STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the Matter of Water Quality Certification for

NEVADA IRRIGATION DISTRICT'S
YUBA-BEAR HYDROELECTRIC PROJECT

FEDERAL ENERGY REGULATORY COMMISSION PROJECT NO. 2266

Sources: South Yuba River, Middle Yuba River, Bear River

Counties: Sierra, Nevada, and Placer

DRAFT WATER QUALITY CERTIFICATION FOR FEDERAL PERMIT OR LICENSE

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Abbreviations

AF	*acre-feet*
Antidegradation Policy	*State Water Board's Statement of Policy with Respect to Maintaining High Quality Waters in California*
Aquatic Weed Control General Permit	*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*
Bay-Delta	San Francisco Bay/Sacramento-San Joaquin Delta Estuary
Bay-Delta Plan	*Water Quality Control Plan for the San Francisco Bay-Sacramento/San Joaquin Delta Estuary*
BLM	*United States Department of the Interior Bureau of Land Management*
BMI	*benthic macroinvertebrates*
BMP	*best management practices*
CDFW	*California Department of Fish and Wildlife*
CDEC	*California Data Exchange Center*
Central Valley Regional Water Board	*Central Valley Regional Water Quality Control Board*
Central Valley Basin Plan	*Water Quality Control Plan for Sacramento River Basin and San Joaquin River Basin*
CEQA	*California Environmental Quality Act*
certification	*water quality certification*
cfs	*cubic feet per second*
Construction General Permit	*General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities*
CWA	*Clean Water Act*
Deputy Director	*Deputy Director of the Division of Water Rights*
DWR	*California Department of Water Resources*
DSOD	*California Division of Safety of Dams*
Dredge or Fill Procedures	*State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*
ESA	*Endangered Species Act*
FEIS	*Final Environmental Impact Statement*
FERC	*Federal Energy Regulatory Commission*
FLA	*Final License Application*
LWM	*large woody material*
Mercury Provisions	*Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of*

	California—Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions
MIFs	*minimum instream flows*
NEPA	*National Environmental Policy Act*
NID or Licensee	*Nevada Irrigation District*
Ninth Circuit	*United States Court of Appeals for the Ninth Circuit*
NMFS	*National Marine Fisheries Service*
NPDES	*National Pollutant Discharge Elimination System*
OEHHA	*Office of Environmental Health Hazard Assessment*
PG&E	*Pacific Gas and Electric Company*
PM&E	*protection, mitigation, and enhancement measures*
Project	*Yuba-Bear Hydroelectric Project*
Regional Water Boards	*Regional Water Quality Control Boards*
State Water Board	*State Water Resources Control Board*
TAF	*thousand acre-feet*
TMDL	*total maximum daily loads*
TRG	*Technical Review Group*
USACE	*United States Army Corps of Engineers*
USEPA	*United States Environmental Protection Agency*
USFWS	*United States Fish and Wildlife Service*
USFS	*United States Department of Agriculture, Forest Service*
USGS	*United States Geological Service*
Water Boards	*State Water Board and Regional Water Boards, collectively*
WQMP Plans	*Water Quality Monitoring and Protection Plans*

1.0 Project Description

Nevada Irrigation District (NID or Licensee) owns and operates the Yuba-Bear Hydroelectric Project (Project), which is located on the Middle Yuba, South Yuba, and Bear rivers, in Sierra, Nevada, and Placer counties (See Figure 1). The nearest major city to the Project is Nevada City, which is located approximately 25 miles southwest of Bowman Lake. The Yuba and Bear rivers are tributaries to the Feather River and are part of the Sacramento River Basin, which drains to the San Francisco Bay through the Sacramento-San Joaquin Delta Estuary. The Project was initially licensed to operate by the Federal Power Commission, predecessor to the Federal Energy Regulatory Commission (FERC), on June 24, 1963.

The Project includes: 13 main dams (18 including minor diversion dams); 11 reservoirs or impoundments; four major water conduits; four powerhouses with associated switchyards; one transmission line; and 13 recreation facilities. Portions of the Project are on federal lands managed by the United States Department of Agriculture, Forest Service (USFS) as part of the Tahoe National Forest, and a smaller portion on federal lands in the Project area are administered by the United States Department of Interior Bureau of Land Management (BLM) as part of the Sierra Resource Management Area.

An illustration of how water flows through the Project is shown in Figure 2: *Schematic of the Yuba-Bear Project Operations*. Water generally flows through the Project as follows:

- Canyon Creek, Jackson Creek, Wilson Creek, and the Middle Yuba River discharge into Bowman Lake, which has a usable storage capacity of 68,363 acre-feet (AF).
    - Canyon Creek: From upstream to downstream Canyon Creek flows from French Lake (usable storage capacity of 13,940 AF) at French Dam into Faucherie Lake (usable storage capacity of 13,740 AF), from Faucherie Dam downstream into Sawmill Lake (usable storage capacity of 3,030 AF), and is released from Sawmill Dam into Bowman Lake.
    - Jackson Creek: Jackson Creek flows into Jackson Lake (usable storage capacity of 1,334 AF) where it is released from Jackson Dam and then flows into Bowman Lake.
    - Wilson Creek: A portion of Wilson Creek is diverted via the Wilson Creek Diversion Dam, which flows into the Milton-Bowman Diversion Conduit (maximum flow capacity of 450 cubic feet per second (cfs)) and then discharges into Bowman Lake. Releases from the Wilson Creek diversion dam continue downstream to the Middle Yuba River.
    - Middle Yuba River: Water from the Middle Yuba River flows into Jackson Meadows Reservoir (usable storage capacity of 67,435 AF) and is released from Jackson Meadows Dam into the Middle Yuba River where a portion of the river is diverted via the Milton Diversion Dam into the Milton-Bowman Diversion Conduit and then discharges into Bowman Lake.
- Bowman Lake: Sources of water to Bowman Lake include water from Wilson Creek and the Middle Fork Yuba River that flow into Bowman Lake via the Milton-Bowman Diversion Conduit as well as flows from Canyon and Jackson

Creeks. Water is stored and released from Bowman Lake (behind Bowman Dam) through the Bowman Powerhouse into the Bowman-Spaulding Conduit (maximum flow capacity of 300 cfs), which discharges into Fuller Lake, which is part of Pacific Gas and Electric Company's (PG&E) Upper Drum-Spaulding Hydroelectric Project's (Upper Drum Project; FERC Project No. 2310).

- South Yuba River: Along the Bowman-Spaulding Conduit there are five small diversion structures on Texas, Clear, Fall, Trap, and Rucker creeks, known as "feeders," that also supply water to the conduit. These feeders augment flow in the conduit up to the conduit's capacity. Flow from the feeders that exceeds the conduit's capacity spills into the closest natural drainage(s). Canyon, Texas, Fall, Clear, Trap, and Rucker Creeks flow into the South Yuba River.
- Bear River: Water from the Bear River flows into NID's Dutch Flat No. 2 Powerhouse and PG&E Upper Drum Project's Dutch Flat No. 1 Powerhouse and discharges into the Project's Dutch Flat Afterbay[1] located on the Bear River, where the water is then delivered via the Chicago Park Flume (maximum flow capacity of 1,100 cfs) to the Project's Chicago Park Powerhouse by way of the Project's Chicago Park Forebay. Daily flow releases are scheduled based on downstream consumptive demand for NID and Placer County Water Agency raw water and municipal customers and discretionary hydroelectric power generation. The Chicago Park Powerhouse discharges into the Bear River roughly one mile upstream of the Project's Rollins Reservoir.
- Rollins Reservoir (also known as Rollins Lake): With a gross storage capacity of roughly 59,000 AF, Rollins Reservoir is the Project's major low-elevation storage reservoir. Rollins Reservoir is a multipurpose facility that is used for municipal, irrigation, domestic water supply, recreation, and power generation. Water released from Rollins Reservoir is impounded in PG&E's Upper Drum Project Bear River Canal Diversion Impoundment and Dam where it is either diverted through the Bear River Canal for NID and Placer County Water Agency water deliveries or continues down the Bear River to NID's Lake Combie (a non-Project facility).

Under its existing FERC Project license, NID releases minimum instream flows (MIFs) from Jackson Meadows Reservoir, Milton Diversion Impoundment, Jackson Lake, French Lake, Bowman-Spaulding Conduit, Dutch Flat Afterbay, and Rollins Reservoir. NID maintains minimum pool elevations under its existing FERC license for the Project at Jackson Meadows Reservoir, Milton Diversion Dam Impoundment, and Rollins Reservoir. Several Project diversions (i.e., Wilson Creek, Texas Creek, Clear Creek, Fall Creek, Trap Creek and Rucker Creek) have no MIF requirements in the existing FERC Project license.

In addition to its request to continue to operate the Project under a new FERC license for 50 years, NID proposes to: expand the existing Rollins Development to add the

[1] While PG&E and NID share capacity in the Dutch Flat Afterbay, the afterbay is owned and operated by NID in coordination with PG&E.

Rollins No. 2 Powerhouse[2]; add five new streamflow gages; and replace, upgrade, or install new recreation facilities[3]. NID also proposes to adjust the FERC Project boundary to account for the new and upgraded facilities and infrastructure (e.g., Project areas are being removed and added for various roads, campgrounds, pipelines, etc.).

Additional information on the Project facilities, current Project operations, and NID's proposed Project operations can be found in its final license application (FLA) for the Project, including amendments thereto, and Attachment A of this Project water quality certification (certification), which provides a description of the Project.

1.1 Water Rights

Table A below lists the water rights held and/or claimed by NID for the Project.

Table A. Project-Related Water Rights Held or Claimed by NID

Water Right No.	Source	Priority Date	Place of Storage or Diversion	Purpose of Use
S004716	Canyon Creek	1878	Sawmill Lake	Domestic, Irrigation, Power
S004717	Canyon Creek	1859	French Lake	Domestic, Irrigation, Power
S010591	Damfine Spring	1967	Jackson Meadows Campground	Domestic
S010592	Unnamed Tributary to Pass Creek	1967	Jackson Meadows Campground	Domestic
S013330	Middle Yuba River	1854	Milton Diversion Impoundment	Domestic, Irrigation, Mining, Recreational, Stockwatering, Fire Protection, Incidental Power
S013800	Canyon Creek	1872	Bowman Reservoir	Domestic, Irrigation, Mining, Recreational, Stockwatering, Fire Protection, Power

[2] The new powerhouse will be located on NID-owned land adjacent to the existing Rollins powerhouse. The additional powerhouse will be capable of generating 11.4 megawatts with a discharge capacity of 600 cfs.

[3] New and updated recreation facilities include: (1) upgrades to existing recreation facilities (e.g., installation of animal-resistant food lockers; construction of pedestrian trails, vault toilet installation, and boat launch upgrades); (2) development of a new day-use area and camp site at Milton Diversion Impoundment; (3) development of a new day-use area and camp site at Bowman Lake; and (4) development of 10 new camp sites at Sawmill Lake.

Water Right No.	Source	Priority Date	Place of Storage or Diversion	Purpose of Use
S013801	Canyon Creek	1872	Faucherie Lake	Domestic, Irrigation, Mining, Recreational, Stockwatering, Fire Protection, Power, Industrial, Municipal
S013927	South Yuba River	1874	PG&E's South Yuba Canal	Domestic, Irrigation, Mining, Recreational, Stockwatering, Fire Protection, Power, Industrial, Municipal
S013928	South Yuba River	1874	PG&E's Drum Canal	Domestic, Irrigation
S014354	Bear River	1853	Rollins Reservoir	Power
S014355	Bear River	1853	PG&E's Bear River Canal	Domestic, Irrigation, Mining, Stockwatering, Fire Protection, Power
S014356	Canyon Creek	1872	Bowman Reservoir	Power
L012795 (Licensed 7/10/1991)	Jackson Creek, Canyon Creek, Texas Creek, Fall Creek, Trap Creek	5/7/1919	Jackson Lake, Faucherie Lake, Sawmill Lake, Bowman Lake, Bowman-Spaulding Conduit	Municipal, Domestic, Mining, Irrigation
L012796 (Licensed 7/10/1991)	Middle Yuba River	3/25/1921	Jackson Meadows and Bowman Reservoir	Power
L012797 (Licensed 7/10/1991)	Middle Yuba River	3/25/1921	Jackson Meadows and Bowman Reservoir	Domestic, Irrigation, Mining
L012798 (Licensed 7/10/1991)	Jackson Creek, Canyon Creek, Texas Creek, Fall Creek, Trap Creek	6/3/1921	Jackson Lake, Faucherie Lake, Sawmill Lake, Bowman Lake, Bowman-Spaulding Conduit	Power
L010350 (Licensed 11/26/1968)	Bear River	11/22/1921	Rollins Reservoir	Irrigation, Domestic, Recreational, Incidental Power

Water Right No.	Source	Priority Date	Place of Storage or Diversion	Purpose of Use
P011626 (License in Progress)	Bear River	11/22/1921	Rollins Reservoir	Irrigation, Domestic, Recreational
L004544 (Licensed 2/11/1957)	Middle Yuba River, Canyon Creek, others not listed	11/7/1924	PG&E's Drum Canal	Power
L001707 (Licensed 12/15/1936)	Middle Yuba River, Canyon Creek, others not listed	11/7/1924	PG&E's South Yuba Canal	Power
P013770 (License in Progress)	Middle Yuba River	9/8/1926	Jackson Meadows, Milton Reservoir, Bowman Reservoir	Irrigation, Domestic, Recreational
L008809 (Licensed 1/20/1964)	Bear River	3/26/1929	Bear River Canal	Irrigation, Domestic
L012799 (Licensed 7/10/1991)	Clear Creek, Fall Creek, Trap Creek	6/16/1930	Bowman-Spaulding Conduit	Power
L012800 (Licensed 7/10/1991)	Clear Creek, Fall Creek, Trap Creek	6/16/1930	Bowman-Spaulding Conduit	Irrigation
L012801 (Licensed 7/10/1991)	Wilson Creek	11/27/1934	Milton-Bowman Conduit, Bowman Lake	Irrigation, Domestic, Municipal

Water Right No.	Source	Priority Date	Place of Storage or Diversion	Purpose of Use
L012802 (Licensed 7/10/1991)	Texas Creek, Clear Creek, Fall Creek, Trap Creek, Rucker Creek	11/27/1934	Bowman-Spaulding Conduit	Power
L012803 (Licensed 7/10/1991)	Wilson Creek	11/27/1934	Milton-Bowman Conduit, Bowman Lake	Power
P005815 (License in Progress)	Texas Creek, Clear Creek, Fall Creek, Trap Creek, Rucker Creek	11/27/1934	Bowman-Spaulding Conduit, PG&E's Lake Spaulding	Irrigation, Domestic
L010016 (Licensed 3/5/1973)	South Yuba River	9/3/1953	PG&E's Lake Spaulding	Power
P013772 (License in Progress)	South Yuba River	3/6/1961	Rollins Reservoir	Irrigation, Domestic
P013773 (License in Progress)	Middle Yuba River	4/6/1961	Jackson Meadows and Bowman Reservoirs	Power
L009903 (Licensed 4/19/1972)	Bear River	2/5/1963	Chicago Park Flume	Power
L009902 (Licensed 4/19/1972)	Bear River	2/5/1963	Dutch Flat No. 2 Flume	Power
P016953 (License in Progress)	Bear River	1/9/1976	Rollins Reservoir	Power
P019158 (License in Progress)	Canyon Creek	10/22/1982	Bowman Reservoir	Power

2.0 Federal Energy Regulatory Commission Licensing Process

The Federal Power Commission issued a 50-year license for the Project on June 24, 1963. On April 15, 2011, NID filed a FLA (NID, 2011a) with FERC proposing to relicense the Project for a 50-year term. Subsequent filings to the FLA include but are not limited to its: (1) September 23, 2011 filing, amending the FLA to include recreational use and visitor information surveys (NID, 2011b); (2) June 18, 2012 filing, amending the FLA to include updates to protection, mitigation, and enhancement measures, the FERC boundary, and correcting hydrology information that was included in the FLA (NID, 2012b); (3) May 19, 2014 filing, updating Project information based on USFS revised 4(e) conditions (NID, 2014b); (4) December 21, 2018 amendment addressing potential Project effects to federal Endangered Species Act (ESA)-listed species and their designated critical habitat (NID, 2018b); and, (5) January 2, 2019, addressing potential Project effects to federal ESA-listed species and their designated critical habitat (NID, 2019). On December 19, 2014, FERC issued the *Final Environmental Impact Statement for Hydropower License – Upper Drum-Spaulding Hydroelectric Project – Project No. 2310-193, Lower Drum Hydroelectric Project – Project No. 14531-000, Deer Creek Hydroelectric Project – Project No. 14530-000, and Yuba-Bear Hydroelectric Project– Project No. 2266*, under the National Environmental Policy Act (FERC 2014). On March 8, 2021, FERC announced that it intends to supplement its Final EIS to, in part to address National Marine Fisheries Service (NMFS) ESA consultation requirements (FERC 2021). Since May 13, 2013, the Project has been operating under annual licenses issued by FERC (i.e., license conditions established in FERC's original June 24, 1963, license for the Project and subsequent FERC license amendments issued on October 14, 1977, May 24, 1985, October 24, 1994, July 21, 1995, January 16, 2001, and May 16, 2006).

3.0 Regulatory Authority

3.1 Water Quality Certification and Related Authorities

The federal Clean Water Act (33 U.S.C. § 1251 et seq.) was enacted "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." (33 U.S.C. § 1251(a).) The Clean Water Act recognizes, preserves, and protects "the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution [and] to plan the development and use (including restoration, preservation, and enhancement) of land and water resources…." (33 U.S.C. § 1251(b).) In addition, section 101 of the Clean Water Act requires federal agencies to "co-operate with State and local agencies to develop comprehensive solutions to prevent, reduce and eliminate pollution in concert with programs for managing water resources." (33 U.S.C. § 1251(g).)

Section 401 of the Clean Water Act (33 U.S.C. § 1341) requires any applicant for a federal license or permit to conduct any activity which may result in a discharge into navigable waters to provide the licensing or permitting federal agency with certification that the project will comply with specific 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 state agency responsible for certification to prescribe effluent limitations and other conditions necessary to ensure compliance with the Clean Water Act and with "any other appropriate requirement of State law." (33 U.S.C. § 1341(d).) These certification conditions shall become conditions of any federal license or permit for the Project (*Ibid.*)

The State Water Resources Control Board (State Water Board or Board) is the state agency responsible for Section 401 certification in California. (Wat. Code, § 13160.) The State Water Board has delegated authority to act on applications for certification to the Executive Director of the State Water Board. (Cal. Code Regs., tit. 23, § 3838, subd. (a).)

Water Code section 13383 provides the State Water Board may "establish monitoring, inspection, entry, reporting, and recordkeeping requirements" and obtain "other information as may be reasonably required" for activities subject to certification under section 401 of the Clean Water Act. For activities 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) in State Water Board Resolution No. 2012-0029. (State Water Board, 2012.) In the *Redelegation of Authorities* memo issued by the Deputy Director on April 20, 2023, this authority is redelegated to the Assistant Deputy Directors of the Division of Water Rights. (State Water Board, 2023a.)

3.2 Procedure, Application, and Noticing

NID filed an application with FERC for a new hydropower license for the Project on April 15, 2011, and a certification application with the State Water Board for the Project on March 15, 2012. NID withdrew and resubmitted its certification application on March 1, 2013, and repeated this process annually until 2018.[4] On January 25, 2019, the State Water Board denied NID's January 29, 2018, certification application without prejudice (State Water Board, 2019a). The State Water Board issued certification for the Project on August 14, 2020. After FERC granted a request from NID to find the Board waived its certification authority under section 401 of the Clean Water Act (CWA) for the Project, the United States Court of Appeals for the Ninth Circuit (Ninth Circuit) in *California State Water Resources Control Board v. FERC*[5] vacated FERC's order finding that the State Water Board waived its certification authority and remanded the matter to FERC for action consistent with the Ninth Circuit court's decision. On September 27, 2023, NID filed a supplemental petition to request that FERC again find that the State Water Board had waived its certification authority for the Project. On February 15, 2024, FERC rejected NID's petition and required NID to file the requested information by April 15, 2024. On March 8, 2024, NID filed a request for rehearing of FERC's rejection. On April 8, 2024, FERC denied the rehearing request. On

[4] NID withdrew and resubmitted certification applications for the Project on March 1, 2013, February 21, 2014, February 16, 2015, February 9, 2016, February 3, 2017, and January 29, 2018.

[5] 43 F.4th 920 (9th Cir. 2022), cert denied 2023 WL 3440583 (Westlaw 2023).

April 8, 2024, NID filed a petition for review of FERC's February 2024 order with the US Court of Appeals for the D.C. Circuit that remains pending. On February 15, 2024, FERC directed NID provide FERC, within 60 days, (1) a copy of a new request for certification, (2) a copy of a new certification, or (3) evidence of waiver of the Board's certification authority. On May 7, 2024, the State Water Board issued Order WQ 2024-0046 which set aside the Board's August 14, 2020, certification. On August 29, 2024, the State Water Board received NID's most recent application for certification for the Project.

On February 4, 2025, State Water Board staff shared the certification application with the Central Valley Regional Water Quality Control Board (Central Valley Regional Water Board). No comments were received.

4.0 Water Quality Control Plans and Related Authorities

The State Water Board's certification for the Project must ensure compliance with applicable water quality standards in the 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) (Central Valley Regional Water Board, 2019) and the *Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary* (Bay-Delta Plan)[6] and any amendments thereto.

Water quality control plans designate the beneficial uses of water that are to be protected (such as municipal and domestic supply, industrial, agricultural, fish and wildlife), water quality objectives for the reasonable protection of the beneficial uses and the prevention of nuisance, and a program of implementation to achieve the water quality objectives. (Wat. Code, §§ 13241, 13050, subds. (h), (j).) The beneficial uses, together with the water quality objectives contained in the water quality control plans, and applicable state and federal anti-degradation requirements, constitute California's water quality standards for purposes of the Clean Water Act. In issuing water quality certification for a project, the State Water Board must ensure consistency with the designated beneficial uses of waters affected by the project, the water quality objectives developed to protect those uses, and anti-degradation requirements. (*PUD No. 1 of Jefferson County v. Washington Dept. of Ecology* (1994) 511 U.S. 700, 714-719.)

The nine 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.) As noted above, 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. (Water Code, § 13170.) The State Water Board and Regional Water Boards (collectively Water Boards) adopt the plans pursuant to their

[6] In October 2024, the State Water Board released a draft Bay-Delta Plan for public comment. (State Water Board, 2024)

authorities under the Porter-Cologne Water Quality Control Act (Wat. Code, §§ 13000 et seq.) and the federal Clean Water Act (33 U.S.C. §1313).

Periodic Review. The State Water Board has commenced the 2024 Review of State Water Quality Control Plans and State Policies for Water Quality Control (2024 Review of State Plans and Policies). State water quality control plans and policies for water quality control (State Plans and Policies) contain water quality standards and other provisions established by the State Water Board to preserve and enhance California's waters to safeguard human health, support aquatic ecosystems, improve the quality of water resources, and protect beneficial uses of waters.

Triennial reviews are conducted pursuant to the federal Clean Water Act (33 U.S.C. § 1251 et seq.) and its implementing regulations, and periodic reviews are conducted pursuant to the Porter-Cologne Water Quality Control Act (Wat. Code, § 13000 et seq.). (See 33 U.S.C. § 1313(c)(1), 40 C.F.R. § 131.20(a), Wat. Code, §§ 13143, 13170, 13170.2, subd. (b), 13240.) For the 2024 review cycle, the State Water Board will be conducting triennial review and periodic review in a single combined proceeding. In addition to reviewing State Plans and Policies, the 2024 Review of State Plans and Policies will include consideration of the federally promulgated water quality standards for California (40 C.F.R. §§ 131.36, 131.37 and 131.38) and the Clean Water Act section 304(a) recommended criteria.

The 2024 Review of State Plans and Policies will help engage the public and interested persons to identify potential changes or additions that will help to guide the State Water Board's priorities for future amendments to the State Plans and Policies, including new or revised water quality standards that are enforceable for the waterbodies for which they are established.

4.1 Central Valley Basin Plan

The Central Valley Regional Water Board adopted, and the State Water Board and USEPA approved, the Central Valley Basin Plan. The Central Valley Basin Plan designates 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 Project-related surface waters as follows:

- In the Yuba River, for sources to Englebright Reservoir: municipal and domestic supply; irrigation; stock watering; power; contact recreation; canoeing and rafting; other noncontact recreation; cold freshwater habitat; cold spawning habitat; and wildlife habitat.

- In the Bear River: municipal and domestic supply; irrigation; stock watering; power; contact recreation; canoeing and rafting; other noncontact recreation; and wildlife habitat. Additionally, potential beneficial uses are identified for the Bear River including warm migration; cold migration; warm spawning habitat; and cold spawning habitat.

4.2 Bay-Delta Plan

The Bay-Delta Plan establishes water quality objectives to protect beneficial uses of water in the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta) and tributary watersheds, including drinking water supply, irrigation supply, and fish and wildlife. The State Water Board adopts the Bay-Delta Plan pursuant to its authorities under the Porter-Cologne Water Quality Control Act (Wat. Code, § 13000 et seq.) and the federal Clean Water Act (33 U.S.C. § 1313).

The State Water Board has historically developed the water quality control plan for the Bay-Delta for several reasons. The Bay-Delta is a critically important natural resource that is both the hub of California's water supply system and the most valuable estuary and wetlands system on the West Coast. As diversions of water within and upstream of the Bay-Delta Estuary are a driver of water quality in the Bay-Delta watershed, much of the implementation of the Bay-Delta Plan relies on the combined water quality and water rights authorities of the State Water Board. In addition, the Bay-Delta falls within the boundaries of two Regional Water Boards. Having the State Water Board develop and adopt a water quality control plan that crosses Regional Water Board boundaries ensures a coordinated approach.

The beneficial uses identified in the Bay-Delta Plan are: municipal and domestic supply; industrial service supply; industrial process supply; agricultural supply; groundwater recharge; navigation; water contact recreation; non-contact water recreation; shellfish harvesting; commercial and sport fishing; warm freshwater habitat; cold freshwater habitat; migration of aquatic organisms; spawning, reproduction, and/or early development; estuarine habitat; wildlife habitat; and rare, threatened, or endangered species. In addition, the State Water Board is proposing to incorporate tribal beneficial uses in recognition of the numerous California Native American Tribes that rely upon Bay-Delta waterways, the surrounding lands, and the native fish and fauna for subsistence, cultural, ceremonial, and spiritual purposes.

The State Water Board is in the process of updating the Bay-Delta Plan focused on the Sacramento River and its tributaries (including the Yuba River and Bear River), Delta eastside tributaries, Delta outflows, and interior Delta flows. This effort is referred to as the Sacramento/Delta Update to the Bay-Delta Plan.

Protection of the Bay-Delta ecosystem and its native aquatic species requires an integrated approach to effectively connect upstream suitable cold water nursery habitat, floodplains, tidal marshland, and turbid open water habitats in the Delta and Bay – and to connect those environments to the ocean. Accordingly, the Sacramento/Delta Update to the Bay-Delta Plan is intended to provide a flow regime that supports a connected and functioning ecosystem linking and integrating inflow, cold water habitat, Delta outflow, and interior Delta flow measures with complementary physical habitat restoration and other nonflow measures. Changes are proposed to the water quality objectives, and the program of implementation for those objectives, as well as changes to monitoring, reporting, and assessment requirements. All water users on Sacramento/Delta tributaries would bear responsibility for achieving the objectives and

for contributing to the Delta outflow objectives, including diverters upstream and in the Delta. A voluntary agreement pathway is being considered for certain tributaries for a set term. Measures to implement the plan will consist of actions by water right holders, regulatory measures to protect water quality and flow (e.g., Board regulations, decisions, or orders), and recommendations to other entities. The program of implementation, including any approvals of voluntary agreements, describes actions necessary to achieve the water quality objectives of the Bay-Delta Plan and does not preclude the State Water Board from identifying or requiring other actions to achieve Bay-Delta Plan objectives or objectives in the Central Valley Basin Plan. The State Water Board retains its authority to carry out its responsibilities under the Water Code, article X, section 2 of the California Constitution, the public trust doctrine, or other legal obligations, through other water right or quality proceedings, including through regulation, water quality certifications, adjudicative water right proceedings, or other actions.

4.3 Antidegradation Policy

The State Water Board's Statement of Policy with Respect to Maintaining High Quality Waters in California (Antidegradation Policy)[7] (State Water Board, 1968) requires that the quality of existing high-quality water be maintained unless any change will be consistent with the maximum benefit to the people of the state, will not unreasonably impact present or anticipated future beneficial uses of such water, and will not result in water quality less than that prescribed in water quality control plans or policies. The Antidegradation Policy further requires best practicable treatment or control of the discharge necessary to assure that pollution or nuisance will not occur and the highest water quality consistent with maximum benefit to the people of the state will be maintained. The state Antidegradation Policy incorporates the federal Antidegradation Policy (40 C.F.R. § 131.12 (a)(1)), which requires "[e]xisting instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected." (*Id*., § 131.12(a)(1).)

4.4 Clean Water Act Section 303(d) Listing

The State Water Board listed portions of the waterbodies associated with the Project as impaired in *California's 2024 California Integrated Report (Clean Water Act Section 303(d) List/505(b) Report)* (2024 Integrated Report) (State Water Board, 2024) as follows:

- South Yuba River (Lake Spaulding to Englebright Reservoir) is listed for mercury, chromium, copper, iron, and water temperature.
- Yuba River (confluence of North and Middle Yuba River to Englebright Reservoir) is listed for chromium and mercury;

[7] State Water Board Resolution No. 68-16 and any amendments thereto. Available at: https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/1968/rs68_016.pdf. Accessed on February 13, 2025.

- Upper Bear River (from Combie Lake to Camp Far West Reservoir) is listed for mercury; and
- Rollins Reservoir is listed for mercury.

Section 303(d) of the Clean Water Act requires total maximum daily loads (TMDLs) to be developed for impaired waterbodies. TMDLs are written plans that define the maximum amount of a pollutant that a waterbody can receive without exceeding water quality standards and establish load allocations for point and nonpoint sources of pollution.

4.5 Construction General Permit

Coverage under the State Water Board's National Pollutant Discharge Elimination System (NPDES) *General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (Construction General Permit)[8] (State Water Board, 2009, 2022a) is required for activities that disturb one or more acres of soil or that disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres. Construction activities subject to the Construction General Permit include clearing, grading, and disturbances to the ground, such as stockpiling or excavation, but do not include regular maintenance activities performed to restore the original line, grade, or capacity of a facility. Coverage is required pursuant to Clean Water Act sections 301 and 402 that prohibit certain discharges of stormwater containing pollutants except in compliance with a NPDES permit. (33 U.S.C. §§ 1311, 1342(p); 40 C.F.R. pts. 122, 123, and 124.)

4.6 State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State

The *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (Dredge or Fill Procedures)[9] (State Water Board, 2019, 2021) 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.

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[8] Water Quality Order No. 2009-0009-DWQ and National Pollutant Discharge Elimination System No. CAS000002, as amended by Order No. 2010-0014-DWQ and Order No. 2012-0006-DWQ, and any amendments thereto. Available online at: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html Last accessed February 13, 2025.

[9] The Dredge or Fill Procedures and any amendments thereto. Available at: https://www.waterboards.ca.gov/water_issues/programs/cwa401/wrapp.html. Accessed on February 13, 2025.

NID must comply with the Dredge or Fill Procedures when conducting dredge or fill activities that may impact waters of the state, including wetlands.

4.7 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)[10] (State Water Board, 2022) 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.

4.8 Statewide Mercury Provisions

On May 2, 2017, the State Water Board adopted Resolution No. 2017-0027, which approved Part 2 of the *Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions* (Mercury Provisions) (State Water Board, 2017a).[11] The Mercury Provisions provide a consistent regulatory approach throughout the state by setting mercury limits to protect the beneficial uses associated with the consumption of fish by both people and wildlife. The State Water Board also established definitions for three new beneficial uses (tribal traditional culture, tribal subsistence fishing, and subsistence fishing) for use by the Water Boards. The State Water Board also approved one narrative and four numeric mercury objectives to apply to inland surface waters, enclosed bays, and estuaries of the state that have any of the following beneficial use definitions: commercial and sport fishing, tribal traditional culture, tribal subsistence fishing, wildlife habitat, marine habitat, preservation of rare and endangered species, warm freshwater habitat, cold freshwater habitat, estuarine habitat, or inland saline water habitat, with the exception of waterbodies or waterbody segments with site-specific mercury objectives. These provisions are implemented through NPDES permits, certifications, waste discharge requirements, and waivers of waste discharge requirements.

4.9 Statewide Bacterial Provisions

On August 7, 2018, the State Water Board adopted Resolution No. 2018-0038, which approved Part 3 of the *Water Quality Control Plan for Inland Surface Waters, Enclosed*

[10] Water Quality Order No. 2013-0002-DWQ and NPDES No. CAG990005, as amended by Order No. 2014-0078-DWQ, Order No. 2015-0029-DWQ, Order No. 2016-0073-EXEC, 2017-0015-EXEC, 2020-0037-EXEC, and 2022-056-EXEC, and any amendments thereto. Available online at: https://www.waterboards.ca.gov/water_issues/programs/npdes/pesticides/docs/weedcontrol/2022-0056-EXEC.pdf. Last accessed: May 12, 2025.

[11] Available online at: https://www.waterboards.ca.gov/water_issues/programs/mercury/ Last accessed: February 25, 2025.

Bays, and Estuaries of California – Bacteria Provisions and a Water Quality Standards Variance Standards Policy (Bacterial Provisions) (State Water Board, 2019c).[12] The Bacterial Provisions protect waters designated with the REC-1 (water contact recreation) beneficial use by establishing statewide numeric water quality objectives for bacteria, based on the USEPA 2012 Recreational Criteria. The objective corresponds with the risk protection level of 32 illnesses per 1,000 recreators and uses *E. coli* as the indicator of pathogens in freshwaters and enterococci as the indicator of pathogens in estuarine and ocean waters. The Bacteria Provisions' bacteria water quality objectives supersede basin-wide numeric water quality objectives for REC-1 beneficial uses contained in a water quality control plan adopted before the effective date of the Bacteria Provisions. Narrative water quality objectives and site-specific numeric objectives for bacteria established in water quality control plans are not superseded by the Bacteria Provisions. These provisions are implemented through NPDES permits, certifications, waste discharge requirements, and waivers of waste discharge requirements.

4.10 Comprehensive Plan

Section 10(a)(2)(A) of the Federal Power Act requires FERC to consider the extent to which a project is consistent with federal or state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by a project. In March 2019, the State Water Board submitted to FERC the plans and policies included in the state's comprehensive plan for orderly and coordinated control, protection, conservation, development, and utilization of the water resources of the state. On August 5, 2024, the State Water Board filed a comprehensive plan supplement to its March 2019 filing that included updated plans and policies for water quality protection. (State Water Board, 2024a.) These submissions included the Central Valley Basin Plan, the Bay-Delta Plan, the Antidegradation Policy, and other applicable plans and policies for water quality control. FERC included these updates in its List of Comprehensive Plans in May 2025. (FERC 2025.)

4.11 California Environmental Quality Act

NID is the lead agency for the purposes of California Environmental Quality Act (CEQA) (Pub. Res. Code, §§ 21000 et seq.) compliance. On June 26, 2024, NID filed a *Notice of Intent to Rely on FERC Final Environmental Impact Statement, With Mandatory Conditions, in Combination with a Supplemental Analysis, to Satisfy CEQA for the Yuba-Bear Hydroelectric Project Relicensing*. In its August 29, 2024, certification application transmittal letter, NID stated that it was in the process of preparing a CEQA document and intended to complete its CEQA responsibilities by June 2025. In a March 24, 2025, email, NID stated that it planned to provide a CEQA document for public review in "mid-May" and would finalize the document on July 10, 2025. To date, NID has not released a draft CEQA document.

[12] Available online at: https://www.waterboards.ca.gov/bacterialobjectives/. Last accessed: February 25, 2025.

The State Water Board, by its own regulations, must act on a request for certification before the federal period for certification expires. (Cal. Code Regs., tit. 23, § 3859.) If the State Water Board does not have sufficient time to receive and review NID's Final CEQA document, it will take appropriate actions to prevent waiver. (See, e.g., Cal. Code Regs., tit. 23, § 3837, subd. (b)(2).)

5.0 Rationale for Water Quality Certification Conditions

This section of the certification explains that the grant of certification, as conditioned, is warranted and why the conditions in Section 7.0 are necessary to ensure that the Project will comply with water quality requirements. This section also includes, as necessary, citations to federal, state, or tribal laws that authorize the conditions and sets forth citations to applicable regulatory authority. Section 3.0 also sets forth citations to applicable regulatory authority. The explanation and citations should be evaluated in the context of the certification as a whole, but the certification conditions are set forth only in Section 7.0.

As explained in this section, the conditions in this certification are generally required pursuant to the Central Valley Basin Plan and other applicable plans and policies adopted by the Water Boards, as described in Section 3.0, Regulatory Authority.

The Dredge or Fill Procedures, adopted pursuant to Water Code sections 13140 and 13170, authorize approval of dredge or fill projects subject to satisfaction of specified requirements.

California Code of Regulations, title 23, section 3830 et seq., set forth state regulations pertaining to certifications. In particular, section 3856 sets forth information that must be included in certification requests, and section 3860 sets forth standard conditions that shall be included in all certification actions.

Water Code sections 13267 and 13383 authorize the Water Boards to establish monitoring and reporting requirements for persons discharging or proposing to discharge waste to navigable waters. Water Code section 1051 additionally authorizes the State Water Board to investigate waters diverted for beneficial use. Moreover, this certification ensures continued monitoring, reporting, and assessment of water quality for the Project activities that may impact waters of the state.

Fish and Game Code section 5937 requires any owner of a dam to allow sufficient water to pass over, around, or through the dam to keep in good condition any fish that may be planted or exist downstream. Section 5937 and requirements to maintain or monitor flow or other water quality characteristics as required to meet section 5937 are appropriate conditions of state law necessary to protect fishery beneficial uses.

In general, the code citations, plans, and policies that support issuance of this certification that are described in Section 3.0 are not duplicated in this section. The conditions in this certification were developed to ensure compliance with water quality standards and water quality requirements established under the Porter-Cologne Water

Quality Control Act and the federal Clean Water Act, including requirements in applicable water quality control plans, and other appropriate requirements of state law. The conditions in Section 7.0 of this certification are necessary to protect the beneficial uses of waters of the state identified in water quality control plans, prevent degradation of water quality, and ensure compliance with state and federal water quality requirements and other applicable requirements of state law.

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

- NID's August 29, 2024 application for certification (NID, 2024);
- NID's Final License Application (FLA) (NID, 2011a);
- NID's FLA amendments on September 23, 2011, June 18, 2012, May 19, 2014, December 21, 2018, and January 2, 2019 (NID, 2011b, 2012b, 2014b, 2018b, 2019);
- FERC's *Final Environmental Impact Statement for Hydropower License – Upper Drum-Spaulding Hydroelectric Project – Project No. 2310-193, Lower Drum Hydroelectric Project – Project No. 14531-000, Deer Creek Hydroelectric Project – Project No. 14530-000, and Yuba-Bear Hydroelectric Project– Project No. 2266* (FERC, 2014);
- California Department of Fish and Wildlife's (CDFW) Federal Power Act Section 10(j) and 10(a) Recommendations (CDFW, 2012);
- NMFS Federal Power Act Section 18 Fishway Prescriptions and Section 10(j) Conditions (NMFS, 2012);
- United States Fish and Wildlife Service (USFWS) Informal Consultation (USFWS, 2019);
- USFS's Final and Revised Section 4(e) Conditions (USFS, 2013f) (USFS, 2014c);
- BLM's Final Section 4(e) Conditions and 10(a) recommendations (BLM, 2014);
- Comments associated with the aforementioned documents;
- Existing, potential, and proposed beneficial uses, associated water quality objectives, and implementation measures and programs described in the Central Valley Basin Plan (Central Valley Regional Water Board, 2019), Draft *Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Watershed* (Bay-Delta Plan) (State Water Board, 2024);
- Applicable water quality information, permits, policies, objectives, implementation measures, and programs (e.g., Construction General Permit, Clean Water Act Section 303(d) List / 305(b) Report, Dredge or Fill Procedures, etc.);
- Project-related controllable water quality factors (e.g., Project facilities and related potential for erosion and sediment discharges, stormwater capture, controllable flow releases); and
- Other information in the record.

This certification is issued pursuant to the final 2023 Clean Water Act Section 401 Water Quality Certification Rule (Fed. Reg. 66558-66666 (September 27, 2023) [amending 40 C.F.R. Parts 121, 122, 124]) that went into effect on November 27, 2023

(2023 Rule), but also complies with the previous USEPA Clean Water Act Section 401 Certification Rule, 85 Fed. Reg. 42,210 (July 13, 2020) (2020 Rule) that was in effect for portions of 2020-2023 should it reemerge as a result of litigation or any other reason. To the extent FERC considers any certification condition to include requirements outside the substantive scope of the 2020 Rule—including but not limited to 40 C.F.R. §§ 121.1(f) and (n), 121.3, 121.7(d)(1), and 121.9(b)—the 2020 Rule is inconsistent with federal law and controlling case law. The 2023 Rule restores the scope of certification "that is consistent with not only the statutory language and congressional intent but also longstanding [USEPA] guidance and decades of Supreme Court case law." (Fed. Reg. 65591-66606 [Scope of Certification].) Under section 401 of the Clean Water Act, when an activity requiring a federal permit or license "may result in any discharge into the navigable waters," the applicant is required to obtain a certification that states the activity will comply with applicable water quality standards and that also sets forth any "limitations" and "monitoring requirements" necessary to assure that the "applicant" will comply with water quality standards and "any other appropriate requirement of State law." (33 U.S.C. § 1341(a) & (d).) Certification is required for such activity as a whole, not merely for its point-source discharges to waters of the United States. (*PUD No. 1*, *supra*, 511 U.S. at pp. 711- 712.) USEPA replaced the 2020 Rule because, among other faults, it "may prevent state and tribal authorities from adequately protecting their water quality," "may result in a state or tribe's certification or conditions being permanently waived as a result of non-substantive and easily fixed procedural concerns," and "may limit the flexibility of certifications and permits to adapt to changing circumstances." (86 Fed. Reg. 29,543- 29,544 (June 2, 2021).) As explained in this certification, each certification condition is authorized by applicable state and federal law and is necessary to ensure compliance with such laws. This paragraph is hereby incorporated as part of the explanatory statement for each condition of this certification.

5.1 Rationale for Condition 1 – Flows

Instream flows provide habitat for fish and wildlife, contribute to scenic and aesthetic qualities of natural settings, and help support beneficial uses and water quality objectives for surface waters as established in the Central Valley Basin Plan. The approach for developing flow requirements, including ramping rates and spill reductions (Conditions 1, 2, and 6), for Project-affected stream reaches included consideration of the aquatic-dependent biota (primarily fish, amphibians, benthic macroinvertebrates (BMI), and riparian vegetation) that are currently and/or potentially present, hydroelectric energy generation, and water supply, as well as an evaluation of ecosystem conditions under existing and unimpaired streamflow using an operations

model[13] and technical information developed during Project relicensing (including study results from relicensing studies).

State Water Board staff participated in relicensing discussions regarding Project-related MIFs. During relicensing, NID and most relicensing participants reached agreement on MIFs for 14 of the 15 Project-affected stream reaches.[14] Condition 1 establishes MIFs for the follow Project-affected stream reaches:

1. Middle Yuba River below Jackson Meadow Reservoir Dam (Table 1);
2. Middle Yuba River below Milton Diversion Dam (Table 2);
3. Wilson Creek below Wilson Creek Diversion Dam (Table 3);
4. Jackson Creek below Jackson Lake Dam (Table 4);
5. Canyon Creek below French Lake Dam (Table 5);
6. Canyon Creek below Faucherie Lake Dam (Table 6);
7. Canyon Creek below Sawmill Creek Dam (Table 7);
8. Canyon Creek below Bowman-Spaulding Diversion Dam (Table 8);
9. Texas Creek below Texas Creek Diversion Dam (Table 9);
10. Clear Creek below Bowman-Spaulding Conduit (Table 10);
11. Fall Creek below Fall Creek Diversion Dam (Table 11);
12. Trap Creek below Bowman-Spaulding Conduit (Table 12);
13. Rucker Creek below Bowman-Spaulding Conduit (Table 13);
14. Bear River below Dutch Flat Afterbay Dam (Table 14); and
15. Bear River below Rollins Dam (Table 15).

Condition 1 requires MIFs for the Project-affected stream reaches (listed above) that are designed to protect and enhance environmental and public resources. Except for Fall Creek, the MIFs are consistent with those proposed by NID and agreed to by most relicensing participants. NID proposed lower MIFs at Fall Creek below Fall Creek Diversion Dam than those proposed by USFS and CDFW. The State Water Board is requiring the flows proposed by USFS and CDFW at Fall Creek for the enhancement of aquatic resources in Fall Creek below the Bowman-Spaulding Conduit and in the South Yuba River with a modification. Specifically, the MIF for Fall Creek below Fall Creek Diversion Dam provides for the MIF to equal inflow when inflow is less than the required MIF.

Beneficial uses in Yuba River, sources to Englebright Reservoir, that could be adversely affected by Project operations include: municipal and domestic supply, irrigation, stock

[13] The model was run using two water delivery scenarios: one assumed current water demand based on water delivery by NID and Placer County Water Agency for water years 2001-2009; the second used water demand projected 50 years in the future, 2062. The various operating scenarios were applied to the water year conditions for the period of record, 1976-2008.

[14] NID and relicensing participants did not reach agreement on MIFs for Fall Creek below Fall Creek Diversion Dam (Table 11).

watering, power, contact recreation, canoeing and rafting, other noncontact recreation, cold freshwater habitat, cold spawning habitat, and wildlife habitat. Existing beneficial uses in Bear River that could be adversely affected by Project operations include: municipal and domestic supply, irrigation, stock watering, power, contact recreation, canoeing and rafting, other noncontact recreation, and wildlife habitat, while potential beneficial uses include warm migration, cold migration, warm spawning habitat, and cold spawning habitat. Further, Fish and Game Code section 5937 requires any owner of a dam to allow sufficient water to pass over, around, or through the dam to keep in good condition any fish that may be planted or exist downstream.

5.2 Rationale for Condition 2 – Bay-Delta Plan Implementation

The Project is mainly located on the Yuba and Bear rivers, which are tributaries to the Feather River and are part of the Sacramento River Basin that drains to the San Francisco Bay through the Sacramento-San Joaquin Delta Estuary. Through Project operations, NID controls a large portion of water in both the Yuba and Bear River watersheds and operates an out of basin transfer of Yuba River water to the Bear River through several canals. Implementation of the Bay-Delta Plan and amendments thereto may require additional flows in the Yuba and Bear rivers, some of which may be NID's responsibility and require changes to Project operations.

As discussed in Section 4.2, the State Water Board is in the process of updating the Bay-Delta Plan focused on the Sacramento River and its tributaries (including the Yuba River and Bear River). NID's Project operations affect the amount of flow available in the Yuba and Bear rivers to contribute to meeting Bay-Delta water quality standards. Condition 2 requires NID to implement the Bay-Delta Plan and any amendments thereto and requires NID to develop a plan for review and approval by the State Water Board Executive Director that describes: (1) how NID will comply with applicable provisions of the Bay-Delta Plan; (2) a timeline for compliance; (3) identification of any necessary facility changes for compliance with the Bay-Delta Plan. Condition 2 explains that in the event of an inconsistency with the Bay-Delta Plan and any amendments thereto, conditions of the certification remain in effect unless otherwise amended.

Requirements of Condition 2 are consistent with Clean Water Act requirements to ensure protection of water quality. Specifically, the Bay-Delta Plan establishes water quality objectives for the protection of the Bay-Delta watershed's beneficial uses that require control of salinity (caused by saltwater intrusion, municipal discharges, and agricultural drainage), instream flows and Delta outflows, and water project operations (limits on diversions and associated operations and management. The Bay-Delta Plan is complementary to and does not supersede flow requirements derived from other water quality control plans and policies for water quality control adopted by the State Water Board. The Sacramento/Delta Update to the Bay-Delta Plan program of implementation, including any approvals of voluntary agreements, describes actions necessary to achieve the water quality objectives in the Bay-Delta Plan and does not preclude the State Water Board from identifying or requiring other actions to achieve the objectives. The State Water Board retains its authority to carry out its responsibilities under the Water Code, article X, section 2 of the California Constitution, the public trust

doctrine, or other legal obligations, through other water right or quality proceedings, including through regulation, water quality certifications, adjudicative water right proceedings, or other actions.

Beneficial uses identified in the draft Bay-Delta Plan (State Water Board, 2024) that could be adversely affected by Project operations include: municipal and domestic supply; industrial service supply; industrial process supply; agricultural supply; groundwater recharge; navigation; water contact recreation; non-contact water recreation; shellfish harvesting; commercial and sport fishing; warm freshwater habitat; cold freshwater habitat; migration of aquatic organisms; spawning, reproduction, and/or early development; estuarine habitat; wildlife habitat; and rare, threatened, or endangered species. In addition, Project flows could affect tribal beneficial uses proposed to be incorporated into the Bay-Delta Plan (State Water Board, 2024).

Beneficial uses in Yuba River, sources to Englebright Reservoir, that could be adversely affected by Project operations include: municipal and domestic supply, irrigation, stock watering, power, contact recreation, canoeing and rafting, other noncontact recreation, cold freshwater habitat, cold spawning habitat, and wildlife habitat. Existing beneficial uses in Bear River that could be adversely affected by Project operations include: municipal and domestic supply, irrigation, stock watering, power, contact recreation, canoeing and rafting, other noncontact recreation, and wildlife habitat, while potential beneficial uses include warm migration, cold migration, warm spawning habitat, and cold spawning habitat. Further, Fish and Game Code section 5937 requires any owner of a dam to allow sufficient water to pass over, around, or through the dam to keep in good condition any fish that may be planted or exist downstream.

5.3 Rationale for Condition 3 – Ramping Rates

Ramping rates are necessary to protect aquatic species such as rainbow trout and foothill yellow-legged frogs, which are sensitive to sudden water elevation changes that result from Project operations. During relicensing, NID and most relicensing participants reached agreement on ramping rates for three Project-affected stream reaches: Middle Yuba River below Milton Diversion Dam; Canyon Creek below Bowman-Spaulding Diversion Dam; and Bear River below Dutch Flat Afterbay Dam.[15] Condition 3 requires implementation of NID-proposed ramping rates at these three locations for the protection and enhancement of aquatic species affected by sudden changes in water depth and flow.

Condition 3 also requires ramping rates on the Bear River below Rollins Dam to address concerns regarding the stranding of foothill yellow-legged frog egg masses resulting from significant stream flow changes. As stranding of foothill yellow-legged frog egg masses in the Bear River below Rollins Dam was not directly addressed during the relicensing process, Condition 3(D) requires NID to consult with the State Water

[15] During the relicensing process it was identified that many of the Project dams and diversions either did not have the operational capability to effectively ramp flows or spill reduction measures.

Board and CDFW to discuss whether and how Project operations may affect stranding and, if its determined that Project operations are related to frog egg mass stranding events, to implement ramping rates or other changes as needed. CDFW's 10(j) rationale for ramping rates in part states "stranding can occur if the flow recession rate is too fast relative to the time it takes for eggs to develop and the water depth at which eggs were laid." (CDFW, 2012). No stranding has currently been observed in the Bear River below Rollins Dam, but CDFW staff have been made aware by homeowners along the Bear River that frogs are present in the reach.

Beneficial uses for the Yuba River, sources to Englebright Reservoir, that may be adversely affected by Project operations include: contact recreation, canoeing and rafting, cold freshwater habitat, cold spawning habitat, and wildlife habitat. Existing beneficial uses in Bear River that may be adversely affected by Project operations include: contact recreation, canoeing and rafting, and wildlife habitat, and potential beneficial uses include: warm migration, cold migration, warm spawning habitat, and cold spawning habitat. Further, Fish and Game Code section 5937 requires any owner of a dam to allow sufficient water to pass over, around, or through the dam to keep in good condition any fish that may be planted or exist downstream.

5.4 Rationale for Condition 4 – Water Year Types

Condition 4 requires implementation of NID's proposed water year types, which were developed during the relicensing process and generally agreed upon by most relicensing participants with one exception. NID's water year type proposal included an allowance in which a Critically Dry water year to be changed to an Extremely Critically Dry water year for specific stream reaches (i.e., Middle Yuba River below Milton Diversion Dam, Canyon Creek below Bowman-Spaulding Diversion Dam, and Bear River below Rollins Dam) in years that were preceded by a Critically Dry or Extremely Critically Dry water year. This allowance was not included in the certification. Rather, to allow for adaptive management of scarce water resources and competing demands (e.g., water supply, MIFs, etc.) during times of shortage, the certification includes Condition 17 (Drought Planning) and Condition 20 (Extremely Dry Conditions). The development of a Drought Management Plan (Condition 17) allows for adaptive management under specified conditions. Specifically, NID will identify strategies and options for changes to Project operations and requirements that may be implemented, if approved, during periods of extreme scarcity. Condition 20 allows NID to request changes to instream flows and other requirements during times of extreme water scarcity (e.g., consecutive dry years).

Additionally, this certification includes flexibility to update water year type classifications during the term of the new FERC license as water year types play a critical role in establishing flows and other requirements of this certification. Future climate and water availability may result in a need to update water year types to more accurately reflect a changed environment.

Beneficial uses for the Yuba River, sources to Englebright Reservoir, that may be adversely affected by Project water year type determinations include: contact

recreation, canoeing and rafting, cold freshwater habitat, cold spawning habitat, and wildlife habitat. Existing beneficial uses in Bear River that may be adversely affected by Project water year type determinations include: contact recreation, canoeing and rafting, and wildlife habitat, and potential beneficial uses include: warm migration, cold migration, warm spawning habitat, and cold spawning habitat.

Fish and Game Code section 5937 requires any owner of a dam to allow sufficient water to pass over, around, or through the dam to keep in good condition any fish that may be planted or exist downstream. Water year type classifications are needed to ensure the protection of beneficial uses and are used to ensure monitoring and compliance with certification conditions in accordance with Clean Water Act section 401, Water Code sections 1051, 13165, 13267 and 13383, and other applicable laws.

5.5 Rationale for Condition 5 – Streamflow Gages

Streamflow gages are required to confirm MIFs and other flow related conditions of this certification (e.g., ramping rates, spill cessation, etc.) consistent with the Water Boards' authority to investigate waters of the state, including for quality, and to require necessary monitoring and reporting pursuant to Water Code sections 1051, 13165, 13267, and 13383. During relicensing, NID identified locations where there were no existing streamflow gages to measure flows, or where the current streamflow gages would not be able to measure the higher MIFs proposed as part of the Project's relicensing. USFS's revised 4(e) condition 34 requires NID to implement its *Yuba-Bear Gaging Plan* developed and submitted to FERC on April 11, 2014. (USFS, 2014f.) On May 19, 2014, NID agreed with USFS's revised 4(e) condition 34. (NID, 2014b.) Certification Condition 5 requires NID to implement the USFS *Yuba-Bear Gaging Plan* with minor changes to require implementation of streamflow gage monitoring within 90 days of license issuance, or within 15 days of completion of any new gages or modifications to existing gages needed to comply with the *Yuba-Bear Gaging Plan.* The streamflow gage condition enacts the measures agreed upon during the relicensing process that will allow NID to properly measure streamflows and demonstrate compliance with flow-related conditions of this condition.

5.6 Rationale for Condition 6 – New Rollins Powerhouse (Rollins Upgrade)

The Project involves the construction and operation of a new powerhouse on the Bear River located adjacent to the existing Rollins Powerhouse, which is referred to as the Rollins Upgrade. The Rollins Upgrade will add 11.4 megawatts to the Project's capacity. Construction and operations of the Rollins Upgrade have the potential to impact water quality and associated beneficial uses through construction-related sediment discharges, use and storage of hazardous materials, and potential dewatering and/or in-water work activities associated with construction of the new powerhouse. As part of its FLA for the Project, NID proposed the development of the following two plans to address potential construction impacts associated with the Rollins Upgrade: (1) Construction Erosion Control and Restoration Plan; and (2) Construction Hazardous Material Spill Prevention, Control and Countermeasures Plan. These plans have not been developed and no set goals or metrics have been established to ensure water

quality protection. Condition 6 requires NID to develop and implement a Rollins Upgrade Plan that includes measures to ensure protection of water quality during Rollins Upgrade construction activities. The two plans proposed by NID may be components of the Rollins Upgrade Plan.

Existing beneficial uses for the Bear River that may be adversely affected by the Project's Rollins Upgrade include: contact recreation, canoeing and rafting, and wildlife habitat, and potential beneficial uses include: warm migration, cold migration, warm spawning habitat, and cold spawning habitat.

Fish and Game Code section 5937 requires any owner of a dam to allow sufficient water to pass over, around, or through the dam to keep in good condition any fish that may be planted or exist downstream. The Rollins Upgrade Plan will help ensure the protection of water quality and beneficial uses.

5.7 Rationale for Condition 7 – Monitoring and Adaptive Management

Monitoring plans are necessary to develop information regarding water quality and biological resources in the Project area in response to changes in flow conditions anticipated in the new license. Condition 7 requires the implementation of existing monitoring plans for fish population, water temperature and stage, bald eagles, foothill yellow-legged frogs, channel morphology, and riparian vegetation with limited changes, and development and implementation of monitoring plans for aquatic BMI, water quality, and the Bay-Delta Plan to assess for Project-related impacts. The methods and frequency of monitoring are designed to measure the response of water quality and/or biological resources to adjustments in streamflow and other conditions and to ensure the protection of beneficial uses and other appliable requirements of State law throughout the term of the new Project license. These monitoring plans are necessary to ensure flexibility for adaptive management actions and to provide for updates to the methodologies or frequencies of data collection throughout the term of the new Project license.

Monitoring for fish populations, agreed upon by NID and USFS (Condition 7A), will document fish population response to the new license conditions and assist in identifying long-term population trends and any Project-related impacts. Condition 7A requires electroshock sampling to provide data to assess potential Project-related impacts to fish populations over the term of the new Project license.

Water temperature monitoring (Condition 7B), agreed upon by NID and USFS, is important for assessing compliance with state and federal water quality standards for temperature and examining long-term trends in water temperature as affected by changes in streamflow resulting from the Project over the term of the new Project license. Water stage monitoring (Condition 7B), also agreed upon by NID and USFS, is important for assessing compliance with Project certification ramping rate conditions and assessing the impact of water stage resulting from Project flows on resident fish and frog populations (e.g., egg-scouring, stranding). The objective of the water temperature and stage monitoring plan is to monitor water temperature conditions and

stage in Project reservoirs and impoundments and Project-affected stream reaches and tributaries of the South Yuba, Middle Yuba, and Bear Rivers. Additionally, annual water temperature and stage monitoring will provide information needed to determine whether water quality objectives are being met.

The Bald Eagle Monitoring Plan (Condition 7C), agreed upon by NID and USFS, is designed to ensure that Project operations and maintenance, as well as Project-related recreation activities, do not result in "take" of bald eagles, their eggs, or nests. Condition 7C ensures NID will implement measures to protect bald eagles, and their eggs and nests, consistent with federal and state laws and regulations.

Monitoring for foothill yellow-legged frogs (Condition 7D), agreed upon by NID and USFS, will assess foothill yellow-legged frogs response to flow-related changes (e.g., minimum flows, ramping rates, spill cessation, water temperatures, and aquatic habitat suitability) during the term of the new Project license. The monitoring will also provide for incidental observations of western pond turtles.

The Channel Morphology Monitoring Plan (Condition 7E), agreed upon by NID and USFS, is designed to provide information on whether new license conditions have an effect on channels in Project-affected stream reaches and to ensure that they are in proper functioning condition, or whether additional monitoring or restoration is required in response to the new streamflow conditions.

The Aquatic Benthic Macroinvertebrates Monitoring Plan (Condition 7F) is needed to assess compliance with state and federal water quality standards and examine long-term trends in water quality. Monitoring BMI assemblages will allow for the identification of changes in stream health conditions and provide an estimate of available food resources for fish populations and other aquatic predators. BMI assemblages are often sensitive to changes in water quality and serve as indicators of habitat health concerns that may be caused by Project operations. The objective of the BMI Plan is to regularly sample BMI populations at consistent locations to support water quality monitoring efforts and evaluate the effect of adaptive management measures on potential Project-related impacts.

The Riparian Vegetation Monitoring Plan (Condition 7G), agreed upon by NID and USFS, is designed to provide information on whether riparian areas in Project-affected stream reaches are in proper functioning condition, or whether additional monitoring or restoration is required in response to the new streamflow conditions.

The Water Quality Monitoring Plan (Condition 7H) is needed to assess compliance with state and federal water quality standards and examine long-term trends in water quality. The objective of the Water Quality Monitoring Plan is to sample water quality above and below Project-affected stream reaches after five years of Project operations under new license conditions and compare the results with pre-licensing water quality results. Additionally, the Water Quality Monitoring Plan will require sampling of water quality in the second year of sequential dry or drier water year types to monitor what effects lower flows and less storage in reservoirs may have on water quality and associated

beneficial uses below Project reservoirs. The Water Quality Monitoring Plan includes locations on the Middle Yuba River, Bear River, and tributaries to the South Yuba River.

Additionally, Condition 7 requires the Licensee comply with monitoring and adaptive management components associated with implementation with the Bay-Delta Plan that relate to Project operations, including any associated regulations, decisions, or orders implementing the Bay-Delta Plan and any approved voluntary agreement(s) or local cooperative solution(s).

Beneficial uses for the Yuba River, sources to Englebright Reservoir, that may be adversely affected by Project operations without monitoring and adaptive management of water quality and biological resources include municipal and domestic supply, irrigation, stock watering, power, contact recreation, canoeing and rafting, other noncontact recreation, cold freshwater habitat, cold spawning habitat, and wildlife habitat. Existing beneficial uses in Bear River that may be adversely affected include municipal and domestic supply, irrigation, stock watering, power, contact recreation, canoeing and rafting, other noncontact recreation, and wildlife habitat. Potential beneficial uses in Bear River that may be adversely affected include warm migration, cold migration, warm spawning habitat, and cold spawning habitat.

Monitoring required by Condition 7 will: (1) ensure the Project complies with Central Valley Basin Plan water quality objectives, including those for dissolved oxygen, pH, temperature, and turbidity; and (2) support the Water Boards' authority to investigate waters of the state, including for quality, and to require necessary monitoring and reporting pursuant to Water Code sections 1051, 13165, 13267, and 13383.

5.8 Rationale for Condition 8 – Spill Cessation and Reduction

Sudden reductions in flows following spring snow-melt runoff or other major spill events can adversely affect aquatic organisms through stranding as water levels rapidly decrease causing exposure of previously inundated habitat. To minimize these adverse effects associated with Project operations, NID in coordination with relicensing participants agreed to implement spill cessation measures following spill events. Condition 8 includes spill cessation measures that better mimic a natural flow recession and provide aquatic organisms with natural cues to adjust to decreasing flows, thereby reducing the potential for stranding. Implementation of these spill cessation measures also reduces rapid flow fluctuations following other major flow events.

Another benefit of the spill cessation measures is that the flow schedule provides an opportunity for recreational whitewater boating (USFS, 2014c). Condition 16 requires recreational streamflow information, including the spill cessation flows, to be publicly posted, which will increase available whitewater boating opportunities.

Beneficial uses for the Yuba River, sources to Englebright Reservoir, that may be impacted by Project operations during spill include contact recreation, canoeing and rafting, cold freshwater habitat, cold spawning habitat, and wildlife habitat. Existing beneficial uses in Bear River that may be impacted from Project operations include

contact recreation, canoeing and rafting, and wildlife habitat, while potential beneficial uses include warm migration, cold migration, warm spawning habitat, and cold spawning habitat.

Fish and Game Code section 5937 requires any owner of a dam to allow sufficient water to pass over, around, or through the dam to keep in good condition any fish that may be planted or exist downstream. Maintaining adequate flows below Project dams, in part through implementation of spill cessation, ensures protection of water quality and associated beneficial uses.

5.9 Rationale for Condition 9 – Canal Outages

Canal outages are a necessary part of Project operations and maintenance and may also occur because of emergency situations. Condition 9 requires NID to develop a Canal Outage Plan to detail how it will manage canal outages to ensure MIF requirements are met in Texas, Clear, Trap, Fall, and Rucker creeks and to provide advance notification of planned canal outage events to the State Water Board, USFS, BLM, USFWS, and CDFW. As necessary, the Canal Outage Plan requires NID consider additional gages and facility modifications to ensure MIFs.

Condition 9 requires NID to implement its Canal Outages Fish Rescue Plan (USFS, 2013b) to address entrainment of rainbow trout and other fish species that may become stranded when canals are dewatered during outages. Additionally, Condition 9 requires NID to release MIFs in the Bear River below Dutch Flat Afterbay Dam during an outage of the Drum Canal, which is owned and operated by Pacific Gas and Electric Company as part of the Upper Drum-Spaulding Hydroelectric Project.

Beneficial uses for the Yuba River, sources to Englebright Reservoir, that may be impacted by Project operations during canal outages include municipal and domestic supply, irrigation, stock watering, power, contact recreation, canoeing and rafting, other noncontact recreation, cold freshwater habitat, cold spawning habitat, and wildlife habitat. Existing beneficial uses for the Bear River that may be impacted from Project operations during canal outages include contact recreation, canoeing and rafting, and wildlife habitat, while potential beneficial uses include warm migration, cold migration, warm spawning habitat, and cold spawning habitat.

Fish and Game Code section 5937 requires any owner of a dam to allow sufficient water to pass over, around, or through the dam to keep in good condition any fish that may be planted or exist downstream. Maintaining adequate flows below Project dams, in part through implementation of spill cessation, ensures protection of water quality and associated beneficial uses.

5.10 Rationale for Condition 10 – Erosion and Sediment Control

Erosion and sedimentation can contribute to degradation of the waters of the state; therefore, it is necessary to implement actions to eliminate or limit such discharges to protect water quality and associated beneficial uses. Condition 10 includes provisions

for the protection of water quality and beneficial uses associated with erosion and sediment control related to various activities including channel stabilization, canal releases, and construction and maintenance activities.

Beneficial uses for the Yuba River, sources to Englebright Reservoir, that may be impacted by Project operations and associated erosion and sediment discharges include: municipal and domestic supply, irrigation, stock watering, contact recreation, cold freshwater habitat, cold spawning habitat, and wildlife habitat. Beneficial uses for the Bear River that may be impacted by Project operations and associated erosion and sediment discharges include: municipal and domestic supply, irrigation, stock watering, contact recreation, and wildlife habitat, as well as potential beneficial uses including warm migration, cold migration, warm spawning habitat, and cold spawning habitat.

Monitoring required by Condition 10 will: (1) help ensure the Project complies with Central Valley Basin Plan water quality objectives, including those for sediment and turbidity; and (2) support the Water Boards' authority to investigate waters of the state, including for quality, and to require necessary monitoring and reporting pursuant to Water Code sections 1051, 13165, 13267, and 13383.

Condition 10(A) – Erosion and Sediment Control. On April 11, 2014, USFS filed with FERC an Erosion and Sediment Control Management Plan (USFS, 2014b) and on May 19, 2014, NID submitted a letter agreeing with the USFS-filed Erosion and Sediment Control Management Plan (NID, 2014b). The plan references BLM and USFS best management practices (BMPs) to control site-specific erosion and sedimentation as well as emergency erosion control measures and protocols to control sedimentation during or after severe storm events with an emphasis on lands managed by USFS and BLM.

The plan does not include: consultation with CDFW, USFWS, and State Water Board staff; initial and periodic assessment and monitoring of potential erosion sites; criteria for prioritizing erosion sites for treatment; schedule of erosion and sediment control activities; process for documentation and reporting; and plan updates and adaptive management to ensure adequate control of Project-related erosion. Additionally, NID's plan focuses on lands managed by USFS and BLM rather than the broader Project area.

Condition 10(A) requires NID to update the Erosion and Sediment Control Management Plan filed with FERC on April 11, 2014, to include the above-identified elements, which are needed to ensure the protection of water quality due to Project-related erosion to surface waters during the term of the new FERC license.

Condition 10(B) – Channel Stabilization. NID proposed a *Clear and Trap Creeks Channel Stabilization Plan*, which it included in Appendix E4 of the Amended FLA (NID, 2012b). The purpose of the plan is to restore eroded stream reaches of Clear and Trap

creeks and Christmas Tree wasteway[16] that were damaged by historical operations of the Bowman-Spaulding Conduit.

Condition 10(B) requires updates to NID's proposed *Clear and Trap Creeks Channel Stabilization Plan* to ensure water quality and beneficial use protections related to erosion at Project-related channels during the term of the new FERC license.

Condition 10(C) – Canal and Spillway Release Points. On April 11, 2014, USFS filed with FERC a *Canal Release Point Plan* (USFS, 2014b) and on May 19, 2014, NID submitted a letter agreeing with the USFS-filed *Canal Release Point Plan* (NID, 2014b). The Canal Release Point Plan provides information on the Project's canal drainage structures, release points, spill structures, and immediate downstream spillway channel (collectively referred to as "Canal Release Points") and establishes practices to minimize adverse impacts to water quality. The plan includes: an initial assessment and prioritization of potential canal release point treatment sites within two years of license issuance, periodic assessment and prioritization intervals every 10 years, operations and maintenance measures, reporting, and adaptive management to ensure adequate control of Project-related erosion from canal release points.

The Canal Release Point Plan does not include: consultation with CDFW, USFWS, and State Water Board staff; initial assessment by a qualified engineering geologist; consultation to determine appropriate treatment measures to implement; a schedule for treatment measure implementation; monitoring during treatment implementation; BMPs to protect water quality and beneficial uses during treatments; details of monitoring effectiveness of treatment measures following implementation; or documentation and reporting of monitoring results.

On October 15 – 16, 2024, Board staff attended a site tour of the Project. During the tour, staff noted active erosion occurring around the Jackson Meadows Dam low-level outlet due to flow releases, and evidence of past erosion in the Jackson Meadows Dam spillway channel. Staff also observed significant evidence of erosion at the base of the Bowman Dam south primary spillway, including a demolished roadway used during dam face repairs.

Condition 10 requires NID to update the Canal Release Point Plan filed with FERC on April 11, 2014, to include the above-identified elements and address the active erosion at Jackson Meadow Dam spillway and its low-level outlet and Bowman Dam. These elements and actions are needed to protect water quality and beneficial uses associated with erosion at Project canal release points during the term of the new FERC license.

Condition 10(D) – Water Quality Monitoring and Protection Plans. Protection of the instream beneficial uses identified in the Central Valley Basin Plan requires effluent

[16] Christmas Tree wasteway is located between Clear Creek and the Bowman-Spaulding Conduit and captures water that overflows from the Bowman-Spaulding Conduit.

limitations and other limitations on discharges of pollutants from point and nonpoint sources to the Middle Yuba River, South Yuba River, Bear River, and their respective tributaries. Erosion from Project-related construction and maintenance activities has the potential to result in discharges that violate water quality standards. Condition 10(D) requires NID to comply with the Construction General Permit, as 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 that are not covered by another condition of the certification.

5.11 Rationale for Condition 11 – Large Woody Material Management

Project facilities inhibit natural movement and recruitment of large woody material (LWM) in Canyon, Jackson, Texas, Fall, Clear, Trap, and Rucker creeks as well as the Bear, Middle Yuba, and South Yuba rivers. Condition 11 requires the development and implementation of a LWM Management Plan to ensure the passage of LWM downstream of Project facilities as well as monitoring to evaluate the effectiveness of and inform adaptive management of LWM management throughout the term of the new FERC license.

Beneficial uses in the Yuba River, sources to Englebright Reservoir, that may be impacted from Project operations and associated LWM management include: contact recreation, cold freshwater habitat, cold spawning habitat, and wildlife habitat. Beneficial uses in Bear River that may be impacted from Project operations associated with LWM management include contact recreation and wildlife habitat as well as potential beneficial uses including warm migration, cold migration, warm spawning habitat, and cold spawning habitat.

5.12 Rationale for Condition 12 – Entrainment Prevention

The Milton-Bowman Diversion Conduit entrains resident trout from the Middle Yuba River in the Milton Diversion Impoundment. Entrainment of fish and other aquatic species into the Milton-Bowman Diversion Conduit reduces population recruitment and limits or fragments the aquatic genetic diversity in the watershed. CDFW writes in its Project recommended conditions that "…impacts associated with entrainment, blocked passage, and habitat inundation caused by project facilities will not be fully mitigated by the new flow regime alone. [CDFW] recognize that in general, hatchery trout do not solve resource or habitat problems. Fisheries resources are restored by rehabilitating habitat, providing adequate stream flows, and maintaining conditions suitable for aquatic resource reproduction and growth within the aquatic ecosystem." (CDFW, 2012) Fish that would normally remain in the impoundment or move upstream into the Middle Yuba River and re-populate fish populations are lost due to Project-related entrainment. Per USFS 4(e) condition 32, dated November 20, 2013, NID in consultation with USFS, CDFW, and the State Water Board, shall develop a Fish Entrainment Protection Plan for a retractable cylindrical fish screen system at or near the Milton-Bowman Diversion Dam within one year of license issuance. Condition 32 of the USFS 4(e) states "The

overall objective of the plan is to reduce mortality of all life stages of resident rainbow trout due to the entrainment impingement at the Milton-Bowman Diversion Conduit intake." (USFS, 2013f) Requiring screening of the Milton-Bowman Diversion Conduit during peak entrainment timeframes will help to reduce entrainment.

Beneficial uses for the Yuba River, sources to Englebright Reservoir, that may be impacted by Project operations associated with Milton-Bowman Diversion Conduit diversions include contact recreation, cold freshwater habitat, cold spawning habitat, and wildlife habitat.

5.13 Rationale for Condition 13 – Aquatic Invasive Species Management

Aquatic invasive species cause harm to the diversity and abundance of native species through competition for resources, predation, parasitism, interbreeding with native populations, transmitting diseases, or causing physical or chemical changes to habitats. The impacts of aquatic invasive species can affect the overall function of aquatic ecosystems. Condition 13 requires NID to consult with USFS, BLM, CDFW, and State Water Board staff to develop an Aquatic Invasive Species Management Plan for the Project. Implementation of an Aquatic Invasive Species Management Plan is needed to minimize and prevent the introduction and establishment of aquatic invasive species, reduce the spread of existing aquatic invasive species, and monitor for aquatic invasive species in Project reservoirs and stream reaches. Implementation of the plan will also increase awareness and help educate the public on aquatic invasive species impacts, prevention measures, and management approaches.

Beneficial uses for the Yuba River, sources to Englebright Reservoir, that may be impacted by Project-related aquatic invasive species management include cold freshwater habitat, cold spawning habitat, contact recreation, and wildlife habitat. Existing beneficial uses for the Bear River that may be impacted include wildlife habitat. Potential beneficial uses in Bear River that may be impacted include warm migration, cold migration, warm spawning habitat, and cold spawning habitat.

5.14 Rationale for Condition 14 – Fish Stocking

Angling is one of the most popular activities associated with Project waters, and stocking fish in Project reservoirs ensures that the recreational fishery will be maintained for the term of the new FERC license. Because of the high level of recreational angling that occurs in Project reservoirs, Condition 14 requires the implementation of a Fish Stocking Plan developed in consultation with CDFW, USFWS, USFS, and State Water Board staff that will allow adaptive management of the recreational fishery associated with the Project.

Beneficial uses for the Yuba River, sources to Englebright Reservoir, that may be impacted by Project-related fish stocking include contact recreation, cold freshwater habitat, and non-contact recreation. Existing beneficial uses for the Bear River that may be impacted include contact recreation and wildlife habitat.

5.15 Rationale for Condition 15 – Recreation Facilities

NID proposes to improve and expand existing recreation facilities, develop new recreation facilities, and remove some existing recreation facilities. Proposed recreation facilities activities include: closing and gating informal boat ramps, providing low-water boating access, and reconstructing boat ramps to meet California Boating and Waterways standards. Condition 15 requires the development of a Recreation Facilities Management Plan to ensure water quality and beneficial uses are protected when recreational facilities modifications are implemented. Recreational facilities modifications will support California Constitution, article X, section 2 requiring reasonable use and the use of water for multiple purposes in the state, as determined by the State Water Board pursuant to Water Code section 100, and is in the public interest, under Water Code section 105. Water quality monitoring required by Condition 15 will support the Water Boards' authority to investigate waters of the state, including for quality, and to require necessary monitoring and reporting pursuant to Water Code sections 1051, 13165, 13267, and 13383.

Beneficial uses or the Yuba River, sources to Englebright Reservoir, that may be impacted by Project-related new or improved recreation facilities include contact recreation, canoeing and rafting, and other noncontact recreation. Beneficial uses that may be impacted by Project-related water quality monitoring (both for E. coli and during construction) include municipal and domestic supply, irrigation, stock watering, contact recreation, canoeing and rafting, cold freshwater habitat, cold spawning habitat, and wildlife habitat.

Existing beneficial uses for the Bear River that may be impacted by Project-related new, improved, and existing recreation facilities include municipal and domestic supply, irrigation, stock watering, contact recreation, canoeing and rafting, and wildlife habitat.

5.16 Rationale for Condition 16 – Recreation Streamflows and Information

Providing recreational streamflows and information (Condition 16) for reaches in the Project area will allow boaters and anglers to determine when streamflows are safe for their activities and maximize recreation beneficial uses that are impacted by the Project. Streamflow information that is delivered in instantaneous (i.e., 15-minute or more frequent) or hourly intervals will also provide important information that allows boaters and anglers to determine which way flows are trending or if flows are unusually erratic before attempting to boat or fish these reaches. Providing recreational streamflows also supports California Constitution, article X, section 2 requiring reasonable use and the use of water for multiple purposes in the state, as determined by the State Water Board pursuant to Water Code section 100, and is in the public interest, under Water Code section 105.

Real-time flow information will also enable boaters to take advantage of the spill cessation flows (Condition 8) for the Middle Yuba River below Milton Reservoir Dam and Canyon Creek below Bowman Dam. Streamflow information is also important for boaters to be able to take advantage of the reservoir drawdown flows from Canyon

Creek below French Dam when determining when to safely boat these reaches. NID has proposed to release streamflow specifically for whitewater boating that coincides with spill cessation flows on the Middle Yuba River and Canyon Creek, and an additional whitewater boating flow on Canyon Creek below French Lake Dam in September of each year (Condition 15).

The gage at Jackson Meadows Reservoir Dam provides information on inflows into Milton Reservoir. Milton Reservoir is an important angling resource and flow releases from Jackson Meadows Reservoir Dam can significantly influence angling opportunities. This flow information will allow anglers to stay apprised of changing flow conditions.

Beneficial uses in Yuba River, sources to Englebright Reservoir, that may be impacted by Project-related recreational streamflows and real-time flow information include contact recreation, canoeing and rafting, and other noncontact recreation. Real-time flow information will also support the Water Boards' authority to investigate waters of the state and to require necessary monitoring and reporting pursuant to Water Code sections 1051, 13165, 13267, and 13383.

5.17 Rationale for Condition 17 – Drought Planning

Developing and implementing a Drought Management Plan (Condition 17) is important for successful management of water resources to protect all beneficial uses in California's extremely variable climate, including extended drought. Multiple, successive dry years present difficult choices between releasing reservoir water to meet immediate demands (e.g., deliveries and instream flow requirements) or storing reservoir water for a future year to address the risk of additional dry year(s). The Drought Management Plan will identify strategies for managing water during times of extreme shortage.

Implementation of this condition will avoid unreasonable impacts to water quality and beneficial uses during drought periods, including beneficial uses in Yuba River, sources to Englebright Reservoir (municipal and domestic supply, irrigation, stock watering, power, contact recreation, canoeing and rafting, cold freshwater habitat, cold spawning habitat, and wildlife habitat), existing beneficial uses in Bear River (municipal and domestic supply, irrigation, stock watering, power, contact recreation, canoeing and rafting, and wildlife habitat), and potential beneficial uses in Bear River (warm migration, cold migration, warm spawning habitat, and cold spawning habitat).

5.18 Rationale for Condition 18 – Hazardous Substances

Development and implementation of a Hazardous Substances Plan (Condition 18) is necessary to ensure hazardous materials are properly stored, used, transported, managed, and disposed of in the Project area to minimize the impacts of hazardous materials on water quality, as well as sensitive species and their habitats. Condition 18 requires NID to develop and implement a Hazardous Substances Plan to address the storage, use, transportation, spill management, and disposal of hazardous materials used as part of the Project. Implementation of a Hazardous Substances Plan will ensure the Project complies with: (1) Central Valley Basin Plan water quality objectives,

including those for floating material, oil and grease, tastes and odors, and toxicity; (2) Water Code section 13264, which prohibits any discharge that is not specifically authorized in this certification; and (3) California Code of Regulations, title 27, section 20320, which specifies containment criteria for hazardous materials.

Beneficial uses for Yuba River, sources to Englebright Reservoir, that may be impacted by Project-related releases of hazardous materials include municipal and domestic supply, irrigation, stock watering, contact recreation, canoeing and rafting, other noncontact recreation, cold freshwater habitat, cold spawning habitat, and wildlife habitat. Existing beneficial uses for the Bear River that may be impacted include municipal and domestic supply, irrigation, stock watering, contact recreation, canoeing and rafting, other noncontact recreation, and wildlife habitat. Potential beneficial uses for Bear River that may be impacted include warm migration, cold migration, warm spawning habitat, and cold spawning habitat.

5.19 Rationale for Condition 19 – Coordinated Operations Plan

The Project both receives and discharges water that flows through PG&E's Upper Drum-Spaulding Hydroelectric Project and NID's Deer Creek Hydroelectric Project and discharges water that flows into PG&E's Lower Drum-Spaulding Hydroelectric Project. As these projects are all operated under separate FERC licenses, coordination is needed to comply with the conditions of this certification. Condition 19 requires NID to develop a plan to coordinate operations of its Project with PG&E's Upper and Lower Drum-Spaulding Hydroelectric Projects to ensure implementation of the conditions in this certification, including maintenance of flow requirements and ramping rates during normal operations, scheduled outages, and unscheduled outages (to the extent feasible).

Beneficial uses in Yuba River, sources to Englebright Reservoir, that may be impacted by Project-related coordinated operations (e.g., flow maintenance and ramping rate implementation) include municipal and domestic supply, irrigation, stock watering, power, contact recreation, canoeing and rafting, other noncontact recreation, cold freshwater habitat, cold spawning habitat, and wildlife habitat. Existing beneficial uses in the Bear River that may be impacted include municipal and domestic supply irrigation, stock watering, power, contact recreation, canoeing and rafting, other noncontact recreation, and wildlife habitat. Potential beneficial uses in the Bear River that may be impacted include warm migration, cold migration, warm spawning habitat, and cold spawning habitat.

5.20 Rationale for Condition 20 – Extremely Dry Conditions

California's history of drought illustrates the importance of 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 20 allows NID to submit and request Deputy Director approval of a Revised Operations Plan to address water shortage issues during consecutive Dry, Critically Dry, or Extremely Dry water year types or drought years. This

condition provides flexibility for adaptive implementation during times of extreme water shortage that cannot be addressed through only Drought Planning (Condition 17) and require variances to certification conditions to address the extremely dry conditions.

Implementation of this condition will avoid unreasonable impacts to water quality and beneficial uses during extremely dry conditions, including beneficial uses in the Yuba River, sources to Englebright Reservoir (municipal and domestic supply, irrigation, stock watering, power, contact recreation, canoeing and rafting, cold freshwater habitat, cold spawning habitat, and wildlife habitat), existing beneficial uses in the Bear River (municipal and domestic supply, irrigation, stock watering, power, contact recreation, canoeing and rafting, and wildlife habitat), and potential beneficial uses in the Bear River (warm migration, cold migration, warm spawning habitat, and cold spawning habitat).

5.21 Rationale for Condition 21 – Annual Meetings and Technical Review Group

The formation of a Technical Review Group (TRG) (Condition 21) comprised of resource agencies, NID, Foothills Water Network, and other interested stakeholders will facilitate communication and ensure that interested parties have an opportunity to discuss license implementation at least annually throughout the term of the Project license. The condition requires that NID organize and host TRG meetings, with at least one meeting to be held each year in April. The TRG meetings will provide a platform for communication and coordination between NID, resource agencies, nongovernmental organizations, and other interested parties. The TRG meetings will also support the Water Boards' authority to investigate waters of the state, including for quality, and to require necessary monitoring and reporting pursuant to Water Code sections 1051, 13165, 13267, and 13383.

5.22 Rationale for Condition 22 – Mercury Management

The Middle Yuba River, South Yuba River, and Bear River have all been affected by historic gold mining activities including the use of mercury in hydrologic gold mining. Mercury deposits associated with historic gold mining activities remain in the Yuba and Bear River systems and may be affected by Project operations and activities in a manner that causes impacts to water quality and/or human health. Water quality and human health impacts may result from an increased amount or mobilization of methylmercury in the watershed. Additionally, Project reservoirs can increase the rate of mercury methylation allowing mercury to bioaccumulate in fish tissue and increase human health risk.

During relicensing, NID evaluated methylmercury concentrations in fish tissue samples collected from the Jackson Meadows Reservoir, Faucherie Lake, and Bowman Lake. Forty-four edible-sized fish were sampled, of which 32 fish (73 percent) exceeded the California Office of Environmental Health Hazard Assessment's Advisory Tissue Levels for safe fish consumption for children and women eating more than three servings a week. Analytical results from Jackson Meadows Reservoir rainbow and brown trout tissue samples revealed concentrations of bioaccumulated mercury as high as 0.48

parts per million wet-weight, which is over the California Office of Environmental Health Hazard Assessment's Advisory Tissue Levels for any safe fish consumption for children and women of 0.44 parts per million wet-weight.

Condition 22 requires NID to evaluate its Project operations in relation to mercury and methylation of mercury and develop plans to address any Project-related impacts to mercury in compliance with the *Tribal Subsistence Beneficial Uses and Mercury Provisions of the Inland Surface Waters, Enclosed Bays, and Estuaries (ISWEBE) Plan* (State Water Board, 2017a). Condition 22 will also ensure the Project complies with the toxicity water quality objective in the Central Valley Basin Plan, which states that "[a]ll waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life." (Central Valley Regional Water Board, 2019.)

Beneficial uses in the Yuba River, sources to Englebright Reservoir, that may be impacted by Project-related mercury management include municipal and domestic supply, irrigation, stock watering, contact recreation, cold freshwater habitat, cold spawning habitat, and wildlife habitat. Existing beneficial uses in the Bear River that may be impacted include municipal and domestic supply, irrigation, stock watering, contact recreation, and wildlife habitat. Potential beneficial uses in the Bear River that may be impacted include warm migration, cold migration, warm spawning habitat, and cold spawning habitat.

5.23 Rationale for Conditions 23 through 46

This certification imposes additional conditions regarding Project approvals, monitoring, enforcement, and potential future revisions.

Condition 23 is necessary to comply with Water Code section 13167 and Conditions 24 through 27 contain important clarifications concerning the scope and legal effect of this certification and other legal requirements that may apply to the Project.

Monitoring, reporting, and assessment actions, and the information developed through such actions, must be readable, shared, and coordinated with other appropriate entities, and accessible to ensure that a discharge activity complies with water quality requirements. Water Code section 13167 requires the Water Boards to ensure that monitoring data and assessment information are available in a single location and that the information is presented in a manner easily understandable by the public. To fulfill this legislative mandate, Condition 23 requires electronic data submittal in a format compatible with existing system specifications. Compliance with this condition enhances the accessibility of data and transparency of regulatory actions. This allows regulatory agencies and the public to better assess compliance and understand water quality trends or data anomalies by compiling data and making it readily available.

Pursuant to the California Endangered Species Act (Fish & G. Code, § 2050 et seq.) and federal Endangered Species Act (16 U.S.C. § 1531 et seq.), Condition 24 of the

certification does not authorize any act which results in the taking of a threatened, endangered, or candidate species.

An applicant for certification is required to identify other licenses, permits, and agreements in the application. In the event an applicant for certification needs authorization from the state or federal authorities, California Code of Regulations, title 23, section 3856, subdivision (e), requires that the applicant provide copies of "any final and signed federal, state, and local licenses, permits, and agreements (or copies of the draft documents, if not finalized) that will be required for any actions associated with the activity. If no final or draft document is available, a list of all remaining agency regulatory approvals being sought shall be included." To help ensure the integrity of the certification process and its focus on ensuring that Project activities meet water quality standards and other appropriate requirements of state law, Condition 25 serves to notify applicants that there may be additional applicable federal, state, or local laws or ordinances with which they must comply, including the state and federal Endangered Species Acts.

Water Code section 13160, subdivision (b)(1) allows the State Water Board to issue a certification when there is "reasonable assurance that an activity of any person subject to the jurisdiction of the [State Water Board] will comply with applicable requirements" of state and federal law. Because agency organization and authorities change over time, Condition 26 provides direction for continuity of oversight in the event an agency's authority or responsibility is transferred to or subsumed by another agency.

The State Water Board is responsible for the water right, water quality, and drinking water functions of the California state government. (Wat. Code, § 174.) Certain certifications involve an appropriation of water subject to part 2 of division 2 of the Water Code or the diversion of water for certain beneficial uses. (See, e.g., Cal. Code Regs., tit. 23, § 3855, subd. (b)(1)(A).) Condition 27 explains the State Water Board's issuance of this certification is not adjudicating or approving the validity of water rights that may be related to the Project. It also recognizes the State Water Board's authority, independent of its water quality authority, to prevent unauthorized or threatened unauthorized diversions of water. This helps to ensure that an applicant for a federal license or permit that involves a discharge to navigable waters understands that, except as specified in the certification, the certification does not constitute or excuse the applicant from obtaining any other State Water Board approvals required for the activity.

Conditions 28 through 30 are necessary to assure that any discharge authorized under the certification will comply with water quality requirements. These conditions are included to comply with California Code of Regulations, title 23, section 3860, which sets forth conditions that must be included in all certifications.

Condition 28 is a standard condition that "shall be included as conditions of all certification actions" pursuant to California Code of Regulations, title 23, section 3860, subdivision (a). This condition places the licensee on notice that the certification action may be modified or revoked following administrative or judicial review. Condition 29 is a standard condition that "shall be included as conditions of all water quality certification

actions" pursuant to California Code of Regulations, title 23, section 3860, subdivision (b). This condition clarifies the scope of the certification's application and ensures that any applicant for a federal license or permit, which may result in a discharge into navigable waters, is subject to the appropriate State certification. Condition 30 is a standard condition that "shall be included as conditions of all water quality certification actions" pursuant to California Code of Regulations, title 23, section 3860, subdivision (c). This fee requirement condition is also required pursuant to California Code of Regulations, title 23, section 3833, subdivision (b), which requires payment of fees by project proponents applying for certification. Fees are essential to support the Water Boards' certification program, which includes the development of certifications and related inspections to ensure the protection of water quality and beneficial uses that may be impacted by a project.

Conditions 31 through 45 are necessary to ensure that the Project operates to meet water quality standards and other appropriate requirements of state law, or that adjustments are made to ensure continued compliance with water quality standards in light of new information, changes to the Project, climate change, or changes to the standards themselves.

This certification requires monitoring, reporting, and analysis as important elements to ensure that Project activities will comply with state and federal water quality requirements and other appropriate requirements of state law. Conditions 31, 32, and 33 provide for extensions of time to comply with requirements, prevention or remedy of violations, and notification of additional actions to ensure compliance and prevent violations of water quality standards. In the event of non-compliance, additional actions may be necessary to return the Project to compliance and prevent violation of water quality standards. Conditions 34, 35, 36, and 38 require the licensee to comply with the Central Valley Basin Plan and Bay-Delta Plan, and amendments thereto; changes to other water quality control plans, policies, or other appropriate requirements of state law that may occur during the term of the project's FERC that may necessitate the need for adaptive management of project-related operations or actions; provide for updates to the Project based on changes in technology and methodology; provide for consideration of the effects of climate change on Project operations and updates to ensure continued compliance with appropriate requirements of state law; and ensure that all reasonable measures are taken to protect water quality and beneficial uses, in accordance with plans and policies adopted pursuant to state and federal water laws.

Water Code section 13267 authorizes the State Water Board to require any person or entity who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste to furnish, under penalty of perjury, technical or monitoring reports when necessary to investigate the quality of any waters of the State. Condition 37 requires such reports that are necessary to ensure compliance with water quality standards.

Condition 39 provides that the State Water Board will provide notice and an opportunity to be heard in exercising its authority to add or modify certification conditions.

Condition 40 relates to site access requirements and is authorized pursuant to the Water Boards' authority to investigate the quality of any waters of the State, including specific site access authorized under Water Code section 13267 and 13383. Site access is needed to ensure compliance with the certification and associated protection of water quality and beneficial uses.

Condition 41 requires site personnel and agencies to be familiar with the content of the certification and requires availability of the document at Project sites. This condition is required to ensure that site personnel are familiar with the conditions needed to protect water quality and any authorized discharge will comply with the terms and conditions of this certification, which requires compliance with water quality objectives and beneficial uses adopted or approved under sections 13170 or 13245 of the Water Code, and with other appropriate requirements of state law.

Condition 42 requires the licensee to use analytical methods approved by California's Environmental Laboratory Accreditation Program, when available, to ensure that such analyses are done in a consistent manner.

Conditions 43 and 44 ensure the licensee complies with the Dredge or Fill Procedures and Project operation and maintenance activities result in no net loss of wetland quantity, quality, or permanence, consistent with the Water Code sections 16200-16201.

In the event that any provision of this certification is found invalid, Condition 45 ensures that the certification will remain effective, and water quality will still be protected. (Wat. Code, § 13160.)

6.0 Conclusion

The State Water Board finds that, with the conditions and limitations imposed under this certification, the proposed Project will comply with applicable 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 RESOURCES CONTROL BOARD CERTIFIES THAT OPERATION OF THE YUBA-BEAR HYDROELECTRIC PROJECT (Project; Federal Energy Regulatory Commission Project No. 2266) will comply with sections 301, 302, 303, 306, and 307 of the Clean Water Act, and with applicable provisions of State law under the following terms and conditions.

CONDITION 1. Flows

1(A) Minimum Instream Flows

The Licensee shall implement the minimum instream flows (MIFs), presented in Tables 1 through 15 (below), as soon as reasonably practicable and no later than 90 days following license issuance, unless an alternative timeline is approved by the State Water Resources Control Board's (State Water Board) Deputy Director for the Division of Water Rights (Deputy Director) due to the need for facility changes. In the event that facility changes are needed to achieve any of the MIFs, the Licensee shall submit, no later than 60 days following license issuance, any request for alternative MIF implementation timelines to the Deputy Director for review and consideration for approval. The request shall include specific information on which facility or facilities requires modification, support for the alternative timeline(s), and MIFs the Licensee proposes to implement in the interim period between license issuance and completion of facility changes. The Licensee shall implement the applicable MIFs required by this certification within 30 days of completing any approved changes to a facility for which changes were approved. The Deputy Director may require changes as part of any approval.

The Licensee shall implement MIFs in the following Project reaches as noted in this condition:

- Middle Yuba River below Jackson Meadow Reservoir Dam (Table 1);
- Middle Yuba River below Milton Diversion Dam (Table 2);
- Wilson Creek below Wilson Creek Diversion Dam (Table 3);
- Jackson Creek below Jackson Lake Dam (Table 4);
- Canyon Creek below French Lake Dam (Table 5);
- Canyon Creek below Faucherie Lake Dam (Table 6);
- Canyon Creek below Sawmill Creek Dam (Table 7);
- Canyon Creek below Bowman-Spaulding Diversion Dam (Table 8);
- Texas Creek below Texas Creek Diversion Dam (Table 9);
- Clear Creek below Bowman-Spaulding Conduit (Table 10);
- Fall Creek below Fall Creek Diversion Dam (Table11);
- Trap Creek below Bowman-Spaulding Conduit (Table 12);
- Rucker Creek below Bowman-Spaulding Conduit (Table 13);
- Bear River below Dutch Flat Afterbay Dam (Table 14); and

- Bear River below Rollins Dam (Table 15).

The MIF requirements specify the time period and MIFs in cubic feet per second (cfs) by water year type (Condition 3), as well as the compliance point for the MIFs (i.e., United States Geological Survey [USGS] gage). Flows shall be measured in two ways: (1) as an instantaneous flow; and (2) as the 24-hour average of the flow (mean daily flow). The instantaneous flow is the value used to construct the mean daily flow value and shall be measured in 15-minute or more frequent increments. Each instantaneous flow measurement shall be equal to or greater than 90 percent of the designated minimum flow value. The mean daily flow is the average of the incremental readings of instantaneous flow from midnight (12:00 AM) of one day to midnight (12:00 AM) of the next day. The Licensee shall record instantaneous (usually every 15-minutes) flow readings at all gages, consistent with USGS standards, and ensure the gages are calibrated for the full range of flows that are required, including pulse and unimpaired flows. The Licensee shall report any deviation from the required flows to the Deputy Director within 24 hours of the deviation.

Flows shall be measured at the gage location referenced in this condition unless otherwise approved by the Deputy Director. The Licensee shall comply with applicable California laws and regulations regarding measuring and monitoring water diversions, including California Code of Regulations, title 23, division 3, chapters 2.7 and 2.8, and amendments thereto, and State Water Board requirements to provide telemetered diversion data on a public website. The Licensee shall post all flow and other data to the California Data Exchange Center website or other location approved by the Deputy Director (e.g., USGS webpage) within 24 hours of flow measurement, unless otherwise approved by the Deputy Director. The Licensee shall publicly notice at an easily accessible location on the internet all known events that will affect minimum flows (e.g., powerhouse outages, construction, etc.) a minimum of 30 days in advance. The Licensee shall furnish electronic streamflow records to State Water Board staff upon request. Additionally, any flow data, including whitewater flow data (Condition 16), shall be submitted to the State Water Board in a form consistent with the requirements of Condition 23 or as otherwise directed by the Deputy Director.

Table 1. MIFs at Middle Yuba River below Jackson Meadows Reservoir Dam (as measured in cfs at USGS Gage No. 11407815)

Month	Extremely Critically Dry Water Year	Critically Dry Water Year	Dry Water Year	Below Normal Water Year	Above Normal Water Year	Wet Water Year
October	11	11	13	15	20	35
November	11	11	13	15	20	35
December	11	11	13	15	20	35
January	11	11	13	15	20	35
February	11	11	13	15	25	40
March	11	11	16	25	35	60
April	30	30	30	50	60	100
May	60	60	75	90	110	120
June	21	21	30	50	75	100
July	11	11	16	25	35	60
August	11	11	13	15	25	40
September	11	11	13	15	25	40

Table 2. MIFs at Middle Yuba River below Milton Diversion Dam (as measured in cfs at USGS Gage No. 11408550)

Month	Extremely Critically Dry Water Year	Critically Dry Water Year	Dry Water Year	Below Normal Water Year	Above Normal Water Year	Wet Water Year
October	4	6	6	10	10	15
November	4	6	6	10	10	10 or 15[a]
December	4	6	6	10	10	10 or 15[a]
January	4	6	6	10	10	10 or 15[a]
February	4	6	6	10	15	15
March	4	6	6	20	25	30
April	6	10	15	30	35	40
May	6	20	30	50	60	70
June	6	15	20	30	35	40
July	4	6	10	15	20	20
August	4	6	6	10	15	15
September	4	6	6	10	15	15

[a] In Wet water years the MIF is 15 cfs unless the precipitation measured at the Licensee's weather station at Bowman Lake from the previous July 1 up to, but not including, the first day of the month in which MIFs are being determined, is equal to or less than 75 percent of the annual average precipitation for the same period for the most recent 30 years. If the precipitation measurement is equal to or less than 75 percent, as noted in the preceding sentence, the MIF will be 10 cfs for that month.

Table 3. MIFs at Wilson Creek below Wilson Creek Diversion Dam (as measured in cfs by the outlet settings at the diversion dam)[b]

Month	Extremely Critically Dry Water Year	Critically Dry Water Year	Dry Water Year	Below Normal Water Year	Above Normal Water Year	Wet Water Year
All Months (Year-round)	0.25 or NF[c]	0.25 or NF	0.25 or NF	0.25 or NF	0.25 or NF	0.25 or NF

[b] The outlet infrastructure at the Wilson Creek Diversion Dam is manually operated, located in a remote location, and there is no existing flow gage for the stream reach. Given the small magnitude of flows in this stream reach and the cost of installing flow gaging equipment for this MIF requirement, NID may configure the outlet settings at the diversion dam using the opening size of the outlet to meet the MIF. NID shall check the outlet works once each week, conditions permitting (as outlined below), to confirm the MIF is being met and re-set the outlet opening as necessary. After November 1 of each year the outlet shall be set to meet the MIF with the expectation that the site may not be accessible due to snow until the next calendar year. Once site access is no longer feasible, weekly checking of the outlet works is not required until the next calendar year, when the location becomes safe for NID staff to access. Once the site is accessible in the next calendar year, NID shall resume weekly implementation of the MIF requirements. Upon request, NID shall provide State Water Board staff with documentation that the outlet setting was appropriately set and checked in compliance with this condition.

[c] NF refers to the natural flow entering Wilson Creek Diversion Dam from upstream. If the inflow to Wilson Creek Diversion Dam is less than 0.25 cfs, the MIF shall be the natural flow until such time that the inflow is greater than or equal to 0.25 cfs.

Table 4. MIFs at Jackson Creek below Jackson Lake Dam (as measured in cfs at USGS Gage No. 11414700)

Month	Extremely Critically Dry Water Year	Critically Dry Water Year	Dry Water Year	Below Normal Water Year	Above Normal Water Year	Wet Water Year
October	0.5	0.5	0.75	0.75	1	2
November	0.5	0.5	0.75	0.75	0.75	0.75
December	0.5	0.5	0.75	0.75	0.75	0.75
January	0.5	0.5	0.75	0.75	0.75	0.75
February	0.5	0.5	0.75	0.75	0.75	0.75
March	0.5	0.5	0.75	0.75	0.75	0.75
April	0.5	0.5	0.75	0.75	0.75	0.75
May	0.5	0.5	0.75	0.75	0.75	0.75
June	0.5	0.5	1	1	2	3
July	0.5	0.5	0.75	0.75	1	2
August	0.5	0.5	0.75	0.75	1	2
September	0.5	0.5	0.75	0.75	1	2

Table 5. MIFs at Canyon Creek below French Lake Dam (as measured in cfs at USGS Gage No. 11414410)

Month	Extremely Critically Dry Water Year	Critically Dry Water Year	Dry Water Year	Below Normal Water Year	Above Normal Water Year	Wet Water Year
October	5	5	6	9	9	9
November	5	5	6	9	9	9
December	5	5	6	9	9	9
January	5	5	6	9	9	9
February	5	5	6	9	14	18
March	5	5	6	9	14	18
April	5	5	6	9	14	18
May	5	5	6	9	14	18
June	5	5	6	9	14	18
July	5	5	6	9	14	18
August	5	5	6	9	14	18
September	5	5	6	9	14	18

Table 6. MIFs at Canyon Creek below Faucherie Lake Dam (as measured in cfs at USGS Gage No. 11414450)

Month	Extremely Critically Dry Water Year	Critically Dry Water Year	Dry Water Year	Below Normal Water Year	Above Normal Water Year	Wet Water Year
October	5	5	6	9	9	9
November	5	5	6	9	9	9
December	5	5	6	9	9	9
January	5	5	6	9	9	9
February	5	5	6	9	14	18
March	5	5	6	9	14	18
April	5	5	6	9	14	18
May	5	5	6	9	14	18
June	5	5	6	9	14	18
July	5	5	6	9	14	18
August	5	5	6	9	14	18
September	5	5	6	9	14	18

Table 7. MIFs at Canyon Creek below Sawmill Lake Dam (as measured in cfs at USGS Gage No. 11414470)

Month	Extremely Critically Dry Water Year	Critically Dry Water Year	Dry Water Year	Below Normal Water Year	Above Normal Water Year	Wet Water Year
October	5	5	6	9	14	18
November	5	5	6	9	14	18
December	5	5	6	9	14	18
January	5	5	6	9	14	18
February	5	5	6	9	14	18
March	5	5	6	9	14	18
April	5	5	6	9	14	18
May	5	5	6	9	14	18
June	5	5	6	9	14	18
July	5	5	6	9	14	18
August	5	5	6	9	14	18
September	5	5	6	9	14	18

Table 8. MIFs at Canyon Creek below Bowman-Spaulding Diversion Dam (as measured in cfs at USGS Gage No. 11416500)

Month	Extremely Critically Dry Water Year	Critically Dry Water Year	Dry Water Year	Below Normal Water Year	Above Normal Water Year	Wet Water Year
October	4	6	10	10	10	15
November	4	6	10	10	10	15
December	4	6	10	10	10	15
January	4	6	10	10	10	15 or 20[d]
February	4	6	10	15	20	25
March	4	6	10	15	20	25
April	6	13	15	30	35	40
May	6	15	20	40	50	60
June	6	13	15	30	35	40
July	4	10	15	15	25	30
August	4	10	15	15	20	20
September	4	10	15	15	20	20

[d] In Wet water years the MIF shall be 20 cfs unless the precipitation measured at the Licensee's weather station at Bowman Lake from the previous July 1 up to, but not including, the first day of the month in which MIFs are being determined, is equal to or less than 75 percent of the annual average precipitation for the same period for the most recent 30 years. If the precipitation measurement is equal to or less than 75 percent, as noted in the preceding sentence, the MIF shall be 15 cfs for that month.

Table 9. MIFs at Texas Creek below Texas Creek Diversion Dam (as measured in cfs at a new gage to be constructed)[e, f6]

Month	Extremely Critically Dry Water Year	Critically Dry Water Year	Dry Water Year	Below Normal Water Year	Above Normal Water Year	Wet Water Year
October	0.6	1	1	2	3	3
November	0.6	1	1	2	3	3
December	0.6	1	1	2	3	3
January	0.6	1	1	2	3	3
February	0.6	1	1	2	3	3
March	0.6	1	1	2	3	3
April	0.6	1	1	2	3	3
May	0.6	1	1	2	3	3
June	0.6	1	1	2	3	3
July	0.6	1	1	2	3	3
August	0.6	1	1	2	3	3
September	0.6	1	1	2	3	3

[e] Per Condition 5 (Gaging), a new gage shall be installed and operated in Texas Creek below Texas Creek Diversion Dam to monitor compliance with MIFs and other requirements of the Project license.

[f] During Bowman-Spaulding Conduit canal outages the MIF shall be consistent with the flows outlined in Condition 9(A) – Bowman-Spaulding Conduit.

Table 10. MIFs at Clear Creek below Bowman-Spaulding Conduit (as measured in cfs at a new gage to be constructed)[g,h]

Month	Extremely Critically Dry Water Year	Critically Dry Water Year	Dry Water Year	Below Normal Water Year	Above Normal Water Year	Wet Water Year
October	1	1	1	1	2	2
November	1	1	1	1	2	2
December	1	1	1	1	2	2
January	1	1	1	1	2	2
February	1	1	1	1	2	2
March	1	1	1	1	2	2
April	1	1	1	2	3	3
May	1	1	1	2	4	6
June	1	1	1	2	3	3
July	1	1	1	1	2	2
August	1	1	1	1	2	2
September	1	1	1	1	2	2

[g] Per Condition 5 (Gaging) a new gage shall be installed and operated in Clear Creek below Bowman-Spaulding Diversion Dam to monitor compliance with MIFs and other requirements of the Project license.

[h] During Bowman-Spaulding Conduit canal outages the MIF shall be consistent with the flows outlined in Condition 9(A) – Bowman-Spaulding Conduit.

Table 11. MIFs at Fall Creek below Fall Creek Diversion Dam (as measured in cfs at a new gage to be constructed)[i,j,k]

Month	Extremely Critically Dry Water Year	Critically Dry Water Year	Dry Water Year	Below Normal Water Year	Above Normal Water Year	Wet Water Year
October	2	2	2	4	6	8
November	2	2	2	4	6	8
December	2	2	2	4	6	8
January	2	2	2	4	6	8
February	2	2	2	4	6	8
March	2	2	2	8	10	10
April	10	10	10	15	20	20
May	12.5	12.5	15	20	30	30
June	4	4	10	15	20	25
July	2	2	2	6	8	10
August	2	2	2	6	6	8
September	2	2	2	6	6	8

[i] Per Condition 4 (Gaging) a new gage shall be installed and operated in Fall Creek below Fall Creek Diversion Dam to monitor compliance with MIFs and other requirements of the Project license.

[j] During Bowman-Spaulding Conduit canal outages the MIF shall be consistent with the flows outlined in Condition 9(A) – Bowman-Spaulding Conduit.

[k] When the inflow to Fall Creek Diversion Dam drops below the MIF in Table 11, the MIF shall be the inflow until such time as inflow is greater than or equal to the MIF in Table 11 (i.e., the Licensee shall not divert into Bowman-Spaulding Conduit when inflow falls below the MIF).

Table 12. MIFs at Trap Creek below Bowman-Spaulding Conduit (as measured in cfs at a new gage to be constructed)[l,m]

Month	Extremely Critically Dry Water Year	Critically Dry Water Year	Dry Water Year	Below Normal Water Year	Above Normal Water Year	Wet Water Year
October	0.25	0.25	0.5	0.5	1	1.5
November	0.25	0.25	0.5	0.5	1	1.5
December	0.25	0.25	0.5	0.5	1	1.5
January	0.25	0.25	0.5	0.5	1	1.5
February	0.25	0.25	0.5	0.5	1	1.5
March	0.25	0.25	0.5	1	1.5	1.5
April	0.25	0.75	0.75	2	3	3
May	0.25	0.75	0.75	3	3	3
June	0.25	0.75	0.75	2	3	3
July	0.25	0.25	0.5	0.5	1	1.5
August	0.25	0.25	0.5	0.5	1	1.5
September	0.25	0.25	0.5	0.5	1	1.5

[l] Per Condition 5 (Gaging) a new gage shall be installed and operated in Trap Creek below Bowman-Spaulding Diversion Dam to monitor compliance with MIFs and other requirements of the Project license.

[m] During Bowman-Spaulding Conduit canal outages the MIF shall be consistent with the flows outlined in Condition 9(A) – Bowman-Spaulding Conduit.

Table 13. MIFs at Rucker Creek below Bowman-Spaulding Conduit (as measured in cfs at a new gage to be constructed)[m,o]

Month	Extremely Critically Dry Water Year	Critically Dry Water Year	Dry Water Year	Below Normal Water Year	Above Normal Water Year	Wet Water Year
October	0.3	0.3	0.5	2	2	2
November	0.3	0.3	0.5	2	2	2
December	0.3	0.3	0.5	2	2	2
January	0.3	0.3	0.5	2	2	2
February	0.3	0.3	0.5	2	2	2
March	0.3	0.3	0.5	2	2	2
April	0.3	0.3	0.5	2	2	2
May	0.3	0.3	0.5	2	3	3
June	0.3	0.3	0.5	2	2	2
July	0.3	0.3	0.5	2	2	2
August	0.3	0.3	0.5	2	2	2
September	0.3	0.3	0.5	2	2	2

[m] Per Condition 5 (Gaging), a new gage shall be installed and operated in Rucker Creek below Bowman-Spaulding Diversion Dam to monitor compliance with MIFs and other requirements of the Project license.

[o] During Bowman-Spaulding Conduit canal outages the MIF shall be consistent with the flows outlined in Condition 9(A) – Bowman-Spaulding Conduit.

Table 14. MIFs at Bear River below Dutch Flat Afterbay Dam (as measured in cfs at USGS Gage No. 11421790)[p]

Month	Extremely Critically Dry Water Year	Critically Dry Water Year	Dry Water Year	Below Normal Water Year	Above Normal Water Year	Wet Water Year
October	7	7	8	10	13	13
November	7	7	8	10	13	13
December	7	7	8	10	13	13
January	7	7	8	10	13	13
February	10	10	15	20	22	30
March	15	15	20	25	30	40
April	20	20	25	30	35	45
May	15	15	20	25	30	40
June	10	10	15	20	22	30
July	10	10	10	10	12	15
August	10	10	10	10	12	15
September	10	10	10	10	12	15

[p] During PG&E's Upper Drum-Spaulding Hydroelectric Project (Federal Energy Regulatory Commission [FERC] Project No. 2310) Drum Canal outages the MIF shall be the flows outlined in Condition 9(B) – PG&E's Upper Drum-Spaulding Hydroelectric Project Drum Canal.

Table 15. MIFs at Bear River below Rollins Dam (as measured in cfs at USGS Gage No. 11422500)

Month	Extremely Critically Dry Water Year	Critically Dry Water Year	Dry Water Year	Below Normal Water Year	Above Normal Water Year	Wet Water Year
October	20	40	40	55	65	65
November	15	20	23	30	40	50
December	15	20	23	30	40	50
January	15	20	23	30	40	50
February	15	20	23	30	40	50
March	15	20	25	30	40	50
April	15	40	40	50	75	75
May	20	45	45	65	100	100
June	20	50	50	65	125	125
July	20	50	50	70	109	125
August	20	50	50	70	109	125
September	20	50	50	70	80	80

1(B) Planned Temporary Flow Changes

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 review and consideration of 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 United States Department of Agriculture, Forest Service (USFS), California Department of Fish and Wildlife (CDFW), United States Fish and Wildlife Service (USFWS), and, if applicable, National Marine Fisheries Service (NMFS) and the United States Department of the Interior, Bureau of Land Management (BLM) 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 USFS, CDFW, USFWS, and, if applicable, NMFS and BLM, and any comments received; proposed 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 deny the request or require changes as part of any approval. Upon Deputy Director approval, the Licensee shall provide public notice of the MIF variance. The Licensee shall file with FERC any Deputy Director-approved temporary MIF changes and any approved amendments thereto.

1(C) Unplanned Temporary Flow Changes

The MIFs specified in this condition) may be temporarily changed 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; vandalism; malfunction or failure of Project works; recreation accidents; or other public safety incidents. Drought is not considered an emergency for purposes of this condition. The Licensee shall make all reasonable efforts to promptly resume required flows.

When possible, the Licensee shall notify the Deputy Director prior to any unplanned temporary flow modification. In all instances, the Licensee shall notify the Deputy Director within 24 hours of the beginning of any unplanned temporary flow modification. Within 96 hours of the beginning of any unplanned temporary 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 flow modification; (3) a timeline for returning to the required MIF or timeline when the MIF resumed; (4) a description of corrective actions taken in response to the unplanned temporary MIF modification; and (5) a plan to prevent the need for modification of MIFs resulting from a similar emergency or event in the future. The Deputy Director may require changes to the Licensee’s plan to prevent future changes of MIFs resulting from similar emergencies or events. The Licensee shall implement its plan and any changes required by the Deputy Director.

CONDITION 2. Bay-Delta Plan Implementation

The Licensee shall implement applicable provisions of the *Water Quality Control Plan for the San Francisco Bay-Sacramento/San Joaquin Delta Estuary* (Bay-Delta Plan), including the program of implementation,[17] and any amendments thereto. Implementation includes compliance with any associated regulation, decision, or order. Unless the Licensee's responsibilities and timeline for implementation of the Bay-Delta Plan are explicitly defined in a newly adopted Bay-Delta Plan, no later than six months days following State Water Board adoption of the Bay-Delta Plan, the Licensee shall provide the Executive Director with a plan, for review and consideration of approval, describing how the Licensee will comply with applicable provisions of the Bay-Delta Plan, including any approved voluntary agreement(s) or local cooperative solution(s). The plan shall include the applicable Bay-Delta Plan provisions and a detailed description of how the provisions will be implemented and the timeline associated with implementation. The plan shall also identify (1) any facility changes necessary to implement and accurately measure Bay-Delta Plan requirements, (2) a timeline for completing facility changes, and (3) Project operations that the Licensee proposes to implement the Bay-Delta Plan prior to facility modification. The Executive Director may require changes as part of any approval. The Licensee shall implement the plan upon approval, including any changes required by the Executive Director. The Licensee shall file the Executive Director approved plan with FERC.

If implementation of flows under the Bay-Delta Plan may result in a negative impact to aquatic resources, the Licensee, a resource agency, or other party may notify the State Water Board's Executive Director of the potential negative impact and provide supporting information. If the negative impact cannot be addressed through adaptive implementation provisions under the Bay-Delta Plan, the Executive Director may approve temporary changes to the flow provisions of the Bay-Delta Plan under its own motion or at the request of another party in limited instances with supporting information. The Licensee shall file any such approval with FERC. As part of approval, the Executive Director may require changes to the extent necessary to ensure reasonable protection of the beneficial uses and compliance with applicable water quality control plans.

Implementation of the Bay-Delta Plan, including any approvals of voluntary agreements, does not preclude the State Water Board from identifying or requiring other actions to achieve the water quality objectives in the Bay-Delta Plan or other plans and policies, and/or exercising its authorities and responsibilities under the Water Code, article X, section 2 of the California Constitution, the public trust doctrine, or other legal obligations, through water quality certifications.

[17] Herein "Bay-Delta Plan" refers to any water quality control plan or water quality control policy adopted by the State Water Board that establishes water quality objectives and a program of implementation for the Bay-Delta that include flow contributions or other actions from the Licensee or Project-related waterbodies.

Implementation of Bay-Delta Plan provisions, including any voluntary agreement, shall not change this water quality certification unless such changes are made through an amendment to the Project certification. If the Bay-Delta Plan requirements and any amendments thereto result in changes being necessary to the Project's FERC license, the Licensee shall file a license amendment request with FERC to amend the Project's FERC license.

CONDITION 3. Ramping Rates

The Licensee shall implement ramping rates specified in this condition as soon as reasonably practicable but no later than 90 days after license issuance, unless otherwise approved by the Deputy Director. Ramping rates specified in this condition do not apply: (a) to Project operations during an emergency or other event as defined in Condition 1(C)); (b) to releases required by the United States Army Corps of Engineers (USACE) flood control criteria; or (c) releases required by the California Division of Safety of Dams (DSOD). Flows related to ramping rates shall be continuously measured at the same compliance gages required for MIFs and shall be made in accordance with the following ramping rate criteria.

3(A) Middle Yuba River below Milton Diversion Dam

The Licensee shall operate the Project to avoid an increase or decrease in instream flows of more than 100 percent in a 12-hour period between the end of spill cessation (Condition 8(A)) and September 30 in years when the spill cessation schedule is implemented, or from May 1 through September 30 in years when spill cessation does not occur.

3(B) Canyon Creek below Bowman-Spalding Diversion Dam

The Licensee shall operate the Project to avoid an increase or decrease in instream flows of more than 100 percent in a 12-hour period between the end of spill cessation (Condition 8(B)) and September 30 in years when the spill cessation schedule is implemented, or from April 1 through September 30 in years when spill cessation does not occur.

3(C) Bear River below Dutch Flat Afterbay Dam

If from May 1 through September 15, the Licensee shuts down the Chicago Park Powerhouse for a non-routine planned outage that would cause the Dutch Flat Afterbay to spill, the Licensee shall monitor the powerhouse (i.e., allow flows to pass through the powerhouse), if operationally feasible, until the entire block of spill cessation flows from the Dutch Flat Afterbay reach the tailrace of the Chicago Park Powerhouse, consistent with the spill cessation provisions specified in Condition 8(C).

3(D) Bear River below Rollins Dam

In addition to the provisions of Condition 8(D), the Licensee shall consult with CDFW and State Water Board staff within 90 days of license issuance to determine if additional

ramping rate measures (e.g., monitoring and adaptive management) are needed to protect foothill yellow-legged frog egg masses from stranding due to water elevation changes in the Bear River associated with Project operations.

Unless otherwise approved by the Deputy Director, within six months of license issuance, the Licensee shall submit to the Deputy Director: (1) documentation of consultation and the consulting agencies' comments and recommendations; (2) any ramping rates or additional studies proposed by the Licensee; and (3) a description of how any studies or changes proposed by the Licensee incorporate or address the agencies' comments and recommendations. The Deputy Director may approve the Licensee's proposal or require other changes to the ramping rates to the extent necessary to ensure reasonable protection of beneficial uses. The Licensee shall implement the new ramping rates as soon as reasonably practicable but no later than 90 days after receiving the Deputy Director's approval and any other required approvals, unless otherwise approved by the Deputy Director.

The Deputy Director may require the Licensee to investigate and report on the need for new or revised ramping rates upon notification that existing Project-related flows are resulting in the stranding of foothill yellow-legged frog egg mass or fish in the Bear River below Rollins Dam. The Licensee shall perform the investigation in consultation with USFWS, CDFW, USFS, and State Water Board staff. The Licensee shall provide the Deputy Director with a report for review and consideration of approval that documents: (a) the investigation; (b) recommendations regarding the need for and changes to ramping rates or Project operations, if appropriate; and (c) any comments or recommendations made as part of consultation and how such comments an recommendations were considered in development of the report.

CONDITION 4. Water Year Types

The Licensee shall classify water year types every year according to this condition, and as soon as reasonably practicable but no later than 90 days after license issuance for the current year. The Licensee shall determine the water year type based on the criteria in Table 16. The Licensee shall determine the water year type in the months of February, March, April, May, and October based on the California Department of Water Resources (DWR) Bulletin 120[18] forecast.

[18] Bulletin 120 is a publication issued by DWR four times a year, in the second week of February, March, April, and May. Bulletin 120 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.

Table 16. Water Year Types for Yuba-Bear Hydroelectric Project

Water Year Type	DWR Forecast of Total Unimpaired Runoff in Yuba River (at Smartsville USGS Gage No. 11418000) or DWR Full Natural Flow Near Smartsville for the Water Year* (Thousands of Acre-Feet))
Wet	Greater than 3,240
Above Normal	2,191 to 3,240
Below Normal	1,461 to 2,190
Dry	901 to 1,460
Critically Dry	616 to 900
Extremely Critically Dry	Equal to or Less than 615

* DWR rounds the Bulletin 120 forecast of total unimpaired runoff in the Yuba River to the nearest thousands of acre-feet (TAF) to establish water year types in February, March, April, and May. DWR rounds its Full Natural Flow calculation to establish water year types in October, to the nearest acre-foot (AF); the Licensee shall round DWR's Full Natural Flow calculation in October to the nearest TAF.

In each of the months of February, March, April, and May, the water year type shall be based on DWR's water year forecast of unimpaired runoff in the Yuba River at Smartsville Gage No. 11418000 as established in DWR's Bulletin 120. DWR's Bulletin 120 as published in February, March, and April shall apply from the 16th day of that month through the 15th day of the next month. For example, Bulletin 120 published in the second week of February shall establish the water year type from February 16 through March 15. Additionally, for May 16 through October 15, the water year type shall be based on DWR's Bulletin 120 published in May. If DWR has not released the Bulletin 120 for an affected month by the 15th day then the Licensee shall implement the required MIF within 48 hours of Bulletin 120 being published.

From October 16 through February 15 of the following year, the water year type shall be based on the sum of DWR's monthly (not daily) full natural flow for the full prior water year (October 1 – September 30) at the Yuba River at Smartsville USGS Gage No. 11418000. The sum is currently made available by DWR on the California Data Exchange Center (CDEC) in the folder named "FNF Sum".[19]

If DWR does not make the full natural flow available by October 15, the water year type shall be based on DWR's May Bulletin 120, until the full natural flow for the full prior water year is made available. The Licensee shall implement the required water year type determination within three days of the date when DWR makes the full natural flows for the full prior year available through February 15.

Review and Updates of Water Year Types. No sooner than 10 years following issuance of the new FERC license for the Project and throughout the term of the new FERC license and any extensions, the Deputy Director may require that the Licensee to

[19] The CDEC FNF Sum is available at: http://cdec.water.ca.gov/cgi-progs/stages/FNFSUM. Last accessed February 13, 2025.

develop a report that: (a) evaluating the effectiveness of the water year type classifications defined in this condition in matching the timing and volume of actual water supply conditions (unimpaired flow) in the Project watersheds; and (b) make recommendations regarding potential updates to the methodology used to establish water year types for the Project that more accurately align with the volume and timing of actual water supply conditions. The Deputy Director may request such a report based on information suggesting the existing methodologies produce water supply estimates that are no longer reflective of the timing and volume of actual water supplies (e.g., changes in snowmelt, precipitation, or other factors that impact the assumptions of the methodology). The report and recommendations shall be developed in consultation with State Water Board and Department of Water Resources staff. The Licensee shall submit the report and recommendations to the Deputy Director for review and consideration of approval by the deadline identified by the Deputy Director. The Deputy Director may require changes as part of any approval.

The Licensee shall file with FERC any Deputy Director approved updates to the water year type methodology. The Licensee shall implement changes to the water year type methodology upon receipt of Deputy Director and any other required approvals.

CONDITION 5. Streamflow Gages

The Licensee shall implement the *Yuba-Bear Gaging Plan* as required by USFS 4(e) condition 34 (USFS, 2014f). The Licensee shall commence flow monitoring at the streamflow gages referenced in this certification within 90 days of license issuance unless the streamflow gage must be installed or modified as noted in the *Yuba-Bear Gaging Plan*. If a streamflow gage requires modifications or installation, the Licensee shall begin monitoring via the modified or new streamflow gage no later than 15 days following completion of the modifications or installation. Any streamflow gage(s) that are necessary to ensure compliance with the provisions of this certification (e.g., implementation of the Bay-Delta Plan) shall be added to the *Yuba-Bear Gaging Plan* via a request for Deputy Director review and consideration of approval of proposed updates to the plan. The Deputy Director may require the Licensee to make updates to the *Yuba-Bear Gaging Plan* if the Deputy Director determines that new gages or modifications to existing gages are needed to ensure compliance with the provisions of this certification. The Deputy Director may require changes as part of any approval.

Any changes to the *Yuba-Bear Gaging Plan* require approval by the Deputy Director prior to implementation. The Licensee shall file with FERC any Deputy Director-approved changes to the *Yuba-Bear Gaging Plan*. The Licensee shall implement any Deputy Director-approved changes to the *Yuba-Bear Gaging Plan* upon receipt of Deputy Director and any other required approvals.

CONDITION 6. New Rollins Powerhouse (Rollins Upgrade)

No later than six months prior to any ground disturbing activities associated with construction of the Rollins Upgrade the Licensee shall submit a Rollins Upgrade Plan to the Deputy Director for review and consideration for approval. The Deputy Director may

require changes as part of any approval. The goal of the Rollins Upgrade Plan shall be to address potential construction-related impacts to water quality, including the potential releases of sediment and hazardous materials, erosion, and site restoration. The Rollins Upgrade Plan shall be developed in consultation with CDFW, USFS, BLM, USFWS, Central Valley Regional Water Quality Control Board (Central Valley Regional Water Board) and State Water Board staff. At a minimum the Rollins Upgrade Plan shall include the following elements:

6(A) Diversion and Dewatering

The Rollins Upgrade Plan shall describe diversion and dewatering activities, including:

- All construction-related activities that involve dewatering, water diversions, and in-water or water adjacent work.
- Site plan map(s), drawings, and/or photo(s) showing the location and length of the dewatered stream segments and discharge locations.
- Description of work related to dewatering and temporary water diversion activities, including:
    - Equipment and methods that will be used for dewatering and temporary water diversion, including descriptions of procedures that will be used for installation, operation, maintenance, removal, and rewatering (e.g., inspection and follow-up actions, if applicable).
    - Type(s) of barriers that will be installed to isolate work areas from surface waters.
    - List of materials that will be used in or adjacent to the watercourse.
- Schedule for each stage of dewatering and water diversion activities (i.e., equipment installation, dewatering, barrier installation, temporary diversion, equipment removal, and rewatering).
- If applicable, measures to address seepage water and/or groundwater intrusion.
- Measures that will be implemented to avoid potential water quality and beneficial use impacts during dewatering, water diversion, and rewatering activities (e.g., energy-dissipating features at discharge locations to prevent erosion.

6(B) Water Quality Monitoring

Water quality monitoring shall be performed as described in this condition unless otherwise approved by the Deputy Director. The Licensee shall monitor water quality during in-water and water adjacent work associated with the Rollins Upgrade that has the potential to result in a discharge to surface waters. At a minimum the Licensee shall monitor for turbidity, pH, temperature, dissolved oxygen, and construction-related pollutants (e.g., oils, greases, fuels, turbidity, plumes). Monitoring for turbidity, pH, temperature, and dissolved oxygen shall be conducted in 15-minute or more frequent intervals using an automated sensor system during implementation of construction-related activities with the potential to impact waters of the state. Visual monitoring for visible pollutants shall be conducted continuously throughout active work areas of the Rollins Upgrade with the potential to result in a discharge to waters of the state. Monitoring locations shall at a minimum include a location no more than 300 feet

downstream of the Rollins Upgrade construction and a location that represents background (i.e., existing) water quality conditions. Proposed monitoring locations shall be identified in the Rollins Upgrade Plan.

The Licensee shall take a global positioning system point and photograph for proposed water quality monitoring location water quality monitoring. The Deputy Director may require the Licensee to use other or additional locations if the submitted locations are inadequate.

The Licensee shall ensure that Rollins Upgrade activities comply with water quality objectives identified in the 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) (Central Valley Regional Water Board, 2019) and any amendments thereto. The Rollins Upgrade Plan shall include the current water quality objectives for the following constituents and any other appropriate constituents in the Central Valley Basin Plan: turbidity, pH, temperature, dissolved oxygen, and visible pollutants.

The Deputy Director and the Central Valley Regional Water Quality Control Board Executive Officer (Executive Officer) shall be notified promptly, and in no case more than 24 hours following an exceedance of any water quality objective described in the Central Valley Basin Plan. The notice shall include the cause of the exceedance, measures taken to correct the exceedance, and measures the Licensee will implement to prevent future exceedances. Regardless of when such notification occurs, activities associated with the exceedance shall cease immediately upon detection. Work activities may resume after corrective actions have been implemented if appropriate, water quality meets the Central Valley Basin Plan water quality objective(s), and the Deputy Director has provided approval to proceed. The Deputy Director may require additional actions to help prevent similar exceedances in the future.

6(C) Construction Erosion Control

The Rollins Upgrade Plan shall describe: (a) all construction-related activities that may result in the discharge of sediment or increase of erosion into waters of the state; (b) measures that will be implemented to reduce sediment and erosion into waters of the state; and (c) measures that will be implemented to restore disturbed areas following completion of the Rollins Upgrade.

For construction associated with the Rollins Upgrade, the Licensee shall comply with the *National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (Construction General Permit; State Water Board 2022a) and any amendments thereto. If there is any conflict between the conditions of this certification and applicable conditions in the Construction General Permit, the more stringent shall apply.

6(D) Hazards and Hazardous Materials

The Rollins Upgrade Plan shall describe hazardous material management measures that will be implemented to ensure that hazardous materials are stored, managed, and used in a manner protective of water quality standards and applicable state and federal regulations.

6(E) Aquatic Biological Protections

The Rollins Upgrade Plan shall identify potential aquatic biological resources that may be impacted by the Rollins Upgrade along with measures that will be implemented to ensure aquatic resource protections. At a minimum, the measures shall include any mitigation measures identified in the Licensee's California Environmental Quality Act document(s) for the Project. In addition, the Rollins Upgrade Plan shall identify the temporary and permanent impacts to wetlands and riparian habitat associated with the Rollins Upgrade. Permanent impacts shall be compensated for consistent with the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (Dredge or Fill Procedures) (State Water Board 2019 and 2021) and any amendments thereto, and California Water Code sections 16200-16201.The Licensee shall provide the Deputy Director with documentation of compliance with this requirement within 60-days following completion of the Rollins Upgrade.

6(F) Reporting

The Rollins Upgrade Plan shall include a reporting component that at a minimum includes a report no later than three months following Rollins Upgrade completion that documents compliance with the requirements of this condition.

CONDITION 7. Monitoring and Adaptive Management

7(A) Fish Population

No later than six months following license issuance, the Licensee shall implement the *Fish Population Monitoring Plan*, as filed by USFS with FERC on November 21, 2013 (USFS, 2013d), with the following changes:

- For each year in which monitoring occurred in the previous year pursuant to this condition, the Licensee shall develop and submit a Fish Population Monitoring Annual Report to the Deputy Director for review and consideration of approval at least 60 days prior to the annual meeting (Condition 21).
- In addition to the Fish Population Monitoring Report items identified in the Fish Population Monitoring Plan, the annual reports shall include: identification of any potential Project-related impacts to fish populations; and Licensee-proposed adaptive management actions or monitoring plan changes to address potential Project-related impacts to fish populations based on monitoring results. The Deputy Director may require changes or other actions as part of any approval as noted below.

The Deputy Director may require the Licensee to update monitoring provisions of the Fish Population Monitoring Plan or implement other actions if information in Fish Population Monitoring Report(s) or other information in the record indicates that the Project is adversely affecting fish populations and associated beneficial uses or other applicable requirements of State law. Deputy Director required updates to the Fish Population Monitoring Plan shall be developed by the Licensee in consultation with State Water Board, USFS, USFWS, and CDFW staff and be submitted to the Deputy Director for review and consideration of approval within the timeline designated by the Deputy Director. Proposed updates to the Fish Population Monitoring Plan shall include supporting documentation, and any comments made as part of consultation with information on how such comments were considered.

Any changes to the Fish Population Monitoring plan require Deputy Director approval. The Licensee shall file with FERC any Deputy Director-approved updates to the Fish Population Monitoring Plan. The Licensee shall implement any Deputy Director approved updates to the Fish Population Monitoring Plan upon receipt of Deputy Director and any other required approvals.

7(B) Water Temperature and Stage

No later than six months following license issuance, the Licensee shall implement the *Water Temperature and Stage Monitoring Plan* as filed by USFS with FERC on April 11, 2014 (USFS, 2014e), with the following changes:

- Each year, the Licensee shall submit a Water Temperature Monitoring Annual Report to the Deputy Director for review and consideration of approval at least 60 days prior to the annual meeting (Condition 21).
- In addition to the Water Temperature Monitoring Annual Report items identified in the Water Temperature and Stage Monitoring Plan, if appropriate, the annual reports shall include any Licensee-proposed adaptive management actions or monitoring plan changes needed to address potential Project-related impacts to water temperature or stage based on monitoring results. The Deputy Director may require changes or other actions as part of any approval as noted below.

The Deputy Director may require the Licensee to update monitoring provisions of the Water Temperature and Stage Monitoring Plan or implement other actions if information in Water Temperature and Stage Monitoring Report(s) or other information in the record indicates that the Project is adversely affecting water temperature or stage to the extent additional monitoring or actions are necessary to ensure reasonable protection of the beneficial uses or compliance with applicable water quality control plans, policies, or other applicable requirements of State law.

Deputy Director required updates to the Water Temperature and Stage Monitoring Plan or actions to address water temperature or stage shall be developed by the Licensee in consultation with State Water Board, Central Valley Regional Water Board, USFS, USFWS, and CDFW staff and be submitted to the Deputy Director for review and consideration of approval within the timeline designated by the Deputy Director.

Proposed updates to the Water Temperature and Stage Monitoring Plan shall include supporting documentation, and any comments made as part of consultation with information on how such comments were considered.

Any changes to the Water Temperature and Stage Monitoring Plan require Deputy Director approval. The Licensee shall file with FERC any Deputy Director-approved updates to the Water Temperature and Stage Monitoring Plan. The Licensee shall implement any Deputy Director approved updates to the Water Temperature and Stage Monitoring Plan upon receipt of Deputy Director and any other required approvals.

7(C) Bald Eagle

No later than six months following license issuance, the Licensee shall implement the *Bald Eagle Management Plan*, as filed by USFS with FERC on November 21, 2013 (USFS, 2013a), and agreed to by NID on May 19, 2014 (NID, 2014b) with the following changes:

- Section 5.1 *Annual Consultation Meeting* shall be updated to include consultation with the State Water Board.
- Section 5.2 *Reporting* shall be updated to include:
    - The Licensee shall submit the Bald Eagle Monitoring Reports to the Deputy Director for review and consideration of approval at least sixty (60) days prior to the annual meeting (Condition 21), in years in which monitoring occurred in the previous year pursuant to this condition.
    - Any Licensee-proposed adaptive management actions or monitoring plan changes to address potential Project-related impacts to bald eagles and/or their nests or eggs. The Deputy Director may require changes or other actions as part of any approval as noted below.

The Deputy Director may require the Licensee to update monitoring provisions of the Bald Eagle Monitoring Plan or implement other actions if information in a report or other information in the record indicates that the Project is adversely affecting bald eagles to the extent additional monitoring or actions are necessary to ensure reasonable protection of the beneficial uses or compliance with applicable water quality control plans, policies, or other applicable requirements of State law.

Deputy Director required updates to the Bald Eagle Monitoring Plan or actions to address bald eagle protections shall be developed by the Licensee in consultation with State Water Board, USFS, USFWS, and CDFW staff and be submitted to the Deputy Director for review and consideration of approval within the timeline designated by the Deputy Director. Proposed updates to the Bald Eagle Monitoring Plan shall include supporting documentation, and any comments made as part of consultation with information on how such comments were considered.

Any changes to the Bald Eagle Monitoring Plan require Deputy Director approval. The Licensee shall file with FERC any Deputy Director-approved updates to the Bald Eagle Monitoring Plan. The Licensee shall implement any Deputy Director approved updates

to the Bald Eagle Monitoring Plan upon receipt of Deputy Director and any other required approvals.

7(D) Foothill Yellow-legged Frog

No later than six months following license issuance, the Licensee shall implement the *Foothill Yellow Legged Frog Monitoring Plan*, as filed by USFS with FERC on November 21, 2013 (USFS, 2013e), with the following changes:

- The Licensee shall submit the Foothill Yellow-legged Frog Monitoring Reports to the Deputy Director for review and consideration of approval at least 60 days prior to the annual meeting (Condition 21), in years in which monitoring occurred in the previous year pursuant to this condition.
- In addition to the items identified in the Foothill Yellow-legged Frog Monitoring Plan, the Foothill Yellow-legged Frog Monitoring Report shall include Licensee-proposed adaptive management actions or monitoring plan changes (if necessary) to address any identified adverse Project-related impacts to foothill yellow-legged frogs. The Deputy Director may require changes or other actions as part of any approval as noted below.

The Deputy Director may require the Licensee to update monitoring provisions of the Foothill Yellow-legged Frog Monitoring Plan or implement other actions if information in Foothill Yellow-legged Frog Monitoring Report(s) or other information in the record indicates that the Project is adversely affecting foothill yellow-legged frogs to the extent additional monitoring or actions are necessary to ensure reasonable protection of the beneficial uses or compliance with applicable water quality control plans, policies, or other applicable requirements of State law.

Deputy Director required updates to the Foothill Yellow-legged Frog Monitoring Plan or actions to address foothill yellow-legged frogs shall be developed by the Licensee in consultation with State Water Board, USFS, USFWS, and CDFW staff and be submitted to the Deputy Director for review and consideration of approval within the timeline designated by the Deputy Director. Proposed updates to the Foothill Yellow-legged Frog Monitoring Plan shall include supporting documentation, and any comments made as part of consultation with information on how such comments were considered.

Any changes to the Foothill Yellow-legged Frog Monitoring Plan require Deputy Director approval. The Licensee shall file with FERC any Deputy Director-approved updates to the Foothill Yellow-legged Frog Monitoring Plan. The Licensee shall implement any Deputy Director approved updates to the Foothill Yellow-legged Frog Monitoring Plan upon receipt of Deputy Director and any other required approvals.

7(E) Channel Morphology

No later than six months following license issuance, the Licensee shall implement the *Channel Morphology Monitoring Plan*, as filed by USFS with FERC on November 21, 2013 (USFS, 2013c), with the following changes:

- The Licensee shall submit the Channel Morphology Monitoring Reports to the Deputy Director for review and consideration of approval at least 60 days prior to the annual meeting (Condition 21), in years in which monitoring occurred in the previous year pursuant to this condition.
- In addition to the Channel Morphology Monitoring Report items identified in the Channel Morphology Monitoring Plan, the reports shall include an analysis of prior years' monitoring results and Licensee-proposed adaptive management actions or monitoring plan changes, if necessary, to address any identified adverse Project-related impacts to channel morphology. The Deputy Director may require changes or other actions as part of any approval as noted below.

The Deputy Director may require the Licensee to update monitoring provisions of the Channel Morphology Monitoring Plan or implement other actions if information in a Channel Morphology Monitoring Report or other information in the record indicates that the Project is adversely affecting channel morphology to the extent additional monitoring or actions are necessary to ensure reasonable protection of beneficial uses or compliance with applicable water quality control plans, policies, or other applicable requirements of State law.

Deputy Director required updates to the Channel Morphology Monitoring Plan or actions to address channel morphology shall be developed by the Licensee in consultation with State Water Board, USFS, USFWS, and CDFW staff and be submitted to the Deputy Director for review and consideration of approval within the timeline designated by the Deputy Director. Proposed updates to the Channel Morphology Monitoring Plan shall include supporting documentation, and any comments made as part of consultation with information on how such comments were considered.

Any changes to the Channel Morphology Monitoring Plan require Deputy Director approval. The Licensee shall file with FERC any Deputy Director-approved updates to the Channel Morphology Monitoring Plan. The Licensee shall implement any Deputy Director approved updates to the Channel Morphology Monitoring Plan upon receipt of Deputy Director and any other required approvals.

7(F) Aquatic Benthic Macroinvertebrates

No later than one year following license issuance, the Licensee shall develop and submit an *Aquatic Benthic Macroinvertebrates Management Plan* (BMI Plan) to the Deputy Director for review and consideration for approval. The Deputy Director may require changes as part of any approval. The BMI Plan shall be developed in consultation with CDFW, USFWS, USFS, BLM, and State Water Board staff. The goal of the BMI Plan shall be to collect information related to the response of the BMI community to changes in flows and operations changes in Project-affected reaches and inform potential adaptive management actions. At a minimum, the BMI Plan shall include:

- Identification of monitoring locations, which shall include a minimum of eight monitoring locations in the Project area.

- Description of BMI sampling protocols using the Surface Water Ambient Monitoring Program (SWAMP) methodology, analytical methods, and quality assurance and quality control procedures, unless otherwise approved by the Deputy Director.
- Proposed schedule and frequency of monitoring.
- Format, schedule, and reporting to document, summarize, and analyze monitoring results. The Licensee may propose any updates or adaptive management measures to the plan based on the monitoring results or new information related to BMI that may be impacted by Project operations. Monitoring reports shall be submitted to USFS, CDFW, USFWS, and State Water Board staff.
- Documentation of consultation with USFS, CDFW, USFWS, BLM, 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 the Licensee to update monitoring provisions of the BMI Plan or implement other actions if information in a monitoring report(s) or other information in the record indicates that the Project is adversely affecting BMI to the extent additional monitoring or actions are necessary to ensure reasonable protection of beneficial uses or compliance with applicable water quality control plans, policies, or other applicable requirements of State law.

Deputy Director required updates to the BMI Plan or actions to address BMI shall be developed by the Licensee in consultation with State Water Board, USFS, USFWS, and CDFW staff and be submitted to the Deputy Director for review and consideration of approval within the timeline designated by the Deputy Director. Proposed updates to the BMI Plan shall include supporting documentation, and any comments made as part of consultation with information on how such comments were considered.

Any changes to the BMI Plan require Deputy Director approval. The Licensee shall file with FERC any Deputy Director-approved updates to the BMI Plan. The Licensee shall implement any Deputy Director approved updates to the BMI Plan upon receipt of Deputy Director and any other required approvals.

7(G) Riparian Vegetation

No later than six months following license issuance, the Licensee shall implement the *Riparian Vegetation Monitoring Plan*, as filed by USFS with FERC on April 11, 2014 (USFS, 2014d), with the following changes:

- The Licensee shall submit the Riparian Vegetation Monitoring Reports to the Deputy Director for review and consideration of approval at least 60 days prior to the annual meeting (Condition 21) in years in which monitoring occurred in the previous year pursuant to this condition.
- Riparian management actions listed in the Riparian Management Plan shall be consistent with the *State Wetland Definition and Procedures for Discharges of*

Dredged or Fill Material to Waters of the State (State Water Board 2019 and 2021) and the and Water Code Division 7, Chapter 28, sections 16200-16201.

In addition to the Riparian Vegetation Monitoring Report items identified in the Riparian Vegetation Monitoring Plan, the reports shall include Licensee-proposed adaptive management actions or monitoring plan changes, if necessary, to address any identified adverse Project-related impacts to riparian vegetation. The Deputy Director may require changes or other actions as part of any approval as noted below.

The Deputy Director may require the Licensee to update monitoring provisions of the Riparian Vegetation Monitoring Plan or implement other actions if information in a Riparian Vegetation Monitoring Report or other information in the record indicates that the Project is adversely affecting riparian vegetation to the extent additional monitoring or actions are necessary to ensure reasonable protection of beneficial uses or compliance with applicable water quality control plans, policies, or other applicable requirements of State law.

Deputy Director required updates to the Riparian Vegetation Monitoring Plan or actions to address riparian vegetation shall be developed by the Licensee in consultation with State Water Board, USFS, USFWS, and CDFW staff and be submitted to the Deputy Director for review and consideration of approval within the timeline designated by the Deputy Director. Proposed updates to the Riparian Vegetation Monitoring Plan shall include supporting documentation, and any comments made as part of consultation with information on how such comments were considered.

Any changes to the Riparian Vegetation Monitoring Plan require Deputy Director approval. The Licensee shall file with FERC any Deputy Director-approved updates to the Riparian Vegetation Monitoring Plan. The Licensee shall implement any Deputy Director approved updates to the Riparian Vegetation Monitoring Plan upon receipt of Deputy Director and any other required approvals.

7(H) Water Quality

No later than one year following license issuance, the Licensee shall submit a Water Quality Monitoring Plan to the Deputy Director for review and consideration for approval. The Deputy Director may require changes as part of any approval. The Water Quality Monitoring Plan shall be developed in consultation with CDFW, USFS, BLM, USFWS, Central Valley Regional Water Board, and State Water Board staff. The goal of the Water Quality Monitoring Plan shall be to assess Project impacts to water quality and identify adaptive management actions to reduce Project impacts, as necessary. Unless otherwise approved by the Deputy Director, at a minimum, the Water Quality Monitoring Plan shall include:

- Sampling of stream sites at the locations listed in Table 17 in August of the fifth year following license issuance.
- Sampling of stream sites at the locations listed in Table 17 in August of the second year of consecutive Dry, Critically Dry, or Extremely Critically Dry water

years, as defined in Condition 3. Sampling after consecutive Dry, Critically Dry, or Extremely Critically Dry water years is only required during or between the sixth- and fourteenth-year following license issuance.

- If no consecutive Dry, Critically Dry, or Extremely Critically Dry water years occur during or between the sixth- and fourteenth-year following license issuance, the Licensee shall repeat the sampling from the fifth year following license issuance in the fifteenth year following license issuance.
- A list of water quality parameters that will be sampled, which at a minimum, shall include all parameters sampled under the water quality study during the Project relicensing process, as filed with FERC on July 21, 2008 (NID, 2008).
- Description of sampling protocols in accordance with the standards of a laboratory accredited under the Environmental Laboratory Accreditation Program. Sample collection and analysis shall be performed using methods compliant with the Environmental Laboratory Accreditation Program. If Environmental Laboratory Accreditation Program compliant methods do not exist United States Environmental Protection Agency collection and analytical methods shall be used.
- A quality assurance program plan that includes quality assurance and quality control procedures that will be used for collection and handling of samples and data verification and/or validation of test results that will be implemented.
- Format, schedule, and reporting to document, summarize, and analyze water quality monitoring results. The Licensee may propose any updates or adaptive management measures to the Water Quality Monitoring Plan based on the monitoring results or new information related to water quality that may be impacted by Project operations. Monitoring reports shall be submitted to USFS, CDFW, USFWS, BLM, Central Valley Regional Water Board, and State Water Board staff.
- Documentation of consultation with USFS, BLM, CDFW, USFWS, Central Valley Regional Water Board, and State Water Board staff, including comments and recommendations made in connection with the plan, and a description of how the plan incorporates or addresses the comments and recommendations.

Table 17. Water Quality Sampling Locations and Frequency

Sampling Location	Fifth Year Sampling	Sequential Dry, Critically Dry, or Extremely Critically Dry Year Sampling
Middle Yuba River below Jackson Meadows Dam	Yes	Yes
Jackson Creek above Bowman Reservoir	Yes	No
Canyon Creek above Bowman Reservoir	Yes	No
Canyon Creek below Bowman-Spaulding Diversion Dam	Yes	Yes
Bear River above Steephollow Creek	Yes	No
Bear River below Bear River Canal Diversion Dam (directly below dam, above Highway 174 crossing)	Yes	Yes

The Deputy Director may require the Licensee to update monitoring performed per the Water Quality Monitoring Plan or implement other actions if information in a monitoring report or other information in the record indicates that the Project is adversely affecting water quality to the extent additional monitoring or actions are necessary to ensure reasonable protection of the beneficial uses or compliance with applicable water quality control plans, policies, or other applicable requirements of State law.

Deputy Director required updates to the Water Quality Monitoring Plan or actions to address water quality shall be developed by the Licensee in consultation with State Water Board, USFS, USFWS, and CDFW staff and be submitted to the Deputy Director for review and consideration of approval within the timeline designated by the Deputy Director. Proposed updates to the Water Quality Monitoring Plan shall include supporting documentation, and any comments made as part of consultation with information on how such comments were considered.

Any changes to the Water Quality Monitoring Plan require Deputy Director approval The Licensee shall file with FERC any Deputy Director-approved updates to the Water Quality Monitoring Plan. The Licensee shall implement any Deputy Director approved updates to the Water Quality Monitoring Plan upon receipt of Deputy Director and any other required approvals.

7(I) Bay-Delta Plan

The Licensee shall comply with any monitoring and adaptive management associated with implementation of the Bay-Delta Plan, including any associated regulation, decision, or order implementing the Bay-Delta Plan and any approved voluntary agreement(s) or local cooperative solution(s). The Executive Director may require additional monitoring than that described in the above monitoring plans to assess for beneficial use protections in association with Project-related changes associated with

compliance with the Bay-Delta Plan, including any associated regulation, decisions, or order implementing the Bay-Delta Plan and any approved voluntary agreement(s) or local cooperative solution(s).

CONDITION 8. Spill Cessation and Reduction

Spill cessation and reductions specified in this condition do not apply to: (a) Project operations during an emergency or other event as defined in Condition 1(C); (b) releases required by USACE flood control criteria; or (c) instances when the Licensee is directed by FERC or the DSOD to test or exercise valves at Project facilities.[20]

The Licensee shall implement the spill cessation schedules presented in Tables 18 through 21 as soon as reasonably practicable but no later than 90 days following license issuance, unless otherwise approved by the Deputy Director. In the event that facility modifications are needed to achieve any of the spill cessation schedules, the Licensee shall submit, no later than 60 days following license issuance, a request for any alternative timelines for implementation of spill cessation and reduction provisions to the Deputy Director for review and consideration of approval. The request shall include specific information on which facility or facilities requires modification, support for the alternative timeline(s), and spill cessation and reduction measures the Licensee proposes to implement in the interim period between license issuance and completion of facility modifications. The Licensee shall implement the spill cessation and reduction measures required by this certification within 15 days of completing any approved modifications to a facility for which an alternative timeline(s) was approved. The Deputy Director may require changes as part of any approval.

The mean daily flow referenced in Tables 18 through 21 is the average of the incremental instantaneous flow readings (from midnight (12:00 AM) of one day to midnight (12:00 AM) of the next day). The instantaneous flow is the value used to construct the mean daily flow value and shall be measured in 15-minute or more frequent increments, unless otherwise approved by the Deputy Director. When implementation of the spill cessation schedules are underway, as required by Tables 18 through 21, and a precipitation event increases the instream flow above the mean daily flow requirement, it will not be considered a violation of the schedule to the extent the increase in mean daily flow is associated with the precipitation event. Unless otherwise approved by the Deputy Director, the Licensee shall resume the spill cessation schedule based on the mean daily flow at the time the precipitation event concludes.

8(A) Spill Cessation and Reduction on Middle Yuba River below Milton Diversion Dam

The Licensee shall implement the spill cessation schedule in Table 18 after May 1 of each calendar year or as soon as the Licensee closes the upstream Jackson Meadows Dam spill gates, whichever occurs later. In addition, the Licensee shall operate the

[20] Whenever possible, the testing of valves shall be scheduled to limit impacts to water quality and beneficial uses.

Project to avoid short-term spills that would increase instream flows by more than 100 percent in a 12-hour period between the end of the spill cessation outlined in Table 18 and September 30 in years when the spill cessation schedule is implemented, or from May 1 through September 30 in years where spill cessation does not occur (i.e., no spills occur).

Table 18. Spill Cessation Flow Schedule in the Middle Yuba River below Milton Diversion Dam after May 1 (as measured in cfs at USGS Gage No. 11408550)[1]

Number of Days to Maintain Flow	Mean Daily Flow
6 days	300 cfs[2]
3 days	225 cfs[2]
3 days	150 cfs[2]
3 days	100 cfs[2]
3 days	80 cfs[2]
2 days	60 cfs[2]
2 days	50 cfs or MIF, whichever is lower[2]

[1] If the peak spill flow is greater than or equal to the highest flow on the spill cessation schedule, then the spill flows shall be decreased according to this schedule. If the peak spill flow is less than the highest flow on the schedule, then the spill flows shall be decreased according to the schedule from the observed flow downward (e.g., if peak spill flows are 100 cfs, then the spill cessation would begin with maintaining flows for three days at 100 cfs, and decrease to 80 cfs for an additional three days). While the table shows the spill cessation schedule continuing until Target Flows are 50 cfs, each spill cessation event shall stop when the applicable MIF shown in Table 2 of Condition 1 is reached (i.e., the spill cessation event shall end at the applicable MIF).

[2] During spill cessation, the actual mean daily flow on each day may vary within 10 percent of the flows required in Table 18.

8(B) Spill Cessation and Reduction on Canyon Creek below Bowman-Spaulding Diversion Dam

The Licensee shall implement the spill cessation schedule in Table 19 after April 1 of each calendar year. In addition, the Licensee shall operate the Project to avoid short-term spills that would increase instream flows more than 100 percent in a 12-hour period between the end of the spill cessation outlined in Table 19 and September 30 in years when the spill cessation schedule is implemented, or from April 1 through September 30 in years where spill cessation does not occur.

Table 19. Spill Cessation Flow Schedule in Canyon Creek below the Bowman-Spaulding Diversion Dam after April 1 (as measured in cfs at USGS Gage No. 11416500)[1]

Number of Days to Maintain Flow	Mean Daily Flow
1	275[2]
1	230[2]
1	200[2]
2	160[2]
2	130[2]
2	100[2]
2	85[2]
3	70[2]
3	55[2]
4	45 or MIF, whichever is lower[2]

[1] If the peak spill flow is greater than or equal to the highest flow on the spill cessation schedule, then the spill flows shall be decreased according to this schedule. If the peak spill flow is less than the highest flow on the schedule, then the spill flows shall be decreased according to the schedule from the observed flow downward (e.g., if peak spill flows were 100 cfs, then the spill cessation would begin with maintaining flows for two days at 100 cfs, and decrease to 85 cfs for an additional two days). While the table shows the spill cessation schedule continuing until Target Flows are 45 cfs, each spill cessation event shall stop when the applicable MIF shown in Table 8 of Condition 1 is reached (i.e., the spill cessation event shall end at the applicable MIF).

[2] The actual mean daily flow on each day may vary within 10 percent of the flows required in Table 19.

8(C) Spill Cessation and Reduction on Bear River below Dutch Flat Afterbay Dam

Between May 1 and September 30 of each year, the Licensee shall implement the spill cessation schedule in Table 20 if Licensee-caused[21] spills last three days or less or Table 21 if Licensee-caused spills last more than three days. The spill cessation schedules in Table 20 and Table 21 shall begin when the Chicago Park Flume and Powerhouse are brought back on-line and the Dutch Flat Afterbay ceases spilling, as observed at the Dutch Flat Afterbay spillway.

[21] Licensee-caused spills at Dutch Flat Afterbay Dam are defined as spills caused by the Chicago Park Flume and/or Powerhouse being out of service due to planned, unplanned, or emergency outages or caused by restricted capacity of the Chicago Park Flume. The Licensee shall report Licensee-caused spills to the Deputy Director within two days of the spill's initiation and identify the associated spill cessation schedule the Licensee will be implementing to comply with this condition.

Table 20. Spill Cessation Flow Schedule on Bear River below Dutch Flat Afterbay Dam after May 1 when Spills Last 3 Days or Less (as measured in cfs at USGS Gage No. 11421790)[1]

Number of Days to Maintain Flow	Mean Daily Flow
1	75[2]
1	50[2]
1	25 or MIF, whichever is lower[2]

[1] If the peak spill flow is greater than or equal to the highest flow on the spill cessation schedule, then the spill flows shall be decreased according to this schedule. If the peak spill flow is less than the highest flow on the schedule, then the spill flows shall be decreased according to the schedule from the observed flow downward (e.g., if peak spill flows were 50 cfs, then the spill cessation would begin with maintaining flows for one day at 50 cfs, and decrease to 25 cfs for an additional day). While the table shows the spill cessation schedule continuing until Target Flows are 25 cfs, each spill cessation event shall stop when the applicable MIF shown in Table 14 of Condition 1 is reached (i.e., the spill cessation event shall end at the applicable MIF).

[2] The actual mean daily flow on each day may vary within 10 percent of the flows required in Table 20.

Table 21. Spill Cessation Flow Schedule on Bear River below Dutch Flat Afterbay Dam after May 1 when Spills Last more than 3 Days (as measured in cfs at USGS Gage No. 11421790)[1]

Number of Days to Maintain Flow	Mean Daily Flow
7	75[2]
7	50[2]
7	25 or MIF, whichever is lower[2]

[1] If the peak spill flow is greater than or equal to the highest flow on the spill cessation schedule, then the spill flows shall be decreased according to this schedule. If the peak spill flow is less than the highest flow on the schedule, then the spill flows shall be decreased according to the schedule from the observed flow downward (e.g., if peak spill flows were 50 cfs, then the spill cessation would begin with maintaining flows for seven days at 50 cfs, and decrease to 25 cfs for an additional seven days). While the table shows the spill cessation schedule continuing until Target Flows are 25 cfs, each spill cessation event will stop when the applicable MIF shown in Table 14 of Condition 1 is reached (i.e., the spill cessation event shall end at the applicable MIF).

[2] The actual mean daily flow on each day may vary within 10 percent of the flows required in Table 21.

8(D) Spill Reduction on Bear River below Rollins Dam

The Licensee shall manage flow in the Bear River below Rollins Dam to match inflow to Rollins Reservoir when Rollins Reservoir elevation is between 2,168 and 2,171 feet. After May 1 of each calendar year and when Rollins Dam stops spilling, the Licensee shall reduce flow releases from Rollins Dam in a manner that maintains Rollins Reservoir surface elevation between 2,168 and 2,171 feet while also maintaining flow

releases below Rollins Dam so that the stage (water depth) in the Bear River does not decrease by more than one foot during any three-week period as measured at USGS gage no. 11422500.

The requirements of Condition 8 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 as defined by Condition 1(C). The Licensee shall implement the notification and other requirements in Condition 1(C) following a temporary modification to the provisions of Condition 8 that is reasonably beyond the control of the Licensee, as directed by law enforcement, or in emergencies.

CONDITION 9. Canal Outages

No later than six months following license issuance, the Licensee shall submit a Bowman-Spaulding Conduit Outage Plan (Outage Plan) to the Deputy Director for review and consideration of approval. The Outage Plan shall be developed in consultation with State Water Board, CDFW, USFS, USFWS, and BLM staff and, if applicable, PG&E staff. The Deputy Director may require changes as part of any approval. During an outage of the Bowman-Spaulding Conduit, MIF downstream of the stream reaches of Texas Creek, Clear Creek, Trap Creek, Rucker, and Fall Creek shall be equal to the flows upstream of each stream reach's canal diversion location for the duration of the outage. At a minimum, the Outage Plan shall:

- Describe how the Licensee will ensure MIFs continue to be met in Texas, Clear, Trap, Fall, and Rucker creeks during Bowman-Spaulding Conduit outages[22].
- Include notification protocols, including:
    - Notification of meeting participants about the schedule of planned annual and non-routine outages of the Bowman-Spaulding Conduit and any coordinated Project operations for outages of PG&E's Drum Canal at the annual meeting (Condition 21); and
    - Notification of USFS, BLM, USFWS, CDFW, and State Water Board staff, and as applicable, PG&E staff, with as much notice as is reasonably possible for any annual planned outages or non-routine planned outages of the Bowman-Spaulding Conduit or coordinated Project operations (Condition 19), for outages of PG&E's Drum Canal that were not know prior to the annual meeting (Condition 21).
- Describe how the Licensee will manage outages of the Project's Bowman-Spaulding Conduit and coordinate Project operations (Condition 19) for outages of PG&E's Drum Canal[23] as required by this condition.
- Cover the range of potential outages, including:

[22] MIFs to be met are those outlined in Condition 1, Table 9 (Texas Creek), Table 10 (Clear Creek), Table 11 (Fall Creek), Table 12 (Trap Creek), and Table 13 (Rucker Creek).

[23] Part of the Upper Drum-Spaulding Hydroelectric Project (FERC Project No. 2310).

  - Annual planned outages that are defined as outages for routine maintenance and are performed around the same time each year;
  - Non-routine planned outages that are defined as outages for high priority/major maintenance that are performed under planned conditions, but do not occur during the annual planned outages; and
  - Emergency outages, which are defined as outages due to emergencies as defined in Condition 1(C).
- Documentation of consultation with the agencies noted above, comments and recommendations made as part of consultation, and how the comments were addressed in the plan.
- As necessary, include the installation of new gage(s) and/or conduit modifications to ensure compliance with required MIFs.

The Licensee shall implement the Outage Plan and any changes thereto upon receipt of Deputy Director and any other required approvals. The Licensee shall file the Deputy Director-approved Outage Plan and any subsequent changes thereto with FERC. Any changes to the Outage Plan require approval by the Deputy Director prior to implementation.

9(A) PG&E's Upper Drum-Spaulding Hydroelectric Project Drum Canal

During outages of PG&E's Drum Canal, the Licensee shall comply with the MIF at Bear River below Dutch Flat Afterbay Dam (Table 14) until the elevation of Dutch Flat Afterbay reaches a water surface elevation of 2,700 feet. Once the water surface elevation of Dutch Flat Afterbay reaches 2,700 feet, the MIF at Bear River below Dutch Flat Afterbay Dam shall be equal to the inflow at Dutch Flat Afterbay Dam until the Drum Canal outage ends, at which time the MIFs outline in Condition 1 resume.

9(B) Canal Fish Rescue

The Licensee shall implement NID's *Canal Outages Fish Rescue Plan* as submitted to FERC by the USFS on November 20, 2013 (USFS, 2013b), for all annual non-routine canal outages and, as feasible, during emergencies (as defined in Condition 1(C)).

CONDITION 10. Erosion and Sediment Control

The Licensee shall implement the following provisions related to erosion and sediment control.

10(A) Erosion and Sediment Control

No later than one year following license issuance, the Licensee shall submit an Erosion Control and Sediment Management Plan (Erosion and Sediment Plan) to the Deputy Director for review and consideration for approval. The Deputy Director may require changes as part of any approval. The goal of the Erosion and Sediment Plan is to minimize Project-related erosion and sedimentation impacts for the term of the FERC license. At a minimum, the Erosion and Sediment Plan shall include the measures in the

Erosion and Sediment Control Management Plan filed by USFS with FERC on April 11, 2014 (USFS, 2014b), with the following additions:

- Initial and periodic inventory and monitoring of potential erosion and sediment control treatment sites. Inventory and monitoring shall include assessment of landslide hazard and slope stability by a qualified geologist for slopes above and below sections of open canal and dam abutments that may cause the structure to breach.
- Identification of best management practices (BMPs) that will be implemented to control erosion and sedimentation, which at a minimum shall include the most current USFS *National Best Management Practices for Water Quality Management on National Forest System Lands*[24] (USFS, 2012) and other appropriate documents.
- Criteria for prioritizing and ranking erosion sites for treatment, and an associated schedule for each treatment site.
- Coordination with Condition 10(B) Channel Stabilization and Condition 10(C) Canal and Spillway Release Points. The Licensee may integrate the plans required in Condition 10(B) and Condition 10(C) into a comprehensive Erosion and Sediment Plan.
- Performance metrics to assess the effectiveness of erosion and sediment control BMPs at reducing Project-related impacts.
- Anticipated maintenance activities.
- Implementation and effectiveness monitoring and reporting to ensure performance metrics are met.
- Documentation of consultation with USFS, BLM, CDFW, USFWS, and State Water Board staff, comments and recommendations made, and a description of how the Erosion and Sediment Plan incorporates or addresses the comments and recommendations.
- For construction and maintenance activities that may result in erosion or sedimentation that are not specifically covered by the State Water Board's General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) (State Water Board, 2009), and amendments thereto, or the Erosion and Sediment Plan or other provisions of this certification, the Licensee shall develop and implement Water Quality Monitoring and Protection Plans (Condition 10(D)) following Deputy Director review and approval).
- Format and schedule for reports to document, summarize, and analyze monitoring results. Reports shall include identification of any potential concerns, effectiveness of erosion and sediment control measures, and any conditions proposed by the Licensee for changes to erosion control BMPs to better address Project-related impacts. Reports shall be submitted to USFS, BLM, CDFW, USFWS, and State Water Board staff. The Deputy Director may require

[24] Volume 1: National Core BMP Technical Guide (FS-990a). Issued April 2012. Available online at: https://www.fs.fed.us/naturalresources/watershed/bmp.shtml. Last accessed February 13, 2025.

implementation of additional monitoring or other actions in response to the information provided in the monitoring reports or other information in the record in order to ensure protection of water quality and beneficial uses.

Any changes to the Erosion and Sediment Plan require approval by the Deputy Director prior to implementation. The Licensee shall file with FERC the Deputy Director-approved Erosion and Sediment Plan and any changes thereto. The Licensee shall implement any Deputy Director-approved Erosion and Sediment Plan and any approved changes thereto upon receipt of Deputy Director and any other required approvals.

10(B) Channel Stabilization

No later than one year following license issuance, the Licensee shall submit a Channel Stabilization Plan to the Deputy Director for review and consideration for approval. The Deputy Director may require changes as part of any approval. The purpose of the Channel Stabilization Plan is to reduce Project-related erosion and sedimentation impacts associated with Project channels. At a minimum, the Channel Stabilization Plan shall incorporate information from NID's *Clear and Trap Creeks Channel Stabilization Plan*, included in Appendix E4 of its Amended FLA (NID, 2012b), with the following additions:

- Initial and periodic assessments and monitoring of potential channel stabilization treatment sites.
- Identification of channel stabilization measures that will be implemented.
- Criteria for prioritizing and ranking channel stabilization sites for treatment, and an associated schedule for each treatment site.
- Coordination of Channel Stabilization Plan activities with Condition 10(A) Erosion and Sediment Control and Condition 10(C) Canal and Spillway Release Points.
- Performance metrics to assess the effectiveness of channel stabilization measures on reducing Project-related impacts to channel conditions.
- Anticipated maintenance activities and associated schedule.
- Implementation and effectiveness monitoring and reporting to ensure performance metrics are met.
- Implementation of further actions to maintain the effectiveness of channel stabilization measures based on the monitoring results or new information related to the conditions in the watershed that may be impacted by Project operations.
- Documentation of consultation with USFS, BLM, CDFW, USFWS, and State Water Board staff, comments and recommendations made, and a description of how the Channel Stabilization Plan incorporates or addresses the comments and recommendations.
- Format and schedule for reports to document, summarize, and analyze monitoring results. Reports shall include identification of any potential concerns, effectiveness of channel stabilization measures, and any proposed changes to the channel stabilization measures to better address Project-related impacts. Reports shall be submitted to USFS, BLM, CDFW, USFWS and State Water Board staff. The Deputy Director may require implementation of additional

monitoring or other actions in response to the information provided in the monitoring reports or other information in the record in order to ensure protection of water quality and beneficial uses.

Any changes to the Channel Stabilization Plan require approval by the Deputy Director prior to implementation. The Licensee shall file with FERC the Deputy Director-approved Channel Stabilization Plan and any changes thereto. The Licensee shall implement any Deputy Director-approved Channel Stabilization Plan and any approved changes thereto upon receipt of Deputy Director and any other required approvals.

10(C) Canal and Spillway Release Points

No later than two years following license issuance, the Licensee shall submit a Canal and Spillway Release Points Plan (Release Points Plan) to the Deputy Director for review and consideration for approval. The Deputy Director may require changes as part of any approval. The goal of the Release Points Plan is to minimize erosion at Project canal drainage structures, release points, spill structures, and immediately downstream of spillway channels (collectively referred to as “canal release points”). At a minimum, the Release Points Plan shall incorporate the measures in USFS’s *Canal Release Point Plan*, filed with FERC on April 11, 2014 (USFS, 2014a), with the following additions:

- Initial and periodic assessment and monitoring of canal release points by a qualified engineering geologist.
- Identification of canal release points that need treatment and the measures that will be implemented to treat the canal release points. In addition to the points identified in USFS’s *Canal Release Point Plan*, the Release Points Plan shall include, at a minimum, the Jackson Meadows Dam low-level outlet and spillway and Bowman South Dam Spillway.
- Criteria for prioritizing and ranking canal release point sites for treatment, and an associated schedule for each site.
- Coordination of Release Points Plan activities with Condition 10(A) Erosion and Sediment Control and Condition 10(B) Channel Stabilization.
- Performance metrics to assess the effectiveness of measures on reducing Project-related impacts at canal release points.
- Anticipated maintenance activities to ensure the long-term and ongoing effectiveness of the measures implemented to address Project-related impacts from canal release points.
- Implementation and effectiveness monitoring and reporting to ensure performance metrics are met.
- Documentation of consultation with USFS, BLM, CDFW, USFWS, and State Water Board staff, comments and recommendations made, and a description of how the Release Points Plan incorporates or addresses the comments and recommendations.
- Format and schedule for reports to document, summarize, and analyze monitoring results. Reports shall include identification of any potential concerns,

an assessment of the effectiveness of implemented measures, and any proposed changes to better address Project-related impacts. Reports shall be submitted to USFS, BLM, CDFW, USFWS and State Water Board staff. The Deputy Director may require implementation of additional monitoring or other actions in response to the information provided in the monitoring reports or other information in the record in order to ensure protection of water quality and beneficial uses.

Any changes to the Release Points Plan require approval by the Deputy Director prior to implementation. The Licensee shall file with FERC the Deputy Director-approved Release Points Plan and changes thereto. The Licensee shall implement any Deputy Director-approved changes to the Release Points Plan upon receipt of Deputy Director and any other required approvals.

10(D) Construction and Maintenance

When applicable, the Licensee shall comply with the State Water Board's *General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (Construction General Permit)[25] (State Water Board, 2022a), and amendments thereto. For construction and maintenance activities with the potential to impact water quality or beneficial uses that are not subject to the Construction General Permit and/or that are not covered by another condition of this certification,[26] the Licensee shall prepare and implement site-specific Water Quality Monitoring and Protection Plans (WQMP Plans) for Deputy Director approval. At a minimum, WQMP Plans must demonstrate compliance with sediment and turbidity water quality objectives in the Water Quality Control Plan for the Sacramento River Basin and the San Joaquin River Basin (Central Valley Basin Plan) (Central Valley Regional Water Board 2019), as well as other applicable water quality objectives associated with the construction or maintenance activities.

The Licensee shall submit 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.

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

- The relevant elements of Erosion and Sediment Plan (Condition 10(A)).

[25] State Water Board Order No. 2009-0009-DWQ and NPDES No. CAS000002, as amended by Order No. 2010-0014-DWQ, Order No. 2012-0006-DWQ, Order No. 2022-0057-DWQ, and any amendments thereto.

[26] For example, channel stabilization activities covered by Condition 8(B) would not be required to have a separate WQMP Plan.

- A description of site conditions and the proposed activity.
- Detailed descriptions, design drawings, and specific topographic locations of all control measures in relation to the proposed activity, which may include:
    - Measures to divert runoff away from disturbed land surfaces;
    - Measures to collect and filter runoff from disturbed land surfaces, including sediment ponds at the diversion and powerhouse sites; and
    - Measures to dissipate energy and prevent erosion.
- Revegetation measures for disturbed areas, which shall include use of native plants and locally sourced plants and seeds.
- A monitoring, maintenance, and reporting schedule.

The Deputy Director may require changes as part of any approval to ensure the protection of water quality and beneficial uses. The Licensee shall file with FERC the Deputy Director-approved WQMP Plans, and any approved changes 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 11. Large Woody Material Management

No later than one year following license issuance, the Licensee shall submit a Large Woody Material Management Plan (LWMM Plan) to the Deputy Director for review and consideration of approval. The LWMM Plan shall be developed in consultation with USFS, USFWS, BLM, DSOD, CDFW, and State Water Board staff. The Deputy Director may require changes as part of any approval. The objective of the LWMM Plan shall be to ensure instream large woody material is available downstream of Project facilities. At a minimum, the LWMM Plan shall include:

- For Canyon, Jackson, Texas, Fall, Clear, Trap, and Rucker creeks as well as the Bear, Middle Yuba, and South Yuba rivers, 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 the Project's operations.
- Proposed monitoring to assess the effectiveness of the LWMM Plan (e.g., mobilization and distribution of large woody material).
- Detailed description of the methods, locations, volume, and frequency of large woody material collection, removal, storage, and placement in Project stream reaches for Jackson Meadows Dam, Milton Diversion Dam, Sawmill Dam, French Dam, Faucherie Dam, Bowman Dam, and diversion dams on Clear, Texas, Trap, Fall, and Rucker creeks. At a minimum, specifics for Jackson Meadows Dam, Milton Diversion Dam, Sawmill Dam, French Dam, Faucherie Dam, and Bowman Dam shall include:
    - At Jackson Meadows Dam, at a minimum, all sizes of woody material larger than eight inches in diameter and less than 14 feet in length shall be allowed to continue downstream of the dam. If the woody material is greater than eight inches in diameter, but longer than 14 feet, it shall be cut to

approximately 14 feet in length and allowed to continue downstream of the dam. Smaller sized woody material shall also be allowed past the dam.
    - At Milton Diversion Dam, Sawmill Dam, French Dam, and Faucherie Dam, at a minimum, all sizes greater than eight inches in diameter and less than 36 feet in length shall be allowed to continue downstream of the dams. If the woody material is greater than eight inches in diameter and longer than 36 feet, it shall be cut to approximately 36 feet in length and allowed to continue downstream of the dams. Smaller sized woody material shall also be allowed past the dams.
    - At Bowman Dam, at a minimum, all sizes of woody material larger than eight inches in diameter and less than four feet in length shall be allowed to continue downstream of the dam. If the woody material is greater than eight inches in diameter and longer than four feet in length, it shall be cut to approximately four feet in length and allowed to continue downstream of the dam. Smaller sized woody material shall also be allowed past the dam.
- Method the Licensee will use to determine if passage of root wads present a dam safety risk. At each Project dam, if passage of the root wad would not present a risk to the safety of the dam, the root wad shall be allowed to continue downstream of the dam.
- A monitoring and reporting program that describes how the Licensee will evaluate and report on the performance of LWMM efforts. The program shall include the criteria that will be used to evaluate the performance of LWMM measures. The Licensee shall propose updates to the LWMM Plan based on the monitoring results. Reports shall be submitted to the Deputy Director, BLM, CDFW, DSOD, and USFS. The Deputy Director may require implementation of additional monitoring, LWMM measures, or other actions in response to the information provided in the monitoring reports or other information in the record to ensure the protection of water quality and beneficial uses.
- Removal of large woody material from the dams or dam spillways when directed by FERC or DSOD.
- An adaptive management program that describes how the Licensee plans to adjust LWMM and monitoring methods based on evaluation of information and monitoring resulting from implementation of the LWMP Plan.
- Documentation of consultation with USFS, USFWS CDFW, DSOD, BLM, and State Water Board staff, including comments and recommendations made in connection with the LWMM Plan, and a description of how the LWMM Plan incorporates or addresses the comments and recommendations.

Any changes to the LWMM Plan require approval by the Deputy Director prior to implementation. The Licensee shall file with FERC any Deputy Director-approved LWMM Plan and any changes thereto. The Licensee shall implement the Deputy Director-approved LWMM Plan and any changes thereto upon receipt of Deputy Director and any other required approvals.

CONDITION 12. Entrainment Prevention

No later than one year following license issuance, the Licensee shall submit a Fish Entrainment Prevention Plan (Entrainment Plan) to the Deputy Director for review and consideration for approval. The Entrainment Plan shall provide for the installation and operation of a fish screen at or near the Milton-Bowman Diversion Dam. The Entrainment Plan shall be developed in consultation with CDFW, USFWS, USFS, and State Water Board staff. The Deputy Director may require changes as part of any approval. The objective of the Entrainment Plan shall be to reduce mortality of all life stages of resident rainbow trout due to entrainment and impingement at the Milton-Bowman Diversion Conduit intake. Consistent with USFS's revised 4(e) condition 32 (USFS, 2014c), the Entrainment Plan shall specify the construction and maintenance of a retractable cylindrical fish screen system to be installed in the Milton Diversion impoundment in front of the existing Milton-Bowman Conduit intake, unless a different system is agreed on during development of the Entrainment Plan. At a minimum, the Entrainment Plan shall include:

- The proposed fish screen system to be installed and operated by the Licensee.
- The schedule for installation and operation of the fish screen system, including identification of any necessary permits.
- Identification of water quality measures that will be implemented to protect water quality and beneficial uses when installing, operating, and maintaining the fish screen system.
- A monitoring and reporting program that describes how the Licensee will evaluate and report on the performance of the fish screen system. This program shall include the proposed monitoring methods, frequency, and criteria that will be used to evaluate the performance of the fish screen. The Licensee shall propose any updates to the Entrainment Plan based on the monitoring results. Reports shall be submitted to the Deputy Director for review and consideration of approval. Reports shall also be provided to CDFW, USFWS, and USFS. The Deputy Director may require implementation of additional monitoring or other actions in response to the information provided in the monitoring reports.
- Documentation of consultation with USFS, CDFW, USFWS, and State Water Board staff, including comments and recommendations made in connection with the Entrainment Plan, and a description of how the plan incorporates or addresses the comments and recommendations.

Any changes to the Entrainment Plan require approval by the Deputy Director prior to implementation. The Licensee shall file with FERC the Deputy Director-approved Entrainment Plan and any changes thereto. The Licensee shall implement any Deputy Director-approved Entrainment Plan and any approved changes thereto upon receipt of Deputy Director and any other required approvals.

CONDITION 13. Aquatic Invasive Species Management

No later than one year following license issuance, the Licensee shall submit an Aquatic Invasive Species Management and Monitoring Plan (Invasive Species Plan) to the Deputy Director for review and consideration for approval. The Deputy Director may require changes as part of any approval. The Invasive Species Plan shall be developed in consultation with USFS, BLM, CDFW, the Central Valley Regional Water Board, and State Water Board staff. The Invasive Species Plan shall describe how the Licensee will manage aquatic invasive species that occur or have the potential to occur in Project-affected waters. The objectives of the Invasive Species Plan are to: (1) identify and implement BMPs to minimize and prevent the introduction and spread of aquatic invasive species into and throughout Project-affected waters; (2) provide education and outreach to ensure public awareness of the potential effects of aquatic invasive species throughout Project-affected waters and actions needed to avoid or address them; (3) develop and implement monitoring programs to ensure early detection of aquatic invasive species; and (4) monitor the spread of established aquatic invasive species. At a minimum, the Invasive Species Plan shall include:

- The purpose of the plan.
- Identification of aquatic invasive species that occur or have the potential to occur in Project-affected waters. For those that occur, include information on where the aquatic invasive species occurs and its density.
- BMPs that will be implemented to manage aquatic invasive species.
- An education and outreach program that will be implemented to ensure public awareness and identify actions the public can implement to avoid the introduction and spread of aquatic invasive species.
- A monitoring and reporting program that will be implemented to ensure early detection of new aquatic invasive species and monitor the spread or reduction of established aquatic invasive species. The monitoring program shall include the species that will be monitored for, monitoring protocols, frequency, and locations. The program shall describe how the Licensee will evaluate and report on the performance of aquatic invasive species management efforts. The program shall include the criteria that will be used to evaluate the performance of aquatic invasive species BMPs. The reports shall include identification of changes associated with the presence of aquatic invasive species in Project-affected waters and recommendations to address the presence or spread of aquatic invasive species. The Deputy Director may direct the Licensee to implement additional actions to address aquatic invasive species in Project-affected waters. The Licensee shall propose any updates to the plan based on the monitoring results or other available information. Reports shall be submitted to USFS, BLM, CDFW, Central Valley Regional Water Board, and the Deputy Director.
- An adaptive management program that describes how the Licensee plans to adjust aquatic invasive species monitoring methods and update the plan based on evaluation of information and monitoring resulting from implementation of the plan.

- Documentation of consultation with USFS, CDFW, Central Valley Regional Water Board, and State Water Board staff, including comments and recommendations made in connection with the plan, and a description of how the plan incorporates or addresses the comments and recommendations.

Any changes to the Invasive Species Plan require approval by the Deputy Director prior to implementation. The Licensee shall file with FERC the Deputy Director-approved Invasive Species Plan and any approved changes thereto. The Licensee shall implement the Deputy Director-approved Invasive Species Plan and any approved changes thereto upon receipt of Deputy Director and any other required approvals.

CONDITION 14. Fish Stocking

No later than one year following license issuance, the Licensee shall submit a Fish Stocking Plan to the Deputy Director for review and consideration of approval. The Deputy Director may require changes as part of any approval. The Fish Stocking Plan shall be developed in consultation with USFS, USFWS, CDFW, and State Water Board staff. The Fish Stocking Plan shall outline fish stocking activities in Project lakes and reservoirs during the term of the FERC license. The objectives of the Fish Stocking Plan are to: (a) evaluate and monitor the locations where fish stocking occurs; and (b) identify the number of fish and species of fish, to be stocked at each location. At a minimum, the Fish Stocking Plan shall include:

- The Project locations where fish stocking will occur and the frequency of stocking at each location including at a minimum:
    - Annual stocking in Bowman Lake, Rollins Reservoir, Faucherie Lake, and Jackson Meadows Reservoir; and
    - Biannual stocking in Sawmill Lake.
- The age and number or weight of fish to be stocked at Project lakes and reservoirs.
- Provisions for periodic review of angling use levels at stocked and non-stocked Project lakes and reservoirs to evaluate whether to begin, continue, or eliminate fish stocking at specific Project lakes and reservoirs and to propose update to the plan to address the findings of the periodic reviews following consultation with USFS, USFWS, CDFW, and State Water Board staff.
- A schedule for annual consultation with USFS, USFWS, CDFW, and State Water Board staff in advance of the year's fish stocking activities, and distribution of an annual summary report of fish stocking activities. The contents of the annual summary report shall be outlined in this plan. The Deputy Director may require implementation of additional monitoring or other actions in response to the information provided in the annual summary reports or as part of consultation.
- Documentation of consultation with USFS, USFWS, CDFW, and State Water Board staff, including comments and recommendations made in connection with the plan, and a description of how the plan incorporates or addresses the comments and recommendations.

Any changes to the Fish Stocking Plan require approval by the Deputy Director prior to implementation. The Licensee shall file with FERC the Deputy Director-approved Fish Stocking Plan and any approved changes thereto. The Licensee shall implement the Deputy Director-approved Fish Stocking Plan and any approved changes thereto upon receipt of Deputy Director and any other required approvals.

CONDITION 15. Recreation Facilities

No later than one year following license issuance, the Licensee shall submit a Recreation Facilities Plan for review and consideration of approval by the Deputy Director. The Deputy Director may require changes as part of any approval. The Recreation Facilities Plan shall be developed in consultation with staff from the State Water Board, USFS, BLM, Central Valley Regional Water Board, CDFW, and USFWS. At a minimum, the Recreation Facilities Plan shall include:

- A description of routine recreation facilities maintenance activities that will be performed that may impact water quality, including the frequency of maintenance activities.
- Water quality sampling locations, methods, quality assurance project plan, and frequency for: *Escherichia coli (E. coli)*, total petroleum hydrocarbons (gasoline range), and oil/grease. The plan shall reference the Invasive Species Plan (Condition 13) monitoring for coverage of water quality related items associated with aquatic invasive species. Sampling of *E. coli* shall comply with Part 3 of the *Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California – Bacteria Provisions and a Water Quality Standards Variance Standards Policy* (Bacterial Provisions) (State Water Board, 2019c).
- An initial assessment and schedule for additional periodic assessments of the need for aquatic vegetation management at recreation sites and actions that will be implemented to manage aquatic vegetation, if needed.
- Description of in-water (e.g., boat launches) and other recreation facilities to be constructed, rebuilt, closed, or removed, and identification of whether the Licensee plans to cover such activities under this plan, a separate WQMP Plan (Condition 10(D)), or the recreation facilities/activities have no potential to impact water quality and beneficial uses.
- Identification of any action required by USFS's final 4(e) condition 57 - Recreation Plan (USFS, 2014c) that may impact water quality.
- Description of BMPs and other measures that will be implemented to protect water quality during any actions to be implemented as part of the Recreation Facilities Plan that have the potential to impact water quality. Maintenance activities related to recreation facilities and specific recreation facility projects (e.g., improvements, removal, construction) that may impact water quality and beneficial uses shall be submitted for Deputy Director approval as part of the original or an amended Recreation Facilities Plan or as a separate WQMP Plan (Condition 10(D)).
- Documentation of consultation with USFS, BLM, CDFW, USFWS, Central Valley Regional Water Board, and State Water Board staff, comments and

recommendations made in connection with the Recreation Facilities Plan, and a description of how the Recreation Facilities Plan incorporates or addresses the comments and recommendations.

Additionally, each year throughout the term of the license, the Licensee shall arrange to meet with USFS, CDFW, USFWS, Central Valley Regional Water Board, and State Water Board staff for an Annual Recreation Coordination Meeting to discuss issues regarding Project recreation facilities, use and management, protection of water quality and beneficial uses, and recreation-related resource protection. The Licensee and above-referenced agencies will mutually agree to the date of the meeting, targeted to be held within the first 90 days of each calendar year. The Licensee shall provide the agencies with an agenda and a draft annual recreation operation and maintenance plan at least 30 days in advance of the meeting. An annual meeting may be canceled if all agencies and the Licensee concur that a meeting is not needed.

Any changes to the Recreation Facilities Plan require Deputy Director approval prior to implementation. The Licensee shall file with FERC the Deputy Director-approved Recreation Facilities Plan and any approved changes thereto. The Licensee shall implement the Deputy Director-approved Recreation Facilities Plan and any approved changes thereto upon receipt of Deputy Director and any other required approvals.

CONDITION 16. Recreation Streamflows and Information

No later than one year following license issuance, the Licensee shall provide real-time streamflow information, in cfs, for the following Project-related stream reaches:

- Middle Yuba River at Jackson Meadows Reservoir Dam (USGS Gage No. 11407815)
- Middle Yuba River below Milton Reservoir Dam (USGS Gage No. 11408550)
- Canyon Creek below French Dam (USGS Gage No. 11414410)
- Canyon Creek below Bowman-Spaulding Diversion Dam (USGS Gage No. 11416500)

If a gage is not USGS rated above the compliance flow required in this certification, the Licensee shall make a good faith effort to estimate the flow above the USGS rating. The Licensee shall post all flow and other data to the California Data Exchange Center website, within 24-hours of flow measurement, unless otherwise approved by the Deputy Director. The Licensee shall publicly notice at an easily accessible location on the internet all known events that will affect recreation streamflow (e.g., powerhouse outages, construction, etc.) in Project reaches a minimum of 30 days in advance. The preference is that data shall be reported in no less than 15-minute intervals; however, data shall be reported in no less than hourly intervals. The Licensee shall publicly notice the recreational streamflow events required below via: (a) an easily accessible location on the internet; and (b) email to interested parties that have requested such notification. Such notification shall be provided as soon as the date of each recreational streamflow event is known.

Recreation streamflows shall be made for boating in the Middle Yuba River below Milton Diversion Dam in any years in which spill at Milton Diversion Dam is 300 cfs or greater after May 1. The Licensee shall provide at least six continuous days of flow within 10 percent of 300 cfs in the Middle Yuba River below Milton Diversion Dam, as measured at USGS Gage No. 11408550. This flow release shall occur at the same time as those required in Condition 8(A) – Spill Cessation and Reduction on the Middle Yuba River below Milton Diversion Dam.

Recreation streamflows shall be made for boating in Canyon Creek below Bowman-Spaulding Diversion Dam in any years in which flow as measured at USGS Gage No. 11416500 is 275 cfs or greater after April 1. The Licensee shall provide at least five continuous days of flow within 10 percent of 275 cfs in Canyon Creek below Bowman-Spaulding Diversion Dam as measured at the same gage. This flow release shall occur in a manner where spill cessation, as required in Condition 8(B) – Spill Cessation and Reduction on Canyon Creek below Bowman-Spaulding Diversion Dam, occurs immediately after the recreation streamflow release.

Recreation streamflows shall be made for boating in Canyon Creek below French Lake Dam between September 1 and September 30 of each year when the elevation of French Lake is above 6,638 feet above mean sea level on September 1. The Licensee shall provide at least 24-hours of continuous flow between 120 cfs and 150 cfs as measured at USGS Gage No. 11414410.

CONDITION 17. Drought Planning

No later than two years following license issuance, the Licensee shall submit a Drought Management Plan to the Deputy Director for review and consideration of approval. The Deputy Director may require changes as part of any approval. The Drought Management Plan shall be used to avoid, whenever possible, and inform any variance requests submitted to the State Water Board under Condition 20 (Extremely Dry Conditions). The Drought Management Plan shall be developed in consultation with USFS, CDFW, State Water Board, and if applicable BLM staff. At a minimum, the Drought Management Plan shall include:

- Consultation on what qualifies as drought conditions. Consultation shall include determination of multi-year “drought conditions”. Such multi-year drought conditions may include several consecutive years in which the Governor of the State of California declares a drought emergency for Sierra, Nevada, and/or Placer counties, or multiple consecutive Dry, Critically Dry, or Extremely Critically Dry water year types.
- Guidance for operations during multi-year drought conditions, including:
    - Identification of management options that may require a variance to certification conditions to address multi-year droughts.
    - Evaluation of different, specific multi-year drought scenarios.
    - Considerations that will be evaluated for different management options, such as 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.
    - Proposed water conservation measures that will be implemented.
- Consultation, notification, and regulatory approval procedures that will be implemented during drought conditions, which shall include, at a minimum, USFS, CDFW, BLM (if applicable), and State Water Board staff.
- Documentation of consultation with USFS, BLM (if applicable), CDFW, and State Water Board staff, comments and recommendations made in connection with the Drought Management Plan, and a description of how the Drought Management Plan incorporates or addresses the comments and recommendations.

Any changes to the Drought Management Plan require approval by the Deputy Director prior to implementation. The Licensee shall file with FERC the Deputy Director-approved Drought Management Plan and any approved changes thereto. The Licensee shall implement the Drought Management Plan and any approved changes thereto upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

CONDITION 18. Hazardous Substances Plan

No later than one year following license issuance, the Licensee shall submit a Hazardous Substances Plan to the Deputy Director for review and consideration for approval. The Deputy Director may require changes as part of any approval. The Hazardous Substances Plan shall address the storage, spill prevention, cleanup, and disposal of oil and hazardous substances associated with Project activities. The Licensee shall consult with USFS, the Central Valley Regional Water Board, and State Water Board staff in the development of the plan. At a minimum, the Hazardous Substances Plan shall include:

- Description of how the Licensee will maintain a cache of spill cleanup equipment in the Project area suitable to contain any spill of hazardous substances associated with the Project.
- Periodic reporting to inform State Water Board and Central Valley Regional Water Board staff of the location of the spill cleanup equipment and of the location, type, and quantity of oil and hazardous substances stored in the Project area.
- BMPs that will be implemented to prevent spills of hazardous substances during routine operations and maintenance activities, including but not limited to secondary containment procedures for hazardous substances, equipment inspection protocols, and staging and storage procedures.
- Immediate reporting to State Water Board and Central Valley Regional Water Board staff and other relevant agencies of the magnitude, nature, time, date, location, and action taken for any spill.
- A monitoring and reporting component that details water quality monitoring and corrective measures that will be implemented to reduce water quality impacts if

spills occur, as well as information on how hazardous materials will be properly disposed of once past their useful life or as part of cleanup activities.

- Evaluation of any release of hazardous substances. This evaluation shall be completed within 120 days of the release and include consultation with appropriate agencies and a report submitted to the Deputy Director with any proposed updates to plan.
- Documentation of consultation with USFS, Central Valley Regional Water Board, and State Water Board staff, comments and recommendations made in connection with the Hazardous Substances Plan, and a description of how the Hazardous Substances Plan incorporates or addresses the comments and recommendations.

The Deputy Director may require implementation of additional actions in response to the information provided as part of a report following a release or other information indicating a threat to water quality or beneficial uses.

Any changes to the Hazardous Substances Plan require approval by the Deputy Director prior to implementation. The Licensee shall file with FERC the Deputy Director-approved Hazardous Substances Plan and any approved changes thereto. The Licensee shall implement the Hazardous Substances Plan and any approved changes thereto upon receipt of Deputy Director and any other required approvals.

CONDITION 19. Coordinated Operations Plan

No later than one year following license issuance, the Licensee shall file a Coordinated Operations Plan with the Deputy Director for review and consideration for approval. The Deputy Director may require changes as part of any approval. The Coordinated Operations Plan shall cover the Project, Upper Drum-Spaulding Hydroelectric Project (FERC Project No. 2310), Deer Creek Hydroelectric Project (FERC Project No. 14530), and Lower Drum-Spaulding Hydroelectric Project (FERC Project No. 14531). The Licensee shall consult with USFWS, USFS, CDFW, BLM, and State Water Board staff in developing the Coordinated Operations Plan. The purpose of the Coordinated Operations Plan shall be to provide for coordinated operations of the Project, Upper Drum-Spaulding Project, Deer Creek Hydroelectric Project, and the Lower Drum-Spaulding Hydroelectric Project to ensure implementation of the flow–related conditions in the Project's license, including, but not limited to, maintenance of flow requirements and ramping rates during normal operations, scheduled outages, and unscheduled outages (to the extent feasible).

The Licensee shall file with FERC the Deputy Director-approved Coordinated Operations Plan, and any approved changes thereto. The Licensee shall implement the Coordinated Operations Plan and any approved changes thereto upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

The Deputy Director may require the Licensee to update the Coordinated Operations Plan following issuance of a certification for the Deer Creek Hydroelectric Project in

order to ensure coordinated operations are in place to implement the conditions of this certification and the Deer Creek Hydroelectric Project certification and ensure protection of water quality and beneficial uses.

CONDITION 20. 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 Sierra, Nevada, and/or Placer counties, or multiple consecutive Dry, Critically Dry, or Extremely Critically Dry water years, the Licensee may request temporary changes to the flow and related requirements of this certification. If the Licensee anticipates that it may request changes pursuant to this condition, the Licensee shall notify CDFW, USFS, USFWS, BLM, and the Deputy Director of the Licensee's concerns related to flows and related requirements as early as possible, and no later than March 15 of the year in which a request may be submitted. If the Licensee requests changes pursuant to this condition, the Licensee shall develop a Revised Operations Plan in consultation with the agencies listed above and State Water Board staff for flows during the extremely dry conditions.

The Licensee shall provide interested parties with notice of the proposed Revised Operations Plan at least seven days prior to submittal to the Deputy Director. Whenever possible, the Licensee shall provide an opportunity for interested parties to comment on the proposed Revised Operations Plan prior to submittal to the Deputy Director, and provide such comments to the Deputy Director as part of submittal of the Revised Operations Plan. 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; identification of measures to reasonably protect beneficial uses under the circumstances; 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 Revised Operations Plan shall also discuss how the proposal incorporates the Drought Planning (Condition 17).

The Licensee shall submit the proposed Revised Operations Plan to the Deputy Director for review and consideration for approval. The Deputy Director may require changes as part of any approval. The Licensee shall also provide a summary of any comments received and how the comments were addressed. 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 changes thereto.

CONDITION 21. Annual Meeting and Technical Review Group

No later than one year following license issuance, the Licensee shall establish a Technical Review Group (TRG) and host annual meetings in April regarding implementation of the Project license. At a minimum, representatives from the State Water Board, CDFW, USFS, USFWS, BLM, NMFS, PG&E, and Foothills Water Network 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 be 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:

- Review the status of implementing the FERC license and certification conditions.
- Review monitoring data from all monitoring conducted the previous year.
- Review elements of current year maintenance plans and any non-routine maintenance anticipated between this annual meeting and the next annual meeting.
- Discuss foreseeable changes to Project facilities or features.
- Discuss the status of any watershed salmonid reintroduction plan(s);
- Discuss planned outages of the Bowman-Spaulding Conduit and any associated coordinated Project operations.
- Discuss necessary or anticipated revisions or changes to plans approved as part of this certification.
- Discuss species listing implications, including:
    - Needed protection measures for species newly listed as threatened, endangered, or sensitive;
    - Changes to existing plans for actions that may no longer be necessary due to delisting of a species; and
    - Changes to existing plans to incorporate new information about species requiring protection.

Materials shall be provided to TRG members and other interested parties at least 30 days prior to the annual meeting. The Licensee shall submit a report to the State Water Board that summarizes the annual consultation meeting no later than 30 days following the annual consultation meeting. The Licensee may integrate the requirements of this condition with elements of its proposed condition YB-GEN1: *Annual Consultation with Forest Service and BLM*, as submitted to FERC June 18, 2012 (NID, 2012b).

CONDITION 22. Mercury Management

No later than two years following license issuance, the Licensee shall submit a Mercury Monitoring and Management Plan to the Deputy Director for review and consideration of approval. The Deputy Director may require changes as part of any approval. The Licensee shall develop the Mercury Monitoring and Management Plan consistent with the State Water Board's May 2, 2017 *Part 2 Of The Water Quality Control Plan For*

Inland Surface Waters, Enclosed Bays, And Estuaries Of California—Tribal And Subsistence Fishing Beneficial Uses And Mercury Provisions, and in consultation with the California Department of Public Health, Office of Environmental Health Hazard Assessment (OEHHA), State Water Board, and Central Valley Regional Water Board staff. At a minimum, the Mercury Monitoring and Management Plan shall include:

- A statement of goals and objectives for the plan, which at minimum shall include characterization of the spatial and temporal extent of methylmercury in Project waters, and assessing the extent to which the Project influences mercury cycling in Project waters.
- A description of proposed monitoring protocols, monitoring frequency, and locations (within Project reservoirs and Project-affected stream reaches), which includes consideration of the following parameters: aqueous methylmercury and inorganic mercury, fish tissue mercury, sediment mercury, and other ancillary parameters that affect mercury cycling (e.g., temperature and dissolved oxygen profiles, chlorophyll-a, and dissolved organic carbon,). The Licensee shall provide support for any of the listed parameters not proposed for monitoring.
- A detailed reporting schedule.
- Proposed reservoir operations and/or fisheries adaptive management to reduce methylmercury pollution (e.g., bioaccumulation, methylation, and risks to human fish consumers). At a minimum this shall include a comprehensive description of procedures, including coordination with the OEHHA, to develop notification procedures that will be implemented to inform the public if hazardous levels of mercury are found in fish tissue.
- A plan for corrective measures and a timetable for implementation, if data indicate that the Project may be increasing bioavailable mercury concentrations and/or adversely affecting water quality.
- Documentation of consultation with Central Valley Regional Water Board, OEHHA, and State Water Board staff, comments and recommendations made in connection with the Hazardous Substances Plan, and a description of how the Hazardous Substances Plan incorporates or addresses the comments and recommendations.

The Deputy Director may require the Licensee update the Mercury Monitoring and Management Plan based on updated guidance issued by OEHHA or updates to the State Water Board's Mercury Provisions during the term of the Project's FERC license.

Any changes to the Mercury Monitoring and Management Plan shall be approved by the Deputy Director prior to implementation. The Licensee shall implement the Mercury Monitoring and Management Plan and any changes thereto 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 Mercury Monitoring and Management Plan and any approved changes thereto.

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CONDITION 23. 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 Water Code section 13167.

CONDITION 24. 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 ESA (Fish & G. 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 25. 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 26. Any requirement in this certification that refers to an agency whose authorities and responsibilities are transferred to or subsumed by another local, state or federal agency, will apply equally to the successor agency.

CONDITION 27. 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 28. This certification is subject to modification or revocation upon administrative or judicial review, including but not limited to review and amendment pursuant to Water Code section 13330 and California Code of Regulations, title 23, division 3, chapter 28, article 6 (commencing with section 3867).

CONDITION 29. 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 30. This certification is conditioned upon total payment of any fee required under California Code of Regulations, title 23, division 3, chapter 28.

CONDITION 31. Notwithstanding any specific provision of this certification, any plan or report developed as a condition of this certification requires review and approval by the Deputy Director, unless otherwise specified. The State Water Board's approval authority, including authority delegated to the Deputy Director or others, includes the authority to withhold approval or modify 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. Notwithstanding any other condition of this certification, if a time extension is needed to submit an item for Deputy Director or Executive Director approval, the Licensee shall submit a written request for the extension, with justification, to the designated approver no later than 60 days prior to the deadline. The Licensee shall file with FERC any Deputy Director or Executive Director-approved time extensions. The Licensee shall not implement any plan, proposal, or report until after receiving the applicable State Water Board approval and any other necessary regulatory approvals.

CONDITION 32. In the event of any violation or threatened violation of the conditions of this certification, including if monitoring results indicate that Project activities could violate water quality objectives or impair beneficial uses, 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 or threatened violation of the conditions of this certification, the Licensee shall, by a deadline required by the Deputy Director, submit a plan that documents why the violation occurred and steps the Licensee will implement to address the violation. The Licensee shall implement the plan upon approval from the Deputy Director, and the Deputy Director may require changes as part of any approval to ensure the protection of water quality and beneficial uses or compliance with water quality control plans, policies, or other applicable requirements of state law.

CONDITION 33. The Licensee shall submit any change to the Project, including operations, facilities, technology changes or upgrades, or methodology, which may 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, unless otherwise specified. 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 34. This certification is contingent on compliance with all applicable requirements of the Central Valley Regional Water Board's Central Valley Basin Plan (Central Valley Regional Board, 2019) and any amendments thereto, and the State Water Board's Bay-Delta Plan and any amendments thereto.

CONDITION 35. Reports and plans submitted by the Licensee for approval under this certification shall consider the effects of Project operations in relation to compliance with all applicable water quality control plans and policies and, as necessary, propose updates to Project 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 new or changed water quality control plan or policy beneficial uses and/or water quality objectives. 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 other 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 36. Unless otherwise specified by 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.

CONDITION 37. 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 38. Future changes in climate projected to occur during the term of the Project's FERC license(s) 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 Project operations and, as necessary, propose updates to Project 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 39. 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 40. Upon request, a construction schedule shall be provided to the Deputy Director. The Licensee shall provide State Water Board and Central Valley Regional Water Board staff access to Project sites to document compliance with this certification.

CONDITION 41. 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 work related to the Project.

CONDITION 42. The Licensee shall use analytical methods approved by California's Environmental Laboratory Accreditation Program, where such methods are available. Samples that require laboratory analysis shall be analyzed by Environmental Lab Accreditation Program-certified laboratories.

CONDITION 43. The Licensee shall ensure no net loss of wetland or riparian habitat functions and is responsible for compliance with the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (State Water Board 2019 and 2021) and any amendments thereto, and Water Code sections 16200-16201.

CONDITION 44. 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. Any proposal for the Project maintenance or repair work involving the Project-affected waterbodies, including desilting of dam impoundments, impoundment drawdowns to facilitate repair or maintenance work, and tailrace dredging, shall be filed with the Deputy Director for prior review and consideration for approval. The Deputy Director may require changes as part of any approval.

CONDITION 45. Certification that the Project will be protective of water quality and beneficial uses in compliance with state and federal water quality standards and other appropriate requirements of state law is dependent upon the conditions and limitations imposed by this certification; however, to ensure the validity of this certification upon any challenge that is not addressed by another condition of this certification, the provisions of this certification are severable. If any provision of this certification is found invalid, affects the validity of the certification, or would result in a determination that the State Water Board has waived its section 401 certification authority for the Project, the remainder of this certification shall not be affected. Upon remand from determination on

administrative or judicial review that a provision of this certification is invalid or affects the validity of the certification, the State Water Board may adopt an alternative term that addresses the water quality issue while avoiding the invalidity.

DRAFT

Eric Oppenheimer
Executive Director

Date

Enclosures: Figure 1: Yuba-Bear Hydroelectric Project area in relation to San Francisco Bay

Figure 2: Schematic of Yuba Bear Hydroelectric Project Operations

Attachment A: Project Description

8.0 References

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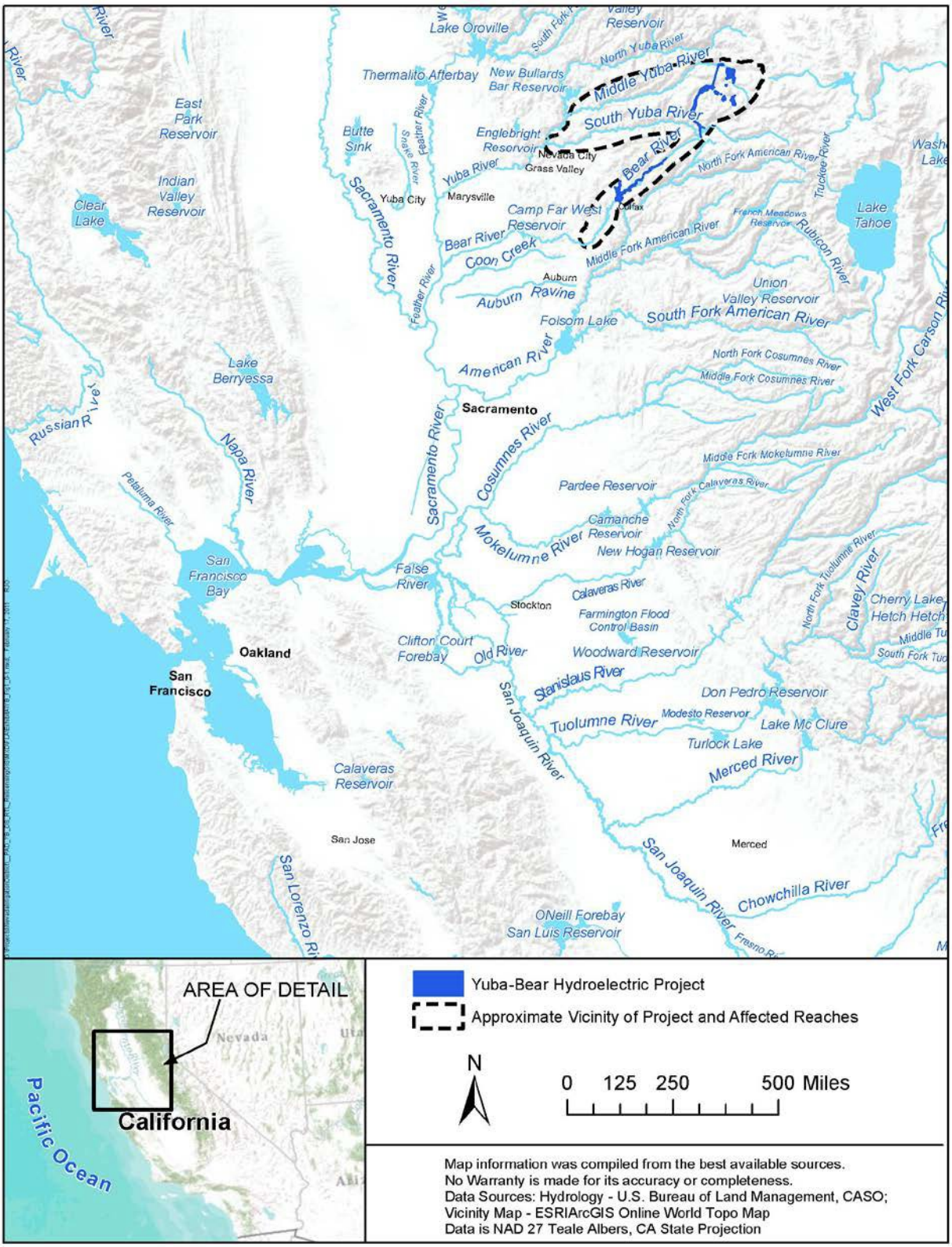

Figure 1: Yuba Bear Hydroelectric Project area in relation to San Francisco Bay
Source: (NID, 2012b)

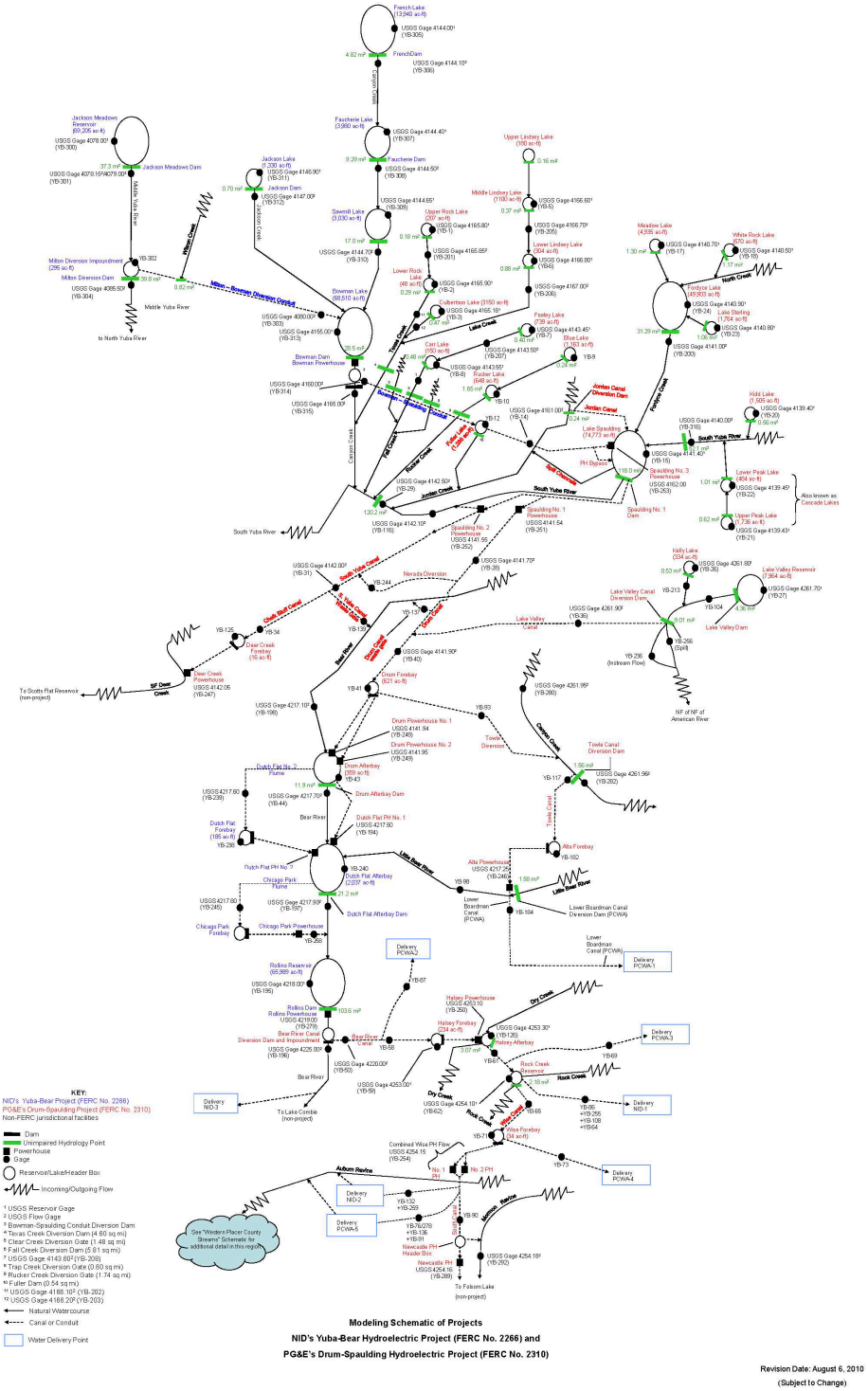

Figure 2: Schematic of Yuba Bear Hydroelectric Project Operations
Source: Nevada Irrigation District Relicensing Website, Project Maps Schematics and Fact Sheets, *Modeling Schematic of Projects* (2010)

YUBA-BEAR HYDROELECTRIC PROJECT
DRAFT WATER QUALITY CERTIFICATION

ATTACHMENT A:
PROJECT DESCRIPTION

This attachment describes Nevada Irrigation District's (NID's) Yuba-Bear Hydroelectric Project (Project) operations and the proposed Rollins Development Upgrade under a new license issued by the Federal Energy Regulatory Commission (FERC). The Project is also referred to as FERC Project No. 2266.

A.1 Existing Yuba-Bear Hydroelectric Project Developments & Movement of Water through the Project

The Project consists of the following four hydroelectric developments: Bowman, Dutch Flat, Chicago Park, and Rollins. Each of these developments is briefly described below.

Bowman Development

- Powerhouse:
  - Bowman Powerhouse (3.6-megawatt (MW) generating capacity, 313 cubic feet per second (cfs) hydraulic capacity).
- Dams:
  - Jackson Meadows Dam is a 195-foot-tall by 1,530-foot-long embankment dam with a 40,000 cfs capacity spillway and two low-level outlets with a combined capacity of 760.1 cfs.
  - Milton Main Dam is a 37-foot-tall by 286-foot-long concrete arch dam that acts as an ungated and uncontrolled spillway with a 50,000 cfs capacity. The dam has two low-level outlets with capacities of 113 cfs and 5 cfs, respectively, that discharge to the North Yuba River.
  - Milton South Dam is a 30-foot-tall by 140-foot-long concrete arch dam with a 450 cfs outlet that discharges into the Milton-Bowman pipe intake.
  - Jackson Lake Dam is a 28-foot-high by 772-foot-long earth embankment dam with an uncontrolled spillway with a 1,481 cfs capacity. The dam has a low-level outlet with a 60 cfs capacity.
  - French Lake Dam is a 70-foot-tall by 200-foot-long rockfill dam with an uncontrolled spillway with a 3,810 cfs capacity. The dam has a low-level outlet with an estimated 650 cfs capacity.
  - Faucherie Lake Dam is a 65-foot-tall by 665-foot-long embankment dam with an uncontrolled spillway with a 10,000 cfs capacity and two low-level outlets with a total capacity of 288.5cfs.
  - Sawmill Lake Dam is a 60-foot-tall by 384-foot-tall rockfill dam with an uncontrolled spillway with a 15,000 cfs capacity and a low-level outlet with a 160 cfs capacity.
  - Bowman North Dam is a 175-foot-tall by 700-foot-tall rockfill dam with a low-level outlet that flows into Bowman Penstock with a 400 cfs capacity.
  - Bowman South Dam is a 135-foot-tall by 400-foot-wide concrete arch dam with a gated spillway with a 4,000 cfs capacity and an ungated spillway with a 25,000 cfs capacity.
- Reservoirs:
  - Bowman Reservoir - 67,435 acre-feet capacity.
  - Milton Impoundment - 275 acre-feet capacity.

  - Jackson Lake Reservoir - 975 acre-feet.
  - French Lake Reservoir – 13,940 acre-feet.
  - Faucherie Lake Reservoir – 3,745 acre-feet..
  - Sawmill Lake Reservoir – 3,030 acre-feet.
  - Bowman Lake Reservoir – 68,363 acre-feet.
- Conduits:
  - Milton-Bowman Diversion Conduit – 425 cfs.
  - Wilson Creek Diversion Conduit – 3.5 cfs.
  - Bowman Penstock – 375 cfs.
- Transmission Line:
  - Bowman-Spaulding 60 kilovolt line.

Dutch Flat Development

- Powerhouse:
  - Dutch Flat No. 2 Powerhouse (24.57MW generating capacity, 600 cfs hydraulic capacity).
- Diversion Dams:
  - Bowman-Spaulding Conduit Diversion Dam is a 21-foot-tall by 150-foot-long concrete dam with a low-level outlet with an 80 cfs capacity.
  - Texas Creek Diversion Dam is a 21-foot-tall by 50-foot-long concrete dam with a low-level outlet with an 80cfs capacity.
  - Fall Creek Diversion Dam is a5.5-foot-tall by 74.5-foot-long concrete dam with a low-level outlet with an 80cfs capacity, a diversion flume with a 100 cfs capacity, and an outlet to Camp 19 Wasteway with an unknown capacity.
  - Dutch Flat No. 2 Forebay is a77-foot-tall by 440-foot-long earth-fill dam with an uncontrolled spillway with a 4,500 cfs capacity, a low-level outlet with a 134 cfs capacity, and Dutch Flat No. 2 Penstock Intake with a 610 cfs capacity.
- Reservoir:
  - Dutch Flat No. 2 Forebay – 159.8 acre-feet.
- Conduits:
  - Bowman-Spaulding Conduit – 300cfs. Sections of the conduit also act to divert Clear Creek, Trap Creek, Rucker Creek with outlets to Box Car Wasteway (300cfs capacity), Clear Creek Wasteway (325cfs capacity), Christmas Tree Wasteway (325 cfs capacity), and Jordan Hill Wasteway (325 cfs capacity).
  - Dutch Flat No. 2 Conduit – 610 cfs. The conduit has outlets to Dutch Flat No. 2 Flume Intake Wasteway (610 cfs capacity) and Stump Canyon Siphon Intake Wasteway (610 cfs capacity).
  - Dutch Flat No. 2 Powerhouse Penstock – 610 cfs.

Chicago Park Development

- Powerhouse:
  - Bowman Powerhouse (39 MW generating capacity, 1,100 cfs hydraulic capacity);
- Diversion Dams:
  - Dutch Flat Afterbay Dam is a 165-foot-tall by 495-foot-long earth and rockfill dam with an uncontrolled spillway with a 21,500 cfs capacity and two low-level outlets with a combined 150cfs capacity.
  - Chicago Park Forebay Dam is a35-foot-long by 200-foot-tall earth-fill dam with an uncontrolled spillway with a 1,100 cfs capacity, a low-level outlet with a 75 cfs capacity, and Chicago Park Powerhouse Penstock Intake with a 1,167cfs capacity.
- Reservoirs:
  - Dutch Flat Afterbay Reservoir – 1,359.2 acre-feet.
  - Chicago Park Forebay Reservoir – 103 acre-feet.
- Conduits:
  - Chicago Park Conduit – 1,100 cfs.
  - Chicago Park Penstock – 1,167cfs.

Rollins Development

- Powerhouse:
  - Rollins Powerhouse (12.15MW generating capacity, 840 cfs hydraulic capacity).
- Diversion Dams:
  - Rollins Dam is a 252.5-foot-tall by 1,260-foot-long zoned embankment dam with an uncontrolled spillway with a 70,000 cfs capacity, a low-level outlet with a capacity of 2,000 cfs, and Rollins Dam Penstock Intake with an 840 cfs capacity.
- Reservoir:
  - Rollins Reservoir – 54,453 acre-feet.
- Conduit:
  - Rollins Penstock – 840cfs.

Movement of Water through the Project:

Water flows through the Project as follows:

- Canyon Creek, Jackson Creek, Wilson Creek, and the Middle Yuba River discharge into Bowman Lake.
  - Canyon Creek: From upstream to downstream Canyon Creek flows from French Lake at French Dam into Faucherie Lake where Canyon Creek flows from Faucherie Dam downstream into Sawmill Lake and is released from

Sawmill Dam water continues to flow down Canyon Creek and is impounded in Bowman Lake.

- Jackson Creek: Jackson Creek flows into Jackson Lake where it is released from Jackson Dam, and then flows into Bowman Lake.
- Wilson Creek: A portion of Wilson Creek is diverted via the Wilson Creek Diversion Dam, which flows into the Milton-Bowman Diversion Conduit and then discharges into Bowman Lake. Releases from the Wilson Creek diversion dam continue downstream to the Middle Yuba River.
- Middle Yuba River: Water from the Middle Yuba River flows into Jackson Meadows Reservoir and is released from Jackson Meadows Dam into the Middle Yuba River where a portion of the river is diverted via the Milton Diversion Dam into the Milton-Bowman Diversion Conduit and then discharges into Bowman Lake.

- Bowman Lake: Sources of water to Boman Lake include: water from Wilson Creek and the Middle Fork Yuba River that flow into Bowman Lake via the Milton-Bowman Diversion Conduit; and flows from Canyon and Jackson Creeks. Water is stored and released from Bowman Lake (behind Bowman Dam) through the Bowman Powerhouse into the Bowman-Spaulding Conduit, which discharges into Fuller Lake, which is part of Pacific Gas and Electric Company's (PG&E) Upper Drum-Spaulding Hydroelectric Project's (Upper Drum Project; FERC Project No. 2310).
- South Yuba River: Along the Bowman-Spaulding Conduit there are five small diversion structures on Texas, Clear, Fall, Trap, and Rucker creeks, known as "feeders," that also supply water to the conduit. These feeders augment flow in the conduit up to the conduit's capacity. Flow from the feeders that exceeds the conduit's capacity spills into the closest natural drainage(s). Canyon, Texas, Fall, Clear, Trap, and Rucker Creeks flow into the South Yuba River.
- Bear River: Water from the Bear River flows into NID's Dutch Flat No. 2 Powerhouse and PG&E Upper Drum Project's Dutch Flat No. 1 Powerhouse and discharges into the Project's Dutch Flat Afterbay[27] located on the Bear River, where the water is then delivered via the Chicago Park Flume (maximum flow capacity of 1,100 cfs) to the Project's Chicago Park Powerhouse by way of the Project's Chicago Park Forebay. Daily flow releases are scheduled based on downstream consumptive demand for NID and Placer County Water Agency raw water and municipal customers and discretionary hydroelectric power generation. The Chicago Park Powerhouse discharges into the Bear River roughly one mile upstream of the Project's Rollins Reservoir.
- Rollins Reservoir (also known as Rollins Lake): With a gross storage capacity of roughly 59,000 AF, Rollins Reservoir is the Project's major low-elevation storage reservoir. Rollins Reservoir is a multipurpose facility that is used for municipal, irrigation, domestic water supply, recreation, and power generation. Water released from Rollins Reservoir is impounded in PG&E's Upper Drum Project

[27] While PG&E and NID share capacity in the Dutch Flat Afterbay, the afterbay is owned and operated by NID in coordination with PG&E.

Bear River Canal Diversion Impoundment and Dam where it is either diverted through the Bear River Canal for NID and Placer County Water Agency water deliveries or continues down the Bear River to NID's Lake Combie (a non-Project facility).

Under NID's existing FERC license, which was issued in 1963, NID releases minimum flows from Jackson Meadows Reservoir, Milton Diversion Impoundment, Jackson Lake, French Lake, Bowman-Spaulding Conduit, Dutch Flat Afterbay, and Rollins Reservoir. NID maintains minimum pool elevations at Jackson Meadows Reservoir, Milton Diversion Dam Impoundment, and Rollins Reservoir.

A.2 Rollins Development Upgrade

In addition to continued operates of the Project under a new license for 50 years, NID proposes to:

- Expand the existing Rollins Development by bifurcating the Rollins Penstock to add the Rollins No. 2 Powerhouse with 11.4 MW generating capacity and 600 cfs hydraulic capacity (Rollins Development Upgrade);
- Add three new streamflow gages at Texas, Fall, and Rucker Creeks downstream of the Bowman-Spaulding Conduit crossing; and
- Replace, upgrade, or install new recreation facilities at Jackson Meadows, Milton Diversion Impoundment, Canyon Creek, Sawmill Lake, Bowman Lake, Dutch Flat No. 2 Forebay, and Dutch Flat Afterbay.

NID expects completion of the Rollins Development Upgrade will take three years from license issuance, including one year of construction.

A.3 Other Project-Related Information

NID proposes to adjust the FERC Project boundary to account for the new and upgraded facilities and infrastructure (e.g., Project areas removed for non-use and added for various new roads, campgrounds, pipelines, etc.).

Additional information on the Project facilities, current Project operations, and NID's proposed Project operations can be found in Exhibits A and B of NID's April 14, 2011 Final License Application (FLA) (NID, 2011a), as updated by subsequent filings including but not limited to:

- NID's September 23, 2011 filing, amending the FLA to include recreational use and visitor information surveys (NID, 2011b).
- NID's June 18, 2012 filing, amending the FLA to include updates to protection, mitigation, and enhancement (PM&E) measures, the FERC boundary, and correcting hydrology information that was included in the FLA (NID, 2012b).
- NID's May 19, 2014 filing, updating Project information based on United States Forest Service revised 4(e) conditions (NID, 2014b).

- NID's December 21, 2018 amendment addressing potential Project effects to federal Endangered Species Act-listed species and their designated critical habitat (NID, 2018b).