

STATE OF CALIFORNIA  
STATE WATER RESOURCES CONTROL BOARD

---

In the Matter of Water Quality Certification for  
**THE SOUTHERN CALIFORNIA EDISON COMPANY**  
**SANTA ANA 1 & 3 HYDROELECTRIC PROJECT**

**FEDERAL ENERGY REGULATORY COMMISSION PROJECT NO. 1933**

SOURCES: Santa Ana River

COUNTY: San Bernardino

---

**WATER QUALITY CERTIFICATION FOR FEDERAL PERMIT OR LICENSE**

BY THE EXECUTIVE DIRECTOR:

The **SOUTHERN CALIFORNIA EDISON COMPANY** (SCE) proposes to relicense the Santa Ana River 1 & 3 Hydroelectric Project (SAR 1 & 3) with the Federal Energy Regulatory Commission (FERC). The SAR 1 & 3 is located on the Santa Ana River upstream of the Seven Oaks Dam. The primary sources of flow in this reach of the Santa Ana River are rainfall, snowmelt and release from storage from Big Bear Lake.

1. The Federal Clean Water Act (33 U.S.C. §§ 1251-1387) was enacted "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters" (33 U.S.C. § 1251(a)). Section 101(g) of the Clean Water Act (33 U.S.C. § 1251(g)) requires federal agencies to "cooperate with state and local agencies to develop comprehensive solutions to prevent, reduce and eliminate pollution in concert with programs for managing water resources."
2. Section 401 of the Clean Water Act (33 U.S.C. § 1341) requires every applicant for a federal license or permit to provide the responsible federal agency with certification that the project will be in compliance with specified provisions of the Clean Water Act, including Water Quality Standards and Implementation Plans (Clean Water Act, § 303, 33 U.S.C. § 1313). Clean Water Act section 401 directs the state agency responsible for certification to prescribe effluent limitations and other limitations necessary to ensure compliance with the Clean Water Act and with any other appropriate requirement of State law. Section 401 further provides that state certification conditions shall become conditions of any federal license or permit for the project.
3. The State Water Resources Control Board (SWRCB) is the lead agency responsible for water quality certification in California (Wat. Code, § 13160) and has delegated this

function to the Executive Director by regulation (Cal. Code Regs., tit., 23, § 3838, subd. (a)).

4. The California Regional Water Quality Control Boards (RWQCB) have adopted, and the SWRCB has approved, Water Quality Control Plans (Basin Plans) for each watershed basin in accordance with provisions of section 303 of the Clean Water Act, related to the establishment of water quality standards and planning (33 U.S.C. § 1313). Basin Plans identify beneficial uses of the waters within each Region.
5. The RWQCB, Santa Ana Region, in its Water Quality Control Plan for the Santa Ana River adopted by the RWQCB on March 11, 1994, has identified the beneficial uses of the Santa Ana River from its headwaters to Seven Oaks Dam (referred to as Reach #6) as Municipal and Domestic Supply (MUN), Agricultural Supply (AGR), Groundwater Recharge (GWR), Hydropower Generation (POW), Water Contact Recreation (REC 1), Non-contact Recreation (REC 2), Cold Freshwater Habitat (COLD), Wildlife Habitat (WILD) and Spawning, Reproduction and Development (SPWN).
6. Protection of the chemical, physical, and biological integrity of waters of the state for instream beneficial uses identified in the Basin Plans requires maintenance of adequate stream flows as well as effluent limitations and other limitation on discharges of pollutants from point and nonpoint sources to navigable waters and their tributaries.
7. The SWRCB staff have reviewed the final FERC License Application, comments to the final FERC License Application by agencies and interested parties, SCE responses to additional information requests from FERC, the U.S. Forest Service (USFS) and the FERC final Environmental Assessment prepared pursuant to the National Environmental Policy Act and the USFS section 4(e) of the Federal Power Act for the SAR 1 & 3 Hydroelectric Project.
8. The SWRCB has adopted the final Environmental Assessment (EA) and Finding Of No Significant Impact prepared by the FERC and the USFS for this project to satisfy its CEQA obligation. This document has been submitted for agency and public review as broadly as State law may require meeting the standards for review and notification (Cal. Code Regs., tit. 14, § 15225). The document reflects the SWRCB's independent judgment and analysis, and based on the whole record, and as mitigated, the project will not have a significant effect on the environment. The SWRCB will file a Notice of Determination within 5 working days of the issuance of this order in accordance with the California Code of Regulations, title 14, section 15094. In addition to the Final EA, as part of its decision record the SWRCB has considered the information included in the SAR 1 & 3 final License Application and additional information developed by SCE to satisfy informational needs of the agencies and interested parties. Further, the SWRCB has considered the Santa Ana River Basin Plan, the existing water quality conditions and project related controllable factors.

ACCORDINGLY, BASED ON ITS INDEPENDENT REVIEW OF THE RECORD, THE SWRCB CERTIFIES THAT THE SANTA ANA RIVER 1 & 3 HYDROELECTRIC PROJECT

OPERATED BY SOUTHERN CALIFORNIA EDISON COMPANY (Licensee) will comply with sections 301, 302, 303, 306 and 307 of the Clean Water Act, and with applicable provisions of state law if the Licensee complies with the following terms and conditions during the operation of the project certified herein.

1. This certification is subject to modification or revocation upon administrative or judicial review including review and amendment pursuant to Water Code section 13330 and title 23 of the California Code of Regulations (commencing with § 3867).
2. The SWRCB may add to or modify the conditions of this certification, as appropriate, to implement any new or revised water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act.
3. Notwithstanding any more specific conditions in this certification, the project shall be operated in a manner consistent with all water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act.
4. Notwithstanding any more specific conditions in this certification, the Licensee shall comply with all other mitigation measures identified in the final EA and FONSI prepared by the USFS and FERC for the SAR 1 & 3 Hydroelectric Project.
5. In the event of any violation or threatened violation of the conditions of this certification, the violation or threatened violation shall be subject to any remedies, penalties, process or sanctions as provided for under any 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 assure compliance with the water quality standards and other pertinent requirements incorporated into this certification. In response to a suspected violation of any condition of this certification, the SWRCB 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 SWRCB 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. In response to any violation of the conditions of this certification, the SWRCB may add to or modify the conditions of this certification as appropriate to ensure compliance.
6. In order to protect the beneficial use designations identified in the Santa Ana Basin Plan, the operation of the project shall not add the following substances to surface waters:
  - Taste or odor-producing substances to impart undesirable tastes to domestic and municipal water supplies or odors to fish flesh or other edible products of aquatic origin or to cause nuisance or adversely affect beneficial uses;

- Perceptible floating material including, but not limited to, solids, liquids, foams or scums which could result in degradation of water quality;
  - Suspended or settleable material in concentrations that cause a nuisance or adversely affect beneficial uses;
  - Oil, greases, waxes or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water;
  - Toxic pollutants present in the water column, sediments, or biota in concentrations that adversely affect beneficial uses; that produce detrimental response in human, plant, animal or aquatic life; or that bioaccumulate in aquatic resources at levels which are harmful to human health; and,
  - Coliform organisms attributable to human wastes.
7. In order to protect the Cold Freshwater Habitat beneficial use that includes waters that support cold water ecosystems including, but not limited to the preservation and enhancement of aquatic habitats, vegetation, fish and wildlife including vertebrates, the project shall be operated by the Licensee so as to maintain mean daily water temperatures of 20° Celcius (C) in the reach of Santa Ana River dewatered as a result of the operation of SAR 1 as shown on the attached map (dewatered reach). If the temperature of the Santa River at its confluence with the Bear River is greater than 20°C, the Licensee shall maintain throughout the dewatered reach the temperature measured at the confluence of the Santa Ana River and Bear Creek. To assure compliance with this requirement, the Licensee shall install and operate a continuously recording temperature measuring station at a point immediately upstream of the SAR 3 intake. The exact location of this device shall be approved by the Chief of the Division of Water Rights following consultation by the Licensee with the USFS, the Department of Fish and Game (DFG), and the U.S. Fish and Wildlife Service (USFWS) (collectively referred to as the consulting agencies) in the preparation of the temperature monitoring and response plan required by Condition 9 of this certification. If feasible, the temperature monitoring station shall be telemetered and the data recorded at the station shall be made available to the consulting agencies and the SWRCB in real time. If the Licensee determines that telemetry is not feasible following consultation with the consulting agencies, the Chief of the Division of Water Rights may waive the requirement for telemetry and real time submission of data collected under this condition.
8. During operation of the SAR 1 Project authorized by the new license, the licensee shall provide a continuous minimum stream flow release at a point no greater than 200 yards below the confluence of Bear Creek and Santa Ana River of the lesser of the following:
- a) The following instantaneous flows measured in cubic feet per second (cfs).
- 7 cfs from September 16 through January 31  
11 cfs from February 1 through May 31

7 cfs from June 1 through June 30  
9 cfs from July 1 through September 15; or

b) the natural flow if less than the above required flows.

Additionally, the Licensee shall bypass sufficient flow to maintain a mean daily water temperature of 20°C or less in the reach of the Santa Ana River dewatered as a result of operation of SAR 1. This additional bypass shall not be required if the mean daily water temperature at the confluence of Bear Creek and the Santa Ana River is higher than 20°C.

The Chief of the Division of Water Rights is authorized to approve temporary modifications of the flows required by this condition for the following purposes: (1) for performance of required maintenance of the dams, their outlet facilities, and the minimum flow release facilities; (2) as a result of emergencies beyond the control of the Licensee; and (3) in the interest of public safety. The Licensee shall obtain the concurrence of the USFS prior to seeking approval from the Division Chief for any temporary flow modifications. The Licensee shall notify FERC as soon as possible, but not later than 10 calendar days after each such modification.

9. In order to demonstrate compliance with conditions 7 and 8 of this certification and to ensure protection of cold water habitat, the Licensee shall develop within six months of issuance of the FERC License a temperature monitoring and response plan acceptable to the Chief of the Division of Water Rights. The purposes of the plan are to develop a temperature monitoring and reporting program acceptable to the SWRCB and the USFS and to develop operational responses to conditions that result in exceedences of the temperature requirement specified in condition 7. The Licensee shall develop the plan in consultation with the DFG, the USFWS and the USFS. The Licensee shall submit with the plan documentation that the plan is acceptable to the USFS. The Plan shall be approved by the Chief of the Division of Water Rights prior to the Licensee submitting it to the FERC. The Plan shall include, but not be limited to the following elements:
  - a) The proposed locations of: (1) the temperature measuring station required by condition 7 of this certification; (2) the temperature measuring device that will be used to measure water temperatures at the upstream end of the reach dewatered as a result of operation of SAR 1; and (3) any other temperature measuring devices the Licensee determines are necessary to ensure protection of cold water habitat throughout the stream reach that is dewatered as a result of SAR 1.
  - b) A program for maintaining the temperature measuring devices.
  - c) Specific actions that the Licensee proposes to take to preserve cold freshwater habitat in response to temperature exceedences of more than two consecutive days, including the order in which the actions will be implemented.
  - d) A proposed program to monitor and report temperature data collected. The Licensee shall identify the methodology used to determine water temperatures. The Licensee shall propose a monitoring frequency for all temperature monitoring locations, except that required by Condition 7 of this Certification, which must be monitored continuously. The Licensee shall report all temperature monitoring data to the Chief

of the Division of Water Rights annually, including both the duration and magnitude of any temperature exceedence at the temperature measuring station located upstream of SAR 3 intake. If a temperature exceedence has a duration of more than two consecutive days, the Licensee shall within 24 hours of the end of the two-day period report the exceedence to the Chief of the Division of Water Rights, the DFG, the USFWS, and the USFS and also report within 24 hours, the specific actions that were implemented in an effort to maintain temperatures at the measuring station below 20°C as well as any further actions that will be taken to ensure compliance with the temperature requirement. The Licensee shall continue to report to the Division Chief and the USFS daily on actions that are being taken to minimize impacts to aquatic species for the duration of the exceedence. The annual report shall include an analysis of the efficacy of the actions taken.

The Licensee shall implement the plan as soon as practicable, but no later than one year, after the approved plan is submitted to FERC.

10. Within six months from the issuance of the new license, the Licensee shall file with the SWRCB for approval by the Chief of the Division of Water Rights a streamflow monitoring plan and schedule to install, operate and maintain a continuous recording streamflow gage located at a point not more than 200 yards below the confluence of Bear Creek and Santa Ana River. The gage should be capable of measuring flows in the range of 20 cfs and shall be approved by the U.S. Geological Survey (USGS). The streamflow data shall be collected according to the standards set by the USGS and made available to the public through standard USGS publications and sources. Original data sets will be made available to the consulting agencies upon request. The Licensee shall provide documentation that the plan is acceptable to the USFS. Once the plan is approved by the Chief of the Division of Water Rights, the Licensee shall submit the plan to the FERC.
11. The Licensee shall develop a fisheries monitoring plan in consultation with the DFG, USFWS, USFS and other interested parties within 1 year of issuance of the new FERC license. The plan shall be submitted to the Chief of the Division of Water Rights for approval. Once the plan is approved by the SWRCB, the Licensee shall submit the plan to the FERC. The plan shall use but not be limited to the metrics used to monitor aquatic resources upstream of SAR 1 in Bear Creek below Big Bear Lake pursuant to the SWRCB's Order WR 95-4.

Monitoring objectives will focus on evaluating aquatic species' condition and populations to determine if measures prescribed in this certification protect water temperature and provide flows necessary to protect the cold freshwater habitat beneficial use and maintain the fishery in the SAR 1 reach in "good condition" pursuant to California Fish and Game Code section 5937. The definition of species in good condition articulated by Dr. Peter Moyle in the Putah Creek testimony, and referenced in the article, "Fish Health and Diversity: Justifying Flows for a California Stream," by Moyle, et al, in Fisheries, Vol. 23, No. 7, (July 1998), will be used to evaluate the status of aquatic species in the SAR 1 reach.

Monitoring parameters, which will be developed by the Licensee in consultation with the DFG, USFWS, USFS and interested parties may include but is not limited to:

- Population age structure and abundance,
- Biomass
- Growth and physical condition,
- Spawning and recruitment,
- Distribution,
- Key habitats as influenced by the prescribed flows,
- Summer water temperatures,
- Macroinvertebrate populations,
- Cause and effect relationships, and
- Other critical or limiting factors as necessary based on consultation with the agencies and interested parties.

The Licensee shall use a methodology consistent with the California Rapid Bioassessment Method or some other method approved by the DFG for macroinvertebrate monitoring.

The Licensee shall conduct the fishery monitoring as prescribed in the approved fisheries monitoring plan at least three times in August or September during the first five years after issuance of the new license. The first survey shall be conducted in the first August or September after the first full year that minimum instream flows are in effect. The Licensee shall prepare an annual report that includes the raw data and a brief summary of the data for each of the first two years of monitoring. The Licensee shall prepare the annual report within 90 days of completion of the annual monitoring and submit it to the SWRCB and consulting agencies. Within 90 days after the third year's monitoring is completed, the Licensee shall prepare a draft report summarizing the three years of monitoring and make findings supported by the data as to the condition of the fishery within the SAR 1 reach.

The Licensee, in consultation with the DFG, USFWS, USFS and interested parties, shall evaluate and recommend appropriate changes, if any, to the operating rules for instream flow releases including minimum flows as identified in Condition 8 that are necessary to achieve the protection of cold freshwater habitat and maintaining the SAR 1 fishery in "good condition." The final report shall be submitted to the SWRCB, USFS, DFG, USFWS and interested parties within year after completion of the third year of monitoring.

After review and comment of the final fisheries monitoring report by the consulting agencies and interested parties the SWRCB shall make its independent determine if the fishery is being maintained in good condition. The SWRCB may require changes in project operations based on its evaluation of the final fishery monitoring concomitant with the water temperature monitoring report (Condition 9) based on the independent questions as to:

- whether the fish species are in good condition;
- whether cold freshwater habitat is being protected; and
- whether the cold freshwater habitat beneficial use could be more fully protected by changes in project operation.

If the results of the first five years of monitoring and implementation of the prescribed instream flows are inconclusive due to insufficient observations or the fishery is found to not be in good condition, the SWRCB reserves its jurisdiction to extend the monitoring program.

Future changes in project operations, based on the questions above, would only include changes in project operations to the extent that they are based on project-controllable factors. The SWRCB shall notify the Licensee and FERC of any additional actions that it believes are necessary to protect the cold freshwater habitat, keep fish in good condition or protect other beneficial uses as identified in the Santa Ana River Basin Plan. The Licensee, after opportunity for hearing, shall implement the actions or changes in project operations as directed by the SWRCB in order to comply with section 303 of the Clean Water Act (33 U.S.C. §1313).

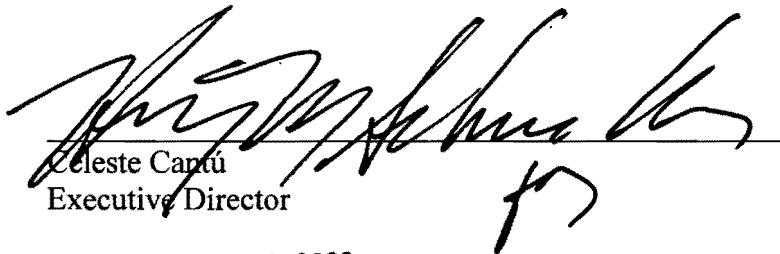
12. Within six months of the date of the issuance of the new license, the Licensee shall file with the FERC a plan to install fish screens at the Alder Creek and SAR 3 river intakes, and construct a physical barrier on Alder Creek to limit non-native fish access from the Santa Ana River to Alder Creek. The fish screening and fish barrier plan shall be developed in consultation with the SWRCB, USFS, USFWS, DFG and interested parties and approved by the USFS and DFG prior to submittal to FERC. The fish screens shall be designed to prevent fish in Alder Creek and the SAR 1 reach from being entrained in the SAR 3 flowline. The Alder Creek fish barrier shall be designed to prevent upstream migration of non-native fish from the Santa Ana River or from the Seven Oaks Dam inundation zone resulting from flood control storage.
13. Because of the rarity and importance of mature riparian habitat and wetlands to wildlife in the reach below the SAR 3 intake and below the SAR 1 powerhouse (referred to as the Alder Creek Cienega), the Licensee shall develop within 1 year from the issuance of the new license a riparian vegetation monitoring plan in consultation with the DFG, USFWS, and the USFS. The goal of the plan is to document the existing vegetation in the Alder Creek Cienega relative to species composition, structure, vigor and recruitment. The monitored SAR 3 reach shall extend from below the SAR 1 powerhouse to the confluence of Alder Creek and the Santa Ana River. The plan shall specify the appropriate monitoring interval necessary over the life of the license to document project induced changes in the vegetation in the Alder Creek Cienega attributable to reduced accretion, leakage, seepage or surface flows as a result of the SAR 3 diversion. The monitoring plan shall use but not be limited to methods in accordance with those used in *Composition of Riparian Herb Communities on Streams with Regulated and Unregulated Streamflow, Eldorado National Forest, California* (Harris and Lindquist 2000) or protocols used for monitoring similar vegetative communities in Southern California. The monitoring plan shall be approved by the Chief of the Division of Water Rights. The



Licensee shall conduct the baseline monitoring in conjunction with the first year of the fisheries monitoring required by this certification.

The monitoring results as they are developed shall be provided to the SWRCB, DFG, USFWS, USFS and any interested party. The SWRCB reserves its jurisdiction to use appropriate administrative procedures to require appropriate releases from the Licensees' diversions to maintain the vegetation in the Alder Creek Cienega absent changes in this plant community by a catastrophic flood event or inundation as a result of flood control at Seven Oaks Dam.

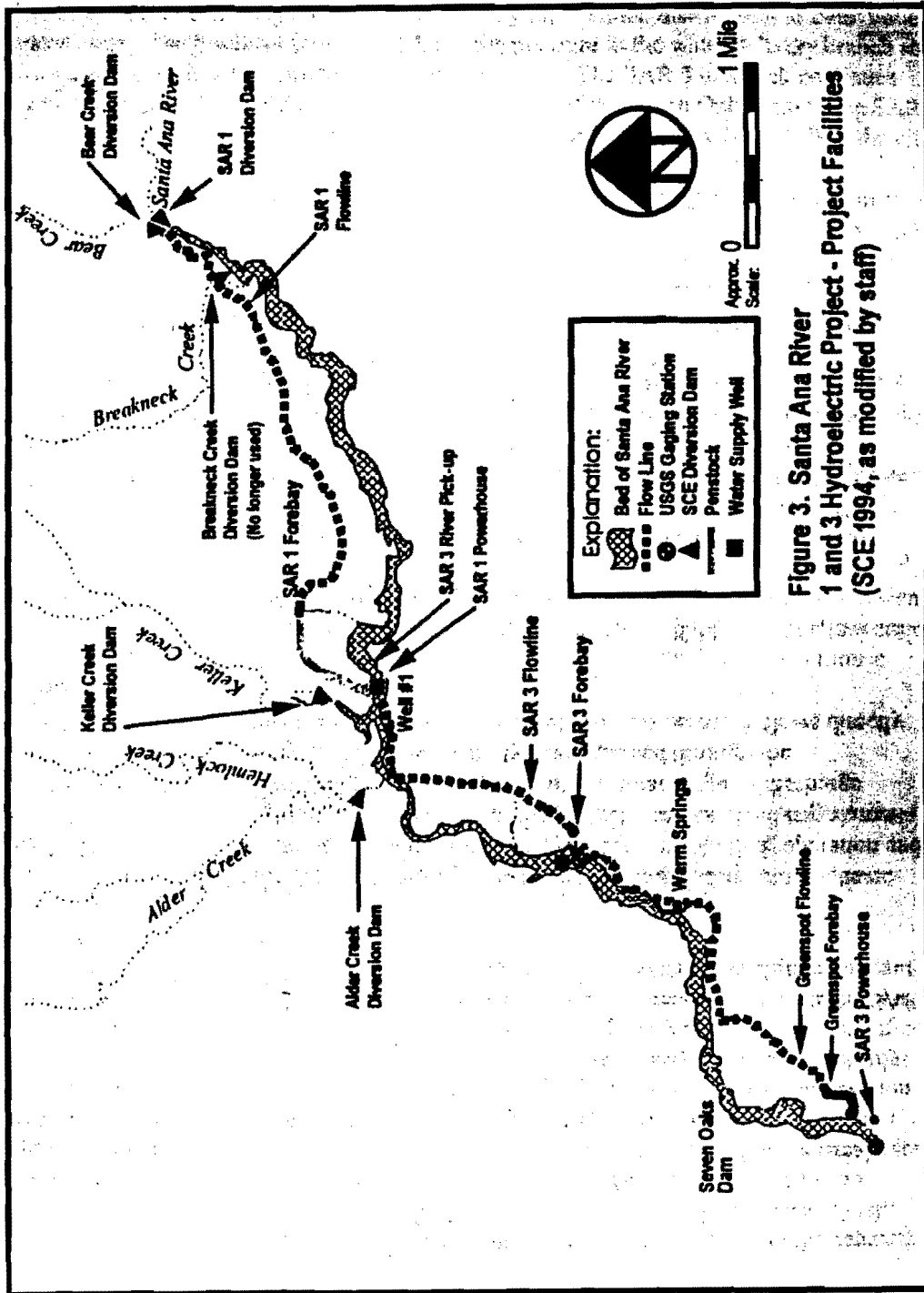
14. This certification does not authorize any act which results in the taking of a threatened or endangered species or any act which is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (DFG Code § 2050 to 2097) or the federal Endangered Species Act (16 U.S.C. § 1531 to 1544). If a "take" will result from any act authorized under this certification or water rights held by the Licensee, the Licensee shall obtain authorization for the take prior to any construction or operation of the project. The Licensee shall be responsible for meeting all requirements of the applicable Endangered Species Act for the project authorized under this certification.
15. Licensee shall comply with any applicable requirements of state law consistent with the Clean Water Act requiring fees to cover SWRCB costs in administering the certification Program. Pursuant to title 23, Cal. Code of Regs., § 3860(c), this certification is conditioned upon total payment of any fee required under this Chapter and owed by the applicant.



Celeste Cantú  
Executive Director

Date: **MAR 13 2003**

Attachment



**Figure 3. Santa Ana River 1 and 3 Hydroelectric Project - Project Facilities (SCE 1994, as modified by staff)**