

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the Matter of Water Quality Certification for the

**SOUTHERN CALIFORNIA EDISON
AGNEW LAKE DAM GEOMEMBRANE LINER INSTALLATION AND
DAM REPAIRS PROJECT**

**RUSH CREEK HYDROELECTRIC PROJECT
FEDERAL ENERGY REGULATORY COMMISSION PROJECT NO. 1389**

SOURCES: Rush Creek

COUNTY: Mono

WATER QUALITY CERTIFICATION FOR FEDERAL PERMIT OR LICENSE

BY THE EXECUTIVE DIRECTOR:

I. Project Description

Southern California Edison's (SCE or Applicant) Agnew Lake Dam Geomembrane Liner Installation and Dam Repairs Project (Project) consists of making improvements and repairs to the Agnew Lake Dam (Dam), which is part of the Rush Creek Hydroelectric Project (Federal Energy Regulatory Commission [FERC] Project No. 1389).

The Rush Creek Hydroelectric Project is located in the Mono Lake Basin area of the eastern Sierra Nevada Mountains in Mono County, along Rush Creek, approximately fourteen miles upstream from Mono Lake, near the town of June Lake, California. The Dam is located on Rush Creek, at an elevation of 8,499 feet above mean sea level (MSL) on the eastern slope of the Sierra Nevada mountain range, in Mono County, California. The Dam is located in the Inyo National Forest, outside the Ansel Adams Wilderness Area. The Dam is approximately three miles west of U.S. Highway 395 and approximately fifteen miles north of Mammoth Lakes, California.

The Dam was constructed in 1916. It is a 30-foot high, 278-foot long concrete multiple arch dam. The Dam has five complete arches and two partial arches located at the ends. The Dam impounds water from Rush Creek and the surrounding basin, creating Agnew Lake. Agnew Lake provides a net storage capacity of 810 acre-feet. Water is released as required to maintain minimum instream flows conditioned in the FERC License No. 1389. The Rush Creek Powerhouse can generate power directly from water released from Agnew Lake.

The spillway is integrated into the Dam and consists of sixteen 5-foot wide by 2-foot high ports, eight in Arch 5 and eight in Arch 6. The spillway has a crest elevation of 8,495.88 feet above MSL. Water flows from the spillway directly into Rush Creek. The outlet works consist of one 30-inch diameter steel pipe at Arch 4. The outlet conduit is controlled by two manually-operated gate valves. A steel trashrack is placed over the intake to prevent large objects from plugging the outlet conduit.

In recent years, increased leakage has been observed from the Dam. The increased leakage has raised concerns that the capacity of the Dam to impound water may be compromised. SCE proposes to install a geomembrane liner along the upstream face of the Dam to block current leaks and prevent future leaks. Installation of the geomembrane is expected to extend the effective life span of the structure by up to thirty years.

In addition to the geomembrane installation, plinth repairs, outlet structure repairs, and foundation grouting may be undertaken. The foundation and outlet structure cannot be carefully inspected until the reservoir (Agnew Lake) is drained and the Dam-foundation interface is exposed by removing sediment. Work activities will include concrete placement, patchwork, trashrack inspection and possible replacement, and/or injection grouting.

Project Construction

Project construction consists of repair of the deteriorated concrete areas at the Dam, installation of the geomembrane on the upstream face of the Dam, trashrack replacement, and foundation grouting. The Project will require the following steps:

- *Monitoring.* SCE will monitor turbidity in Rush Creek for the duration of the Project as described in Attachment A of this water quality certification (certification). A baseline turbidity will be established prior to construction. Changes in turbidity will not cause nuisance or adversely affect the beneficial uses identified in the *Water Quality Control Plan for the Lahontan Region* (Lahontan Basin Plan). Increases in turbidity will not exceed baseline levels by more than 10 percent.
- *Lake Draining.* Agnew Lake will be drained and the outlet valve will remain open for the duration of the Project, allowing all natural flow to pass through to Rush Creek. Required minimum instream release flows of one cubic foot per second will be maintained at the minimum release point below Agnew Dam at all times. Dewatering of the lake has the potential to cause adverse effects upon aquatic resources and fishery habitat in violation of state water quality standards. This certification therefore contains conditions to prevent such a violation.
- *Work Area Preparation.* The work area will be a 30-foot wide belt of drained lake bottom parallel and adjacent to the Dam. Lakebed material deposited along the base of the Dam will be excavated to expose the Dam/plinth and foundation interface. An area three feet wide will be excavated to a depth of up to approximately four feet for a length of approximately 300 linear feet. Excavated material will be prevented from entering surface waters.
- *Dam Face Cleaning.* Scaffolding will be used to access the face of the Dam. Loose material will be removed by brushing and rinsing with water or by powerwashing. Loose material and wash water will be prevented from entering the natural stream flow by use of plastic sheeting to direct the material into collection areas. The perimeter seal area will also be ground smooth. Concrete and rock will be contained and disposed of following all State and local requirements.

- *Deteriorated Concrete Repair, Trashrack Replacement, and Foundation Grouting.* Deteriorated areas, including the trashrack on the outlet structure, will be repaired as necessary and concurrently with the geomembrane installation. The plan for foundation grouting will be developed after carefully inspecting the exposed foundation. Any material removed or used during installation, including foundation grouting, will be prevented from entering the stream flow by use of plastic sheeting, silt fencing, straw bales, or other appropriate best management practices (BMPs) as described in Attachment B to this certification.
- *Geomembrane Installation.* The geomembrane installation will proceed in sections starting in the middle of the Dam. Scaffolding will be used to place the geomembrane liner.

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) Executive Director may issue a decision on a certification application. (Cal. Code Regs., tit. 23, § 3838, subd. (a).)

The application for certification was received on January 17, 2012, but was not accepted for filing until March 6, 2012, when a complete application was submitted. 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 April 4, 2012. No comments were received.

The Applicant applied for a Nationwide Permit Letter of Permission from the Army Corps of Engineers (ACOE) under section 404 of the CWA. The Letter of Permission from the ACOE is contingent upon certification by the State Water Board.

The California Department of Fish and Game (DFG) issued a Long-Term Streambed Alteration Agreement permit (Fish & G. Code, §§ 1600-1616) with required mitigation measures to protect against construction related impacts to site specific and downstream water quality on Rush Creek. Implementing these measures in conjunction with the conditions contained within this certification will protect the beneficial uses of Rush Creek.

Water Quality Control Plans

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 constitute State water quality standards.

The Lahontan Regional Water Quality Control Board (Lahontan Regional Water Board) adopted, and the State Water Board and U.S. Environmental Protection Agency approved, the Lahontan Basin Plan. Existing beneficial uses designated for Rush Creek above Grant Lake include municipal and domestic supply, freshwater replenishment, hydropower generation, water contact recreation, non-contact water recreation, commercial and sport fishing, cold freshwater habitat, wildlife habitat, and spawning (spawning, reproduction, and development). Protection of the instream beneficial uses identified in the Lahontan Basin Plan requires maintenance of adequate instream flows as well as effluent limitations and other limitations on discharges of pollutants from point and non-point sources to Rush Creek and its tributaries.

California Environmental Quality Act

The State Water Board reviewed the proposed Project and conditions incorporated into the Project to protect the environment. The State Water Board has determined this Project involves the repair, maintenance, or minor alteration of an existing facility and therefore is categorically exempt from the requirements of the California Environmental Quality Act (Cal. Code Regs., tit. 14, § 15301). 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.

State Water Board Authority

California Code of Regulations, title 23, section 3860 requires imposition of certain mandatory conditions for all certifications, which are included in this certification. Further, State Water Board staff considered the Lahontan Basin Plan, the existing water quality conditions, and Project-related controllable factors in the development of this certification.

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. The Applicant will follow the *Agnew Lake Water Monitoring Plan* (Attachment A) and *Best Management Practices for the Agnew Lake Dam Geomembrane and Dam Repair Project 2012* (Attachment B), which are incorporated as conditions in this certification.

III. Findings

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 SOUTHERN CALIFORNIA EDISON'S AGNEW LAKE DAM GEOMEMBRANE AND REPAIRS PROJECT will comply with sections 301, 302, 303, 306, and 307 of the CWA, and with applicable provisions of State law, if the Applicant complies with the following terms and conditions during the Project activities certified herein.

CONDITION 1. SCE shall comply with the Project construction description and drawings submitted to the State Water Board.

CONDITION 2. SCE shall monitor water quality during construction and immediately report any discharge or violation of the water quality objectives to the State Water Board and Lahontan Regional Water Board.

CONDITION 3. SCE shall comply with the *Agnew Lake Water Monitoring Plan* included as Attachment A of this certification. All monitoring results will be submitted to the State Water Board on a monthly basis until the Project is completed.

CONDITION 4. SCE shall follow the *Best Management Practices for the Agnew Lake Dam Geomembrane and Dam Repair Project 2012* included as Attachment B of this certification. Notwithstanding any more specific conditions in this certification, the Applicant shall comply with all measures described in the application for certification and its supplements.

CONDITION 5. SCE shall maintain the required minimum instream release flows of one cubic foot per second at the minimum release point below Agnew Dam at all times. Fisheries effects (e.g., a fish kill or fish observed in obvious distress) resulting from any deviations from prescribed flow shall be minimized and reported immediately to DFG, the State Water Board, and the Lahontan Regional Water Board.

CONDITION 6. SCE shall adhere to the DFG standards for the ramping of flows for the duration of the Project. This includes a standard that provides for no more than a 25 percent change in flow over any eight-hour period. If fish are found stranded during the dewatering of Agnew Lake, fish relocation shall be conducted in consultation with DFG.

CONDITION 7. Project activities shall not cause an increase in turbidity downstream of the Project area greater than those identified in the Lahontan Basin Plan. Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increases in turbidity shall not exceed natural levels by more than 10 percent. 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 Lahontan Regional Water Board (Executive Officer). Construction may not re-commence without the permission of the Deputy Director.

CONDITION 8. Any equipment used in direct contact with the water of Rush Creek shall be steam cleaned prior to use. Wash water shall be contained and disposed of in compliance with State and local laws, ordinances, and regulations.

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CONDITION 9. Construction material, debris, spoils, soil, silt, sand, bark, slash, sawdust, rubbish, steel, other organic or earthen material, and any other substances which could be hazardous to aquatic life resulting from Project related activities shall be prevented from entering surface waters.

CONDITION 10. No unset cement, concrete, grout, damaged concrete, concrete spoils, and wash water used to clean concrete surfaces shall contact or enter surface waters.

CONDITION 11. 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, generator, 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 12. All equipment must be washed prior to transport to the Project site and must be free of sediment, debris and foreign matter. Wash water shall be contained and disposed of in compliance with State and local laws, ordinances, and regulations.

CONDITION 13. 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, ordinances, and regulations.

CONDITION 14. 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 disposal site.

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 or 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 Lahontan Regional Water Board staff in order for staff to be present onsite, to answer any public inquiries during construction and to document compliance with this certification. The Applicant must provide State Water Board and Lahontan Regional Water Board staff access to the Project site to document compliance with this certification.

CONDITION 17. If at any time an unauthorized discharge to surface waters (including rivers or streams) occurs or monitoring indicates that the Project has or could soon be in violation with water quality objectives, the associated Project activities shall cease immediately and the Deputy Director and the Executive Officer shall be notified. Associated activities will not resume without approval from the Deputy Director.

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CONDITION 18. Unless otherwise specified in this certification or at the request of the Deputy Director, 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 continued operation of the Project could violate water quality objectives or impair the beneficial uses of Rush Creek or its tributaries.

CONDITION 20. This certification is contingent on compliance with all applicable requirements of the Lahontan Basin Plan. The Applicant must notify the Deputy Director and the Executive Officer within 24 hours of any unauthorized discharge to surface waters.

CONDITION 21. Notwithstanding any more specific conditions in this certification, the Project shall be operated in a manner consistent with all water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the CWA. The Applicant must take all reasonable measures to protect the beneficial uses of Rush Creek and its tributaries.

CONDITION 22. 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) (DFG 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 23. In the event of any violation or threatened violation of the conditions of this certification, the violation or threatened violation is subject to any remedies, penalties, process or sanctions as provided for under applicable state or federal law. For the purposes of section 401(d) of the 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 24. In response to a suspected violation of any condition of this certification, the State Water Board or Lahontan 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.) The State Water Board may add to or modify the conditions of this certification as appropriate to ensure compliance.

CONDITION 25. No construction shall commence until all necessary federal, state, and local approvals are obtained.

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CONDITION 26. This certification is contingent on compliance with all pertinent permits and orders issued by the Lahontan Regional Water 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 27. 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.

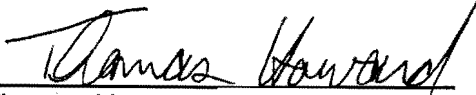
CONDITION 28. The Applicant must submit any changes to the Project, including Project operation, which would have a significant or material effect on the findings, conclusions, or conditions of this certification, to the State Water Board for prior review and written approval. If the State Water Board is not notified of a significant change to the Project, it will be considered a violation of this certification.

CONDITION 29. The State Water Board may provide notice and an opportunity to be heard in exercising its authority to add or modify any of the conditions of this certification.

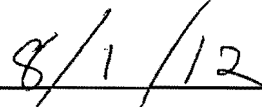
CONDITION 30. This certification is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to California Water Code section 13330 and California Code of Regulations, title 23, Division 3, Chapter 28, Article 6 (commencing with section 3867).

CONDITION 31. Certification is not intended and shall not be construed to apply to any activity involving a hydroelectric facility and requiring a Federal Energy Regulatory Commission (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 32. Certification is conditioned upon total payment of any fee required under California Code of Regulations, title 23, Chapter 28.



Thomas Howard
Executive Director



Date

Attachment A: Agnew Lake Water Monitoring Plan (as submitted by the Applicant)

Attachment B: Best Management Practices for the Agnew Lake Dam Geomembrane and Dam Repair Project 2012 (as submitted by the Applicant)