PG&E requests that Condition 3 be updated to require monitoring of "appropriate" parameters. PG&E also notes that "other potential contaminants" is too broad a term, and since the only example given of

"other potential contaminants" is quagga mussels the implication is that the intent of that requirement to monitor for invasive species. PG&E requests that Condition 3 be updated to require monitoring for recreation-related aquatic invasive species (e.g., quagga mussels) at key recreation locations.

Condition 3 is updated to clarify that PG&E is only required to monitor for parameters relevant to the activity in question and to replace the requirement to monitor for "other potential contaminants (e.g., quagga mussels, etc.)" with a requirement to monitor for recreation-related aquatic invasive species (e.g. quagga mussels) at key recreation locations.

4.4 Certification Condition 10 – Whitewater Recreation

Condition 10 requires PG&E to develop a Whitewater Recreation Management Plan (Whitewater Plan) to establish whitewater recreation flows, monitor whitewater boating use, and facilitate whitewater boating opportunities.

PG&E's Petition states that the State Water Board does not have the authority to require recreation flows or recreation access improvements because they are not related to water quality, and notes that the two existing access routes for whitewater boating are located outside of the FERC Project boundary and not managed by PG&E.

The water quality control plans adopted by the State Water Board or Regional Water Quality Control Boards (collectively Water Boards) designate the beneficial uses of water to be protected, water quality objectives established for the reasonable protection of those beneficial uses or the prevention of nuisance, and a program of implementation to achieve the water quality objectives. (Id., § 13241, § 13050, subds. (h), (j).) The beneficial uses together with the water quality objectives that are contained in the water quality control plans and state and federal anti-degradation requirements constitute California's water quality standards.

The *Water Quality Control Plan for the Sacramento River Basin and the San Joaquin River Basins* (Basin Plan) is the applicable water quality control plan for the McCloud River. The beneficial uses identified by the Basin Plan for the McCloud River related to recreation include contact recreation, canoeing and rafting (potential), and other noncontact recreation.

The McCloud River's natural hydrograph provided for boating opportunities that were reduced by operation of the McCloud-Pit Project and the resultant smoothing of flows below McCloud Dam. While PG&E proposed a boating recreation flow of 300 cfs over 11 days in its license application for the Proposed Project, a flow of 300 cfs only provides for boating-based access to the river for fishing or camping, not whitewater boating. (Nevares, Whittaker, and Shelby 2009.)[10] Condition 10 supports the State Water Board's certification that the Project will be operated in a manner that is protective of designated beneficial uses of the McCloud River and therefore is protective of water quality standards as required by Clean Water Act section 401.

In addition, Condition 10 does not require PG&E to take action on property to which it has no right of access. It requires PG&E to develop and implement a Whitewater Plan that includes, among other components, identification of measures PG&E will take to facilitate whitewater boating opportunities. Improving access to put-ins and take-outs is one example of measures that can facilitate whitewater boating opportunities but is not a mandatory component of the Whitewater Plan. As PG&E works with the consulting parties to develop the Whitewater Plan it will be able to propose appropriate approaches for facilitating whitewater boating opportunities.

The State Water Board's certification authority includes the authority to set conditions requiring actions outside the FERC project boundaries. A contrary conclusion would preclude requirements for offsite mitigation, a limitation that would require denial of certification for a project that fails to meet water quality requirements without mitigation even if those water quality requirements would be satisfied by implementing offsite mitigation. PG&E contends that FERC cannot enforce conditions of certification that apply outside project boundaries, that conditions of certification are enforceable only by the federal licensing or permitting agency, and that therefore issuance of certification conditions FERC cannot enforce is unauthorized. It is unnecessary for purposes of this order to determine whether FERC would be precluded from setting conditions, independent of water quality certification requirements,

[10] Nevares, Steve (PG&E), Doug Whittaker and Bo Shelby (Stillwater Sciences). 2009. Lower McCloud River Report on Recreation Flow Assessment (RL-S3). Technical Memorandum 24.

that apply outside of project boundaries. Nor is it necessary to address whether FERC would be precluded from enforcing conditions of certification that apply outside project boundaries—even though the conditions of certification are conditions of the FERC license. (See *Eugene Water & Elec. Bd.* (2019) 169 FERC ¶ 61124 at pp. 3-4 (recognizing that FERC is required to include the state's conditions of certification as conditions of the FERC license, but nevertheless contending the conditions are unenforceable).) PG&E's premise that conditions of certification can only be enforced by the federal permitting and licensing agency is erroneous. Conditions of certification can be enforced through a Clean Water Act citizen suit. (See 33 U.S.C. §(a)(1)&(f); *Oregon Natural Desert Association v. Dombeck* (9th Cir. 1998) 172 F.3d 1092, cert. denied (1999) 528 U.S. 964.) A citizen suits may be brought by the State Wate Board. (See *U.S. Dept. of Energy v. Ohio* (1992) 503 U.S. 607, 613 fn. 5 & 616.) More importantly, and consistent with the cooperative federalism embodied in the Clean Water Act, states enforce Clean Water Act requirements through their own state law enforcement statutes, not through enforcement by federal agencies or through a delegation from those federal agencies. (See 40 C.F.R. § 123.23; Wat. Code, § 13370 et seq.)

The requirements of Condition 10 are appropriate. However, as discussed below in Section 4.6.1, the draft SEIR includes analysis of potential whitewater recreation flows impacts and includes a mitigation measure (Mitigation Measure BIO-1) that will ensure implementation of the analyzed flow regime will not result in significant impacts to aquatic resources. Condition 10 is updated to include the requirements of Mitigation Measure BIO-1.

4.5 Certification Condition 12 – Reintroduction of Anadromous Fish

Condition 12 provides that the State Water Board may change or add conditions or require PG&E to conduct studies when it appears that a reintroduction plan for anadromous fish species in the McCloud-Pit Project area will be implemented within the next 18 months.

PG&E's Petition states that salmon are not present in the McCloud River, salmon cannot reach the McCloud River due to Shasta Dam, and that there are no reintroduction plans that warrant inclusion of Condition 12. PG&E requests that Condition 12 be removed from the certification.

As noted above, the Tribe's Petition states that the MIFs required by the certification are insufficient for salmon habitat and therefore are not high enough to protect tribal water rights or protect the cold freshwater habitat and cold spawning habitat beneficial uses. In addition, the Tribe response to PG&E's Petition states that Condition 12 is appropriate, and notes that PG&E's statements regarding the absence of salmon in the McCloud River are no longer correct. Several other responses to the Petitions, including the CSPA response, the SCS response, and the CalTrout response also note the importance of salmon to the McCloud River watershed.

As described above in Section 2.4, at the time the 2019 certification was issued salmon reintroduction in the McCloud River was not reasonably foreseeable. While numerous discussions among various parties and several preliminary studies and planning efforts had been conducted, in 2019 there was considerable uncertainty regarding when and how salmonid reintroduction would occur—for example, there was no available information regarding the egg incubation and rearing action that ultimately began in the summer of 2022. With the continuation of planning efforts, and the significant interest of various groups in supporting reintroduction there is a strong potential for salmon reintroduction within the anticipated 50-year FERC license for the McCloud-Pit Project. And the general decline of salmon populations in California underscores the need. Condition 12 is necessary and appropriate.

In addition, winter-run Chinook salmon have now been returned to the McCloud River (as a nonessential experimental population under the federal ESA) and the success of egg incubation and rearing actions has been documented, as has the presence of adult salmon in the McCloud River.

Condition 12 is updated to provide for adaptive management to address the Proposed Project impacts to salmon eggs and juveniles in the McCloud River associated with more recent reintroduction activities. Condition 12 requires PG&E to work with the Board and fisheries agencies to evaluate existing information related to McCloud River salmon reintroduction and determine if additional studies or actions (e.g., gravel augmentation, etc.) are needed in the near-term to support the existing nonessential experimental population and related

reintroduction effort, while providing for updates to flows or other actions if reintroduction efforts progress during the term of the new FERC license. These changes accord with section 401 of the Clean Water Act, which anticipates that certifications will not only set limits on operations but will also establish monitoring requirements in accordance with section 401. (33 U.S.C. § 1341 (d).)

In light of the experimental status and existing uncertainty related to the form and timing of future reintroduction efforts, staff do not recommend updating the certification with the higher flows recommended by NMFS at this time. However, Condition 12 is updated to provide for revisions to flows during the term of the new FERC license if appropriate. The SEIR provides analysis of the salmon flows identified by NMFS that can be relied upon or updated, as necessary, to support future changes of flow requirements if appropriate.

4.6 CEQA Analysis

4.6.1 Up-ramping and whitewater boating flows have been analyzed in the CEQA documents.

PG&E states that the State Water Board should have analyzed the following certification conditions in the IS/ND:

(1) up-ramping flows prior to uncontrolled spill events; and
(2) whitewater recreation flows.

Ramping rates, including ramping for uncontrolled spill events, were analyzed in Section 3.2.4 (Biological Resources) of the IS/ND. The draft SEIR includes an analysis of recreation flows in Section 4.4 (Biological Resources) and Section 5.4 (Alternative 1 – Whitewater Boater Flows), and identifies Mitigation Measure BIO-1 as an appropriate measure to ensure that recreation flows do not cause significant impacts to aquatic resources. Responses to PG&E's other comments regarding up-ramping requirements are provided above in Sections 4.1 and 4.2.

4.6.2 The Board complied with the section 15063 consultation requirements that applied to its original CEQA process and offered AB 52 consultation in response to the Tribe's Petition.

The Tribe's Petition states that the IS/ND violated CEQA because the State Water Board did not conduct AB 52 consultation in connection with preparation of the IS/ND.

The Board provided informal consultation consistent with the consultation requirement in effect in 2012. (Cal. Code Regs., tit. 14, § 15063.) AB 52 did not take effect until 2015, after the section 15063 consultation process had been completed. As stated in Order WQ 2020-0041-EXEC, the consultation offered to tribes and other interested parties by the State Water Board during the prior CEQA process was appropriate.

In light of the State Water Board's commitment to improving communication and relationships with California's Native American tribes and recognition of the value consultation can provide regarding unique tribal interests, Order WQ 2020-0041-EXEC directed staff to reinitiate consultation with the tribes affiliated with the Proposed Project area. There have been numerous AB 52 consultation meetings between the Board and the Tribe, and the Board appreciates the Tribe's knowledge-sharing and effort throughout this process. As noted below, the consultation process resulted in the development of new information that was not known and could not have been known prior to the issuance of the IS/ND and is now included in the draft SEIR. The AB 52 consultation between the Tribe and the State Water Board has not yet been formally concluded under Public Resources Code section 21080.3.2(b), but the State Water Board anticipates that consultation will be formally concluded prior to or around the time the final SEIR is certified.

4.6.3 The original preparation of the IS/ND and later development of the SEIR were appropriate.

The Tribe's Petition asserts that preparing an IS/ND instead of an EIR for the Proposed Project violated CEQA, and that an EIR was required.

The IS/ND was based on the information that could be developed with the exercise of reasonable diligence within the time period provided for the State Water Board to respond to

PG&E's McCloud-Pit Project certification application.[11] An impasse between Tribe and PG&E regarding confidentiality concerns for tribal cultural resources that are within the Tribe's unique knowledge had prevented the development of information that would have allowed for a robust analysis of the Tribe's tribal cultural resources. It was not until approximately one year of consultation meetings (which was outside the time provided for the State Water Board to respond to the November 9, 2018, certification application without risking waiver of its authority) that the Tribe and State Water Board identified a viable path to compiling and documenting information that could inform such an analysis. New information developed as part of the Tribe's consultation with the State Water Board informed the determination to prepare an SEIR under section 15162(a)(3) of the CEQA Guidelines. The SEIR enhances understanding of the Proposed Project's impacts by addressing new information that became available during the course of the consultation and preparation of the draft SEIR, including the *Winnemem Wintu Tribe Traditional Cultural Landscape Tribal Cultural Resource Memorandum and Analysis In Support of California Register of Historical Resources Evaluation McCloud-Pit River Hydroelectric Project Relicensing* (FERC Project No. 2106) (WWT, Davis-King and West 2025) (WWT TCL Memo), information regarding salmon reintroduction efforts that began in 2022, and information regarding turbidity developed by The Nature Conservancy in 2022 and 2023.

The administrative petition for reconsideration process has thus resulted in development of the SEIR that discusses matters of interest to the Tribe, including a determination by the State Water Board that the WWT Traditional Cultural Landscape is itself a tribal cultural

[11] In January 2019, the United States Court of Appeals for the District of Columbia Circuit issued its opinion in *Hoopa Valley Tribe v. FERC* (2019) 913 F.3d 1099, which affirmed that "Section 401 requires state action within a reasonable period of time, not to exceed one year," and cast doubt on the ability of states to avoid waiving their certification authority by allowing applicants to resubmit their applications when certification is not issued within one year of an application. Later precedents adopt a narrow reading of *Hoopa Valley Tribe v. FERC* and find no basis for waiver where, as here, the state merely acquiesces in applicant's decisions to withdraw and resubmit its request for certification. (*California State Water Resources Control Board v. Federal Energy Regulatory Commission* (9th Cir. 2022) 43 F.4th 920.)

resource as defined by Public Resources Code section 21074, and also provided an opportunity to include the components identified by PG&E as noted in Section 4.6.1 above.

4.6.4 The environmental review meets CEQA's requirement to provide information regarding the effects of a project.

The Tribe's Petition contends that the IS/ND violated principles expressed in the case of *Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645 (*Lotus*) because it treated certain environmentally protective elements of the Proposed Project as project components instead of mitigation measures. The key problem identified in *Lotus* was that incorrect framing of project components and mitigation measures prevents the public from understanding the impacts the project would have in the absence of mitigation measures. (223 Cal.App.4th at p. 658.) The *Lotus* decision recognized that the distinction between project components and mitigation measures is not always clear, and that it may be "nonsensical" to analyze a project as if it involved different components than what was proposed. (223 Cal.App.4th at p. 656, fn.8.)

It would be nonsensical to analyze a version of the Proposed Project that PG&E has not proposed and that could not be implemented in light of the requirements imposed by various federal agencies through the FERC process under the FPA. Moreover, even if the environmental components were deemed mitigation measures, the IS/ND did not deny the public of the information necessary to understand the effects of continuing operation of the McCloud Pit Project without the additional components included with the Proposed Project: it incorporated the FERC EIS by reference, and the EIS included analysis of a "No-Action Alternative" that consisted of continued operation of the McCloud-Pit Project without implementation of the new environmental protection, mitigation, or enhancement measures.

In addition, EIRs include analysis of alternatives to a proposed project, including a "no project" alternative. Because in this case the Proposed Project involves revision of ongoing project operations, the "no project" alternative analyzed in the SEIR is the continued operation of the McCloud-Pit Project without the new components proposed by PG&E or required through the FERC process. (Cal. Code Regs., tit. 14, § 15126.6, subd. (e)(3)(A).) Even if the new components were deemed mitigation measures, the SEIR provides the

information needed to compare the projected impacts of project operations without those new components and the projected impacts of project operations with those new components. The informational gap criticized in *Lotus* is not present in the CEQA analysis for the Proposed Project.

4.7 Tribal Water Rights

Relying on the decision *Baley v. United States* (2019) 942 F.3d 1312, the Tribe's Petition contends that the conditions of certification must provide the flows necessary to restore salmonids and other native fishes that are vital to the Tribe.

The tribal water rights at issue in *Baley* were federal reserved rights, which are a specific category of water rights that arise when the federal government withdraws land from the public domain and reserves it for a federal purpose. (E.g., 942 F.3d 1312, 1328 ("[T]urning to the issue of tribal water rights, the Court of Federal Claims determined those rights to be federal reserved rights."), 1340 ("[T]here is no need for a state adjudication to occur before federal reserved rights are recognized.").) It is the policy and practice of the State Water Board that federally reserved rights be respected in full.

The Tribe has not asked the State Water Board to determine whether the Tribe holds federal reserved water rights or identified a federal reservation or statute providing a basis for federal reserved rights, but the State Water Board's water quality authority is not limited to protection of water rights. (*United States v. State Water Resources Control Bd.* (1986) 182 Cal.App.3d 82, 116 [In its *water quality* role of setting the level of water quality protection, the Board's task is not to protect water rights, but to protect "beneficial uses."] (italics original).) The State Water Board may set conditions of water quality certification to protect tribal beneficial uses. The State Water Board may also consider tribal beneficial uses in determining what constitutes a reasonable level of protection for other beneficial uses, including cold freshwater habitat and cold water spawning habitat.

Condition 12 of the certification is updated to require PG&E to consult with the Winnemem Wintu Tribe, Pit River Tribe, and federal and state agencies to develop studies related to Chinook salmon that include consideration of Project operations, flow releases, water quality,

and aquatic habitat impacts and to develop appropriate adaptive management measures to address McCloud-Pit Project impacts based on study results. As updated, Condition 12 also includes provisions for adaptive management if any authorized federal agency requires fish passage or related actions pursuant to Section 18 of the FPA. The updates to Condition 12 provide for tribal knowledge to be incorporated into the development of plans that can be closely tailored to the needs of salmon and refined as salmon populations in the McCloud River may change in the future.

4.8 The State Water Board Has Satisfied its Duty Under the Public Trust Doctrine

The Tribe's Petition states that the State Water Board violated the public trust doctrine because the McCloud-Pit Project has harmed public trust resources and the Board did not require measures that would correct those harms.

The public trust doctrine requires the state to "take the public trust into account in the planning and allocation of water resources, and to protect public trust uses whenever feasible, but it does not prohibit the state from approving uses of trust property even if harm to public trust uses is the foreseeable result. (*National Audubon Society v. Superior Court* (1983) 33 Cal.3d 419, 446 (*National Audubon*).) The public trust doctrine's requirement to protect public trust resources "to the extent feasible" does not broadly mandate that watersheds be returned to natural conditions: the public trust doctrine requires balancing of competing uses. (*National Audubon*, 33 Cal.3d at p. 446 ["it would be disingenuous to hold that [longstanding appropriations of water] are and have always been improper to the extent that they harm public trust use"]; *Center for Biological Diversity v. FPL Group, Inc.* (2008) 166 Cal.App.4th 1349, 1369 ["A delicate balancing of the conflicting demands for energy and for the protection of other environmental values must be made. '[T]he public trust permits—indeed requires—the balancing of competing uses.'] (citation omitted).)

The State Water Board recognizes that the public trust in water resources is an appropriate requirement of state law applicable to water quality certification, and has not taken the position that hydropower is a competing public trust use. (See generally *San Francisco Baykeeper, Inc. v. State Lands Commission* (2015) 242 Cal.App.4th 202, 232-238. [rejecting argument that sand mining is a public trust use and that therefore there was no need

consider whether sand mining violated the public trust].) Instead, the State Water Board has carefully considered and balanced competing uses of the McCloud River watershed, recognizing that fish and wildlife habitat are public trust uses to be protected to the extent feasible considering the public benefits of the Proposed Project. The State Water Board has determined that, as conditioned through the certification, the Proposed Project will not impermissibly harm public trust resources. The State Water Board's consideration of public trust resources and determinations regarding the Proposed Project satisfied its obligations under the public trust doctrine.

The McCloud-Pit Project involves a primarily non-consumptive use of water to generate renewable energy relied upon by thousands of Californians under the regulation of the California Public Utilities Commission, as well as providing recreational activities on and along the McCloud River and McCloud Reservoir.[12] The ongoing operation of the McCloud-Pit Project has not prevented the success of nonessential experimental population reintroduction efforts, and the conditions of the Lower McCloud River remain suitable for winter-run Chinook salmon to reach adulthood and spawn. (CDFW 2025.)

The certification imposes new requirements on the Proposed Project to ensure the protection of public trust resources. It requires the preparation and implementation of numerous environmental management plans, including a Water Quality Monitoring and Management Plan, Large Woody Material Management Plan, Gravel Augmentation Plan, Biological Resources Monitoring Plan, and Recreation Facilities Management Plan. The conditions provide the State Water Board with a continued oversight role regarding the development and approval of the details of how public trust resources will be protected and enhanced. In addition, the draft SEIR addresses new information that has become available and new developments that have occurred since the IS/ND and certification were issued in 2019, such as the preparation of the WWT TCL Memo, initiation of reintroduction efforts in 2022, and the development of new information regarding existing project operations on turbidity in the lower McCloud River developed by The Nature Conservancy in 2022 and 2023. The SEIR uses 2024 as the baseline year to best reflect the potential impacts of the Proposed Project on

[12] There will be approximately 6,300 gallons (0.02 acre-feet) of consumptive use after new wells are installed at McCloud-Pit Project recreation sites.

existing environmental conditions and includes mitigation measures that will inform whether, and if so what, additional actions are necessary to ensure the Proposed Project's contribution to turbidity impacts. Those mitigation measures are reflected in Condition 3(B) as shown in Attachment 1.

The SEIR analyzes impacts of the Proposed Project on aquatic resources including salmon and includes an analysis of higher flows for support of salmon. This analysis did not result in development of a certification condition that immediately requires implementation of salmon flows because there is continuing uncertainty regarding the manner in which reintroduction will continue and the specific needs of reintroduced salmon populations, as well as how actions to benefit salmon should be weighed against the purposes fulfilled by the McCloud-Pit Project. As noted above in Section 4.5, however, Condition 12 is updated to address potential Proposed Project impacts to existing salmon eggs and juveniles in the McCloud River associated with reintroduction efforts, and to require PG&E to work with the Board and fisheries agencies to evaluate existing information regarding impacts to salmon and determine if additional studies or actions are needed in the near-term, while providing for updates to flows or other actions if necessary over the term of the new McCloud-Pit Project FERC license.

4.9 United States Environmental Protection Agency Guidance and Standards for Water Quality Certifications

PG&E's Petition notes that in June 2019 the United States Environmental Protection Agency (USEPA) issued guidance regarding section 401 certifications that explains the certification process should focus on water quality impacts and requirements, and that USEPA initiated a rulemaking process in August 2019 to clarify the scope of a certification.

The rule proposed in August 2019 did not take effect until September 2020, after the McCloud-Pit Project certification had been issued, and was superseded by the adoption of a new rule in 2023. (85 Fed.Reg. 42210 and 88 Fed.Reg. 66558, respectively.) Moreover, the conditions of the certification all relate to the Proposed Project's potential water quality impacts, as informed by the need to protect beneficial uses of the watersheds that would be impacted by the Proposed Project. The certification conditions are necessary for the State

Water Board to certify that the Proposed Project will be operated in a manner that is protective of water quality as required by Clean Water Act section 401. No changes to the certification are required in response to PG&E's comment.

4.10 Conditions Requiring Future Approval of Plans by the Deputy Director of the Division of Water Rights

PG&E's Petition notes that if it must wait for Deputy Director approval of plans required by conditions 1(B)(1), 2, 3(A), 3(B), 4, 5, 6, 7, 9, 10, 11, 12, and 14 before submitting those plans to FERC, it may not be able to meet FERC's deadlines for submission of the plans. PG&E requests that the certification include a provision that if the Deputy Director does not approve the plan within 14 days of a FERC deadline, PG&E may file the plan with FERC, but could not implement the plan without Deputy Director approval.

The requested change does not appear to be necessary, as PG&E's past practices have included filing management plans required by certifications with FERC prior to approval by the Deputy Director. However, for clarity in implementation of the certification, Condition 16 is updated to address PG&E's request.

4.11 Miscellaneous Corrections and Clarifications

PG&E's Petition proposes edits to correct errors related to the McCloud-Pit Project description in the certification and to align condition timelines with timelines specified in Forest Service 4(e) requirements. PG&E's proposal to correct errors is appropriate. The Project description is updated as shown in the attached amended certification (Attachment 1).

In addition, for internal consistency, the certification is updated where appropriate (e.g., updates to rationale Sections 5.1, 5.3, and 5.12) to reflect the substantive changes made to the certification by this order.

Lastly, Condition 37 was developed subsequent to issuance of the 2019 certification. It is included in the amended certification to ensure PG&E complies with the Dredge or Fill Procedures and the Project's operation and maintenance activities result in no net loss of

wetland quantity, quality, or permanence, consistent with the Water Code sections 16200-16201.

4.12 Further CEQA Process

Staff anticipate that the final version of this order presented to the Board for potential adoption will include a summary of comments submitted regarding the draft SEIR, the Board's responses to those comments, and any revisions to the draft SEIR made in response to the comments. The Board will consider certification of the final SEIR as part of its consideration of adoption of the final version of this order.

5.0 CONCLUSION

For the reasons discussed above the Petitions are each granted in part and denied in part. The certification is amended as described in this order and shown in Attachment 1.

6.0 ORDER

IT IS HEREBY ORDERED that the certification for FERC Project No. 2106 is amended as attached to this order.

CERTIFICATION

The undersigned Clerk to the Board does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on June 17, 2026.

_____

Courtney Tyler

Clerk to the Board

Attachment 1: Draft Water Quality Certification for Federal Permit or License (Part of Draft Order Responding to Petitions for Reconsideration) for the McCloud-Pit Hydroelectric Project

Attachment 1

Draft Water Quality Certification for Federal Permit or License (Part of Draft Order Responding to Petitions for Reconsideration) for the McCloud-Pit Hydroelectric Project

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STATE OF CALIFORNIA

STATE WATER RESOURCES CONTROL BOARD

In the Matter of Water Quality Certification for

PACIFIC GAS AND ELECTRIC COMPANY

MCCLOUD-PIT HYDROELECTRIC PROJECT

FEDERAL ENERGY REGULATORY COMMISSION PROJECT NO. 2106

Sources: McCloud River, Iron Canyon Creek, and Pit River

Counties: Shasta and Siskiyou

DRAFT WATER QUALITY CERTIFICATION FOR FEDERAL PERMIT OR LICENSE (PART OF DRAFT ORDER RESPONDING TO PETITIONS FOR CONSIDERATION)

For ease of reference, proposed changes to the water quality certification issued in November 2019 are shown in underline for new text and ~~strikethrough~~ for text to be removed.

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1.0 Project Description

The McCloud-Pit Hydroelectric Project (Project), Federal Energy Regulatory Commission (FERC) Project No. 2106, is located on the McCloud River, Pit River, and Iron Canyon Creek in Shasta and Siskiyou Counties, California, and is owned and operated by the Pacific Gas and Electric Company (PG&E). The Project consists of three existing developments: James B. Black; Pit 6; and Pit 7 (Figure 1). Project facilities consist of two storage reservoirs (McCloud and Iron Canyon Reservoirs), two regulating reservoirs (Pit 6 and Pit 7 Reservoirs), one afterbay (Pit 7 Afterbay), two tunnels, three powerhouses (James B. Black, Pit 6, and Pit 7 Powerhouses), and associated equipment and transmission facilities. The Project has a generation capacity of 368 megawatts (MW). The Project area totals 3,707.6 acres of land, of which: 1,651.4 acres (45 percent) are federally owned and managed by the United States Department of Agriculture − Forest Service (Forest Service); 1,239.4 acres (33 percent) are owned by PG&E; and the remaining 816.8 acres are private lands.

The original FERC license for the Project was issued on August 18, 1961 and expired on July 31, 2011. Since that time, the Project has been operating under annual licenses issued by FERC.

Shasta Dam is a United States Department of Interior – Bureau of Reclamation (USBR) dam that impounds waters of the Pit, Sacramento, and McCloud River basins to form Shasta Lake. The McCloud River originates at Moosehead Creek, southeast of Mt. Shasta, and flows southward, entering Shasta Lake from the north. The Pit River flows south from the town of Big Bend, and enters Shasta Lake on the east side. The Sacramento River enters Shasta Lake from its westernmost arm.

The Project transfers water from the McCloud River basin to the lower Pit River basin. Water generally moves though the Project to Shasta Lake as follows:

(i) Water moves from the McCloud Reservoir on the McCloud River to Iron Canyon Reservoir on Iron Canyon Creek via the McCloud Tunnel. Iron Canyon Creek is a tributary to the Pit River.

(ii) Water from Iron Canyon Reservoir moves via the Iron Canyon Tunnel to the James B. Black Powerhouse, located on the Pit River just downstream of PG&E's Pit 3, 4, 5 Hydroelectric Project (FERC Project No. 233), where it moves through the Pit 6 and Pit 7 Developments and enters Shasta Lake.

Below is a summary of the existing and proposed Project developments and associated facilities, as well as a summary of PG&E's early proposal to add two new developments (McCloud and Pit 7 Afterbay) to the Project.

1.1 James B. Black Development

The James B. Black Development diverts water from the McCloud River at McCloud Reservoir via the McCloud Tunnel and releases it into Iron Canyon Reservoir. Water is then transferred from Iron Canyon Reservoir, via the Iron Canyon Tunnel and penstock, to the James B. Black Powerhouse on the Pit River, approximately 0.5 miles upstream

of the Pit 5 Powerhouse (FERC Project No. 233). Power generated at the James B. Black Powerhouse is delivered from the switchyard to the grid via PG&E transmission lines. The main facilities associated with the James B. Black Development are:

1.1.1 McCloud Dam and Reservoir: McCloud Dam is a 241-foot (ft)-high, 630-ft-long earth- and rock-filled dam that impounds McCloud Reservoir on the McCloud River. McCloud Reservoir has a surface area of 520 acres and a maximum storage capacity of approximately 31,197 acre-feet (ac-ft). The spillway is located on the south side of McCloud Dam, and has an elevation of 2,658 ft, with a maximum spill capacity of 50,000 cubic feet per second (cfs). McCloud Reservoir has a normal maximum water surface elevation of 2,680 ft.

McCloud Dam is equipped with three radial gates, each measuring 27 ft by 24.5 ft, that discharge water via the spillway to the McCloud River below the dam. Additionally, there ~~are three upper gates connected to a 30-inch pipe, and~~is one lower gate at the base of ~~the dam that is~~McCloud Dam connected to an 84-inch-diameter pipe that can be used if the pipe must be dewatered. A separate 20-inch ~~pipe~~-diameter valve was installed in 2011 to provide for manual priming of the pipe after dewatering is complete. The 84-inch pipe ultimately bifurcates into separate pipes, one leading to a 24-inch Howell-Bunger valve and the other to an 84-inch butterfly valve. The Howell Bunger valve releases instream flows to the McCloud River and the butterfly valve is for emergency use to control reservoir levels. All four gates are operated using hydraulically pressurized cylinders. Because there is no electric power at the site, the pressurized cylinders operate using a portable gas-powered hydraulic pump that is manually connected to the system. All four gates and the butterfly valve were designed to operate in only the fully open or fully closed position and cannot be throttled to adjust water flow. However, the Howell-Bunger valve can be throttled by fully opening or closing one or more of the four gates; it is therefore the only outlet used to make the 1961 FERC license-required instream flow releases. With all four gates fully opened, the maximum flow release from the Howell-Bunger valve is 245 cfs.

1.1.2 Recreation Facilities: The McCloud Reservoir and McCloud River recreation facilities include:

(i) Tarantula Gulch Boat Launch and Day Use Area (existing; proposed reconstruction);

(ii) Red Banks Day Use Area (proposed new construction);

(iii) Battle Creek Shoreline Access (proposed new construction);

(iv) West Dam and East Dam Shoreline Access (proposed new construction);

(v) Star City Creek Campground and Day Use Area (proposed new construction);

(vi) McCloud Dam River Access (proposed new construction); and

(vii) Base of McCloud Dam Day Use Area (proposed new construction).

1.1.3 McCloud Tunnel: The McCloud Tunnel is a 7.2-mile-long tunnel, with 563 ft of steel pipeline at Hawkins Creek Crossing, that hydraulically links McCloud Reservoir and Iron Canyon Reservoir. An intake tower in McCloud Reservoir, with an intake of approximate diameter of 17 ft collects water that routes southeasterly to Iron Canyon Reservoir. The McCloud Tunnel at Hawkins Creek Crossing has a maximum flow capacity of approximately 1,400 cfs. The differential in water surface elevations between the McCloud Reservoir and Iron Canyon Reservoir controls the amount of water drafted through the tunnel.

1.1.5 Recreation Facilities: Iron Canyon Reservoir recreation facilities include:

(i) Hawkins Landing Campground (existing; proposed reconstruction);

(ii) Hawkins Boat Launch (existing; proposed reconstruction);

(iii) Deadlun Campground (existing; proposed reconstruction);

(iv) Gap Creek Campground (proposed new construction);

(v) Iron Canyon Boat Launch and Day Use Area (proposed new construction); and

(vi) Three shoreline access parking areas and trails at Iron Canyon (proposed new construction).

1.1.6 Iron Canyon Tunnel and Penstock: Iron Canyon Reservoir is connected to the James B. Black Powerhouse by the 2.9-mile-long Iron Canyon Tunnel, an associated 1,194-ft-long pipeline at Willow Spring Creek Crossing, and a 5,467-ft-long steel penstock. The Iron Canyon Penstock bifurcates before reaching James B. Black Powerhouse to deliver water to the two turbine generator units. The Iron Canyon Tunnel and Penstock have a total flow capacity of 2,000 cfs.

1.1.7 James B. Black Powerhouse: James B. Black Powerhouse is located on the northwest bank of the Pit River, approximately 0.5 miles upstream of the non-Project Pit 5 Powerhouse (FERC Project No. 233). The James B. Black Powerhouse is a three-level, reinforced-concrete structure containing two vertical shaft impulse turbines. The combined maximum capacity of the turbines is 172 MW. The average annual generation from 1987 to 2016 for the James B. Black Powerhouse was 629.9 gigawatt-hours (GWh).

1.1.8 James B. Black Switchyard: Transmission lines (230-kilovolts [kV]) extend approximately 0.5 miles from the transformer bank in the switchyard adjacent to the James B. Black Powerhouse to the switchyard adjacent to the Pit 5 Powerhouse (FERC Project No. 233). These transmission lines are commonly referred to as the Black Tap.

1.2 Pit 6 Development

The Pit 6 Development produces power by moving water in the Pit River from the Pit 6 Reservoir through the Pit 6 Powerhouse, which is located at the base of Pit 6 Dam. The main facilities associated with the Pit 6 Development are:

1.2.1 Pit 6 Dam and Reservoir: Pit 6 Dam and Reservoir are located on the Pit River downstream of James B. Black Powerhouse. The Pit 6 Dam is a 183-ft-high, 560-ft-long concrete dam with a crest elevation of 1,432 ft. The top of Pit 6 Dam contains a trash rake, motors for two slide gates, and a control building. The control building houses a hydraulic system for two low-level outlets at the base of Pit 6 Dam. Pit 6 Reservoir has a maximum storage capacity of approximately 15,619 ac-ft and a maximum surface area of approximately 265 acres. The normal maximum water surface elevation of the reservoir is 1,425 ft. The Pit 6 Reservoir serves as the forebay for the Pit 6 Powerhouse. Two 18-ft-diameter steel penstocks, with a total flow capacity of 6,470 cfs, extend 602 ft from the dam to the turbines in the Pit 6 Powerhouse.

1.2.2 Pit 6 Powerhouse: Pit 6 Powerhouse is located along the east bank of the Pit River at the base of Pit 6 Dam. The Pit 6 Powerhouse is a four-level reinforced concrete structure, three levels of which are below ground. The Pit 6 Powerhouse contains two vertical-shaft Francis reaction turbines with a combined maximum capacity of 80 MW. The average annual generation from 1987 to 2016 for the Pit 6 Powerhouse was 341.2 GWh.

1.2.3 Pit 6 Switchyard: Transmission lines (230-kV) extend approximately 3.3 miles from the switchyard adjacent to the Pit 6 Powerhouse to PG&E's interconnected transmission system. These transmission lines are commonly referred to as the Pit 6 Tap.

1.3 Pit 7 Development

The Pit 7 Development produces power by moving water in the Pit River from the Pit 7 Reservoir through the Pit 7 Powerhouse, which is located at the base of Pit 7 Dam. The main facilities associated with the Pit 7 Development are:

1.3.1 Pit 7 Dam and Reservoir: Pit 7 Dam and Reservoir are located on the Pit River downstream of Pit 6 Powerhouse. Pit 7 Dam is a 228-ft-high, 770-ft-long concrete gravity dam. The top of the dam contains a trash rake, motors for two slide gates at the crest of the dam, and a control building. The control building houses hydraulic controls for two low-level outlets at the base of Pit 7 Dam. Pit 7 Reservoir has a maximum storage capacity of 34,142 ac-ft and a surface area of approximately 468 acres at a normal maximum water surface elevation of 1,270 ft. The Pit 7 Reservoir serves as the forebay for Pit 7 Powerhouse. Two 15-ft-diameter penstocks extend 572 ft from the Pit 7 Dam to the turbines in the Pit 7 Powerhouse. The total flow capacity of the penstocks is 7,440 cfs.

1.3.2 Recreation Facilities: Pit 7 Reservoir recreation facilities include:

(i) Two Upper Pit 7 Reservoir Trailheads (proposed new construction);

(ii) Lower Pit 7 Reservoir Shoreline Access Site (proposed new construction); and

(iii) Fenders Flat Day Use Area (existing; proposed reconstruction).

1.3.3 Pit 7 Powerhouse: Pit 7 Powerhouse is located along the east bank of the Pit River at the base of Pit 7 Dam. The Pit 7 Powerhouse consists of a four-level reinforced concrete structure, three levels of which are below ground. The Pit 7 Powerhouse contains two vertical-shaft reaction turbines with a maximum combined capacity of 112 MW. The average annual generation from 1987 to 2016 for the Pit 7 Powerhouse was 470.3 GWh.

1.3.4 Pit 7 Switchyard: Transmission lines (230 kV) extend approximately 3.5 miles from the switchyard adjacent to the Pit 7 Powerhouse to PG&E's interconnected transmission system. These transmission lines are commonly referred to as the Pit 7 Tap.

1.3.5 Pit 7 Afterbay Dam: Pit 7 Afterbay Dam is a 30-ft-high steel-reinforced rock-fill structure, including a variable-width concrete gravity weir section. Pit 7 Afterbay has a surface area of approximately 69 acres at a normal maximum water surface elevation of 1,067 ft (i.e., the maximum water surface of Shasta Lake). The purpose of the Pit 7 Afterbay is to attenuate changes in flow from the Pit 7 Powerhouse before the flow enters Shasta Lake.

Early PG&E Project Proposal. In PG&E's final license application, dated July 15, 2009 and filed with FERC on July 16, 2009, PG&E proposed two new hydropower developments:

(i) McCloud Development: The McCloud Development would consist of a new powerhouse (five to eight MW) below McCloud Dam that would use water stored in McCloud Reservoir, and an associated transmission line that would be routed from the new McCloud Powerhouse to the town of McCloud in Siskiyou County; and

(ii) Pit 7 Afterbay Development: The Pit 7 Afterbay Development would consist of a new powerhouse (10 MW) below the Pit 7 Afterbay Dam that would use water released from Pit 7 Afterbay, and an associated transmission line that would be routed from the new Pit 7 Afterbay Powerhouse to the existing Pit 7 Switchyard near Pit 7 Dam.

These new generation facilities would add about 45.4 additional acres in the Project boundary, of which about 4.6 acres would be federally owned lands managed by the Forest Service. However, PG&E did not finalize designs or capacities for these two hydropower developments. PG&E describes in its license application that the economic feasibility of the two proposed hydropower developments depends in part on conditions included in the new Project license (i.e., new minimum instream flow requirements). At this time it is State Water Board staff's understanding that PG&E has decided to wait

until it receives the new FERC license before it determines whether to pursue the two additional hydropower developments. Therefore, this water quality certification does not cover these two proposed hydropower developments.

1.4 Water Rights

PG&E holds seven water right licenses for non-consumptive use of water for power generation for the Project, which are summarized in Table A.

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Table A. Water Rights Held by PG&E for Project

Application No./ License No.	Water Right Type	Priority Date	Storage Amount (ac-ft/year)	Direct Diversion (cfs)	Source	Point(s) of Diversion & Re-diversion	Places of Use (Powerhouses)
A014743/ 009189*	Appropriative	April 7, 1952	15,000	4,500	Pit River	• Pit 6 Dam	• Pit 6
A014785/ 010215	Appropriative	April 29, 1952	--	1,870	McCloud River	• McCloud Dam • Iron Canyon Dam • Pit 6 Dam • Pit 7 Dam	• James B. Black • Pit 6 • Pit 7
A015407/ 009190**	Appropriative	July 9, 1953	15,500	4,850	Pit River	• Pit 7 Dam	• Pit 7
A015717/ 010216	Appropriative	February 5, 1954	35,300	--	McCloud River	• McCloud Dam • Iron Canyon Dam • Pit 6 Dam • Pit 7 Dam	• James B. Black • Pit 6 • Pit 7
A015719/ 010161	Appropriative	February 5, 1954	19,943	454	Iron Canyon Creek	• Iron Canyon Dam • Pit 6 Dam • Pit 7 Dam	• James B. Black • Pit 6 • Pit 7
S010392*	Riparian	1965	--	8,000	Pit River	• Pit 6 Penstock	• Pit 6
S010393**	Riparian	1965	--	8,350	Pit River	• Pit 7 Penstock	• Pit 7

* The first 4,500 cfs diverted is reported in PG&E's license report for license no. 009189. Any additional diversions at this point of diversion are reported under S010392.

** The first 4,850 cfs diverted is reported in PG&E's license report for license no. 009190. Any additional diversions at this point of diversion point are reported under S010393.

DRAFT

2.0 Federal Energy Regulatory Commission Proceedings

PG&E filed a Notice of Intent and Pre-Application Document to relicense the Project under FERC's Integrated Licensing Process on July 27, 2006. (18 C.F.R. § 16.8.) On July 16, 2009, PG&E filed its final license application for the Project, dated July 15, 2009, with FERC. FERC issued a final Environmental Impact Statement (EIS) for the Project on February 25, 2011.

3.0 Regulatory Authority

3.1 Water Quality Certification and Related Authorities

The federal Clean Water Act (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 Clean Water Act (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 Clean Water Act (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 Clean Water Act, including water quality standards and implementation plans promulgated pursuant to section 303 of the Clean Water Act (33 U.S.C. § 1313). Clean Water Act section 401 directs the agency responsible for certification to prescribe effluent limitations and other limitations necessary to ensure compliance with the Clean Water Act and with any other appropriate requirements of state law. Section 401 further provides that certification conditions shall become conditions of any federal license or permit for the project. The State Water Resources Control Board (State Water Board) is the state agency responsible for such certification in California. (Wat. Code § 13160.) The State Water Board has delegated authority to act on applications for certification to the Executive Director. (Cal. Code Regs., tit. 23, § 3838, subd. (a).)

Water Code section 13383 provides the State Water Board with the authority to "establish monitoring, inspection, entry, reporting, and recordkeeping requirements… and [require] other information as may be reasonably required" for activities subject to certification under section 401 of the Clean Water Act that involve the diversion of water for beneficial use. The State Water Board delegated this authority to the Deputy Director of the Division of Water Rights (Deputy Director), as provided for in State Water Board Resolution No. 2012-0029. In the Redelegation of Authorities Pursuant to Resolution No. 2012-0029 memo issued by the Deputy Director on October 19, 2017, this authority is redelegated to the Assistant Deputy Directors of the Division of Water Rights.

PG&E filed an application for water quality certification (certification) with the State Water Board under section 401 of the Clean Water Act on January 27, 2010. State of Regulations, title 23, section 3858, by posting information describing the Project on the

State Water Board's website on October 4, 2012. On November 6, 2018, the State Water Board issued a denial without prejudice to PG&E for the Project, and on November 9, 2018, PG&E submitted a water quality certification application with the State Water Board for the Project.

State Water Board staff received comments from the Central Valley Regional Water Quality Control Board (Central Valley Regional Water Board) on the certification on November 1, 2019, which have been considered and addressed as part of this certification. (See Cal. Code Regs., tit. 23, § 3855, subd. (b)(2)(B).)

3.2 Water Quality Control Plans and Related Authorities

The California Regional Water Quality Control Boards (Regional Water Boards) have primary responsibility for the formulation and adoption of water quality control plans for their respective regions, subject to State Water Board and United States Environmental Protection Agency (USEPA) approval, as appropriate. (Wat. Code, § 13240 et seq.) The State Water Board may also adopt water quality control plans, which will supersede regional water quality control plans for the same waters to the extent of any conflict. (Id., § 13170.) For a specified area, the water quality control plans designate the beneficial uses of water to be protected, water quality objectives established for the reasonable protection of those beneficial uses or the prevention of nuisance, and a program of implementation to achieve the water quality objectives. (Id., § 13241, § 13050, subds. (h), (j).) The beneficial uses together with the water quality objectives that are contained in the water quality control plans and state and federal anti-degradation requirements constitute California's water quality standards.

The Central Valley Regional Water Board adopted, and the State Water Board and USEPA approved, the *Water Quality Control Plan for the Sacramento River Basin and the San Joaquin River Basins* (Central Valley Basin Plan)[1]. The Central Valley Basin Plan designates the beneficial uses of water to be protected along with the water quality objectives necessary to protect those uses. The Central Valley Basin Plan identifies beneficial uses for surface waters in the McCloud River watershed as: municipal and domestic supply; power; contact recreation; canoeing and rafting (potential); other noncontact recreation; cold freshwater habitat; cold spawning habitat; and wildlife habitat. The Central Valley Basin Plan identifies beneficial uses for surface waters in the Pit River watershed, from the mouth of Hat Creek to Shasta Lake, as: municipal and domestic supply; irrigation; stock watering; power; contact recreation; canoeing and rafting; other noncontact recreation; warm freshwater habitat (potential); cold freshwater habitat; warm spawning habitat; cold spawning habitat; and wildlife habitat.

[1] Water Quality Control Plan for the California Regional Water Quality Control Board Central Valley Region for the Sacramento River Basin and the San Joaquin River Basin. Fifth Edition. Revised May 2018 (with approved amendments).

3.3 Construction General Permit

PG&E will need to obtain coverage under the *General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (Construction General Permit)[2] for activities that disturb one or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres. Construction activity subject to the Construction General Permit includes clearing, grading, and disturbances to the ground, such as stockpiling or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility.

3.4 Dredge or Fill Procedures

The *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (Dredge or Fill Procedures)[3] provide California's definition of wetland, wetland delineation procedures, and procedures for submitting applications for activities that could result in discharges of dredged or fill material to waters of the state. The Dredge or Fill Procedures ensure that State Water Board regulatory activities will result in no net loss of wetland quantity, quality, or permanence, consistent with Water Code sections 16200-16201. PG&E must comply with the Dredge or Fill Procedures when conducting dredge or fill activities that may impact waters of the state, including wetlands.

3.5 Aquatic Weed Control General Permit

The *Statewide National Pollutant Discharge Elimination System Permit for Residual Aquatic Pesticide Discharges to Waters of the United States from Algae and Aquatic Weed Control Applications* (Aquatic Weed Control General Permit)[4] applies to projects that require aquatic weed management activities. The Aquatic Weed Control General Permit sets forth detailed management practices to protect water quality from pesticide and herbicide use associated with aquatic weed control.

4.0 California Environmental Quality Act Compliance

The State Water Board is the lead agency for the purposes of California Environmental Quality Act (CEQA) compliance. (Pub. Resources Code, §§ 21000-21177) FERC issued

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[2] State Water Board Order No. 2009-0009-DWQ and National Pollutant Discharge Elimination System [NPDES] No. CAS000002, as amended by Order No. 2010-0014-DWQ, Order No. 2012-0006-DWQ, and any amendments thereto.

[3] Available at: https://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/2021/procedur es.pdf. Accessed April 14, 2026. ***[Note that updates to footnote numbering are not shown in tracking in this draft Order.]***

[4] State Water Board Order No. 2013-0002-DWQ and NPDES No. CAG990005, as amended by State Water Board Order No. 2014-0078-DWQ and any amendments thereto.

the draft EIS on July 30, 2010[5], and the final EIS on February 25, 2011[6], which analyzed the Project impacts as required under the National Environmental Policy Act (NEPA). The State Water Board released the draft Initial Study and Negative Declaration (IS/ND) on May 2, 2019 for a 30-day comment period. Comments on the draft IS/ND were received from seven parties. These comments were considered in development of the final IS/ND, which was released concurrent with this water quality certification. The final IS/ND does not analyze PG&E's proposed McCloud Development and Pit 7 Afterbay Development.

On December 6, 2019, PG&E (separately) and the Winnemem Wintu Tribe and North Coast Rivers Alliance (NCRA) (jointly) filed the Petitions with the State Water Board. Each petition requests modification of the Project certification, and the Winnemem Wintu Tribe and NCRA's petition additionally challenges the CEQA analysis prepared for the Project certification. In response to the Petitions, the State Water Board's Executive Director directed staff to reinitiate consultation with the Winnemem Wintu Tribe to inform whether, and if so, what additional CEQA work may be necessary (Order WQ 2020-0041-EXEC[7]). As part of the reinitiated consultation with the Winnemem Wintu Tribe, staff determined that preparation of a subsequent environmental impact report (SEIR) would be appropriate to analyze impacts to tribal cultural resources that were unknown during the original CEQA process. A Notice of Preparation for the SEIR was issued on March 10, 2022. A draft SEIR was released for public comment on April 7, 2026, with comments due on May 22, 2026.

The documents and other materials that constitute the public record are located at the State Water Board, Division of Water Rights, 1001 I Street, Sacramento, California. The State Water Board will file a Notice of Determination with the Office of Planning and Research within five days of issuance of this certification.

5.0 Rationale for Water Quality Certification Conditions

The certification conditions were developed to protect and enhance beneficial uses of California's waters and achieve compliance with associated water quality objectives[8]. Section 401 of the federal Clean Water Act (33 U.S.C. § 1341) provides that the

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[5] Federal Energy Regulatory Energy Commission. 2010. July. Draft Environmental Impact Statement for Hydropower License, McCloud-Pit Hydroelectric Project, FERC Project No. 2106, California.

[6] Federal Energy Regulatory Energy Commission. 2011. February. Final Environmental Impact Statement for Hydropower License, McCloud-Pit Hydroelectric Project, FERC Project No. 2106, California.

[7] Available online at: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2020/wqo2020_0041_exec.pdf. Accessed April 14, 2026.

[8] Designated beneficial uses and associated water quality objectives for surface waters in the area of the Project are described in Section 3.2 of this certification, and in Chapters 2 and 3 of the Central Valley Basin Plan.

conditions contained in this certification be incorporated as mandatory conditions of the new license issued by FERC for the Project.

When preparing the conditions in this certification, State Water Board staff reviewed and considered:

(i) The final license application submitted by PG&E to FERC, PG&E's application for certification, and any updates thereto;

(ii) Comments submitted by agencies and interested parties on the draft license application and certification application;

(iii) The final EIS prepared pursuant to NEPA (42 U.S.C. §§ 4332);

(iv) *Revised Forest Service Final Section 4(e) Conditions, Section 10(a) Recommendation and Comments, McCloud Pit Hydroelectric Project, FERC No. 2106* (Final 4(e)s), dated November 29, 2010;

(v) *California Department of Fish and Wildlife's (CDFW) Recommendations of the California Department of Fish and Game Pursuant to Federal Power Act Section 10(j) for FERC Project No. 2106-059* (CDFW 10(j) Recommendations);

(vi) National Marine Fisheries Service's (NMFS) *Federal Power Act Preliminary Section 18 Prescriptions, Terms, Conditions, Recommendations, And Comment*s;

(vii) NMFS' June 4, 2009 *Biological Opinion and Conference Opinion on the Long-Term Operations of the Central Valley Project and State Water Project* (BiOp) and associated actions of the Interagency Fish Passage Steering Committee[9];

(viii) State Water Board's final IS/ND prepared pursuant to CEQA Public Resources Code, §§ 21000 – 21177 and comments thereon;

(ix) State Water Board's April 7, 2026, draft SEIR;

(x) Comments on the April 7, 2026, draft SEIR and updates to the draft SEIR proposed in response to those comments;

(xi) The *Winnemem Wintu Tribe Traditional Cultural Landscape Tribal Cultural Resource Memorandum and Analysis In Support of California Register of*

[9] In 2010, USBR formed the Interagency Fish Passage Steering Committee to lead anadromous fish reintroduction efforts required by NMFS' Biological Opinion. The Interagency Fish Passage Steering Committee includes USBR, NMFS, USFWS, Forest Service, California Department of Water Resources, CDFW, University of California, and the State Water Board.

Historical Resources Evaluation McCloud-Pit River Hydroelectric Project Relicensing (FERC Project No. 2106) developed by the Winnemem Wintu Tribe, Shelly Davis-King, and Crystal West as part of the SEIR process;

(xii) Petitions for reconsideration filed by PG&E and the Winnemem Wintu Tribe and North Coast Rivers Alliance, including the Tribe's supplement to its petition dated March 27, 2026.

(xiii) Responses received in response to the State Water Board's notice of the petitions for reconsideration filed by PG&E and the Winnemem Wintu Tribe and North Coast Rivers Alliance.

(xiv) Existing and potential beneficial uses and associated water quality objectives in the Central Valley Basin Plan;

(xv) Project related controllable water quality factors; and

(xvi) Other information in the record.

The following describes the rationale used to develop the conditions in this certification.

5.1 Rationale for Condition 1 – Minimum Instream Flows and Ramping Rates

Condition 1 contains water year specific minimum instream flow (MIF) requirements for specific Project reaches. The MIF requirements of this certification match those of Forest Service Final 4(e) Condition 19. The approach for evaluating and developing MIF requirements for Project stream reaches focused on the needs of aquatic biota (fish, amphibians, benthic macroinvertebrates [BMI], and riparian vegetation) and included the following steps: (1) an evaluation of ecosystem attributes and their condition under regulated and unimpaired stream flows; (2) development of a range of MIFs and ramping rates for the protection of aquatic resources in all water year types; and (3) an extensive hydrologic evaluation to develop MIFs and ramping rates that mimic the natural hydrograph to provide fluvial geomorphic processes in all water year types for the protection of aquatic resources and the aquatic ecosystem.

Condition 1(B)(1), Minimum Instream Flows and Ramping Rates for McCloud River below McCloud Dam, requires PG&E to ramp up flows prior to uncontrolled (i.e., non-operational or natural) spill events in increments not to exceed 100 cfs per hour to the extent feasible. Rapid flow increases outside of natural variability can weaken riverbanks via erosion, wash out riparian vegetation and aquatic organisms, and submerge spawning sites to below-optimal depths. (Hayes et al. 2018[10].) Up-ramping before spills can help reduce the rate of flow increase and provide more natural conditions for the downstream river channel and biotic community. Additionally, though

[10] Daniel S. Hayes, Julia M. Brändle, Carina Seliger, Bernhard Zeiringer, Teresa Ferreira, Stefan Schmutz. "Advancing towards functional environmental flows for temperate floodplain rivers." *Science of The Total Environment*, vol. 633, 2018, pp. 1089-1104. ISSN 0048-9697, https://doi.org/10.1016/j.scitotenv.2018.03.221.

accurate forecasting of uncontrolled spill events may not always be possible at this time, improvements to forecasting technology are likely over the 50-year term of the Project's new FERC license. As such, Condition 1(B)(1) requires up-ramping to the extent feasible (e.g., within the dependable range of predictability available via forecasting and other available technology).

5.2 Rationale for Condition 2 – Gaging and Facilities Modifications

Condition 2 requires PG&E to develop and implement a Gaging and Facilities Modification Plan in consultation with the Forest Service, CDFW, United States Fish and Wildlife Service (USFWS), and State Water Board staff. Facility modification at McCloud Dam will be necessary for PG&E to implement the MIFs required under Condition 1 of this certification. In addition, Condition 1 requires installation of a new gage to measure flows released at McCloud Dam, and some gages may need to be modified to ensure compliance with the MIFs. The Gaging and Facilities Modification Plan requires detailed descriptions and designs of facilities and gages that need to be constructed or modified, as well as measures that will be implemented to protect water quality and the beneficial uses.

5.3 Rationale for Condition 3 – Water Quality Monitoring and Management

Project operations have the potential to affect reservoir and stream water quality within and beyond the Project area. Condition 3(A) requires PG&E to develop and implement a Water Quality Monitoring and Management Plan (Water Quality Plan) in consultation with the Forest Service, CDFW, USFWS, Central Valley Regional Water Board, and State Water Board staff. To protect water quality and the beneficial uses of water described in the Central Valley Basin Plan, Condition 3(A) requires water quality monitoring and evaluation of potential impacts of Project operations and maintenance activities on water quality in Project stream reaches and reservoirs. Information gathered from implementation of the Water Quality Plan will be used to evaluate the effects of Project-related actions on water quality, and to identify, assess, and adaptively manage potential Project-related adverse water quality impacts.

Condition 3(B) requires PG&E to develop a Reservoir Turbidity Monitoring and Management Plan (Turbidity Plan) in consultation with the Forest Service, CDFW, USFWS, Central Valley Regional Water Board, Winnemem Wintu Tribe, Pit River Tribe, The Nature Conservancy (TNC), and State Water Board staff. The draft SEIR, released on April 7, 2026, notes that additional turbidity data are needed to fully quantify the Project's potential impacts on turbidity in McCloud River. The draft SEIR identified two mitigation measures to address this: (1) Mitigation Measure WATER-1: Long-term Turbidity Control; and (2) Mitigation Measure WATER-2: Turbidity Measurement and Monitoring.

Significant high-turbidity events from Mud Creek, a tributary to McCloud River above McCloud Dam, are typical each year and frequently occur during the warmer, low-flow season. Sediment trapping within McCloud Reservoir decreases the total sediment load

reaching the Lower McCloud River (Nevares and Stallman 2009[11]); however, existing flow and turbidity data suggest that outflow turbidity not only peaks higher than the inflow turbidity but also maintains a higher average over time. (State Water Board 2026[12].) Additionally, there is a large sediment delta in the McCloud River arm of the McCloud Reservoir. McCloud Reservoir had an original capacity of 35,234 acre-feet; between 1964 and 2007, it accumulated approximately 4,134,500 cubic meters (3,352 acre-feet) of sediment, reducing the original capacity by approximately 10 percent and resulting in an average annual sedimentation rate of 96,150 cubic meters per year. (Nevares and Stallman 2009.) At some point in the future, accumulated sediment may require removal, sequestration, or release downstream.

The Turbidity Plan will establish turbidity and sediment monitoring protocols and identify appropriate management actions, if applicable, to address: (1) the Project's impact to downstream turbidity; and (2) McCloud Reservoir sedimentation. The Turbidity Plan is consistent with Mitigation Measures WATER-1 and WATER-2.

5.4 Rationale for Condition 4 – Large Woody Material

Large woody material contributes to productive aquatic ecosystems and is an important component of stream channel maintenance and the formation of complex aquatic habitat both along stream margins and in active river channels. Large woody material provides cover and holding habitat for fish and organic matter that supports the aquatic food web. Large woody material in tributaries of the upper watersheds is carried progressively downstream during high flow events. Prior to the construction of Project dams, high flow events would distribute large woody material from the upper watersheds throughout downstream Project reaches. Presently, the Project prevents most incoming large woody material from entering the McCloud River downstream of McCloud Dam. The large woody material is instead impounded by McCloud Reservoir. For this reason, under existing conditions the McCloud River downstream of McCloud Dam lacks the aquatic habitat expected of a heavily forested river reach.

Condition 4 requires PG&E to develop and implement a Large Woody Material Management Plan (LWM Plan) in consultation with the Forest Service, CDFW, USFWS, and State Water Board staff. The LWM Plan will specify large woody material augmentation procedures and associated monitoring to assess the effectiveness of its implementation in transporting and distributing large woody material throughout the McCloud River below the McCloud Dam.

[11] Nevares, Steve (PG&E) and J. Stallman. 2009. Assessment of Channel Morphology and Fluvial Geomorphic Processes in the Lower McCloud River (GS-S2). Technical Memorandum 68.

[12] State Water Board. 2026. PG&E McCloud-Pit Hydroelectric Project Relicensing (FERC Project No. 2106)—Draft Subsequent Environmental Impact Report. Available online at: https://waterboards.ca.gov/waterrights/water_issues/programs/water_quality_cert/docs/2026/mccloud-dseir.pdf.

5.5 Rationale for Condition 5 – Erosion and Sediment Management

Surface erosion and increased overland flow associated with Project-related construction and maintenance activities could release fine sediment into Project stream reaches. Additionally, the Project reduces the frequency of seasonal high flow events in river reaches below Project dams that could transport fine sediment. Accumulation of fine sediment can degrade water quality and adversely affect fish spawning and incubation success.

The erosion and sediment relicensing study GS-S1[13] inventoried 188 specific sites with noticeable erosion and/or sedimentation issues. Additionally, FERC[14] and the Forest Service[15] identified multiple sites that require erosion and/or sedimentation control measures, including Forest Service Road 38N11 (Hawkins Creek Road), Tarantula Gulch boat launch, Fenders Ferry Flat, and the Willow Creek siphon.

To manage existing erosion and minimize future erosion and sediment delivery to Project stream reaches and reservoirs, Condition 5 requires PG&E to develop and implement an Erosion and Sediment Management Plan (Erosion and Sediment Plan) in consultation with the Forest Service, CDFW, USFWS, and State Water Board staff. The Erosion and Sediment Plan will describe methods to inventory, assess, remediate, and monitor erosion sites, and outline site-specific temporary erosion control measures to be implemented during construction and maintenance activities.

5.6 Rationale for Condition 6 – Gravel Augmentation

Relicensing studies identified the need for gravel augmentation in the McCloud River below McCloud Dam. McCloud Dam traps gravel (sediment greater than 2 millimeters) originating from upstream sources. This limits available gravel that could support and enhance aquatic habitat in the McCloud River. Sediment supply to the McCloud River below McCloud Dam increases with distance from the dam as a result of sediment input from tributaries and riparian areas. The McCloud River, from McCloud Dam to five miles downstream, exhibits degraded habitat due to Project operations. This reach is characterized by a coarsening of the bed surface and reduction in the frequency and quantity of gravel deposits.

Condition 6 requires PG&E to develop and implement a Gravel Augmentation Plan in consultation with the Forest Service, CDFW, USFWS, and State Water Board staff. The Gravel Augmentation Plan will require addition of gravel to the McCloud River below

[13] Nevares, Steve (PG&E), Jay Stallman and Ronna Bowers (Stillwater Sciences). 2009. Inventory and Assessment of Erosion and Sediment from Project Construction, Operation, and Maintenance (GS-S1). Technical Memorandum 67. January 29, 2009.

[14] FERC. Letter to Debbie Powell (PG&E). “Results of P-2106 Environmental Inspection.” November 7, 2018.

[15] Forest Service. Letter to Secretary Kimberly Bose (FERC). File Code 2770. May 3, 2019.

McCloud Dam, as well as gravel mobilization monitoring and adaptive management measures.

5.7 Rationale for Condition 7 – Biological Resources

New and continued Project operations have the potential to cause changes to fish populations, special-status amphibian and turtle populations, and BMI assemblages within Project stream reaches. Biological monitoring can detect these changes, identify additional information needs, and guide adaptive management of Project operations.

Condition 7 requires PG&E to develop and implement a Biological Resources Monitoring Plan in consultation with the Forest Service, CDFW, USFWS, and State Water Board staff. The Biological Resources Monitoring Plan will outline monitoring requirements for fish, special-status amphibians and turtles, and BMI to ensure that Project operations do not negatively impact water quality and the beneficial uses of water.

5.8 Rationale for Condition 8 – Fish Stocking

Angling is one of the most popular activities associated with the Project. Based on relicensing recreation studies, the demand for angling in Project stream reaches is projected to increase 140 percent over the term of the new license. In addition, proposed upgrades to recreation facilities and construction of new recreation facilities may increase angling pressure in Project stream reaches. Increasing the number of catchable trout stocked will help meet the estimated demand associated with the projected growth in angling.

On September 19, 1967, the FERC license for the Project was amended to require that PG&E provide funding to the California Department of Fish and Game (renamed CDFW January 1, 2013) to stock 38,800 pounds of trout and 500,000 Kokanee salmon fingerlings per fiscal year in the McCloud River, Pit River, and Lake Shasta. In Recommendation 3 of the CDFW 10(j) Recommendations, CDFW specified a fish stocking recommendation that differs slightly from the requirements outlined in the 1967 FERC license. In response to the CDFW 10(j) Recommendations, PG&E stated its agreement with CDFW's fish stocking recommendation[16]. In addition, the Staff Alternative in FERC's final EIS recommends a fish stocking plan be developed and implemented to evaluate the success of fish stocking efforts. Condition 8 mirrors the provisions of: (1) Recommendation 3 of the CDFW 10(j) Recommendations; and (2) the Staff Alternative in FERC's final EIS.

5.9 Rationale for Condition 9 – Recreation Facilities Management

The Project partially lies in and adjacent to the Shasta National Forest, which provides a variety of formal and informal recreational facilities and opportunities. Regional

[16] Pacific Gas & Electric Company's Reply Comments to Comments, Recommendations, Terms, and Conditions, filed with FERC on March 16, 2010.

recreational opportunities include, but are not limited to fishing, camping, boating, hiking, scenic/wildlife viewing, hunting, and general day use activities such as picnicking and swimming. There are three developed recreation areas in the Project boundary: (1) Tarantula Gulch boat ramp at McCloud Reservoir; (2) Deadlun Creek Campground at Iron Canyon Reservoir; and (3) Hawkins Landing Campground and boat ramp at Iron Canyon Reservoir. These existing recreation areas are all in the James B. Black Development (see Section 1.1). PG&E proposed several new recreation areas in the James B. Black Development and the Pit 7 Development (Sections 1.1 and 1.3, respectively). Construction of new recreation areas and improvements to existing facilities has the potential to impact water quality and the beneficial uses in the Project area.

Condition 9 requires PG&E to develop and implement a Recreation Facilities Management Plan in consultation with the Forest Service, CDFW, USFWS, and State Water Board staff. The Recreation Facilities Management Plan will include: (1) measures to protect water quality during construction, monitoring; and (2) schedules to implement the proposed improvements and new recreation facilities.

5.10 Rationale for Condition 10 – Whitewater Recreation

Prior to Project construction, the natural hydrograph provided boating opportunities on the McCloud River. However, under the original license, the only opportunities for whitewater boating occur during spills over McCloud Dam. Contact and noncontact recreation, which include whitewater boating, are beneficial uses listed in the Central Valley Basin Plan for the McCloud River. In order to provide for these beneficial uses, PG&E proposed a boating recreation flow of 300 cfs over 11 days in its final license application. However, 300 cfs only provides for boating-based access to the river for fishing or camping, not whitewater boating. The minimum acceptable whitewater boating flow identified by the relicensing study RL-S3[17] was 500 cfs. PG&E's proposal would not provide adequate whitewater recreation opportunities.

Condition 10 requires PG&E to develop and implement a Whitewater Recreation Management Plan (Whitewater Plan) in consultation with the Forest Service, CDFW, USFWS, American Whitewater, California Sportfishing Protection Alliance, California Trout, Trout Unlimited, and State Water Board staff. The Whitewater Plan will require PG&E to evaluate data from the relicensing study RL-S3 to develop the magnitude, duration, timing, and frequency of whitewater recreation flows. Additionally, the Whitewater Plan will allow PG&E to propose situations in which it may be excused from providing whitewater recreation flows.

The draft SEIR identifies that whitewater recreation flows could have significant impacts to foothill yellow-legged frogs (FYLFs) if whitewater recreation flows are implemented during the FYLF breeding season. Accordingly, the Whitewater Plan includes provisions

[17] Nevares, Steve (PG&E), Doug Whittaker and Bo Shelby (Stillwater Sciences). 2009. Lower McCloud River Report on Recreation Flow Assessment (RL-S3). Technical Memorandum 24.

from Mitigation Measure BIO-1: Whitewater Flow Seasonality: (1) to evaluate and ensure any whitewater recreation flows occur prior to the FYLF breeding season (typically mid-spring, when water temperature reaches 12 degrees Celsius in McCloud River) (Nevares, Shepley, and Champe 2009[18]); and (2) to monitor for all life stages of FYLF during the first three years of whitewater recreation flows to ensure FYLFs are not being impacted. PG&E may propose changes to whitewater recreation flows depending on the results of FYLF monitoring.

5.11 Rationale for Condition 11 – Construction and Maintenance

Protection of the beneficial uses identified in the Central Valley Basin Plan requires effluent limitations and other limitations on pollutant discharges from point and nonpoint sources to the McCloud River, Pit River, and their tributaries. The Project includes replacement and rehabilitation of existing recreation facilities and other activities that may require construction or maintenance. Erosion from Project-related construction and maintenance activities has the potential to result in discharges that violate water quality standards. Condition 11 requires PG&E to comply with terms of the Construction General Permit and Dredge or Fill Procedures, if applicable, or to develop and implement Water Quality Monitoring and Protection Plans (WQMP Plans) to protect water quality and beneficial uses. WQMP Plans will be developed for construction and maintenance activities with the potential to cause erosion, stream sedimentation, release of hazardous materials, or otherwise impair water quality.

5.12 Rationale for Condition 12 – Reintroduction of Anadromous Fish Species

~~It is possible that anadromous fish will be reintroduced into Project-affected stream reaches during the term of the new FERC license.~~ In its June 4, 2009 Biological Opinion, NMFS identifies a reasonable and prudent alternative (RPA) that is intended to "avoid the likelihood of jeopardizing the continued existence of listed species or resulting in the destruction or adverse modification of critical habitat" (50 CFR § 402.02). The RPA includes a Fish Passage Program Action[19] that would reintroduce federally listed anadromous fish above three dams operated by the USBR, including Shasta Dam. ~~If federally listed anadromous fish are reintroduced above Shasta Dam, via the Fish Passage Program or any other similar future programs, they could migrate into the Project area.~~In 2022, reintroduction efforts were initiated by NMFS, USFWS, CDFW, and the Winnemem Wintu Tribe, resulting in the successful incubation and hatching of eggs and rearing of juvenile winter-run Chinook salmon in the McCloud River. In 2023,

[18] Nevares, Steve (PG&E), Holly Shepley, and Christine Champe (Stillwater Sciences). 2009. Results of Second Year Foothill Yellow-legged Frog Visual Encounter Surveys and Breeding Habitat Assessment in the Lower McCloud River (FA-S2), Updated July 2009. Technical Memorandum 29.

[19] NMFS issued an amendment to the Biological Opinion on April 7, 2011. However, the 2011 amendment did not change the requirements of the Fish Passage Program.

NMFS designated a nonessential experimental population[20] of winter-run Chinook salmon in McCloud River. (88 FR 58511.) Juveniles are captured in the McCloud River and released in the Sacramento River downstream of Keswick Dam[21], though it appears some juveniles have escaped capture and were able to reach adulthood and spawn in the Lower McCloud River as documented by CDFW in summer 2025. (CDFW 2025[22].) This effort has continued each year since 2022 and is ongoing, though funding sources and the precise actions that will be taken in the future are not entirely clear.

Condition 12 is intended to facilitate consultation between PG&E, the State Water Board, resource agencies with jurisdiction over ~~such a~~ reintroduction, and the Winnemem Wintu Tribe and Pit River Tribe in order to determine whether additional measures are necessary to ~~enable reintroduction. It is expected that early consultation would result in a smoother reintroduction process, which will aid in the protection of beneficial uses associated with anadromous fish (e.g., cold water spawning habitat).~~protect existing or future populations of anadromous fish species in McCloud River.

5.13 Rationale for Condition 13 – Annual Consultation Meetings

Monitoring plans and studies required by this certification will assist resource agencies and State Water Board staff evaluate impacts associated with the implementation of new license conditions to hydrological, biological, and geomorphological resources in the Project area throughout the term of the license. Annual consultation meetings bring resource agencies and interested parties together to discuss monitoring results and resource trends, and develop adaptive management actions, if necessary, to protect water quality and beneficial uses. Condition 13 requires PG&E to conduct annual consultation meetings with resource agencies and other interested parties to review monitoring reports and discuss ongoing and forecasted operations, including revisions

[20] Under the federal Endangered Species Act, a nonessential experimental population is a population of a species authorized for release outside of the current range of the species and determined not to be essential to the continued existence of the species. (16 USC § 1539, subd. (j)(2).) Non-essential experimental populations are treated as species proposed to be listed under the federal ESA for purposes of Section 7 consultation, and critical habitat may not be designated for non-essential experimental populations. As part of the final rule designating the non-essential experimental salmon population, NMFS established "take" prohibitions under federal ESA section 4(d) that include an exception for unintentional, non-negligent take incidental to lawful activities including power production when such activities are in full compliance with all applicable laws and regulations. (88 FR 58517.)

[21] Keswick Dam is part of USBR's Central Valley Project, about nine miles downstream of Shasta Dam on the Sacramento River.

[22] CDFW. 2025. Internal memorandum dated July 16 from Michael Memeo to Matt Johnson re "Observations of winter-run Chinook Salmon Spawning in the lower McCloud River on July 15, 2025."

or modifications to monitoring and/or operations that may be needed to protect water quality and beneficial uses.

5.14 Rationale for Condition 14 – Extremely Dry Conditions

California's history of drought illustrates the importance of contingency planning for multiple dry years or drought. It is difficult to anticipate the specific impacts of consecutive dry years, or a long-term drought, and identify where limited water supplies may be best used during times of shortage. Condition 14 provides the opportunity, following consultation with State Water Board staff, participating agencies, and notice to interested parties, for the Licensee to submit and request Deputy Director approval of a Revised Operations Plan to address water shortage issues during consecutive Dry or Critically Dry water year types or drought years. This condition provides flexibility for adaptive management during times of extreme water shortage.

5.15 Rationale for Condition 15 – Certification Scope

This certification only covers the developments existing at the time of certification: the James B. Black, Pit 6, and Pit 7 Developments. In PG&E's final license application, dated July 15, 2009, PG&E proposed two new hydropower developments (McCloud and Pit 7 Afterbay). However, PG&E did not finalize designs or capacities for the two proposed hydropower developments. PG&E explains in its license application that the economic feasibility of the two proposed hydropower developments depends in part on conditions included in the new Project license (i.e., new minimum instream flow requirements). At this time, it is the State Water Board's understanding that PG&E has decided to wait until it receives the new FERC license for the relicensing of the Project before it determines whether to build the two hydropower developments.

5.16 Rationale for Conditions 16 – ~~36~~37

In order to ensure that the Project operates to meet water quality standards as anticipated, to ensure compliance with other relevant state and federal laws, and to ensure that the Project will continue to meet state water quality standards and other appropriate requirements of state law over their lifetime, 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 certifications, which are included in this certification.

6.0 Conclusion

The State Water Board finds that, with the conditions and limitations imposed under this certification, the proposed Project will be protective of state water quality standards and other appropriate requirements of state law.

7.0 Water Quality Certification Conditions

ACCORDINGLY, BASED ON ITS INDEPENDENT REVIEW OF THE RECORD, THE STATE WATER RESOURCE CONTROL BOARD CERTIFIES THAT OPERATION OF THE MCCLOUD-PIT HYDROELECTRIC PROJECT (~~FERC PROJECT No.~~Federal Energy Regulatory Commission Project No. 2106) will comply with sections 301, 302, 303, 306, and 307 of the Clean Water Act, and with applicable provisions of State law, if Pacific Gas and Electric Company complies with the following terms and conditions.

CONDITION 1: Minimum Instream Flows and Ramping Rates

1(A) Water Year Types

The Licensee shall determine the water year type based on the forecast of unimpaired runoff as provided by the California Department of Water Resources (DWR) Bulletin 120[23] report for the "Percent of Average, April through July Forecast" for the McCloud River above Shasta Lake. Water year types shall be defined on a monthly basis as follows:

(i) Critically Dry: 0 to 75 percent of average;

(ii) Dry: 76 to 89 percent of average;

(iii) Below Normal: 90 to 99 percent of average;

(iv) Above Normal: 100 to 119 percent of average; and

(v) Wet: Greater than or equal to 120 percent of average.

In February, March, and April the Licensee shall determine the water year type based on the DWR Bulletin 120 forecast and shall operate for that month based on that forecast. The May forecast shall be used to establish the water year type for the remaining months until February of the subsequent year, when forecasting shall begin again. Within 15 days of each water year type determination, the Licensee shall provide written notice of the determination to the State Water Resources Control Board (State Water Board) staff.

1(B) Minimum Instream Flows and Ramping Rates

1(B)(1) McCloud River Below McCloud Dam

[23] Bulletin 120 is a publication issued four times a year, in the second week of February, March, April, and May by DWR. It contains forecasts of the volume of seasonal runoff from California's major watersheds, and summaries of precipitation, snowpack, reservoir storage, and runoff in various regions of California.

The Licensee shall implement the required minimum instream flows (MIFs) no later than 30 days following completion of facility modifications (see Condition 2). Prior to completing facility modifications needed to implement the new MIFs and no later than 30 days following license issuance, the Licensee shall implement the required MIFs within the capabilities of the existing ~~facilities.~~MIF facilities (i.e., the McCloud Dam Howell-Bunger valve) and in a manner consistent with existing safety requirements.

The Licensee shall implement year-round MIFs in all water year types as outlined in Table 1 for the term of the Federal Energy Regulatory Commission (FERC) license and any extensions. Water year types are defined in Condition 1(A) above.

MIFs shall be implemented according to the dates specified in Table 1, or as soon as permitted by weather and site accessibility. Any delay in implementing MIFs due to weather or accessibility issues shall be immediately reported to the Deputy Director of the Division of Water Rights (Deputy Director). MIFs shall be measured at the following locations:

(i) In the McCloud River below McCloud Dam (United States Geological Survey [USGS] Gage No. 11367760, Pacific Gas and Electric Company [PG&E] Gage No. MC-7); and

(ii) Ah-Di-Na (USGS Gage No. 11367800, PG&E Gage No. MC-1).

Additionally, unless otherwise approved by the Deputy Director in writing, the Licensee shall install a gage either in or adjacent to the McCloud Dam to directly measure MIF releases from McCloud Dam. This gage shall be installed no later than three years following license issuance. The Licensee shall begin using the new gage within 30 days of completing construction. After the new gage has been appropriately calibrated and rated and the Licensee begins using the new gage for MIF compliance, the new gage shall replace MC-7 as a compliance point for measuring MIFs. The Licensee shall provide notification to the Deputy Director of its intent to use the new gage for MIF compliance at least 30 days prior to use of the new gage for MIF compliance and provide documentation for new gage's calibration and rating. The Licensee may proceed with use of the new gage 30 days following Deputy Director notification unless the Deputy Director provides direction otherwise.

Table 1. Minimum Instream Flows (in cubic feet per second (cfs)) for the McCloud River below McCloud Dam (as measured at USGS Gage No. 11367760, PG&E Gage No. MC-7[24]) and at Ah-Di-Na (as measured at USGS Gage No. 11367800, PG&E Gage No. MC-1)

Time Period	McCloud River MIF by Water Year Type*	Net Change in Flow from Year-round Minimum
Year-round minimum	Release ≥ 175 cfs at MC-7 and Maintain ≥ 200 cfs at MC-1	--
	Water Year Type (per Condition 1(A)) based on February 1 Bulletin 120	**Then change in flow will be:**
Feb 15–29	Critically Dry	No flow change
Feb 15–29	Dry	No flow change
Feb 15–29	Below Normal	Increase flow by 75 cfs at MC-7
Feb 15–29	Above Normal	Increase flow by 125 cfs at MC-7
Feb 15–29	Wet	Increase flow by 175 cfs at MC-7
Mar 1–15	Critically Dry	No flow change
Mar 1–15	Dry	Increase flow by 50 cfs at MC-7
Mar 1–15	Below Normal	Increase flow by 50 cfs at MC-7
Mar 1–15	Above Norma	Increase flow by 100 cfs at MC-7
Mar 1–15	Wet	Increase flow by 150 cfs at MC-7
	Water Year Type (per Condition 1(A)) based on March 1 Bulletin 120	**Then change in flow will be:**
Mar 16–31	Critically Dry	No flow change
Mar 16–31	Dry	No flow change
Mar 16–31	Below Normal	Increase flow by 50 cfs at MC-7
Mar 16–31	Above Normal	Increase flow by 50 cfs at MC-7
Mar 16–31	Wet	Increase flow by 150 cfs at MC-7
Apr 1–15	Critically Dry	No flow change
Apr 1–15	Dry	No flow change
Apr 1–15	Below Normal	No flow change
Apr 1–15	Above Normal	Increase flow by 50 cfs at MC-7
Apr 1–15	Wet	Increase flow by 50 cfs at MC-7
All Water Year Types (per Condition 1(A))		
Apr 16 – Jun 30	If flow releases are ≥ 200 cfs on April 15 at MC-7	Then decrease flow at MC-7 by 50 cfs each Friday after April 15 until flow is 200 cfs

[24] It is anticipated that the MC-7 gage will be replaced with a new gage as noted in Condition 1 of this certification. The MIF requirements for the MC-7 gage shall apply to the new gage 30 days following the Licensee's notification to the Deputy Director of the new gage, unless otherwise directed by the Deputy Director.

Time Period	**McCloud River MIF by Water Year Type***	**Net Change in Flow from Year-round Minimum**
Apr 16 – Jun 30	If flow releases are < 200 cfs on April 15 at MC-7	Then release 175 cfs at MC-7 and Maintain a minimum of 200 cfs at MC-1
Jul 1 – Aug 31	Release 175 cfs at MC-7 and Maintain a minimum of 215 cfs at MC-1	Release 175 cfs at MC-7 and Maintain a minimum of 215 cfs at MC-1
Sep 1 – Feb 15	Release 175 cfs at MC-7 and Maintain a minimum of 200 cfs at MC-1	Release 175 cfs at MC-7 and Maintain a minimum of 200 cfs at MC-1

~~**Time Period**~~	~~**Water Year Type**~~	~~**MIF at PG&E Gage MC-7**~~	~~**MIF at PG&E Gage MC-1**~~
~~February 15-29~~	~~February 1 Forecast*: Critically Dry~~	~~175 cfs~~	~~200 cfs~~
~~February 15-29~~	~~February 1 Forecast*: Dry~~	~~175 cfs~~	~~200 cfs~~
~~February 15-29~~	~~February 1 Forecast*: Below Normal~~	~~250 cfs~~	~~200 cfs~~
~~February 15-29~~	~~February 1 Forecast*: Above Normal~~	~~300 cfs~~	~~200 cfs~~
~~February 15-29~~	~~February 1 Forecast*: Wet~~	~~350 cfs~~	~~200 cfs~~
~~March 1-15~~	~~February 1 Forecast*: Critically Dry~~	~~175 cfs~~	~~200 cfs~~
~~March 1-15~~	~~February 1 Forecast*: Dry~~	~~225 cfs~~	~~200 cfs~~
~~March 1-15~~	~~February 1 Forecast*: Below Normal~~	~~300 cfs~~	~~200 cfs~~
~~March 1-15~~	~~February 1 Forecast*: Above Normal~~	~~400 cfs~~	~~200 cfs~~
~~March 1-15~~	~~February 1 Forecast*: Wet~~	~~500 cfs~~	~~200 cfs~~
~~March 16-31~~	~~March 1 Forecast*: Critically Dry~~	~~175 cfs~~	~~200 cfs~~
~~March 16-31~~	~~March 1 Forecast*: Dry~~	~~225 cfs~~	~~200 cfs~~
~~March 16-31~~	~~March 1 Forecast*: Below Normal~~	~~350 cfs~~	~~200 cfs~~
~~March 16-31~~	~~March 1 Forecast*: Above Normal~~	~~450 cfs~~	~~200 cfs~~

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~~Time Period~~	~~Water Year Type~~	~~MIF at PG&E Gage MC-7~~	~~MIF at PG&E Gage MC-1~~
~~March 16-31~~	~~March 1 Forecast*: Wet~~	~~650 cfs~~	~~200 cfs~~
~~April 1-15~~	~~March 1 Forecast*: Critically Dry~~	~~175 cfs~~	~~200 cfs~~
~~April 1-15~~	~~March 1 Forecast*: Dry~~	~~225 cfs~~	~~200 cfs~~
~~April 1-15~~	~~March 1 Forecast*: Below Normal~~	~~350 cfs~~	~~200 cfs~~
~~April 1-15~~	~~March 1 Forecast*: Above Normal~~	~~500 cfs~~	~~200 cfs~~
~~April 1-15~~	~~March 1 Forecast*: Wet~~	~~700 cfs~~	~~200 cfs~~
~~April 16 – June 30~~	~~All water year types: If flow releases are ≥ 200 cfs at MC-7 on April 15~~	~~Decrease flow at MC-7 by 50 cfs each Friday after April 15 until 200 cfs~~	~~200 cfs~~
~~April 16 – June 30~~	~~All water year types: If flow releases are < 200 cfs at MC-7 on April 15~~	~~175 cfs~~	~~200 cfs~~
~~July 1 – August 31~~	~~All water year types~~	~~175 cfs~~	~~200 cfs~~
~~September 1 – February 15~~	~~All water year types~~	~~175 cfs~~	~~200 cfs~~

~~* February 1 runoff percentage from DWR Bulletin 120 for McCloud River above Shasta Lake.~~

~~** March 1 runoff percentage from DWR Bulletin 120 for McCloud River above Shasta Lake.~~

Ramping Rates. No ramping is required between MIF changes. The Licensee shall ramp down all natural and operational spill events, once controllable by MIF valve operation~~,~~ (assumed to be at 1,000 cfs), in increments of no more than 150 cubic feet per second (cfs) each 48-hour period until the required MIF is reached (Table 1). If during the ramp down of a spill event a subsequent spill(s) occurs before the MIF is reached, the subsequent spill(s) shall also be ramped down until the required MIF is reached. ~~The Licensee shall ramp up flows prior to controllable operational spills (i.e., valve testing for dam safety compliance) in increments not to exceed 200 cfs per 24-hour period.~~ To the extent feasible, the Licensee shall ramp up flows prior to uncontrolled spill events in increments not to exceed 100 cfs per hour.

~~Unless otherwise required by DWR's Division of Safety of Dams~~ The Licensee shall ramp up flows prior to controllable operational spills (i.e., spills required to perform maintenance) in increments not to exceed 200 cfs per 24-hour period. Unless otherwise

approved by the Deputy Director and consistent with approval from the applicable dam safety agency, testing of the emergency low-level outlet valve (typically performed once annually), as required by DWR's Division of Safety of Dams (DSOD) or FERC's Division of Dam Safety and Inspections, shall be performed by either first: (1) opening the MIF valve to its full capacity (assumed to be 1,000 cfs) in compliance with the required ramping rate; or (2) initiating a spill through the spillway of the same value in compliance with the required ramping rate. Then, the Licensee may operate the low-level outlet from fully open to fully closed without additional ramping restrictions. Lastly, the Licensee shall either close the MIF valve or stop spillway flows, as applicable, in compliance with the above-stated ramping rate, until the required MIF is reached. DSOD or FERC's Division of Dam Safety and Inspections for storage management or safety, valve testing or operational spills shall not occur in April through June.

Long-term Ramping Rate Evaluation. Prior to completion of the facility modifications required for MIF compliance (see Condition 2), the Licensee shall consult with the United States Department of Agriculture – Forest Service (Forest Service), California Department of Fish and Wildlife (CDFW), United States Fish and Wildlife Service (USFWS), and State Water Resources Control Board (State Water Board) staff to determine if revised ramping rates are necessary to protect aquatic resources in the McCloud River below McCloud Dam. If revised ramping rates are necessary, the Licensee shall develop a Long-term Ramping Rates Plan (LTRR Plan) in consultation with the Forest Service, CDFW, USFWS, Winnemem Wintu Tribe, and State Water Board staff and submit the LTRR Plan to the Deputy Director of the Division of Water Rights (Deputy Director) for review and approval no later than two years following license issuance. At a minimum, the LTRR Plan shall include:

(i) Purpose of the LTRR Plan;

(ii) Aquatic species for which ramping rates will be developed;

(iii) An assessment of which flows require ramping rates (e.g., MIFs, boating flows, spills);

(iv) Methods for determining long-term ramping rates (e.g. studies, tests, monitoring, etc.);

(v) Criteria for evaluating the effectiveness of the ramping rates;

(vi) Schedule for reporting study and or monitoring results to Forest Service, CDFW, USFWS, and State Water Board staff;

(vii) Proposed interim ramping rates for the McCloud River below McCloud Dam, if applicable;

(viii) Timeframe for implementing the LTRR Plan and submittal of a Long-term Ramping Rates Report (LTRR Report) to the Deputy Director for review and

approval. The LTRR Report shall include the Licensee's proposed long-term ramping rates and supporting documentation;

(ix) A plan for how modifications to the LTRR Plan and LTRR Report will be implemented to address the need for updates to ramping rates throughout the term of the FERC license and any extensions; and

(x) Documentation of consultation with Forest Service, CDFW, USFWS, and State Water Board staff, comments and recommendations made in connection with the LTRR Plan and LTRR Report, and a description of how it incorporates or addresses the comments and recommendations.

The Deputy Director may require modifications as part of any approval. The Licensee shall file with FERC the Deputy Director-approved LTRR Plan and LTRR Report, and any approved amendments thereto. The Licensee shall implement the LTRR Plan and LTRR Report upon receipt of Deputy Director approval and any other required approvals, in accordance with the schedule and requirements specified therein.

1(B)(2) Iron Canyon Creek Below Iron Canyon Dam

No later than 30 days following license issuance, the Licensee shall implement the MIFs in Iron Canyon Creek below Iron Canyon Dam, as outlined in Table 2 and measured at USGS Gage No. 11363930, PG&E Gage No. MC-10. If gage modifications are required to ensure compliance with the required MIFs, the Licensee shall: (1) demonstrate compliance with the required MIFs within the capabilities of the existing gaging equipment prior to completing gage modifications and no later than 30 days following license issuance; and (2) demonstrate compliance with the required MIFs no later than 30 days following completion of gage modifications or three years following license issuance, whichever comes first. MIFs shall be implemented within three business days of the publication date of each DWR Bulletin 120, or as soon as permitted by weather and site accessibility. The Licensee shall implement the required MIFs throughout the term of the FERC license and any extensions.

Table 2. Minimum Instream Flows (in cfs) for Iron Canyon Creek below Iron Canyon Dam (as measured at USGS Gage No. 11363930, PG&E Gage No. MC-10)

Month	Below Normal, Dry, or Critically Dry*	Above Normal*	Wet*
October	7	7	10
November	7	7	10
December	7	10	15
January	7	10	15
February	7	10	15
March	10	15	20**
April	10	15	20**
May	7	10	15
June	7	10	15
July	7	7	10
August	7	7	10
September	7	7	10

* See Condition 1(A) for information on water year types.

** The flow control valve at Iron Canyon Dam shall be fully opened. The 24-hour average flow shall be a minimum of 20 cfs.

Ramping Rates. No ramping is required between monthly MIF changes. Valve testing for dam safety compliance shall only occur between March 1 and March 31. If the Licensee is unable to conduct the annual valve testing by March 31 due to safety concerns, the Licensee shill notify the Deputy Director and Forest Service prior to March 31. The Licensee shall submit to the Deputy Director for review and consideration of approval proposed dates for conducting valve testing, including information related to foothill yellow-legged frog (FYLF) breeding and potential impacts associated with the proposed valve testing. Unless otherwise directed by DSOD or FERC's Division of Dam Safety and Inspections, the Licensee shall not conduct valve testing outside of the March 1 through March 31 window without Deputy Director approval. Flows that are ramped up to test the flow valve shall occur in no more than 20 cfs increments that are spaced a minimum of 15-minutes apart. After flow valve testing, flows shall be ramped down in increments of no more than 20 cfs that are spaced a minimum of 30-minutes apart.

1(B)(3) Pit River Below Pit 7 Dam

No later than 30 days following license issuance, the Licensee shall release an instantaneous MIF of 150 cfs in the Pit River below the Pit 7 Dam, as measured at USGS Gage No. 11365000, year-round and in all water year types. Instantaneous flow is defined as the value used to construct the 24-hour average flow, measured in 15-minute increments.

1(C) Minimum Instream Flow Measurement and Dissemination

MIFs for the McCloud River and Iron Canyon Creek shall be measured in two ways: (1) as a 24-hour average flow; and (2) as an instantaneous flow. The 24-hour average flow is the average of the instantaneous (15-minute) flow readings from midnight of one day to midnight of the following day, unless an alternate 24-hour timeframe is approved by the Deputy Director Deputy Director in writing. MIF measurement at Pit 7 shall be measured as an instantaneous flow. In the event of a Pit 6 Powerhouse outage, streamflow for the Pit River below Pit 6 Dam shall be measured as a 24-hour average flow.

The Licensee shall record instantaneous (15-minute) streamflow at all gages consistent with USGS standards. Instantaneous streamflow shall be measured continuously, and no less than: 80 percent of the 24-hour average flow period for MIFs that are less than or equal to 10 cfs; and 90 percent of the 24-hour average flow period for MIFs that are greater than 10 cfs.

For the purposes of measuring streamflows on the McCloud River below McCloud Dam, Pit River below the Pit 6 and 7 Dams, and Iron Canyon Creek below the Iron Canyon Dam, the Licensee shall operate and maintain ~~the existing~~ gages consistent with all requirements of this certification.

The Licensee shall measure and document all MIF releases and associated streamflows, as measured at the gages required per this certification, in a publicly available and readily accessible format. The Licensee shall publicly notice on the internet all known events that will affect MIF releases (e.g., powerhouse outages, construction, etc.) in Project reaches a minimum of 30 days in advance. The Licensee shall also make information about the typical drawdown patterns for McCloud and Iron Canyon Reservoirs publicly available in a readily accessible format.

Flow data at USGS Gage No. 11367800 (PG&E Gage No. MC-1) and USGS Gage No. 11367760 (PG&E Gage No. MC-7) shall be real-time data and posted on the California Data Exchange Center and made available to Dreamflows[25], or their successor websites. Upon completion of the quality assurance/quality control (QA/QC) process, the data shall be catalogued and made available to USGS in annual hydrology summary reports. The flow values (15-minute recordings) used to construct the 24-hour average flows shall be available to the resource agencies from the Licensee upon request.

1(D) Powerhouse Outages

The Licensee shall schedule maintenance or other planned powerhouse outages in a way that avoids negative ecological impacts from the resultant spills. The Licensee shall provide written notification to the Deputy Director at least 90 days prior to any planned or scheduled powerhouse outages that would affect stream flows in the Pit River,

[25] A website that provides flow and related information for whitewater boaters.

McCloud River, or Iron Canyon Creek stream reaches. Notification shall include a description of the outage and measures the Licensee will implement to minimize the magnitude and duration of spills into the Project reach. The Licensee may proceed with the planned powerhouse outage unless otherwise directed, in writing, by the Deputy Director. The Licensee shall post notice of the outage on the Licensee's public Project website.

1(E) Planned Temporary Flow Modifications

The Licensee may request temporary MIF variances for non-emergency facility construction, modification, or maintenance. Non-emergency variance requests shall be submitted to the Deputy Director for approval as far in advance as practicable, but no less than four months in advance of the desired effective date. The Licensee shall notify the Forest Service, CDFW, and USFWS of the proposed temporary MIF variance. The request shall include: a description of the proposed construction, modification, or maintenance; the planned duration and magnitude of the MIF variance; documentation of notification to the Forest Service, CDFW, and USFWS, and any comments received; measures that will be implemented to protect water quality and beneficial uses; and a schedule for the proposed construction, modification, or maintenance. The Deputy Director may require modifications as part of any approval. Upon Deputy Director approval, the Licensee shall provide public notice of the MIF variance, in accordance with Condition 1(C). The Licensee shall file with ~~the Federal Energy Regulatory Commission (~~FERC the Deputy Director-approved modifications to MIF requirements and any approved amendments thereto.

1(F) Unplanned Temporary Flow Modifications

The MIFs specified in Condition 1(B) may be temporarily modified if required by equipment malfunction reasonably beyond the control of the Licensee, as directed by law enforcement authorities or in emergencies. An emergency is defined as an unforeseen event that is reasonably out of the control of the Licensee and requires the Licensee to take immediate action, either unilaterally or under instruction by law enforcement or other regulatory agency staff, to prevent imminent loss of human life or substantial property damage. An emergency may include, but is not limited to: natural events such as landslides, storms, or wildfires; malfunction or failure of project works;[26] and recreation accidents. Drought is not considered an emergency for purposes of this condition.

[26] Project works must be inspected and maintained to manufacturers' specified schedule or at least annually. The inspection schedule default is the most rigorous schedule. Upon State Water Board staff, USFS, CDFW, or USFWS' request, the Licensee shall provide documentation of all inspections, results, dates, staff performing inspections, and recommended maintenance, schedule for performing maintenance, and the date maintenance was performed. Lack of appropriate inspections, maintenance, or documentation may remove events from the "emergency" category, as determined by the Deputy Director.

When possible, the Licensee shall notify the Deputy Director prior to any unplanned temporary MIF modification. In all instances, the Licensee shall notify the Deputy Director within 24 hours of the beginning of any unplanned temporary streamflow modification. Within 96 hours of the beginning of any unplanned temporary stream flow modification, the Licensee shall provide the Deputy Director with an update of the conditions associated with the modification and an estimated timeline for returning to the required MIFs.

Within 30 days of any unplanned temporary MIF modification, the Licensee shall provide the Deputy Director with: (1) a written description of the modification and reason(s) for its necessity; (2) photo documentation of the emergency or reason for the stream flow modification; (3) a timeline for returning to the required MIFs or timeline when the MIFs resumed; (4) a description of corrective actions taken in response to an unplanned under-release of flow; and (5) a plan to prevent the need for modification of minimum instream flows resulting from a similar emergency or event in the future.

CONDITION 2: Gaging and Facilities Modifications

No later than one year following license issuance, the Licensee shall submit a Gaging and Facilities Modification Plan to the Deputy Director for review and approval. The Gaging and Facilities Modification Plan shall be developed in consultation with the Forest Service, CDFW, USFWS, and State Water Board staff. Construction and modification of facilities and gages required for the release and measurement of MIFs outlined in Condition 1 of this certification shall be completed and in use no later than three years following license issuance.

At a minimum, the Facility and Gage Modification Plan shall include:

(i) Purpose of the Gaging and Facilities Modification Plan;

(ii) List, map, and detailed description of existing and proposed new gages associated with the Project. The description shall include: (a) type of gages; (b) frequency of data collection and data QA/QC procedures; (c) where data for the gages will be stored and made publicly available; and (d) gage maintenance.

(iii) Detailed descriptions of proposed facility and gage modifications necessary to comply with this certification, including relevant maps and designs;

(iv) Schedule for installation of new gage(s) and facilities modifications, and reporting upon completion of construction and modifications associated with the plan;

(v) Measures that will be implemented to protect water quality and beneficial uses during: (a) installation/construction, operation, and maintenance of gages over the term of the license and any extensions, and (b) construction of proposed facilities modifications to comply with MIFs;

(vi) Monitoring and reporting that will be implemented to during construction and modifications of gages and facilities;

(vii) A plan for how modifications to the Gaging and Facilities Modification Plan will be implemented to address gaging-related changes throughout the term of the FERC license and any extensions; and

(viii) Documentation of consultation with Forest Service, CDFW, USFWS, and State Water Board staff, comments and recommendations made in connection with the Gaging and Facilities Modification Plan, and a description of how it incorporates or addresses the comments and recommendations.

The Deputy Director may require modifications as part of any approval. The Licensee shall file with FERC the Deputy Director-approved Gaging and Facilities Modification Plan, and any approved amendments thereto. The Licensee shall implement the Gaging and Facilities Modification Plan upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

CONDITION 3: Water Quality Monitoring and Management

3(A) Water Quality Monitoring and Management

No later than one year following license issuance, the Licensee shall submit a Water Quality Monitoring and Management Plan (Water Quality Plan) to the Deputy Director for review and approval. The Water Quality Plan shall ~~in~~ be developed in consultation with the Forest Service, CDFW, USFWS, Central Valley Regional Water Quality Control Board (Central Valley Regional Water Board), Winnemem Wintu Tribe, and State Water Board staff.

At a minimum, the Water Quality Plan shall include:

(i) List of water quality parameters to be monitored, as appropriate, that ~~includes~~may include, but ~~is~~are not limited to: water temperature, dissolved oxygen, turbidity, and bacteria. The list shall also include current ~~Basin Plan~~Central Valley Regional Water Board's *Water Quality Control Plan for the Sacramento River Basin and the San Joaquin River Basin* (Central Valley Basin Plan) water quality objectives for the parameters;

(ii) Proposed monitoring plan, including monitoring locations with a map, sampling protocols, analytical methods, QA/QC procedures, and the schedule and frequency;

(iii) Specific monitoring that shall be performed includes:

a. Bacterial monitoring in all Project reservoirs during the recreation season and monitoring ~~of other potential contaminants (e.g.,~~for recreation-related aquatic invasive species (e.g., quagga mussels, etc.) at key recreation locations including, but not limited to: boat ramps; day use areas; and near

campgrounds. At a minimum, the Licensee shall monitor contaminants in Project reservoirs for the first five years following Water Quality Plan approval and the first two years following completion of each recreation facility construction and/or improvement. Following each monitoring period, the Licensee shall consult with Forest Service, CDFW, USFWS, Central Valley Regional Water Board, Winnemem Wintu Tribe, and State Water Board staff during or prior to the subsequent annual consultation meeting (see Condition 13) to determine whether: (1) the Licensee must take corrective measures to reduce contaminant levels; or (2) contaminant monitoring at Project reservoirs can be reduced. The Licensee shall consult with Forest Service, CDFW, USFWS, Central Valley Regional Water Board, Winnemem Wintu Tribe, and State Water Board staff to develop corrective measures and/or a revised monitoring schedule, if necessary. The Licensee shall submit proposed corrective measures and/or revised monitoring schedule to the Deputy Director for review and approval no later than six months following consultation;

b. Monitoring of dissolved oxygen in McCloud, Iron Canyon, Pit 6, and Pit 7 Reservoirs;

c. Water temperature monitoring from May 1 through September 30, for a minimum of 10 years following implementation of MIFs (Condition 1); and

d. Turbidity monitoring for the term of the license in the Lower McCloud River (at PG&E Gage Nos. MC-7 or MC-1) from April 25 through November 15 (i.e., the fishing season) for the purposes of recreational use (i.e., fishing). The Licensee shall notify the Deputy Director 10 days in advance, or as soon as feasible, if routine sensor maintenance or deployment in the spring is delayed due to late snows or high flows. If turbidity sensor deployment is delayed, the Licensee shall implement sensor deployment as soon as feasible, but no later than June 1 of each year, unless an alternative sensor deployment schedule is approved by the Deputy Director. Turbidity levels shall be available in real-time from the date of deployment through November 15 on the Licensee's public Project website;

(iv) Format, schedule, and reporting to document, summarize, and analyze monitoring results. The Licensee shall propose any updates to the Water Quality Plan based on the monitoring results. Reports shall be submitted to State Water Board staff, Forest Service, CDFW, USFWS, Winnemem Wintu Tribe, and the Central Valley Regional Water Board;

(v) Provisions to monitor turbidity during construction or other soil disturbing activities; and

(vi) Documentation of consultation with Forest Service, CDFW, USFWS, Central Valley Regional Water Board, Winnemem Wintu Tribe, and State Water Board

staff, comments and recommendations made in connection with the Water Quality Plan, and a description of how the Water Quality Plan incorporates or addresses the comments and recommendations.

The Deputy Director may require modifications as part of any approval. The Licensee shall file with FERC the Deputy Director-approved Water Quality Plan, and any approved amendments thereto. The Licensee shall implement the Water Quality Plan upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

3(B) Reservoir Turbidity Monitoring and Management

No later than one year following license issuance, the Licensee shall submit a Reservoir Turbidity Monitoring and Management Plan (Turbidity Plan) to the Deputy Director for review and approval. The Water Quality Plan shall be developed in consultation with the Forest Service, CDFW, USFWS, Central Valley Regional Water Board, Winnemem Wintu Tribe, Pit River Tribe, The Nature Conservancy (TNC), and State Water Board staff. The goal of the Turbidity Plan shall be to evaluate turbidity sources to the Project area, how the Project impacts turbidity in the McCloud and Pit Rivers, and identify management actions if necessary.

Unless otherwise approved by the Deputy Director, and consistent with Mitigation Measures WATER-1 and WATER-2 identified in the State Water Board's Subsequent Environmental Impact Report, at a minimum, the Turbidity Plan shall include:

(i) Identification of locations and frequency of turbidity monitoring that will be performed. At a minimum monitoring shall be performed to measure turbidity inputs from Mud Creek, the McCloud River upstream of McCloud Reservoir, and other tributaries as appropriate (e.g., Huckleberry Creek);

(ii) Identification of location(s) and frequency of turbidity monitoring for flows below McCloud Dam;

(iii) Protocols for assessing sediment accumulation in McCloud and Iron Canyon Reservoirs, including total amount of sediment accumulated and the percentage of reservoir volume lost since reservoir construction. Sediment accumulation shall be monitored in the first full calendar year following Deputy Director approval of the Turbidity Plan and at least every five years thereafter;

(iv) Protocols for and frequency of monitoring McCloud Reservoir turbidity and temperature profiles. Turbidity and temperature profiles shall be monitored at least monthly from April through November;

(v) Timeframes for development of:

a. A numerical model of McCloud Reservoir turbidity and temperature;

b. A description of how Project operations affect turbidity, including anticipated effects of climate change; and

c. Identification of potential management actions the Licensee could implement to manage turbidity, sediment accumulation, and releases, as appropriate, with the Licensee's recommendation of actions to implement, if appropriate, or support for why no actions are needed;

(vi) Format, schedule, and reporting to document, summarize, and analyze monitoring results. The frequency with which the Licensee shall evaluate the Turbidity Plan and propose any updates to the Deputy Director for review and approval based on the monitoring results. Reports shall be submitted to Forest Service, CDFW, USFWS, Central Valley Regional Water Board, Winnemem Wintu Tribe, Pit River Tribe, TNC, and State Water Board staff; and

(vii) Documentation of consultation with Forest Service, CDFW, USFWS, Central Valley Regional Water Board, Winnemem Wintu Tribe, Pit River Tribe, TNC, and State Water Board staff, comments and recommendations made in connection with the Turbidity Plan, and a description of how the Turbidity Plan incorporates or addresses the comments and recommendations.

In accordance with the timeframes developed for item (v) above in Condition 3(B), the Licensee shall update the Turbidity Plan with new data, conclusions, and proposed management actions as appropriate during the term of the FERC license and any extensions thereto. If turbidity data and modeling required by this condition demonstrate that Project operations do not adversely contribute to turbidity concentrations below McCloud Dam, the Licensee may request that the Deputy Director approve discontinuation or modification of some or all of the turbidity data collection and modeling required by this condition. The Licensee shall update the Turbidity Plan in accordance with the consultation requirements in items (vi) and (vii) above in Condition 3(B). Any updates to the Turbidity Plan shall be approved by the Deputy Director prior to implementation. The Deputy Director may require changes or implementation of additional management actions as part of any approval.

The Deputy Director may require changes as part of any approval to ensure protection of water quality and beneficial uses. The Licensee shall file with FERC the Deputy Director-approved Turbidity Plan, and any approved amendments thereto. The Licensee shall implement the Turbidity Plan and any amendments thereto upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

CONDITION 4: Large Woody Material

No later than one year following license issuance, the Licensee shall submit a Large Woody Material Plan (LWM Plan) to the Deputy Director for review and approval. The LWM Plan shall be developed in consultation with the Forest Service, CDFW, USFWS, ~~and State Water Board staff. The Licensee is strongly encouraged to consult with the~~

~~Winnemem Wintu Tribe in the development of the LWM Plan to avoid or reduce potential impacts to tribal cultural resources associated with the storage and placement of large woody material.~~Winnemem Wintu Tribe, and State Water Board staff. State Water Board staff will solicit comments from tribes regarding the LWM Plan prior to approval by the Deputy Director. Implementation of the Large Woody Material Plan shall facilitate the capture and removal of woody material from the surface of McCloud Reservoir and its placement into the Lower McCloud River downstream of McCloud Dam. The draft Large Woody Debris Plan included as Exhibit LWDP in Enclosure 3 of the Revised Forest Service Final Section 4(e) Conditions, Section 10(a) Recommendation and Comments, McCloud Pit Hydroelectric Project, FERC No. 2106 (Final 4(e)s), dated November 29, 2010, may serve as the basis for the LWM Plan required by this condition. At a minimum, the LWM Plan shall include:

(i) Specific objectives, including a description of: (a) what constitutes large woody material (i.e., size criteria) that will be captured, removed, stored, and placed as part of this condition; and (b) how other woody material will be handled or disposed of as part of Project operations;

(ii) Proposed monitoring to assess the effectiveness of the plan (e.g., mobilization and distribution of large woody material);

(iii) Detailed description of the methods, locations, and volume and frequency of large woody material capture, removal, storage, and placement;

(iv) Format, schedule, and reporting to document, summarize, and analyze monitoring results. The Licensee shall propose any updates to the LWM Plan based on the monitoring results. Reports shall be submitted to State Water Board staff, Forest Service, CDFW, and USFWS; and

(v) Documentation of consultation with Forest Service, CDFW, USFWS, Winnemem Wintu Tribe, and State Water Board staff, comments and recommendations made in connection with the LWM Plan, and a description of how the LWM Plan incorporates or addresses the comments and recommendations.

The Deputy Director may require modifications as part of any approval. The Licensee shall file with FERC the Deputy Director-approved LWM Plan, and any approved amendments thereto. The Licensee shall implement the LWM Plan upon receipt of Deputy Director approval and any other required approvals, in accordance with the schedule and requirements specified therein.

CONDITION 5: Erosion and Sediment Management

No later than one year following license issuance, the Licensee shall submit an Erosion and Sediment Control Management Plan (Erosion and Sediment Plan) to the Deputy Director for review and approval. The Erosion and Sediment Plan shall be developed in consultation with the Forest Service, CDFW, USFWS, Winnemem Wintu Tribe, and

State Water Board staff. The draft Erosion and Sediment Control Management Plan included as Exhibit ESCMP in Enclosure 3 of the Forest Service's Final 4(e)s may serve as the basis for the Erosion and Sediment Plan required by this condition. The primary goal of the Erosion and Sediment Plan shall be to address and control Project-related erosion and sedimentation during the term of the new license and any extensions. At a minimum, the Erosion and Sediment Plan shall include:

(i) Purpose of the Erosion and Sediment Plan;

(ii) A proposal to address the 188 specific sites identified in the erosion and sediment relicensing study GS-S1[27] (GS-SI) as well as the sites identified by FERC[28] and the Forest Service[29]. The proposal shall include:

a. Any new information on the sites since the original study was conducted;

b. How the Licensee will address the existing and potential future erosion and sedimentation issues at each site. This includes corrective measures to address existing impacts as well as stabilization to address future erosion and sedimentation problems;

c. Measures the Licensee will implement to protect water quality and beneficial uses while conducting the proposed work;

d. Prioritization of and a timeline to address all sites by no later than five years following license issuance. Priority shall be placed on the 56 sites ranked with high erosion potential per the results from the GS-S1;

e. Post-implementation monitoring that will be performed to ensure effective stabilization; and

f. Format, schedule, and reporting to document and summarize the work and monitoring results. The report(s) shall identify any additional follow up or long-term actions (e.g., vegetation maintenance and/or monitoring) that need to be implemented to ensure the stabilization work remains effective. Reports shall be submitted to State Water Board staff, Forest Service, CDFW, Winnemem Wintu Tribe, and USFWS;

(iii) Periodic inventories of the entire Project area to identify and assess sites with erosion and sedimentation issues. The Erosion and Sediment Plan shall identify

[27] Nevares, Steve (PG&E), Jay Stallman and Ronna Bowers (Stillwater Sciences). 2009. Inventory and Assessment of Erosion and Sediment from Project Construction, Operation, and Maintenance (GS-S1). Technical Memorandum 67. January 29, 2009.

[28] FERC. Letter to Debbie Powell (PG&E). "Results of P-2106 Environmental Inspection." November 7, 2018.

[29] Forest Service. Letter to Secretary Kimberly Bose (FERC). File Code 2770. May 3, 2019.

a timeline for the inventories. At a minimum, the inventory work shall meet the following:

a. Use protocols established in the GS-S1 unless otherwise approved by the Deputy Director in writing;

b. The initial inventory shall include sites not identified under Item (ii) above. The inventory shall include Project roads, facilities, infrastructure, reservoir shorelines, recreational use areas, and areas of mass wasting, erosion, or sedimentation that are Project-related or affected by Project roads, facilities, and operations; and

c. Periodic monitoring, inventory, and reporting that: update site conditions, record the effectiveness of erosion treatment measures, and identify new erosion sites;

(iv) Criteria for ranking and treating erosion sites identified as part of the inventories, including a risk rating and hazard assessment for scheduling erosion treatment measures and monitoring at each erosion site, using protocols developed in the GS-S1;

(v) Protocols for monitoring completed erosion control treatment measures for a period of up to three years after treatment to determine the effectiveness of erosion control measures and if further erosion control measures are necessary;

(vi) Process and timeline for periodic submittals of the inventory (see iii above), including associated information and monitoring of existing sites, to the Deputy Director. If the inventory indicates existing or new sites with Project-related erosion and sedimentation issues, the Licensee shall prepare an amendment to the Erosion and Sediment Plan for Deputy Director review and approval. The plan amendment shall be prepared in consultation with the Forest Service, CDFW, USFWS, Winnemem Wintu Tribe, and State Water Board staff and submitted to the Deputy Director within six months of submitting the inventory to the Deputy Director. The plan amendment shall include: (a) a ranking of the sites based on the criteria outlined in (iv) above; (b) a timeline for addressing sites with erosion and sedimentation issues; (c) measures/treatments that will be implemented to address erosion and sedimentation issues at each site; (d) measures that will be implemented to protect water quality and beneficial uses; (e) monitoring of sites to evaluate effectiveness of implemented measures/treatments as outlined in (v), above; and (f) reporting;

(vii) Site-specific temporary erosion control measures that will be implemented during construction-related activities;

(viii) Protocols for emergency erosion and sediment control that would be implemented upon notice to the Deputy Director, outside of the timeline and process outlined in (vi) above;

(ix) Protocols for daily monitoring of turbidity for a minimum of five years after license issuance in Iron Canyon Creek below Iron Canyon Dam (PG&E Gage No. MC-10) to ensure that the Licensee's erosion control measures have reduced sedimentation into Iron Canyon Creek and improved water quality below the dam. If after five years of monitoring elevated turbidity (i.e., above Central Valley Basin Plan standards) is still occurring at PG&E Gage No. MC-10, the Licensee shall, no later than six months following this determination, propose and implement continued and/or additional erosion control treatment measures and turbidity monitoring as part of the periodic inventories and associated erosion control treatments; and

(x) Documentation of consultation with Forest Service, CDFW, USFWS, and State Water Board staff, comments and recommendations made in connection with the plan, and a description of how the plan incorporates or addresses the comments and recommendations.

The Deputy Director may require modifications as part of any approval. The Licensee shall file with FERC the Deputy Director-approved Erosion and Sediment Plan, and any approved amendments thereto. The Licensee shall implement the Erosion and Sediment Plan upon receipt of Deputy Director approval and any other required approvals, in accordance with the schedule and requirements specified therein.

CONDITION 6: Gravel Augmentation

No later than one year following license issuance, the Licensee shall submit a Gravel Augmentation Plan to the Deputy Director for review and approval. The Gravel Augmentation Plan shall be developed in consultation with the Forest Service, CDFW, USFWS, ~~and State Water Board staff. The Licensee is strongly encouraged to consult with the Winnemem Wintu Tribe in the development of the Gravel Augmentation Plan to avoid or reduce potential impacts to tribal cultural resources associated with the sourcing, storage, and placement of gravel.~~Winnemem Wintu Tribe, and State Water Board staff. State Water Board staff will solicit comments from tribes regarding the Gravel Augmentation Plan prior to approval by the Deputy Director. The draft Coarse Sediment Management Plan included as Exhibit CSMP in Enclosure 3 of the Forest Service's Final 4(e)s may serve as the basis for the Gravel Augmentation Plan required by this condition.

The primary goal of the Gravel Augmentation Plan shall be to develop implementation specifications for the periodic addition of 150 to 600 metric tons of clean, rounded gravel[30] to the McCloud River directly below the McCloud Dam spillway splash pool.

[30] Gravel may range in size from 8 to 128 millimeters.

The source of the gravel shall be deposits in McCloud Reservoir. At a minimum, the Gravel Augmentation Plan shall include:

(i) The purpose of the Gravel Augmentation Plan;

(ii) Method for removal, sorting, and cleaning of the source gravel, as well as disposal of any biproducts associated with the process;

(iii) Identification of location(s) and methods for gravel introduction/placement, and any facilities or improvements necessary to access the McCloud River below McCloud Dam and place gravel;

(iv) Identification of gravel storage sites;

(v) A schedule for gravel placement;

(vi) Method for placement;

(vii) Schedule and methods for monitoring mobilization of gravel dispersal;

(viii) Any measures the Licensee will implement to protect water quality and beneficial uses;

(ix) Adaptive management component to allow for: non-delivery of gravel in non-spill years, or in years when spring flows are insufficient to mobilize the gravel from the placement site(s); and increased gravel placement above the target period addition of 150 to 600 metric tons, if mobilization occurs and results from gravel dispersal monitoring indicate the river has capacity to transport greater gravel quantities;

(x) Format, schedule, and reporting to document, summarize, and analyze monitoring results. The Licensee shall propose any updates to the Gravel Augmentation Plan based on the monitoring results. Reports shall be submitted to State Water Board staff, Forest Service, CDFW, Winnemem Wintu Tribe, and USFWS; and

(xi) Documentation of consultation with Forest Service, CDFW, USFWS, Winnemem Wintu Tribe, and State Water Board staff, comments and recommendations made in connection with the Gravel Augmentation Plan, and a description of how the Gravel Augmentation Plan incorporates or addresses the comments and recommendations.

The Deputy Director may require modifications as part of any approval. The Licensee shall file with FERC the Deputy Director-approved Gravel Augmentation Plan, and any approved amendments thereto. The Licensee shall implement the Gravel Augmentation Plan upon receipt of Deputy Director approval and any other required approvals, in accordance with the schedule and requirements specified therein.

CONDITION 7: Biological Resources

No later than one year following license issuance, the Licensee shall submit a Biological Resources Monitoring Plan to the Deputy Director for review and approval. The Biological Resources Monitoring Plan shall be developed in consultation with the Forest Service, CDFW, USFWS, Winnemem Wintu Tribe, and State Water Board staff. The draft *Aquatic Biological Monitoring Plan* included as Exhibit ABMP in Enclosure 3 of the Forest Service's Final 4(e)s may serve as the basis for the Biological Resources Monitoring Plan required by this condition. At a minimum, the Biological Resources Monitoring Plan shall include:

(i) The purpose of the Biological Resources Monitoring Plan;

(ii) Biological resources monitoring performed on an annual basis for the first five years after implementation of MIFs (Condition 1 of this certification). Thereafter, biological monitoring shall occur once every five years throughout the term of the new license, unless an alternative monitoring schedule is approved by the Deputy Director;

(iii) Standardized sampling and data protocols consistent with relicensing studies to ensure comparability of survey results with existing data;

(iv) Fish population trend assessments. At a minimum, assessments shall include locations in: (1) the McCloud River below McCloud Dam; (2) Iron Canyon Creek below Iron Canyon Dam; and (3) Pit 7 Reservoir;

(v) Benthic macroinvertebrate (BMI) monitoring using the Surface Water Ambient Monitoring Program Protocols[31] or its successor program, or an alternative methodology approved by the Deputy Director. The protocols shall include population heterogeneity, composition, and trends. Locations of BMI monitoring shall include, at a minimum, reaches in: (1) McCloud River below McCloud Dam; and (2) Iron Canyon Creek below Iron Canyon Dam;

(vi) Monitoring of state and/or federally listed amphibian and turtle species. Monitoring locations of state and/or federally listed amphibian and turtle species shall include, at a minimum, reaches in: (1) McCloud River below McCloud Dam; (2) Iron Canyon Creek below Iron Canyon Dam; (3) Pit 6 Reservoir; and (4) Pit 7 Reservoir;

(vii) Protocols to monitor for and prevent introduction or spread of invasive aquatic species. At a minimum, the Licensee shall comply with the State Water Board's Statewide National Pollutant Discharge Elimination System Permit for Residual Aquatic Pesticide Discharges to Waters of the United States from Algae and

[31] State Water Board. 2017. Surface Water Ambient Monitoring Program: Quality Assurance Program Plan. May 2017, and any amendments thereto.

Aquatic Weed Control Applications[32]. If invasive aquatic species are found in the Project area, the Licensee shall consult with the Forest Service, CDFW, USFWS, Winnemem Wintu Tribe, and State Water Board staff to determine if management measures are necessary. If necessary, the Licensee shall develop management measures in consultation with the Forest Service, CDFW, USFWS, Winnemem Wintu Tribe, and State Water Board staff and submit the proposed management measures to the Deputy Director for review and approval. The Licensee shall implement the management measures upon receipt of Deputy Director approval and any other required approvals;

(viii) Monitoring of resident fish passage conditions at Gap Creek, Deadlun Creek, and Cedar Salt Log Creek road crossings around Iron Canyon Reservoir;

(ix) Format, schedule, and reporting to document, summarize, and analyze monitoring results. The reports shall include identification of any impacts to biological resources and recommendations to address such impacts. The Deputy Director may direct the Licensee to implement measures to address impacts associated with the Project. The Licensee shall propose any updates to the Biological Resources Monitoring Plan based on the monitoring results. Reports shall be submitted to State Water Board staff, Forest Service, CDFW, Winnemem Wintu Tribe, and USFWS; and

(x) Documentation of consultation with Forest Service, CDFW, USFWS, Winnemem Wintu Tribe, and State Water Board staff, comments and recommendations made in connection with the Biological Resources Monitoring Plan, and a description of how the Biological Resources Monitoring Plan incorporates or addresses the comments and recommendations.

The Deputy Director may require modifications as part of any approval. The Licensee shall file with FERC the Deputy Director-approved Biological Resources Monitoring Plan, and any approved amendments thereto. The Licensee shall implement the Biological Resources Monitoring Plan upon receipt of Deputy Director approval and any other required approvals, in accordance with the schedule and requirements specified therein.

CONDITION 8: Fish Stocking

In the first full calendar year following license issuance, the Licensee shall implement fish stocking as outlined in Recommendation 3 of the CDFW 10(j) Recommendations, dated January 28, 2010, and the Staff Alternative in FERC's final EIS. The Licensee shall notify the Deputy Director of any proposed updates to the fish stocking provisions,

[32] State Water Board Order No. 2013-0002-DWQ and National Pollutant Discharge Elimination System No. CAG990005, as amended by State Water Board Order No. 2014-0078-DWQ on May 20, 2014, and any amendments thereto.

and if requested, submit such updates to the Deputy Director for review and approval. The Deputy Director may make modifications as part of any approval.

CONDITION 9: Recreation Facilities Management

No later than two years following license issuance, the Licensee shall submit a Recreation Facilities Management Plan (Recreation Plan) to the Deputy Director for review and approval. The Recreation Plan shall be developed in consultation the Forest Service, CDFW, USFWS, Winnemem Wintu Tribe, and State Water Board staff. The draft Recreation Development and Management Plan included as Exhibit RDMP in Enclosure 3 of the Forest Service's Final 4(e)s may serve as the basis for the Recreation Plan required by this condition. At a minimum, the Recreation Plan shall include:

(i) A description of operations and maintenance activities associated with the Project recreation facilities that have the potential to impact water quality, and measures that will be implemented to address any impacts;

(ii) Identification of recreation use surveys that will be conducted as part of the Project and submittal of the associated results to State Water Board staff. If results of the survey indicate an increase in recreation use, the Licensee shall evaluate the potential effects to determine whether modifications to Project facilities are needed to protect water quality and beneficial uses and provide the Deputy Director with the analysis and any associated recommendations for review and approval. The Deputy Director may make modifications as part of any approval;

(iii) A list, description, and schedule for modifications to existing and construction of new recreation facilities associated with the Project. For each facility modification or construction, the Licensee shall prepare and implement, once approved by the Deputy Director, a Water Quality Monitoring and Protection Plan (Condition 11) that outlines measures and monitoring the Licensee will implement to protect water quality, beneficial uses, and aquatic biological resources;

(iv) Format, schedule, and reporting to document, summarize, and analyze completion of recreation facility construction or modification and associated monitoring results; and

(v) Documentation of consultation with Forest Service, CDFW, USFWS, Winnemem Wintu Tribe, and State Water Board staff, comments and recommendations made in connection with the plan, and a description of how the plan incorporates or addresses the comments and recommendations.

The Deputy Director may require modifications as part of any approval. The Licensee shall file the Deputy Director-approved Recreation Plan, and any required modifications or amendments thereto, with FERC. The Licensee shall implement the Recreation Plan

upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

CONDITION 10: Whitewater Recreation

No later than three years following license issuance, the Licensee shall submit a Whitewater Recreation Management Plan (Whitewater Plan) to the Deputy Director for review and approval. The Whitewater Plan shall be developed in consultation the Forest Service, CDFW, USFWS, American Whitewater, California Sportfishing Protection Alliance, California Trout, Trout Unlimited, Winnemem Wintu Tribe, and State Water Board staff. The primary goal of the Whitewater Plan shall be to develop whitewater recreation flows that provide adequate boating opportunities in the McCloud River throughout the term of the license and any extensions. The Licensee shall consider data collected from the relicensing study RL- S3[33] to develop whitewater recreation flows. If ramping rates for whitewater recreation flows are not developed in a LTRR Plan (see Condition 1(B)), the Whitewater Plan shall include appropriate ramp-up and ramp-down rates. ~~At a minimum, the Whitewater Plan shall include:~~

Unless otherwise approved by the Deputy Director, at a minimum, the Whitewater Plan shall include:

(i) Magnitude of whitewater recreation flows;

(ii) Duration of whitewater recreation flows. The duration may include all or portions of ramp-up and ramp-down periods if the magnitude requirement is met;

(iii) Frequency and timing of whitewater recreation flows. The Licensee shall provide whitewater recreation flows at least once every four years. When determining timing, the Licensee shall consider potential impacts of whitewater recreation flows to special-status species and angling in the McCloud River reach~~;~~. Whitewater recreation flow releases below McCloud Dam shall occur only during the winter/spring high flow season (i.e., consistent with natural hydrologic timing of high flows). Whitewater recreation flows shall occur before the FYLF breeding season (e.g., when McCloud River temperatures reach 12 degrees Celsius, typically mid-spring but varies depending on the water year type and water temperature);

(iv) Protocols for monitoring FYLF breeding during the first three years of whitewater recreation flows to verify that FYLF egg masses and tadpoles are not being scoured, washed out, or dewatered. The Licensee shall conduct

[33] Nevares, Steve (PG&E), Doug Whittaker and Bo Shelby (Stillwater Sciences). 2009. Lower McCloud River Report on Recreation Flow Assessment (RL-S3). Technical Memorandum 24.

FYLF monitoring in the vicinity of relicensing FYLF monitoring sites 119 (Lower McCloud River Mile [RM] 1.4), 120 (RM 1.7), and 122 (RM 2.0);

(v) Potential situations in which the Licensee may be excused from providing all or a portion of whitewater recreation flows (e.g., if flows ~~in the previous year~~ were large enough to provide whitewater recreation opportunities, or ~~if the Licensee can supplement natural~~providing recreational flows would result in adverse impacts to FYLFs);

(vi) Measures the Licensee will implement to facilitate whitewater boating opportunities (e.g., improved access to put-ins and take-outs such as snow plowing of access roads);

(vii) Monitoring of whitewater boating use;

(viii) Noticing to inform the Forest Service, CDFW, USFWS, California Sportfishing Protection Alliance, California Trout, Trout Unlimited, Winnemem Wintu Tribe, State Water Board staff, and the public when the Licensee plans to release whitewater recreation flows;

(ix) Format, schedule, and reporting to document whitewater boating opportunities and use~~.~~, as well as the results of FYLF monitoring in item (iv) above. The Licensee shall propose any updates to the Whitewater Plan based on the monitoring results and other related information; and

(x) Documentation of consultation with Forest Service, CDFW, USFWS, California Sportfishing Protection Alliance, California Trout, Trout Unlimited, Winnemem Wintu Tribe, and State Water Board staff, comments and recommendations made in connection with the plan, and a description of how the plan incorporates or addresses the comments and recommendations.

The Deputy Director may require modifications as part of any approval. The Licensee shall file with FERC the Deputy Director-approved Whitewater Plan, and any approved amendments thereto. The Licensee shall implement the Whitewater Plan upon receipt of Deputy Director approval and any other required approvals, in accordance with the schedule and requirements specified therein.

Based on the monitoring results of FYLF breeding or whitewater boating use, the Licensee may propose updates to the Whitewater Plan, including changes to or discontinuation of whitewater recreation flows. The Licensee shall develop any updates to the Whitewater Plan in accordance with the consultation requirements in item (x). Any updates to the Whitewater Plan shall be approved bythe Deputy Director prior to implementation. The Deputy Director may require changes or implementation of additional management actions as part of any approval. The Licensee shall implement the updated Whitewater Plan upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

CONDITION 11: Construction and Maintenance

When applicable, the Licensee shall comply with the State Water Board's Construction General Permit[34], ~~and amendments thereto.~~ *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (Dredge or Fill Procedures)[35], and amendments to the aforementioned documents. The Licensee shall prepare and implement site-specific Water Quality Monitoring and Protection Plans (WQMP Plans~~t~~) for Deputy Director approval for any construction and maintenance activities with the potential to impact water quality or beneficial uses, including construction or maintenance of recreation facilities and roads, that are not subject to the Construction General Permit~~.~~ or covered by another condition of this certification. WQMP Plans must demonstrate compliance with sediment and turbidity water quality objectives in the Central Valley Basin Plan. The WQMP Plans shall be consistent with the most current Forest Service National Best Management Practices for Water Quality Management on National Forest System Lands[36] or other appropriate documents.

The Licensee shall submit the WQMP Plans to the Deputy Director for review and approval at least 60 days prior to the desired start date of the applicable construction or maintenance activity. The objective of the WQMP Plans shall be to identify and implement control measures for construction, maintenance, or other activities with the potential to cause erosion, stream sedimentation, fugitive dust, soil mass movement, release of hazardous materials, or other water quality impairment.

The WQMP Plans shall be based on actual site geologic, soil, and groundwater conditions, and at a minimum shall include:

(i) Description of site conditions and the proposed activity;

(ii) Detailed descriptions, design drawings, and specific topographic locations of all control measures in relation to the proposed activity, which may include:

a. Measures to divert runoff away from disturbed land surfaces;

b. Measures to collect and filter runoff from disturbed land surfaces, including sediment ponds at the diversion and powerhouse sites; and

c. Measures to dissipate energy and prevent erosion;

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[34] *General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities*. Water Quality Order No. 2009-0009-DWQ and NPDES No. CAS000002, as amended by Order No. 2010-0014-DWQ, Order No. 2012-0006-DWQ.

[35] Available at: https://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/2021/procedures.pdf. Accessed April 14, 2026.

[36] National Best Management Practices for Water Quality Management on National Forest System Lands. Volume 1: National Core BMP Technical Guide (FS-990a). April 2012.

(iii) Revegetation measures for disturbed areas, which shall include use of native plants and locally-sourced plants and seeds; ~~and~~

(iv) Measures for complying with the Dredge or Fill Procedures and Central Valley Basin Plan water quality objectives, as applicable; and

(v) A monitoring, maintenance, and reporting schedule.

The Deputy Director may require modifications as part of any approval. The Licensee shall file with FERC the Deputy Director-approved WQMP Plans, and any approved amendments thereto. The Licensee shall implement the WQMP Plans upon receipt of Deputy Director approval and any other required approvals, in accordance with the schedule and requirements specified therein.

CONDITION 12: Reintroduction of Anadromous Fish Species

~~The State Water Board reserves the authority to modify or add conditions to this certification if State Water Board staff determine that it is reasonably foreseeable that state or federally listed anadromous fish species will be reintroduced into Project-affected streams (e.g., anadromous fish passage above Shasta Dam[37] per National Marine Fisheries Service [NMFS] mandate), to ensure adequate protection of Basin Plan objectives and beneficial uses. For this condition, "reasonably foreseeable" includes, but is not limited to, a comprehensive reintroduction effort or plan that has a reasonable likelihood of implementation within the following 18 months. The State Water Board also reserves the authority to require the Licensee to develop and conduct studies if it is reasonably foreseeable that listed anadromous fish species will be reintroduced into Project-affected areas. Such studies shall be designed in consultation with NMFS, the Forest Service, CDFW, USFWS, the Winnemem Wintu Tribe, Pit River Tribe, and State Water Board staff to develop fish passage, flows, or other measures, as well as determine appropriate modifications to the certification to minimize potential impacts and protect water quality and beneficial uses. Introduction of anadromous fish may require reevaluation of Project facilities, flow regimes, fish stocking plans, availability of large woody material, gravel augmentation, tribal cultural resources, and access to Project-affected tributaries.~~

12(A) Anadromous Fish Species Studies

No later than six months following license issuance, the Licensee shall initiate consultation with NMFS, Forest Service, CDFW, USFWS, the Winnemem Wintu Tribe, Pit River Tribe, and State Water Board staff to develop evaluate available information

~~[37] Shasta Dam is owned and operated by the United States Department of Interior – Bureau of Reclamation as part of the Central Valley Project and is not part of the McCloud-Pit Hydroelectric Project. Shasta Dam creates Shasta Lake, which the McCloud River flows into.~~

and determine the need for studies related to winter-run Chinook salmon[38] in the McCloud River below McCloud Dam and the Project's potential impacts to present winter-run Chinook salmon in the McCloud River. At a minimum, consultation shall include:

(i) Identification of and a summary of existing information related to winter-run Chinook salmon in the McCloud River;

(ii) Identification and development of any study plans to identify Project potential impacts to Chinook salmon. Study plans shall consider Project operations, flow releases, water quality, and aquatic habitat impacts;

(iii) Documentation of consultation with NMFS, Forest Service, CDFW, USFWS, the Winnemem Wintu Tribe, Pit River Tribe, and State Water Board staff, comments and recommendations made in connection with the plan, and a description of how the plan incorporates or addresses the comments and recommendations.

Within two years of license issuance, the Licensee shall submit the study plans to the Deputy Director for review and consideration of approval. The Deputy Director may require changes to the study plans to ensure protection of water quality and beneficial uses. The Licensee shall implement the study plans upon receipt of Deputy Director approval and any other required approvals, in accordance with the schedule and requirements specified therein.

12(B) Anadromous Fish Species Study Report

Within one year of completion of any studies required per Condition 12(A), the Licensee shall provide a report to the Deputy Director for review and consideration of approval. The report shall be developed in consultation with NMFS, Forest Service, CDFW, USFWS, the Winnemem Wintu Tribe, Pit River Tribe, and State Water Board staff. At a minimum the report shall include:

(i) Results of completed and/or ongoing approved studies identifying any Project-related impacts to winter-run Chinook salmon habitat and populations in the McCloud River below McCloud Dam;

(ii) Recommendations, if appropriate, for additional data collection to better inform Project impacts;

(iii) Identification of adaptive management measures, if appropriate, to address Project impacts based on study plan(s) results. Adaptive management

[38] References to winter-run Chinook salmon in this condition shall be expanded to include other anadromous fish species if broader efforts result in the need for evaluation of additional species.

measures may include changes to the required flows, habitat restoration, access to McCloud River tributaries, or other protective measures;

(iv) Proposed changes, as appropriate, to update certification conditions to protect salmon, including conditions related to flows (Condition 1), water quality monitoring (Condition 3), large woody material (Condition 4), gravel augmentation (Condition 6), biological resources monitoring (Condition 7), and fish stocking (Condition 8); and

(v) Documentation of consultation with NMFS, Forest Service, CDFW, USFWS, the Winnemem Wintu Tribe, Pit River Tribe, and State Water Board staff, comments and recommendations made in connection with the report, and a description of how the report incorporates or address the comments and recommendations.

The Deputy Director may require changes based on the report (e.g., to measures or conditions) to ensure protection of water quality and beneficial uses. The Licensee shall begin implementation of the Deputy Director-approved measures in accordance with the schedule and requirements specified in the Deputy Director approval and receipt of any other required approvals.

12(C) Federal Requirements Related to Anadromous Fish Species

An authorized federal agency may require fish passage or related actions under section 18 of the Federal Power Act at Shasta Dam and/or McCloud Dam during the term of the new license thereby introducing Endangered Species Act (ESA)-protected anadromous fish species into Project-affected stream reaches. Such a requirement could include reevaluation of Project facilities, flow regimes, fish stocking plans, large woody material management, gravel augmentation, and sediment management.

The Deputy Director may require the Licensee to develop and conduct studies, and provide associated reports, if any authorized federal agency requires fish passage or related actions. Any studies and reports shall be reviewed and approved by the Deputy Director prior to implementation. The Deputy Director may require changes as part of any approval. Such studies shall be designed in consultation with NMFS, Forest Service, CDFW, USFWS, the Winnemem Wintu Tribe, Pit River Tribe, and State Water Board staff and may include, but are not limited to, the development of fish passage, flows, or other measures.

If any authorized federal agency requires fish passage or related actions, the Deputy Director may require the Licensee to develop and submit a plan for Deputy Director review and consideration of approval to ensure adequate protection of Central Valley Basin Plan water quality objectives and beneficial uses applicable to anadromous fish. The plan shall evaluate the need for changes to the conditions of this certification, including at a minimum conditions related to: flows (Condition 1), water quality monitoring (Condition 3), large woody material (Condition 4), gravel augmentation (Condition 6), biological resources monitoring (Condition 7), and fish stocking (Condition

8). The Licensee shall provide the plan to the Deputy Director on the timeline identified in the Deputy Director's request and provide any comments and recommendations received from the agencies and/or tribes as part of consultation along with how such comments and recommendations were considered. The Deputy Director may require changes as part of any approval. The Licensee shall file with FERC the Deputy Director-approved studies, reports, and/or plans, and any approved amendments thereto. The Licensee shall implement the studies and plans, and any amendments thereto, upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

CONDITION 13: Annual Consultation Meetings

No later than one year following license issuance, the Licensee shall establish a Technical Review Group (TRG) to meet annually regarding implementation of the Project license. At a minimum, the Forest Service, CDFW, USFWS, tribes, nongovernmental organizations, and State Water Board staff shall be invited to participate in the TRG. The annual meeting shall be noticed at least 30 days in advance on the Licensee's Project webpage and open to the public. The TRG shall establish communication protocols to facilitate interactions between group members that allow for open participation and communication between all parties.

The first meeting of the TRG shall be held no later than the first full calendar year after license issuance. At the annual meetings, the TRG shall:

(i) Review the status of implementing the FERC license and certification conditions;

(ii) Review monitoring data from all monitoring conducted the previous year;

(iii) Review elements of current year maintenance plans and any non-routine maintenance;

(iv) Discuss foreseeable changes to Project facilities or features;

(v) Discuss the status of salmonid reintroduction plans;

(vi) Discuss necessary revisions or modifications to plans approved as part of this certification; and

(vii) Discuss species listing implications, including:

a. Needed protection measures for species newly listed as threatened, endangered, or sensitive;

b. Changes to existing plans for actions that may no longer be necessary due to delisting of a species; and

c. Changes to existing plans to incorporate new information about species requiring protection.

The Licensee shall provide at least 30-days' notice of the annual meeting to the TRG. Materials shall be provided to TRG members at least 30 days prior to the annual meeting. The Licensee shall submit a report to State Water Board staff that summarizes the annual consultation meeting no later than 60 days following the annual consultation meeting.

CONDITION 14: Extremely Dry Conditions

In the event of extremely dry conditions, which may include a year in which the Governor of the State of California declares a drought emergency for Shasta County or Siskiyou County, or multiple consecutive Dry or Critically Dry water year types, the Licensee may request modification of the flow requirements of this certification. If the Licensee anticipates that it may request modification pursuant to this condition, the Licensee shall notify the Forest Service, CDFW, USFWS, and the Deputy Director of the Licensee's concerns related to flows as early as possible, and no later than March 15 of the year in which a request may be submitted. If the Licensee requests modification pursuant to this condition, the Licensee shall develop a Revised Operations Plan in consultation with the Forest Service, CDFW, USFWS, and State Water Board staff for flows during the extremely dry conditions.

The Licensee shall provide notice of the proposed Revised Operations Plan to interested parties at least seven days prior to submittal to the Deputy Director. The Licensee's request shall include: an estimate of water to be saved and the alternative beneficial uses for which the water is being conserved; a timeline for the return to regular operations; proposed monitoring for the revised operations, including an estimation of any impacts the revised operations may have on any beneficial uses of water; and proposed water conservation measures that will be implemented. If conservation measures are not applicable, the Licensee shall describe the circumstances and justification for not implementing water conservation measures.

The Licensee shall submit the proposed Revised Operations Plan to the Deputy Director for review and approval. The Licensee shall also provide a summary of any comments received and how the comments were addressed. The Deputy Director may require modifications to the Revised Operations Plan as part of any approval. The Licensee may implement the Revised Operations Plan upon receipt of Deputy Director and other required approvals, in accordance with the schedule and requirements specified therein. The Licensee shall file with FERC the Deputy Director-approved Revised Operations Plan, and any approved amendments thereto.

CONDITION 15: Certification Scope

This certification only covers the hydropower developments existing at the time of certification: the James B. Black, Pit 6, and Pit 7 Developments. This certification does not cover: the proposed McCloud and Pit 7 Afterbay Developments. If the Licensee

proposes to add new hydropower developments to the Project, it will need to request an amendment to this certification and the FERC license to incorporate such changes.

CONDITIONS 16 – ~~36~~37

CONDITION 16. Any plan developed as a condition of this certification will require review and approval by the Deputy Director. The State Water Board's approval authority, including authority delegated to the Deputy Director or others, includes the authority to withhold approval or to require modification of a proposal, plan, or report prior to approval. The State Water Board may take enforcement action if the Licensee fails to provide or implement a required item in a timely manner. If a time extension is needed to submit an item for Deputy Director approval, the Licensee shall submit a written request for the extension, with justification, to the Deputy Director no later than 60 days prior to the deadline. The Licensee shall file with FERC any Deputy Director-approved time extensions. The Licensee shall not implement any plans or reports until after receiving Deputy Director approval and any other necessary regulatory approvals.

If Deputy Director approval of any plan is not received 14 days prior to an applicable FERC deadline, the Licensee may file the plan with FERC. However, Deputy Director approval is required prior to plan implementation. The Licensee must amend its filing with FERC if changes are made as part of the Deputy Director's subsequent approval.

CONDITION 17. The State Water Board ~~reserves the authority to~~ may add to or ~~modify~~amend the conditions of this certification: (1) to incorporate changes in technology, sampling, or methodologies; (2) if monitoring results indicate that continued operation of the Project could violate water quality objectives or impair beneficial uses; (3) to implement any new or revised 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; (4) to coordinate the operations of this Project and other hydrologically connected water development projects, where coordination of operations is reasonably necessary to meet water quality objectives and protect beneficial uses of water; and (5) to require additional monitoring and/or other measures, as needed, to ensure that continued Project operations meet water quality objectives and protect beneficial uses of the McCloud River, Pit River, Iron Canyon Creek, or their tributaries.

CONDITION 18. Future changes in climate projected to occur during the ~~FERC license term may significantly alter the baseline assumptions used to develop the conditions of this certification. The State Water Board reserves authority to add to or modify the conditions of this certification, to require additional monitoring and/or other measures, as needed, to verify that Project operations meet water quality objectives and protect the beneficial uses assigned to Project-affected stream reaches.~~term of the Project's FERC license may alter the baseline assumptions used to develop the conditions of this certification and necessitate adaptive management. Reports and plans submitted by the Licensee for approval under this certification shall consider the effects of climate change on the Project's operations and, as necessary, propose updates to operations to ensure

protection of water quality and beneficial uses and compliance with other appropriate requirements of state law. The Deputy Director may identify the need for, and set a deadline for, submittal of a report and/or plan focused on additional assessment of potential impacts to water quality and beneficial uses that may have changed from the baseline assumptions used to develop the conditions of the certification, along with recommended changes to address the changed climate conditions and ensure water quality and beneficial use protections. The Deputy Director may include recommendations regarding potential actions that shall be considered by the Licensee in this report and/or plan to ensure ongoing protection of water quality and beneficial uses and compliance with applicable requirements of state law. The Licensee shall implement the plan upon approval by the Deputy Director and any other required approvals, and the Deputy Director may require changes as part of any approval.

CONDITION 19. The State Water Board shall provide notice and an opportunity to be heard in exercising its authority to add to or modify the conditions of this certification.

CONDITION 20. This certification is contingent on compliance with all applicable requirements of the Central Valley Basin Plan.

CONDITION 21. 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 Licensee must take all reasonable measures to protect the beneficial uses of the McCloud River, Pit River, Iron Canyon Creek, or their tributaries.

CONDITION 22. Unless otherwise specified in this certification or at the request of the Deputy Director, data and/or reports shall 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.

CONDITION 23. 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 Licensee, the Licensee must obtain authorization for the take prior to any construction or operation of the portion of the Project that may result in a take. The Licensee is responsible for meeting all requirements of the applicable ESAs for the Project authorized under this certification.

CONDITION 24. The Licensee shall submit any change to the Project, including operations, facilities, technology changes or upgrades, or methodology, 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. The State Water Board shall determine significance and may require consultation with state and/or

federal agencies. If the State Water Board is not notified of a change to the Project, it will be considered a violation of this certification. If such a change would also require submission to FERC, the change must first be submitted and approved by the Executive Director of the State Water Board unless otherwise delegated in this certification or other State Water Board approval.

CONDITION 25. 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, process, 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, process, 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. In response to any violation of the conditions of this certification, the State Water Board may add to or modify the conditions of this certification as appropriate to ensure compliance.

CONDITION 26. In response to a suspected violation of any condition of this certification, the State Water Board or Central Valley 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. (Wat. Code, §§ 1051, 13165, 13267, and 13383.)

CONDITION 27. This certification shall not be construed as replacement or substitution for any necessary federal, state, and local approvals. The Licensee is responsible for compliance with all applicable federal, state, or local laws or ordinances and shall obtain authorization from applicable regulatory agencies prior to the commencement of Project activities.

CONDITION 28. Any requirement in this 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.

CONDITION 29. Upon request, a construction schedule shall be provided to agency staff. The Licensee shall provide State Water Board and Central Valley Regional Water Board staffs access to Project sites to document compliance with this certification.

CONDITION 30. A copy of this certification shall be provided to any contractor and all subcontractors conducting Project-related work, and copies shall remain in their possession at the Project site(s). The Licensee shall be responsible for work conducted by its contractor, subcontractors, or other persons conducting Project-related work.

CONDITION 31. Onsite containment for storage of chemicals classified as hazardous shall be away from watercourses and include secondary containment and appropriate management as specified in California Code of Regulations, title 27, section 20320.

CONDITION 32. Activities associated with operation and maintenance of the Project that threaten or potentially threaten water quality shall be subject to further review by the Deputy Director and Executive Officer.

CONDITION 33. 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.

CONDITION 34. This certification is subject to modification or revocation upon administrative or judicial review, including but not limited to 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).

CONDITION 35. This 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 application for certification was filed pursuant to California Code of Regulations, title 23, section 3855, subdivision (b) and that application for certification specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

CONDITION 36. This certification is conditioned upon total payment of any fee required under California Code of Regulations, title 23, division 3, chapter 28.

CONDITION 37. The Licensee shall ensure no net loss of wetland or riparian habitat functions and is responsible for compliance with the Dredge or Fill Procedures and any amendments thereto, and Water Code sections 16200-16201.

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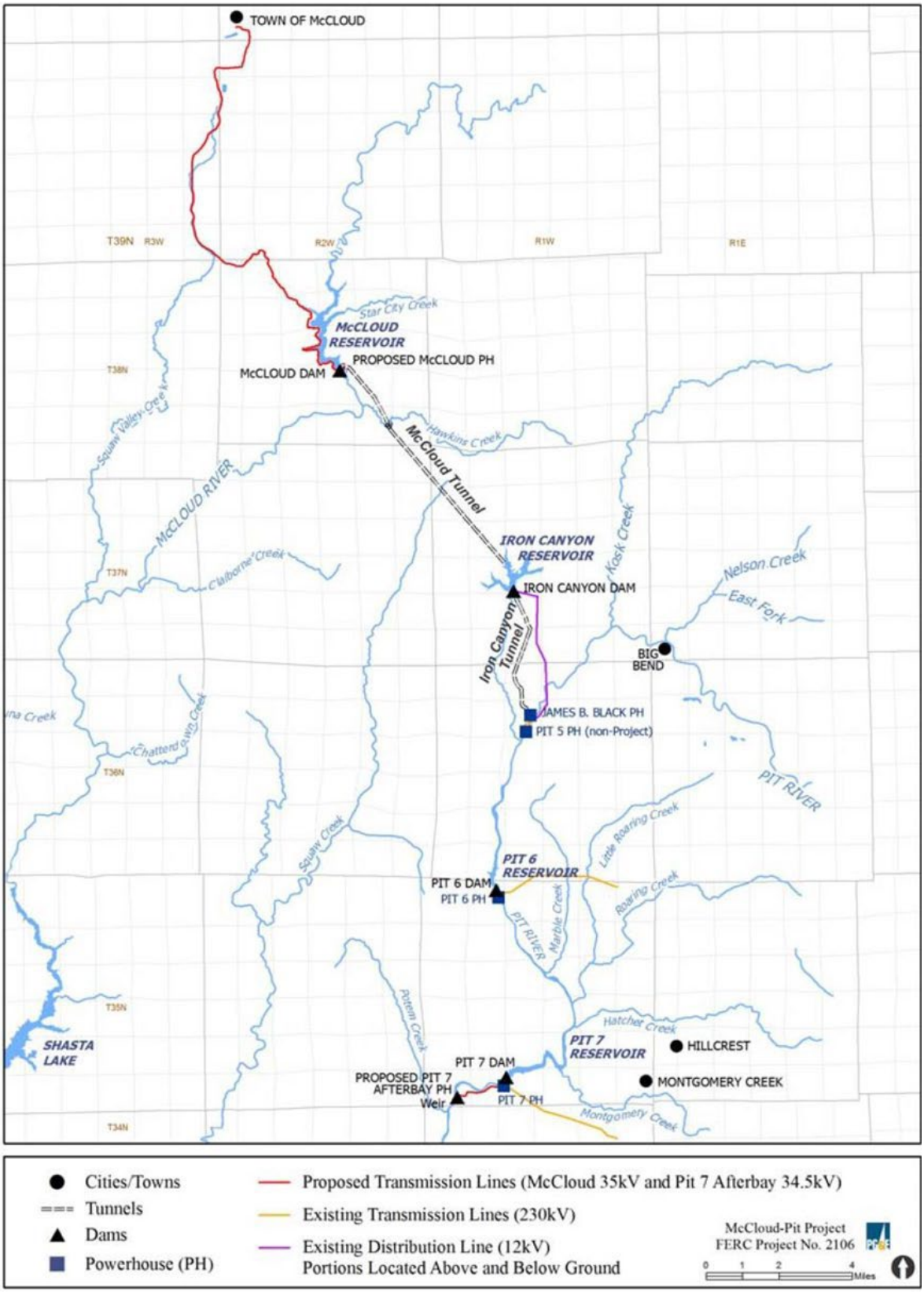

Figure 1. Project Location Map

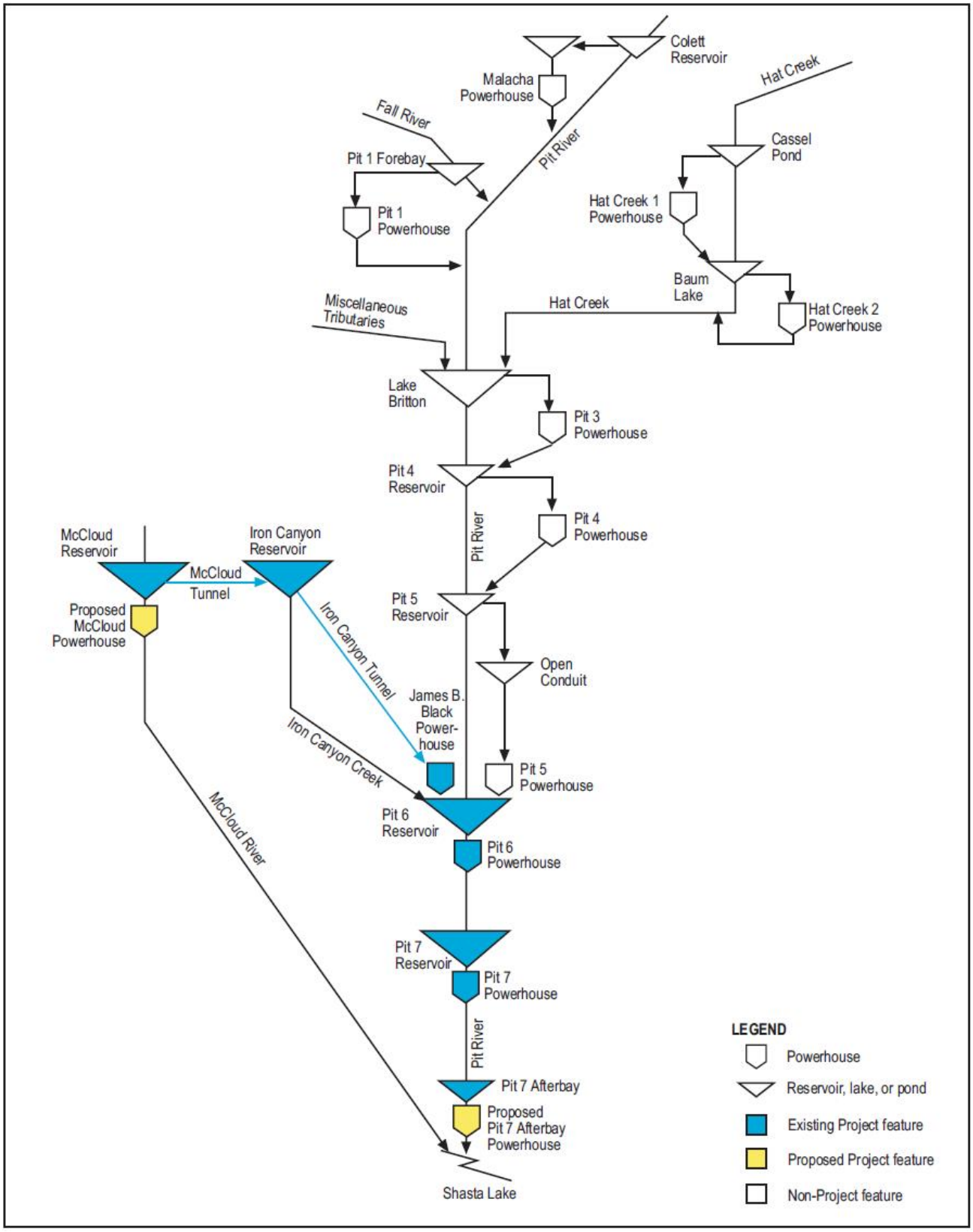

Figure 2. Schematic of McCloud-Pit Hydroelectric Project Operations