FEB 13 2017

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the Matter of Water Quality Certification for the

SOUTHERN CALIFORNIA EDISON
FLORENCE LAKE DAM GEOMEMBRANE INSTALLATION
AND INFRASTRUCTURE REPAIR PROJECT

SOURCE: South Fork San Joaquin River

COUNTY: Fresno

WATER QUALITY CERTIFICATION FOR FEDERAL PERMIT OR LICENSE

BY THE EXECUTIVE DIRECTOR:

I. Project Description

The Southern California Edison (SCE or Applicant) Florence Lake Dam Geomembrane Installation and Infrastructure Repair Project (Project) consists of improvements and repairs to the Florence Lake main dam, which is part of the Big Creek Nos. 2A, 8, and Eastwood Hydroelectric Project (Federal Energy Regulatory Commission [FERC] Project No. 67).

Florence Lake is located on United States Forest Service (USFS) lands in the Sierra National Forest, on the South Fork San Joaquin River in Fresno County, California, approximately 80 miles east of the city of Fresno (Figure 1). Florence Lake Dam (Dam) impounds water from the South Fork San Joaquin River and other small tributaries including Boulder Creek, Crater Creek, Hooper Creek, North Slide Creek, South Slide Creek, and Tombstone Creek. Since it was completed in 1926, the Dam has been operated as a storage reservoir for power generation, as part of FERC Project No. 67. The Dam is a 3,156 foot-long concrete structure, consisting of 58 inclined arches of varying heights with an average span of 50 feet. The Dam has a spillway elevation of approximately 7,315 feet above mean sea level (msl). The Project area ranges from approximately 7,190 to 7,329 feet above msl.

The primary purpose of the Project is to repair the Dam and associated infrastructure. FERC conducts annual dam safety and operations inspections of the Dam and associated facilities. Following the results of inspections conducted in August 2011, June 2012, and in June 2013, FERC requested that SCE repair freeze-thaw spall[1] damage on the Dam that is resulting in leakage through the Dam.

SCE determined that leakage at the Dam is more pronounced at the construction lift joints between the concrete arches. To address leakage through the Dam, SCE proposes to install a geomembrane liner on the upstream face of the Dam. The liner will be installed within the timeframe of June through November, weather permitting. SCE also proposes to repair the low-

[1] Spalling is the loss of large pieces or flakes of concrete.

level outlets at arch 53, conduct maintenance on the Ward Tunnel Minimum Pool Weir, and repair Ward Tunnel Intake, as needed.

The current license for FERC Project No. 67 allows for water drawdown for operation of the Project and includes seasonal minimum reservoir elevation requirements, as well as requirements for the release of minimum instream flows into the South Fork San Joaquin River downstream of Florence Lake Dam. Under normal operations, SCE is required to meet minimum reservoir elevations and minimum instream flow requirements (Table 1).

Table 1. Minimum Instream Flow (MIF) Requirements for South Fork San Joaquin River below Florence Lake Dam, under license for FERC Project No. 67

	Water Year Type	Month											
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
MIFs (cfs)	Normal[a]	17	15	15	15	15	15	15	27	27	27	27	27
MIFs (cfs)	Dry[b]	13	11	11	11	11	11	11	20	20	20	20	20

Source: Federal Energy Regulatory Commission, 1978

[a] Normal shall be considered a schedule of releases for the period May 1-April 30 whenever the April 1 forecast of the U.S. Bureau of Reclamation of the April-July natural runoff of the San Joaquin River at Friant Dam exceeds 900,000 acre-feet.

[b] Dry shall be considered a schedule of releases for the period of May 1-April 30 whenever the April 1 forecast of the U.S. Bureau of Reclamation of the April-July runoff of the San Joaquin River at Friant Dam is 900,000 acre-feet or less.

Article 37(a) of the license for FERC Project No. 67 requires SCE to maintain a minimum reservoir elevation of 7,276.6 feet (21,000 acre-feet) in Florence Lake during the period from July 1 through August 31 (recreation season), and a minimum reservoir elevation of 7,231 feet (1,000 acre-feet) during the reminder of the year (non-recreation season). See Table 2.

Table 2. Florence Lake Minimum Reservoir Elevations, under license for FERC Project No. 67

Non-Recreation Season (September 1–June 30)	Recreation Season (July 1–August 31)
Minimum Reservoir Elevation (feet)	**Minimum Reservoir Elevation (feet)**
7,231[a] (1,000 Acre-feet)	7,276.6 (21,000 Acre-feet)

Source: Federal Energy Regulatory Commission, 1978.

[a] The FERC Order granting waiver of minimum pool requirement (dated October 9, 2006) states "Article 37(a) requires the licensee to maintain Florence Lake water surface elevation of at least 7,231.0 feet between September 1 and June 30". The SCE agreement with the State of California, Department of Fish and Game dated March 22, 1971 states the winter minimum pool requirement as, "As minimum pool of not less than 160 surface acres (elevation 7,231, 1,000 acre-feet) will be maintained during the period September 1 through June 30".

To implement the Project, SCE must request a temporary variance to maintain the non-recreation season minimum pool elevation (7,231 feet) throughout the recreation season (July 1 through August 31) during which the Project is implemented. SCE will maintain required minimum instream flows for the duration of the Project.

1.1 Project Construction Overview

An overview of Project construction is provided below. Attachment 1 identifies environmental measures SCE will implement as part of the Project to avoid, minimize, reduce, or eliminate potential impacts to natural resources.

1.1.1 Proposed Schedule

The Project will be completed between June 1 and November 30, weather permitting. Construction will occur over 26 weeks, primarily Monday through Friday from 6:30 AM to 7:00 PM, with occasional weekend work if necessary.

1.1.2 Equipment Staging and Sediment Laydown Areas

SCE has designated upland and in-reservoir areas for use as equipment staging and temporary sediment laydown areas (Figure 2).

Upland. The four designated upland equipment staging areas will be located in previously disturbed locations or non-vegetated/granitic area. No grading, vegetation removal, or other site preparation will be necessary prior to use. SCE will designate fueling areas in upland staging areas.

In-Reservoir. SCE has designated six equipment staging and temporary sediment laydown areas within the dewatered reservoir. The specific location and number of in-reservoir staging/laydown areas that will be used during construction will be determined based on the reservoir elevation. The in-reservoir staging and laydown areas may require minor grading or rock removal to ensure the stability of the equipment and stockpiles. Any pumps, generators, or other stationary equipment that must be fueled on the dewatered reservoir bed will be placed in secondary containment structures.

1.1.3 Geomembrane Liner Installation and Infrastructure Repair

The geomembrane liner will be installed within two sections of the Dam, from arches 11-25, and arches 50-58. At arches 11-25, 50, and 56-58, SCE will install a full liner, including excavation and repair of the plinth, which is the supporting base for the arches (Figure 2). At arches 51-55, SCE will install a partial liner down to the minimum pool elevation, which does not require excavation or plinth repair.

1.1.3.1 Excavation and Repair of Plinth

SCE will excavate sediment at the base of the Dam to expose the plinth prior to installation of the geomembrane liner at arches 11 – 25, 50, and 56 – 58. This material was placed on the upstream side of the Dam during construction of the original Dam. The total volume of excavation necessary to expose the plinth and complete the Project is estimated to be 297 cubic yards. The work area would extend approximately 2 feet beyond the area of excavation, for a total area of 0.09 acres along the length of the Dam. Once exposed, SCE will inspect the plinth and make any repairs, as necessary. Repairs would include use of shotcrete or concrete to repair cracks or fissures that have formed in the plinth. The excavated material will be

stockpiled at the in-reservoir staging/laydown areas, or within work areas adjacent to the Dam. The material will be secured with use of standard water quality best management practices (BMPs) such as fiber rolls, silt fences, weed free straw bales, or other barriers to prevent mobilization of stockpiled sediment. The stockpiled material will be placed back in the excavation areas and the reservoir bed will be restored to its original contours at the completion of the geomembrane liner installation.

1.1.3.2 Preparation of Arch Face

Swingstages and/or scaffolding will be assembled on the upstream side of the Dam to allow for preparation of the Dam face and installation of the geomembrane liner. Prior to installation of the liner, SCE will remove any existing structures that are attached to the upstream side of the Dam, including a staff gage on the abutment near arch 50, and a bubbler line located between arches 52/53. These structures will be replaced in-kind following installation of the geomembrane liner.

To ensure a clean surface, SCE will brush the upstream face of the arches prior to the installation of the geomembrane liner. Chipping and concrete repair will be done to smooth out any areas that could potentially puncture or damage the liner. Concrete patching may be required to fill in larger gaps or cracks. Any loose debris from brushing/chipping the Dam face will be contained, collected, and transported to a designated disposal site.

The perimeter seal area will be ground smooth to allow the liner to develop a tight seal. The perimeter seal area consists of a 4- to 6-inch-wide strip along the crest, the lowest level along the exposed plinth, and the spring lines of the arches. Some perimeter seal areas, particularly along the spring lines, may require chipping away the existing shotcrete layer to address any voids in the shotcrete material. Material from grinding and chipping will be captured and transported to a designated disposal site. Any significant cracks or fractures will be grouted or treated, as needed.

1.1.3.3 Installation of Geomembrane Liner

Following preparation of the Dam face, SCE will install the geomembrane liner. The installation of the geomembrane liner will require only hand-held tools, and will include the following activities:

- Install stainless steel perimeter seal anchors along spring lines, crest, and lower portion of the arch above minimum pool level;
- Install geo-net/geotextile composite cushioning/drainage layer over the upstream face of the arch;
- Install stainless steel tensioning profiles to anchor liner to arch face;
- Install liner (polyvinyl chloride [PVC] geo-composite) sheets over upstream face of arch and attach to stainless steel profiles;
- Weld adjacent liner sheets;
- Tighten liner with tensioning profiles;
- Install cap strip over tensioning profiles;
- Quality control test all welds;

- Install suitable drainage path on upstream face (to allow any water to drain that may be behind the liner after it is installed);
- Install watertight stainless steel perimeter seal along spring lines and crest (arches 11 – 25, 50, and 56 – 58); and
- For arches where the geomembrane liner will not attach to the plinth (arches 51-55), polyurethane grouting will be completed above the water level to provide an anchor for the watertight stainless steel perimeter seal.

1.1.4 Arch 53 Low-Level Outlet and Slide Gate Repairs

Arch 53 includes two low-level intakes: the slide gate in the intake on the right side (facing downstream) is stuck closed; and the slide gate in the intake on the left side is stuck open. The minimum instream flow is currently released through the left side outlet pipe and 36-inch guard valve. Temporary gravity minimum instream flow piping will be installed downstream of arch 53 to bypass the minimum instream flow through the work area and discharge the flow to the South Fork San Joaquin River (refer to Figure 2). Minor trimming of willows and small trees may be needed to install the temporary piping.

A new valve will then be installed on the right side low level outlet pipe on the downstream side of arch 53. Once this new valve is installed, the right side upstream slide gate will be opened to allow the new valve to provide flows to the temporary gravity minimum instream flow piping. SCE will then close off the left side intake to allow replacement of the existing 36-inch guard valve. Once the new downstream valve is installed on the left side outlet pipe, the left side intake will be reopened.

SCE will use divers to complete the work of opening and closing the upstream slide gates. Once the new downstream control valves are installed, the upstream slide gates will either be rehabilitated or fixed in the open position so that the minimum instream flow can be released from the right or left outlet pipe as needed. The minimum instream flow will be maintained throughout Project construction.

On the downstream side of arch 53, it is possible that a small amount of water may seep into the low level outlet valve work area from the base of the Dam. If this occurs, seepage water will be diverted with sand bags around the work area and back to the South Fork San Joaquin River, downstream of where the seepage water currently discharges.

1.1.5 Ward Tunnel Minimum Pool Weir Maintenance and Intake Repairs

The weir consists of an 8-inch thick steel plate that is 30 feet long, 3.5 feet tall, and rests in a concrete foundation that is 20 feet wide and 70 feet long. The crest of the weir is at an elevation of 7,231 feet above msl. SCE will excavate any sediment that has accumulated behind the weir (up to approximately 1,481 cubic yards), inspect the weir, and make modifications to the weir, including possible refurbishment of the two 36-inch gate valves located at each end of the weir. In addition, SCE will repair the Ward Tunnel Intake, including:

- Repair of the grizzly (i.e. metal cage or trash rack) that covers the Ward Tunnel Intake; and
- Repair, if necessary, of the Ward Tunnel Intake gate seats located within the tunnel.

II. Regulatory Authority

Water Quality Certification and Related Authorities

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

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

On September 15, 2015, the State Water Board provided notice of receipt of a complete application for water quality certification (application) for the Project to the applicable parties pursuant to California Code of Regulations, title 23, section 3835, subdivision (c). The State Water Board provided public notice of the application pursuant to California Code of Regulations, title 23, section 3858 by posting information describing the Project on the State Water Board's website on August 10, 2015. No comments were received.

On September 1, 2016, SCE simultaneously withdrew and resubmitted its application for the Project. On September 21, 2016, State Water Board staff received approval from the United States Army Corps of Engineers (USACE) to extend the deadline to take action on the request for certification to November 17, 2017. On October 27, 2016, SCE submitted a revised Project description to the State Water Board. The Project was revised to eliminate the need to drawdown Florence Lake Reservoir below the minimum reservoir elevation of 7,231 feet (1,000 acre-feet of storage).

State Water Board staff forwarded the portions of the application that have the potential to cause adverse water quality impacts to the Central Valley Regional Water Quality Control Board (Central Valley Regional Board) on December 12, 2016. (See Cal. Code Regs., tit. 23, § 3855, subd. (b)(2)(B)). Central Valley Regional Board staff responded with comments via telephone on December 13, 2016, which have been incorporated into this document.

Per section 404 of the CWA, the USACE has determined that the Project falls under Nationwide Permit Numbers 3 (*Maintenance)* and 33 (*Temporary Construction, Access and Dewatering).* The USACE identification number for the Project is SPK-2015-00226-UO.

SCE submitted an application for a Lake or Stream Bed Alteration Agreement to the California Department of Fish and Wildlife (CDFW) for Project activities on December 2, 2014.

Water Quality Control Plans and Related Authorities

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

The Central Valley Regional Board adopted, and the State Water Board and the United States Environmental Protection Agency approved, the *Water Quality Control Plan for the Sacramento River Basin and the San Joaquin River Basin* (Basin Plan). The Basin Plan designates the beneficial uses of water to be protected along with the water quality objectives necessary to protect those uses.

The Basin Plan identifies existing beneficial uses for the South Fork San Joaquin River as: municipal and domestic supply, agricultural supply, hydropower generation, water contact recreation, non-contact water recreation, warm freshwater habitat, cold freshwater habitat, and wildlife habitat.

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

Construction General Permit

Dischargers whose projects disturb one or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, may need to obtain coverage under the Construction General Permit[2]. Construction activity subject to the Construction General Permit includes clearing, grading and disturbances to the ground such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility.

California Environmental Quality Act

CDFW is the lead agency for the proposed Project, and has determined that the Project is categorically exempt from the requirements of the California Environmental Quality Act (Cal. Code Regs., tit.14, § 15301) as a Class 1 (Existing Facilities) project. The State Water Board is the responsible agency for the Project, and has reviewed the Project and environmental measures that were incorporated into the Project to protect natural resources and designated beneficial uses for the South Fork San Joaquin River. The State Water Board has determined that this Project involves the repair and maintenance or minor alteration of an existing facility, and that there are no unusual circumstances that may cause there to be a significant effect on the environment (Cal. Code Regs., tit. 14, § 15300.2, subd. (c)). Therefore the Project is categorically exempt from the requirements of the California Environmental Quality Act (Cal. Code Regs., tit.14, § 15301), and a Notice of Exemption has been prepared. The State Water Board will file a Notice of Exemption within five days of issuance of this certification.

[2] Water Quality Order 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.

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

III. Discussion

In order to ensure that the Project operates to meet water quality standards as anticipated, and to ensure that the Project will continue to meet state water quality standards and other appropriate requirements of state law over its lifetime, this certification imposes conditions regarding monitoring, enforcement, and potential future revisions. Additionally, California Code of Regulations, title 23, section 3860 requires imposition of certain mandatory conditions for all water quality certifications, which are included in this certification.

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

//
//
//
//
//
//
//
//
//
//
//
//
//
//
//
//
//
//
//
//
//
//
//
//
//
//
//
//
//
//
//
//
//
//

ACCORDINGLY, BASED ON ITS INDEPENDENT REVIEW OF THE RECORD, THE STATE WATER RESOURCES CONTROL BOARD CERTIFIES THAT THE FLORENCE LAKE DAM GEOMEMBRANE INSTALLATION AND INFRASTRUCTURE REPAIR PROJECT will comply with sections 301, 302, 303, 306, and 307 of the Clean Water Act, and with applicable provisions of State law, if Southern California Edison complies with the following terms and conditions during the Project activities certified herein.

CONDITION 1.

The Applicant shall comply with the revised Project description and drawings dated October 27, 2016. All BMPs described in the application for water quality certification and the Storm Water Pollution Prevention Plan are hereby incorporated by reference and are conditions of approval of this certification. Notwithstanding any more specific conditions in this certification, the Applicant shall comply with all measures described in the application for water quality certification and its supplements, including Attachment 1 (Environmental Measures for Florence Lake Dam Geomembrane Installation and Infrastructure Repair Project).

CONDITION 2.

The Applicant shall comply with all required minimum instream flows, bypass flows, and rates of diversion throughout implementation of the Project, as outlined in Article 37 of the license for FERC Project No. 67.

CONDITION 3.

The Applicant shall obtain and comply with the Construction General Permit.

CONDITION 4.

Control measures for erosion, excessive sedimentation and turbidity shall be implemented and in place at the commencement of, during and after any ground clearing activities, excavation, or any other Project activities that could result in erosion or sediment discharges to surface waters.

CONDITION 5.

Project activities shall not cause an increase in turbidity downstream of the Project area greater than those identified in the Basin Plan. Waters shall be free of changes in turbidity that cause nuisance or adversely affect the water for beneficial uses. If monitoring shows that turbidity has exceeded the water quality objective, construction will cease and the violation will be reported immediately to the State Water Board's Deputy Director for Water Rights (Deputy Director) and the Executive Officer for the Central Valley Regional Board (Executive Officer). Construction may not re-commence without the permission of the Deputy Director.

CONDITION 6.

Construction material, debris, spoils, soil, silt, sand, bark, slash, sawdust, rubbish, steel, other organic or earthen material, or any other substances which could be hazardous to aquatic life resulting from Project related activities shall be prevented from entering surface waters.

CONDITION 7.

All wash water shall be contained and disposed of in compliance with State and local laws, ordinances, and regulations.

CONDITION 8.

No unset cement, concrete, grout, damaged concrete, concrete spoils, or wash water used to clean concrete surfaces shall contact or enter surface waters. If at any time these materials are discharged to surface waters (including reservoirs, rivers or streams), the associated Project activities shall cease immediately and the Deputy Director and the Executive Officer shall be notified within 24 hours. Associated activities may not resume without approval from the Deputy Director.

CONDITION 9.

All equipment, including boats, must be washed prior to transport to the Project site and must be free of sediment, debris, and foreign matter.

CONDITION 10.

Any maintenance or refueling of vehicles or equipment occurring on-site will be done in a designated area with secondary containment, located away from drainage courses to prevent the runoff of storm water and the runoff of spills. All equipment using gas, oil, hydraulic fluid or other petroleum products shall be inspected for leaks prior to use and shall be monitored for leakage. Stationary equipment (motors, pumps, generators, etc.) and vehicles not in use shall be positioned over drip pans or other types of containment. Spill and containment equipment (oil spill booms, sorbent pads, etc.) shall be maintained onsite at all locations where such equipment is used or staged.

CONDITION 11.

All imported riprap, rocks, and gravels used for construction shall be pre-washed. Wash water shall be contained and disposed of in compliance with State and local laws, ordinance, and regulations.

CONDITION 12.

Erosion control blankets, liners with berms, and/or other erosion control measures shall be used for any stockpile of excavated material to control runoff resulting from precipitation, and prevent material from contacting or entering surface waters.

CONDITION 13.

All construction debris and trash shall be contained and regularly removed from the work area to the staging area during construction activities. Upon completion, all Project-generated debris, building materials, excess material, waste, and trash shall be removed from all the Project sites for disposal at an authorized landfill or other disposal site in compliance with state and local laws, ordinances, and regulations.

CONDITION 14.

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

CONDITION 15.

A copy of this certification shall be provided to any contractor and all subcontractors conducting the construction work, and copies shall remain in their possession at the Project site. The Applicant shall be responsible for work conducted by its contractor and subcontractors.

CONDITION 16.

The Deputy Director and the Executive Officer shall be notified one week prior to the commencement of ground disturbing activities. Upon request, a construction schedule shall be provided to State Water Board and Central Valley Regional Board staff. The Applicant shall provide State Water Board and Central Valley Regional Board staff access to the Project site upon request.

CONDITION 17.

This certification is contingent on compliance with all applicable requirements of the Basin Plan. If at any time an unauthorized discharge to surface waters (including reservoirs, rivers or streams) occurs or monitoring indicates that the Project has or could soon be in violation with water quality objectives, the associated Project activities shall cease immediately and the Applicant shall notify the Deputy Director and the Executive Officer within 24 hours. Associated activities may not resume without approval from the Deputy Director.

CONDITION 18.

Unless otherwise specified in this water quality certification or at the request of the State Water Board, data and/or reports must be submitted electronically in a format accepted by the State Water Board to facilitate the incorporation of this information into public reports and the State Water Board's water quality database systems in compliance with California Water Code section 13167.

CONDITION 19.

The State Water Board reserves authority to modify this certification if monitoring results indicate that the Project could violate water quality objectives or impair the beneficial uses of the South Fork San Joaquin River or its tributaries.

CONDITION 20.

Notwithstanding any more specific conditions in this certification, the Project shall be operated in a manner consistent with all water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the CWA. The Applicant must take all reasonable measures to protect the beneficial uses of the South Fork San Joaquin River and its tributaries.

CONDITION 21.

This certification does not authorize any act which results in the taking of a threatened, endangered or candidate species or any act, which is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (ESA) (Fish & 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 Applicant, the Applicant 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 Applicant is responsible for meeting all requirements of the applicable ESAs for the Project authorized under this certification.

CONDITION 22.

In the event of any violation or threatened violation of the conditions of this certification, the violation or threatened violation is subject to any remedies, penalties, processes or sanctions as provided for under applicable state or federal law. For the purposes of section 401(d) of the CWA, the applicability of any state law authorizing remedies, penalties, processes or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this certification.

CONDITION 23.

In response to a suspected violation of any condition of this certification, the State Water Board or Central Valley Regional 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 24.

No construction shall commence until all necessary federal, state, and local approvals are obtained.

CONDITION 25.

This certification is contingent on compliance with all pertinent permits and orders issued by the Central Valley Regional Board, and compliance with the terms and conditions of all water right licenses and permits applicable to this Project, existing, or as amended, by the State Water Board.

CONDITION 26.

Any requirement in this certification that refers to an agency whose authorities and responsibilities are transferred to or subsumed by another state or federal agency, will apply equally to the successor agency.

CONDITION 27.

The Applicant must submit any changes to the Project, including Project operation, which would have a significant or material effect on the findings, conclusions, or conditions of this certification, to the State Water Board for prior review and written approval. If the State Water Board is not notified of a significant change to the Project, it will be considered a violation of this certification.

CONDITION 28.

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

CONDITION 29.

This certification is subject to modification or revocation upon administrative or judicial review, including 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 30.

Certification is not intended and shall not be construed to apply to any activity involving a hydroelectric facility and requiring a FERC license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to California Code of Regulations, title 23, section 3855, subdivision (b) and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

CONDITION 31.

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

CONDITION 32.

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 investigation and take enforcement action if necessary to prevent any unauthorized or threatened diversions of water.

Thomas Howard
Executive Director

2/10/17
Date

Enclosures:

Figure 1. Map of Project Location and Project Vicinity
Figure 2. Map of Project Facilities, Access Routes, Work Areas, and Staging/Laydown Areas
Attachment 1: Environmental Measures for Florence Lake Dam Geomembrane Installation and Infrastructure Repair Project

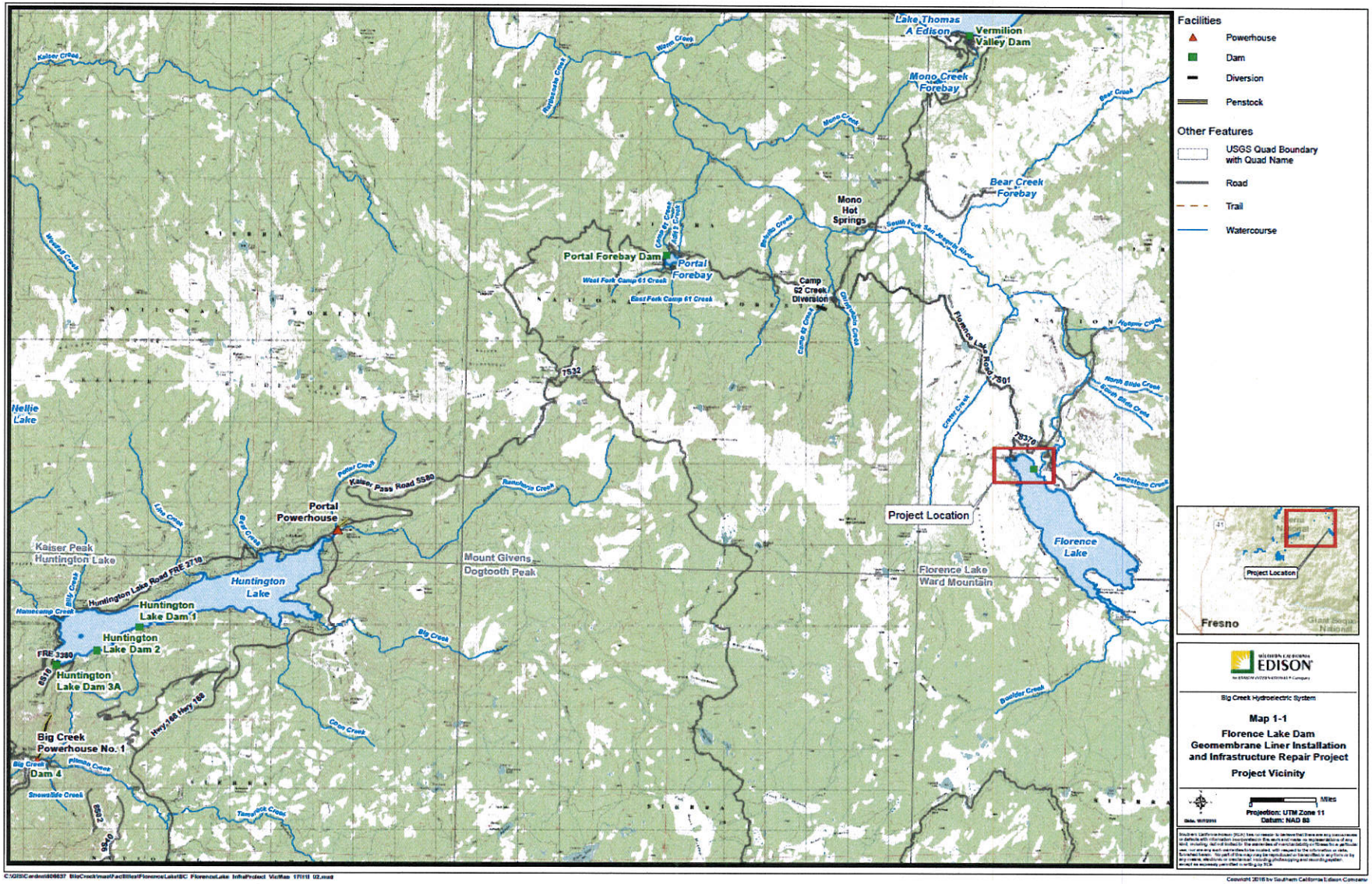

Figure 1. Map of Project Location and Project Vicinity

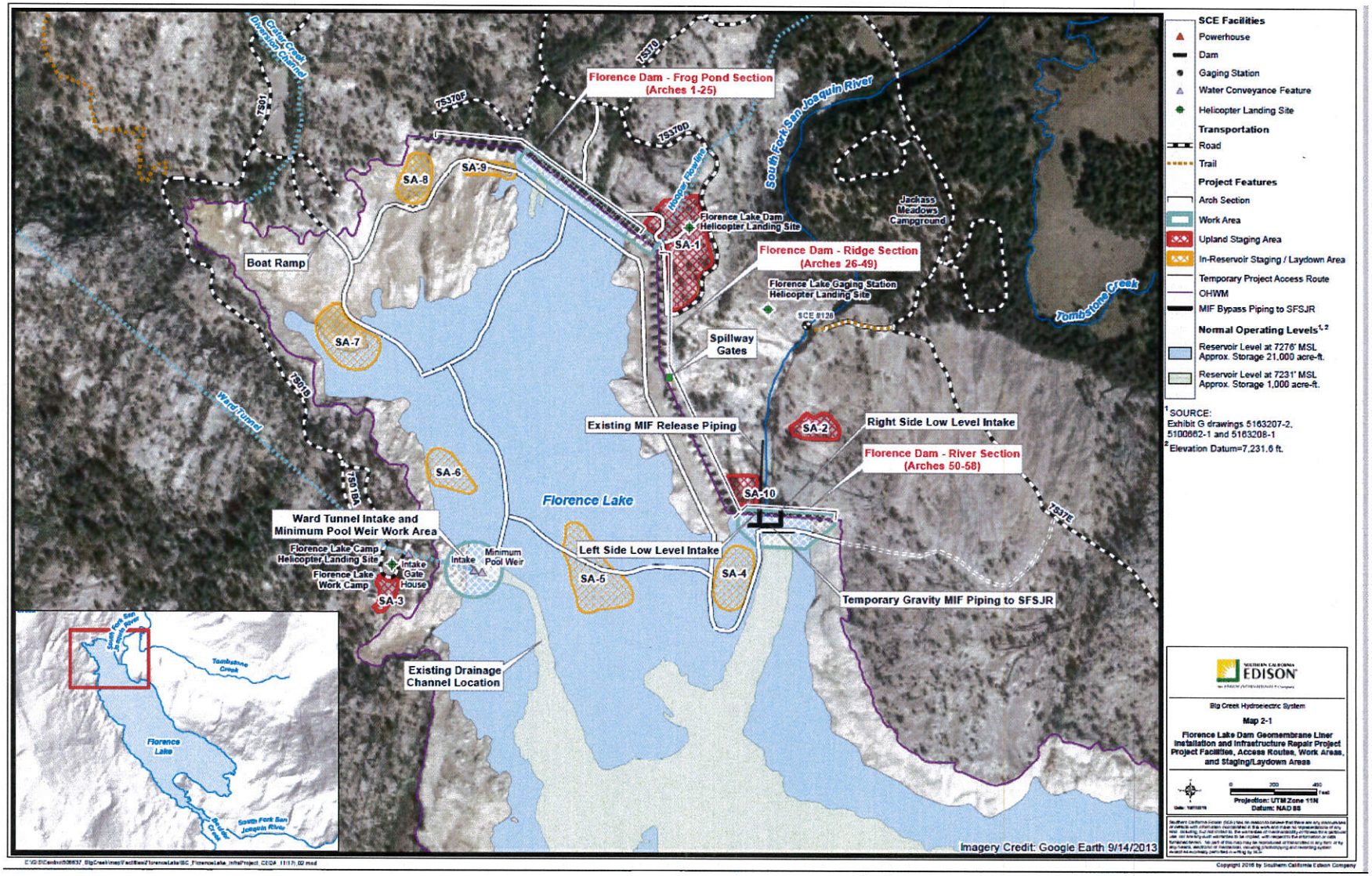

Figure 2. Map of Project Facilities, Access Routes, Work Areas, and Staging/Laydown Areas

Attachment 1

Environmental Measures for Florence Lake Dam Geomembrane Installation and Infrastructure Repair Project

Attachment 1. Environmental Measures for
Florence Lake Dam Geomembrane Installation and Infrastructure Repair Project

The following environmental measures will be implemented as part of the Florence Lake Dam Geomembrane Installation and Infrastructure Repair Project (Project) in order to avoid, minimize, reduce, or eliminate potential impacts to natural resources.

General Construction Measures

GEN-1 Environmental Training: All contractors and equipment operators will be made aware of the ecological values of the site, and will be given instructions to comply with the avoidance and protection measures, and best management practices (BMPs) listed in this attachment and included in Project permits.

GEN-2 Designated Work Area: Project activities will be limited to a designated work area (i.e., the access routes, and work and staging areas). The work area will be clearly identified on the construction drawings and will be staked and flagged where necessary prior to initiation of Project activities.

GEN-3 Work Hours: Construction activities in the Project area will generally be limited to the hours between 6:30 a.m. and 7:00 p.m.

Biological Resource Measures

BIO-1 Special Status Plants: Southern California Edison (SCE) will install construction fencing around populations of Mono Hot Springs evening primrose that occur adjacent to upland staging areas (SAs) SA-1 and SA-2 (Figure 2). These populations will be avoided during implementation of the Project.

BIO-2 Vegetation Measures: SCE will implement the following:

- Trimming and removal of vegetation will be limited to the minimal amount necessary to complete the Project. Trimming will consist of cutting branches and will not result in cutting stems/trunks. This will include trimming of willow shrubs within 10 feet of the minimum instream flow gravity piping to the South Fork San Joaquin River (arch 53). No trees or shrubs will be removed, and no downstream trees or shrubs will be scoured, downed, or otherwise detrimentally affected by Project activities.

- Vegetation or material removed from the site will be disposed of at a designated off-site location outside of the ordinary high water mark (OHWM) of the lake or the South Fork San Joaquin River;

- SCE will use certified weed-free materials for erosion control;

- Non-native invasive species will not be used in mulching, composting, or otherwise placed in the Project area; and

- Vehicles and equipment previously used on non-paved surfaces outside of the watershed will be thoroughly cleaned before entering the Project area. These vehicles and equipment will be washed with power or high pressure washers to remove soil, seeds, vegetation, or other seed bearing material before the vehicles and equipment enters the Project area.

BIO-3 Consultation with United States Fish and Wildlife Service: The Federal Energy Regulatory Commission (FERC) is the lead federal agency for consultation with the United States Fish and Wildlife Service (USFWS) under Section 7 of the Endangered Species Act for potential effects to Yosemite toad and Sierra Nevada yellow-legged frog (SNYLF) resulting from implementation of the Project. FERC will complete consultation with USFWS prior to implementation of the Project, and will seek concurrence from USFWS that, with the appropriate avoidance and protection measures, the Project will not results in adverse effects to Yosemite toad, SNYLF, or their habitats. All measures to avoid and protect species that are developed through consultation will be implemented as part of the Project.

BIO-4 Yosemite Toad and SNYLF Protection: SCE will implement the following to minimize any potential for effects to Yosemite toad and SNYLF:

- A qualified biologist will conduct clearance surveys prior to placement of equipment or materials in upland staging areas;
- In addition, an USFWS-approved biologist will be on call throughout implementation of the Project in the case that any special-status amphibians are found in the Project area. If individuals are found, all activities in the surrounding area that have the potential to result in harassment, injury, or death of the animal will be stopped until appropriate measures have been developed in consultation with resources agencies; and
- SCE will not use tightly woven fiber netting, plastic monofilament netting or similar material for erosion control or other purposes.

BIO-5 Preconstruction Surveys: SCE will conduct preconstruction surveys within 30 days prior to mobilization of equipment and initiation of construction activities. The surveys will include the following:

- Special-Status Raptors: In order to avoid or minimize impacts to nesting raptors, SCE will retain a qualified biologist to conduct preconstruction surveys for nesting raptors within a 500-foot radius of the Project area. If any active nests are observed, a minimum 500-foot avoidance buffer shall be established and maintained around each nest or nest trees until the young have fledged and are no longer reliant on the nest or parental care for survival.
- Other Avian Species: In order to avoid or minimize impacts to active nests of other avian species (e.g., passerines), SCE will conduct a preconstruction survey for active nests within 250 feet from the Project area. If any nests are detected, a non-disturbance buffer of 250 feet will be delineated around the nest and nest trees until the young have fledged and are no longer reliant on the nest or parental care for survival.

A report providing survey results will be submitted to the California Department of Fish and Wildlife (CDFW) at least one week prior to mobilization of equipment and initiation of construction activities.

Cultural Resource Measures

CUL-1 Previously Unknown Cultural Resources: If during the course of implementing the Project, cultural resources (i.e., prehistoric sites, historic sites, and isolated artifacts) are discovered, Project work shall be halted immediately within 50 feet of the discovery. SCE staff shall be immediately notified, and a professional archaeologist that meets the Secretary of the

Interior's Professional Qualifications Standards in archaeology and/or history shall be retained to determine the significance of the discovery. SCE shall consider any mitigation recommendations presented by an archaeologist regarding unanticipated discoveries and will implement appropriate measures to address the discovery. Such measures may include, but are not limited to: avoidance, preservation in place, excavation, documentation, curation, and/or data recovery.

CUL-2 Discovery of Human Remains: If during the course of implementing the Project, human remains are discovered, Project work shall be halted immediately within 50 feet of the discovery. SCE staff shall be notified, and the County Coroner shall be notified according to Section 5097.98 of the State Public Resources Code and Section 7050.5 of California's Health and Safety Code. If the remains are determined to be Native American, the coroner will notify the Native American Heritage Commission, and the procedures outlined in California Environmental Quality Act Section 15064.5(d) and (e) shall be followed. SCE will also comply with the current United States Forest Service Native American Graves Protection and Repatriation Act (NAGRPRA) Plan of Action.

Hazards and Hazardous Materials

HAZ-1 Emergency Response Plan: SCE will develop a Project-specific Emergency Response Plan (ERP) which addresses actions to be taken in the event of a spill of substances that may be harmful to fish, plants, or aquatic life. The ERP will establish procedures for the proper handling and disposal of all waste in compliance with applicable United States Environmental Protection Agency regulations and the requirements of the Project specification. The ERP will include: procedures for the site handing, storage, and packaging of waste; and contingency plans in the event of a spill.

HAZ-2 Fuel Storage and Equipment Fueling: Fuel storage and fueling of equipment will occur off-site or outside the reservoir, or other waterbodies, at designated upland storage areas at least 300 feet from the OHWM of the reservoir and the South Fork San Joaquin River.

HAZ-3 Stationary Equipment Fueling: Any pumps, generators, or other stationary equipment that must be stored and fueled in the reservoir will be placed in secondary containment structures to avoid contamination of the reservoir bed.

HAZ-4 Disposal and Transport of Chemical/Containers: All unused chemicals and containers from the jobsite will be removed prior to completion of the Project. All chemicals/ materials transported to and/or from any SCE facility will be transported in a manner which is in compliance with existing federal, state, and local regulations.

HAZ-5 Fire Plan: A Project-specific fire plan will be prepared in accordance with the most recent version of the Sierra National Forest High Sierra and Bass Lake Ranger Districts Project Fire Plan. This Project-specific fire plan will be provided in the Bidder Submittal Documents and Information furnished at the pre-bid meeting. The fire plan will include, but will not be limited to, the following:

- Burning at the jobsites for disposal of refuse and debris will be prohibited.
- A fire tool cache will be maintained on the jobsite as well as the Florence Lake Work Camp. The fire tool cache will consist of tools such as a shovel, axe, or Pulaski and fire extinguisher (9UL rated 4-pound B:C or more) or backpack water pump.

- Each fuel truck and/or lube type vehicle will be equipped with one 20 pound B:C dry chemical fire extinguisher for each fuel dispensing device but shall not need more than two 20 pound B:C dry chemical fire extinguishers per vehicle regardless of the number of dispensing devices as per the approved Project Fire Plan. Each straight lube type vehicle will be provided with at least one of the above type fire extinguishers.
- All fire suppression tools and required equipment will be in good workable condition and will meet the following for fire use: shovels shall be size "O" or larger and be not less than 46 inches in overall length; axes shall have two and a half pound or larger heads and not be less than 28 inches in overall length.
- Any fires will be immediately reported to the Big Creek 3 Control Room/Hydro Station Operator at PAX 78131 or 559-893-3631.

Hydrology and Water Quality Measures

WQ-1 Authorization for work within Waters of the United States/ Waters of the State: Prior to implementation of Project activities, SCE will obtain coverage under: Section 404 of the Clean Water Act from the United States Army Corps of Engineers (USACE); Section 401 of the Clean Water Act from the State Water Resources Control Board (State Water Board); and Section 1600 of the California Fish and Game Code from CDFW, for all work within the bed and bank of jurisdictional waters of the United .States and State. All BMPs, avoidance, protection, and mitigation measures included in any permits and certifications will be implemented as part of the Project.

WQ-2 State Water Board Construction General Permit: A Notice of Intent will be submitted to the State Water Board to obtain coverage under the General Permit for Discharges of Storm Water Associated with a Construction Activity (Construction General Permit Order 2009-0009-DWQ). Measures included in the general construction permit and Stormwater Pollution Prevention Plan (SWPP) will be complied with during Project activities. The SWPP will include:

- Pollution prevention measures, such as erosion and sediment control measures, and measures to control non-stormwater discharges and hazardous spills;
- Demonstration of compliance with all applicable local and regional erosion and sediment control standards;
- Identification of responsible parties; and
- A BMP monitoring and maintenance schedule.

WQ-3 Water Quality Best Management Practices: SCE will implement standard water quality BMPs during implementation of the Project. This will include, but it not limited to:

- No ground-disturbing work will be conducted within 24-hours following significant rainfall events (i.e., 0.25 inches or more of rain in a 24-hour period);
- All sediment stockpiles will be covered and surrounded with coir rolls, straw wattles, or equivalent, to prevent sediment runoff;
- Absorbent spill clean-up materials and spill kits will be available on site to be used in the event of an emergency to absorb spills. All used absorbent materials will be managed for proper disposal. Rubber mats or metal trays or similar items will be placed under

stationary equipment during work activities within the OHWM. If fuel spills occur, affected soils will be removed and managed for proper disposal;

- All equipment, including motors, pumps, and generators located within or adjacent to the stream or reservoir will be positioned over a liner or similar containment barrier to contain any spill from the equipment. Any equipment coming in contact with the stream or reservoir will be free of any petroleum residue or other material deleterious to aquatic life;
- Measures will be taken to prevent contaminants from being deposited in the reservoir. Fuel, petroleum oils, and any other materials used for operation of motorized equipment will be stored on plastic barriers with absorbent pads to contain any potential spills. Any contaminants that are accidently deposited into the dry area of the reservoir will be promptly and thoroughly retrieved; and
- Storage of hazardous materials, including fuels, and servicing and refueling of equipment will be conducted at pre-designated locations away from waterbodies and wetlands.