

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Southern California Edison Company

Project No. 2017-011

ORDER ISSUING NEW LICENSE

(December 4, 2003)

INTRODUCTION

1. On February 26, 1997, Southern California Edison Company (Edison) filed an application for a new major license pursuant to Sections 4(e) and 15 of the Federal Power Act (FPA), 16 U.S.C. §§ 797(e) and 808, for the continued operation and maintenance of the 98.822 megawatt (MW) Big Creek No. 4 Hydroelectric Project (Big Creek 4).¹ The project is located on the San Joaquin River, in Fresno, Madera, and Tulare counties, California. The project partially occupies lands of the United States within the Sierra National Forest (Sierra Forest).

BACKGROUND

2. The Commission issued a public notice of Edison's application on November 13, 1997. Timely motions to intervene were filed by the California Sportfishing Protection Alliance, U.S. Forest Service (Forest Service), North Fork Mono Tribe,² California Department of Fish and Game, Trout Unlimited, and a jointly filed motion to intervene by the American Whitewater Affiliation, the Friends of the River, San Joaquin Paddlers, Sierra Club Tehipite Chapter, and Yosemite Area Audubon (collectively referred to as the Conservation Coalition).³

¹ Big Creek No. 4 is one project of a large system of interrelated hydroelectric projects, known as the Big Creek System, that is owned and operated by Edison.

² The North Fork Mono Tribe (North Fork) initially opposed relicensing the project, but subsequently withdrew its opposition in a filing dated November 27, 2002.

³ The motions, which were timely and unopposed, were granted automatically pursuant to Rule 214(c)(1) of the Commission's Rules of Practice and Procedure

3. The Commission staff conducted environmental scoping meetings in December 1997. After Edison submitted additional information, the Commission issued a public notice on April 18, 2000, indicating the project was ready for environmental analysis and soliciting comments, recommendations, and terms and conditions. In response, comments were filed by the Conservation Coalition and the Forest Service.

4. On August 16, 2001, the Commission's staff issued a draft environmental impact statement (DEIS) that evaluated the potential impacts of relicensing the project. The final environmental impact statement (FEIS) was issued on February 22, 2002. All motions to intervene, protests, and comments have been fully considered in determining whether, and under what conditions, to issue this license.

PROJECT DESCRIPTION

5. Big Creek 4 is the lower-most project of Edison's Big Creek System, which is an integrated hydroelectric system consisting of nine powerhouses with six reservoirs operating under the authority of seven separate Commission licenses.⁴ The projects in the Big Creek System operate together to maximize power production with the generating facilities coordinated through the Edison Energy Control Center, located at the Big Creek powerhouse.

6. The original license for the project was issued on December 23, 1949,⁵ and expired on February 28, 1999. Project operation has continued pursuant to annual licenses, pending disposition of Edison's application for a new license. See Section 15(a)(1), 16 U.S.C. § 808(a)(1).

7. The project consists of a 248.5-foot-high, 954-foot-long dam (known as Dam No. 7), impounding Redinger Reservoir with approximately 465 surface acres; a 373-

18 C.F.R. § 385.214(c)(1)(2003).

⁴ Edison's licensed projects in the Big Creek System, excluding Big Creek 4, are Vermillion Valley Project No. 2086; Portal Project No. 2174; Mammoth Pool Project No. 2085; Big Creek No. 3 Project No. 120; Big Creek Nos. 1 and 2 Project No. 2175; and Big Creek Nos. 2A, 8, and Eastwood Project No. 67.

⁵ 8 FPC 953.

kilowatt (kW) turbine⁶ installed in Dam No. 7 to use water released for instream flow purposes; a combination penstock/pressure tunnel about 11,770 feet long with a design capacity of about 3,565 cubic feet per second (cfs); a powerhouse containing two turbines, each rated at 49,236 MW.⁷

8. Water is diverted at Dam No. 7 through a 6.3-mile conduit to the Big Creek 4 powerhouse and then returned to the San Joaquin River immediately below the powerhouse, bypassing almost 7 miles of the river (a 6.2-mile-long section known as Horseshoe Bend and a 3,500-foot-long section known as Redinger Gorge).

9. Big Creek 4 generates power 24 hours a day during normal or wet spring snowmelt/runoff periods, usually from April through June each year.

10. Big Creek 4 operates as a daily peaking facility (primarily weekday afternoons) once the peak runoff period ends and during below-normal runoff years. Edison maintains a relatively stable reservoir water elevation, with fluctuations of no more than 6 feet for most of the year (December through August). However, during low inflow periods (September through November) and year round during dry water years, the project outflow from the reservoir often exceeds inflow; the project continues to generate power, release minimum flows below the dam, and meet downstream water demands. As a consequence, the reservoir level has dropped as much as 55 feet (from 1,403-foot elevation to 1,348-foot elevation).

PROJECT BOUNDARY

(A) Background

11. At the time Edison filed its relicense application, the project occupied approximately 3,351 acres of land, including about 1,325 acres of federal land, all in the Sierra National Forest. The project's transmission lines and related facilities occupied

⁶ Because the generator capacity (350 kW) is less than the turbine capacity (373 kW), the installed capacity of the Dam No. 7 turbine is 350 kW. 18 C.F.R. § 11.11(f) (2003).

⁷ The total authorized capacity of the project is 98,822 MW, as stated in the Order Amending License, Approving Revised Exhibit M and Revising Annual Charges issued by the Commission on November 4, 1994. 69 FERC ¶ 62,106.

approximately 2,138 acres, of which 123 acres were federal land. Of the 1,212 acres not occupied by transmission line facilities, 1,202 acres were federal land.⁸

12. In its relicense application, Edison proposed to eliminate 613.14 acres of federal land from the project boundary.⁹ Edison explained that most of this federal land removal would result from revising the boundary around the project reservoir to reflect a buffer zone that had been scaled back from the existing buffer zone to a width of approximately 200 feet from the high water elevation of 1,403 feet. In addition, 6.2 acres of the federal land, along with 618 acres of non-federal land, would be eliminated from the project boundary in connection with the removal from the project of a 51.5-mile, 100-foot-wide right-of-way for a transmission line that Edison determined was no longer a primary transmission line.¹⁰

13. On January 12, 2000, Edison filed an application to amend the existing license to delete certain features from the project and to revise the project boundary.¹¹ Edison proposed to delete two transmission lines, on the ground that they were no longer primary transmission lines, leaving only one 75-foot-long, 1.2-kilovolt (kV) transmission line as a primary transmission line that would remain within the project boundary.¹² Edison also

⁸ These acreage figures are not cited in the application but can be derived from Table 3 of the FEIS, at p. 14.

⁹ Application at A-14 and G-2.

¹⁰ Application, at G-2. Under Section 3(11) of the Federal Power Act, a "project" includes "the primary line or lines transmitting power from the point of junction with the distribution system or with the interconnected primary transmission system."

¹¹ Edison supplemented its application on November 9, 2000. Since the license had expired on February 28, 1999, the application in effect sought amendment of the annual licenses under which the project has been operating since the expiration.

¹² Edison identified these lines as a 5.8-mile-long, 220-kV line extending from the Big Creek 4 powerhouse transformer banks to Big Creek 3 switchyard, and a 132.6-mile-long, 220-kV line extending from the Big Creek 4 powerhouse transformer banks to the Springville Substation, and continuing to the Magunden Substation. This latter line would appear to encompass the 51.5-mile line referred to in the relicense application, which Edison there described as extending from Springville Substation to Magunden Substation. Relicence Application, at G-2. The remaining 75-foot transmission line

proposed to remove certain access roads and telephone lines as project features and to change the project boundary to an elevation of 1,410 feet, or 7 feet higher than the reservoir's high water line. Edison stated that, as a result of these changes, 592.48 acres of non-transmission-line federal land, as well as all 123.42 acres of federal land used for transmission line purposes, would be removed from the project boundary, resulting in 715.90 acres of federal land to be removed and 609.34 acres of federal land to be retained.

14. By order issued March 9, 2001, the Director, Division of Hydropower Administration and Compliance, granted the amendment application in part. Southern California Edison, 94 FERC ¶ 62,202 (2001). The Director approved the deletion from the license of the two transmission lines identified by Edison, for the reason that they were part of Edison's distribution system rather than primary lines, but found that other transmission lines (the 75-foot-long line specified by Edison and an additional 300-foot-long, 220-kV line¹³) and related facilities should remain within the project boundary. The Director also approved the deletion of the Big Creek 4 switchyard and of specified telephone lines. The order made these deletions and the corresponding revised project description effective on the date that Edison received all necessary permits or approvals from the Forest Service for the continued use of National Forest System Lands for the deleted facilities, and it required Edison to file copies of all such permits or approvals with the Commission within 30 days of receiving them. The order also required Edison to file revised acreage calculations, since, contrary to Edison's assumption in the amendment application, it appeared that not all federal lands used for transmission line purposes would be removed from the project boundary.

15. The Director declined to remove access roads as project features or to change the project boundary to reflect the requested elevation measurement. Concluding that the lands requested to be deleted might be considered for project uses under the new license, the Director deferred disposition of these deletion requests to this relicensing proceeding.¹⁴ In a May 9, 2001, order on rehearing, the Commission affirmed the

extends from the Dam No.7 switchyard to pole number 842894E.

¹³The 330-foot line extends from the Big Creek No. 4 powerhouse to the bus in the Big Creek 4 switchyard.

¹⁴The Director also deferred to the relicensing proceeding a revision of Exhibit M to identify stream flow gages and reflect other minor project changes.

Director's order in respect to the inclusion of the remaining transmission lines and the deferral of the access road and project boundary adjustment issues. Southern California Edison, 95 FERC ¶ 61,188 (2001).

16. By order issued February 27, 2002, the Director approved revised exhibits required by the March 9 and May 9, 2001, orders, and amended the license. The Director found that, as the result of this amendment, 1,161.20 acres of federal land would remain in the project.¹⁵ However, the Director's amendment of the license was made effective upon compliance with the requirement established by the March 9 order for receipt of the Forest Service approvals. Edison has not filed copies of any such approvals with the Commission, and it is not clear that these approvals have been obtained. Therefore, the facilities and lands that the Director deleted from the project remain within the project boundary under the new license until Edison receives and files the necessary approvals.

(B) Disposition of Removal Requests

17. Edison's remaining requests for exclusion of project lands and facilities from the project boundary will be addressed here.

Reservoir Boundary Land

18. Most of the land that Edison seeks to exclude from the new project boundary borders the project's reservoir. In place of this existing buffer zone, Edison proposes to maintain a boundary around the reservoir that would be equivalent to about seven vertical feet above the maximum high water elevation of 1,403 feet NGVD, or approximately 1,410 feet NGVD. In its order on rehearing of the Director's amendment order, the Commission expressed concern that, because the elevation around much of the reservoir shoreline rises fairly quickly, the proposed boundary would turn out, in many places, to be a very short horizontal distance from the high water mark. The Commission noted that Edison had not addressed why it proposed to move the project boundary to just above the high water mark and how such a modification would affect the project's license requirements. The Commission declined to approve the deletion of this land in the amendment proceeding "without a better understanding of the relevant facts," which it

¹⁵This acreage determination, which was based on a September 10, 2001, filing of Edison that contained revised Exhibit K drawings, supersedes the earlier estimates of non-transmission line federal land cited in this order.

anticipated would be developed in this relicensing proceeding. Southern California Edison Company, 95 FERC ¶61,188 at pp. 61,668-69.

19. In the FEIS, staff determined what lands and facilities are needed for project purposes under the new license. With certain exceptions, no lands outside of a 200-foot buffer zone around the project reservoir would be needed for project purposes.¹⁶ In light of Edison's failure to justify the reduction of the buffer zone to one that would, in places, be a very short distance from the reservoir's high water mark, the project boundary around the reservoir will be established at 200 feet, measured horizontally from the exterior margin of the reservoir at its normal maximum high water elevation, except that, where the existing project boundary is less than 200 horizontal feet from the high water elevation, the boundary will remain the same. Accordingly, paragraph (D) requires Edison to revise exhibits A, F, and G to reflect the new project facilities, description, and boundary as provided here.

Access Roads

20. The Director amended the license to delete all except 375 feet of transmission lines from the project boundary, but deferred the decision on whether to delete the transmission line access roads to allow the environmental effects of removing the roads to be considered in this relicensing proceeding. Staff concludes, in the FEIS, that all of the transmission line access roads, except as noted below, should be deleted from the project boundary.

21. Some of the access roads proposed by Edison to be removed from the project boundary continue to provide project-related purposes including access to the dam, powerhouse, the penstocks and flow conduit, the microwave tower used for project communication, the newly designated communication cable, and a private boat ramp used by Edison to perform maintenance on Redinger Reservoir. Accordingly, Edison will continue to be responsible for maintenance of 4.5 miles of access roads 2, 3, 4, 6, 7, 8, 9, 12, and 20 (as designated by Edison in table 1 and figure 1 of Appendix E-14 of the license application), and to update its Road Management Plan, in consultation with the Forest Service, to include specific maintenance responsibilities for the access roads used for project purposes in accordance with the Forest Service's 4(c) condition number 11.

¹⁶ These exceptions are portions of a boat launch and an overflow parking area.

22. The remaining transmission line access roads serve no project purpose and should be excluded from the new license. However, as with the transmission lines that were authorized to be removed from the project in the amendment proceeding, exclusion of these transmission line access roads will be conditioned on the prior receipt of permits or approvals from the Forest Service and on the filing of such permits or approvals with the Commission. Until then, these access roads will be included in the new license and will remain within the project boundary. Ordering paragraphs (G) and (H) below set out the procedures for the removal of these roads from the license.

Other Project Facilities

23. In addition, the project boundary must reflect certain features that are needed for the continued operation of Big Creek 4 under the new license. The land required for Edison's continued operation of four gages used to measure water surface elevations of Redinger Reservoir and flows from the dam, the powerhouse, and Willow Creek, are needed to ensure compliance with minimum flows and should be included in the project boundary. The land required for the construction of the Willow Creek general recreational access trail would serve project purposes and should be included in the project boundary. The parking lot associated with the Redinger Reservoir public boat launch and the nearby overflow parking lot, portions of which Edison proposes to remove from the project boundary, are needed to provide public access to project waters, and should be retained in the project boundary, along with sufficient abutting land to allow for future expansion of these facilities. Accordingly, paragraph (D) requires Edison to revise exhibits A, F, and G to reflect the new project facilities, description, and boundary as provided here.

SECTION 18 FISHWAY PRESCRIPTIONS

24. Section 18 of the FPA, 16 U.S.C. § 811, provides that the Commission shall require the construction, maintenance, and operation by a licensee of such fishways as may be prescribed by the Secretary of the Interior or the Secretary of Commerce, as appropriate. Neither agency filed fishway prescriptions for the project.

SECTION 4(c) OF THE FPA

25. Portions of Big Creek 4 are located within the Sierra National Forest, which is a reservation, as defined by Section 3(2) of the FPA, 16 U.S.C. § 796(2). Section 4(c) of the FPA, 16 U.S.C. § 797(c), states the Commission may issue a license for a project

within a reservation only if it finds that the license will not interfere or be inconsistent with the purpose for which such reservation was created or acquired. The Sierra National Forest was created by presidential proclamation on February 14, 1893. See 27 Stat. 1059. That proclamation does not specify the purposes for which the forest was created. However, the Organic Administrative Act of 1897, 16 U.S.C. § 475, stipulates that all national forests lands were established and administered only for water protection and timber production. (U.S. Statutes at Large, 58th Cong., 1905-1907, Vol.33, p.628.). The introductory statement of the Forest Service's appended Section 4(c) conditions notwithstanding, these are the only purposes that are relevant for a Commission determination under Section 4(c) as to whether a project will interfere or be inconsistent with the purpose for which the reservation (National Forest) was created or acquired. See *Rainsong Company v. FERC*, 106 F.3d 269 (9th Cir. 1997). Therefore, I find that this license will not interfere or be inconsistent with the purposes for which the Sierra National Forest was created.

26. Section 4(e) also requires that the Commission include in licenses for projects located within federal reservations all conditions that the Secretary of the department under whose supervision the reservation falls shall deem necessary for the adequate protection and utilization of the reservation. On June 16, 2000, the Forest Service filed its preliminary Section 4(e) conditions. Those conditions required, among other things, maintaining Edison's existing 3-cfs minimum flow between Dam No. 7 and the confluence of Willow Creek with the San Joaquin River and a 20-cfs minimum flow downstream of that point.

27. On May 22, 2002, the Forest Service timely filed its final conditions for the project pursuant to FPA Section 4(e). Condition Nos. 1 through 3 require obtaining Forest Service approval of final project design and project changes, and yearly consultation with the Forest Service on the protection and development of natural resources. Condition No. 5 specifies a minimum flow of 15 cfs for the period October 1 to April 1, as measured at the gage locations between the dam and Willow Creek, provided the combined flow of the San Joaquin River and Willow Creek is maintained at 20 cfs. Condition Nos. 4 and 6 include provisions for adaptive management of flow releases. Condition Nos. 7 and 8 require the development of plans for the protection of native aquatic species and federally listed threatened and endangered species. Condition Nos. 9, 10, 11, and 12 require a recreation survey and plan, a plan for the protection and maintenance of roads and a visual resource plan to evaluate, among other things, building colors, landscaping and screening. Condition Nos. 13 through 16 and 30 stipulate development of plans for fire prevention and response, vegetation management, sediment

management, noxious weed control, and hazardous substances. Conditions 17, 24, 25, 27, 28, and 29 have provisions for maintenance of improvements; hazard responsibilities, risks and liabilities; signs; pesticide restrictions; area access; and road use. Condition Nos. 18 through 23, 26, 32, and 33 address forest management and administration concerns regarding the continued occupancy and use of national forest lands. Condition 31 has a provision to implement the Cultural Resources Management Plan.

28. For the Forest Service's 4(e) conditions, Article 401 requires the licensee to file plans for Commission approval, notify the Commission of planned and unplanned deviations from license requirements, and file an amendment application for any long-term changes in project operations or facilities for mitigating environmental impacts. The Forest Service's Section 4(e) conditions are set forth in Appendix A and are made conditions of the license by ordering paragraph (E).

WATER QUALITY CERTIFICATION

29. Under Section 401(a)(1) of the Clean Water Act (CWA), 33 U.S.C. § 1341(a)(1), the Commission may not issue a license for a hydroelectric project unless the state water quality certifying agency has either issued water quality certification (WQC) for the project or has waived certification by failing to act on a request for certification within a reasonable period of time, not to exceed one year. Section 401(d) of the CWA, 33 U.S.C. § 1341(d) provides that state certification shall become a condition of any federal license or permit that is issued. Only a reviewing court may revise or delete these conditions.¹⁷

30. On June 13, 2003, the State of California Water Resources Control Board (Water Board) issued its water quality certification, consisting of 18 water quality conditions, which are set forth in Appendix B of this order, and incorporated in the license by ordering paragraph (F). For the Water Board conditions, Article 401 requires the licensee to file plans for Commission approval, notify the Commission of planned and unplanned

¹⁷ As the Commission has acknowledged in *Kennebec Water Power Company*, 81 FERC ¶ 61,254 (1997), it is required by the decision of the United States Court of Appeals in *American Rivers, et al. v. FERC*, 129 F.3d 99 (D.C. Cir. 1997), to accept all conditions in a WQC as conditions on a license even if it believes that the conditions may be outside the scope of Section 401. Nothing in the conditions of the WQC shall be viewed as restricting the Commission's ability or the licensee's obligation, under the FPA, to take timely action necessary to protect human life or the environment.

deviations from license requirements, and file an amendment application for long-term changes in project operations or facilities for mitigating environmental impacts.

31. In addition to the Water Board's standard conditions and reservations of authority, project-specific conditions required include: establishing an Adaptive Management Technical Review Group, maintaining a minimum flow of 15 to 20 cfs depending on time of the year and type of water year; developing an Adaptive Management Plan for River Flows; developing a Native Aquatic Species Management Plan; developing a Sediment Management Plan; and obtaining authorization for any taking of a threatened or endangered species.

MINIMUM FLOWS INTO THE BYPASSED REACH

32. Edison proposed and the FEIS recommended maintaining the existing 3-cfs minimum flow between the dam and the confluence of Willow Creek with the San Joaquin River, and maintaining a 20-cfs minimum flow downstream of that point. Based on the physical habitat characteristics in the bypassed reach, the expected temperature regime in the bypassed reach, the stated resource agency management objective for the reach, and the fact that the native transition zone fish community seemed to be doing well under the existing flow regime, the FEIS concluded that Edison's proposed flow regime would adequately protect the fishery resources in the bypassed reach.¹⁶

33. The Forest Service in its preliminary Section 4(e) conditions specified minimum flows consistent with Edison's proposal. However, the Forest Service's final Section 4(e) conditions required a minimum flow of 15 cfs October 1 to April 1, as measured at a location between the dam and the confluence of Willow Creek, during dry and critically dry water years, provided the combined flow of the San Joaquin River and Willow Creek is maintained at 20 cfs. The Forest Service required a 20-cfs minimum flow at all other times.¹⁹ The Forest Service based its flow requirement on an evaluation of 20 years of past flow data for the bypassed reach that demonstrated that the existing flows between

¹⁶The FEIS found that as flows increase in the bypassed reach, rearing habitat for hardhead decreases. Hardhead represent one of several species that comprise the native transition zone fish community, which are targeted for management by the resource agencies.

¹⁹The Water Board's condition No. 11 required minimum flows consistent with the Forest Service's final 4(c) condition No. 5.

the dam and Willow Creek were often higher than the existing 3-cfs minimum flow. The Forest Service determined that flows exceeding 15 cfs occurred 77 percent of the time. Therefore, the Forest Service concluded that releases from the dam of at least 15 cfs would better represent the existing flow regime in the bypassed reach, which has resulted in persistence of the native transition zone fish community.

34. Although the FEIS concluded that habitat conditions for some species life stages decrease as flows increase from the existing minimum flow requirement of 3 cfs, the native fish community in the bypassed reach has persisted under a flow regime that frequently exceeds 15 cfs. This license also contains Forest Service 4(c) condition No. 7 and Water Board condition No. 13 for Edison to develop and implement a Native Aquatic Species Management Plan that would include monitoring of aquatic communities to determine if changes in project operations or minimum flows are needed based on monitoring results. Therefore, I conclude that the Forest Service's and Water Board's minimum flow and monitoring requirements included in this license would be adequate to protect and maintain the existing native transition zone fish community in the bypassed reach.

THREATENED AND ENDANGERED SPECIES

35. Section 7(a)(2) of the Endangered Species Act of 1973 (ESA), 16 U.S.C. § 1536(a)(2), requires federal agencies to ensure that their actions are not likely to jeopardize the continued existence of federally listed threatened and endangered species, or result in the destruction or adverse modification of designated critical habitat. That section further requires formal consultation with the FWS if a proposed action may affect listed species, unless through informal consultation, the action agency and the FWS agree that the action is not likely to adversely affect listed species. Big Creek 4 is located within the range of the following federally listed species: Mariposa pussypaws, California red-legged frog, bald eagle, and the valley elderberry longhorn beetle.

36. On September 27, 2001, Commission staff submitted a biological assessment (BA) to the FWS. In the BA, Commission staff concluded that the project: (1) would have "no effect" on Mariposa pussypaws, California red-legged frog, and bald eagle; and (2) would "not likely adversely affect" the valley elderberry longhorn beetle. Commission staff requested formal consultation should FWS disagree with any of these determinations.

37. On January 15, 2002, FWS filed a response saying it did not concur with Commission staff's determinations of "no effect" for California red-legged frog and bald eagle, and "not likely to adversely affect" for the valley elderberry longhorn beetle. FWS

recommended the Commission consider the effects of other interrelated and interdependent actions, such as the operations of the rest of the Big Creek System in its BA for this project. FWS also requested more information on relevant management plans, the bald eagle, and the valley elderberry longhorn beetle at the project.

38. On January 31, 2002, Commission staff sent a letter to FWS restating that none of the listed species are known to exist at the project, except bald eagles, which staff had concluded would not be affected by relicensing the project. Commission staff indicated that there were no interdependent or interrelated actions to be considered for listed species, and that it had no additional information on the bald eagle or valley elderberry longhorn beetle. Commission staff said formal consultation should be completed by April 15, 2002, and requested FWS's biological opinion (BO) by May 30, 2002.

39. On June 24, 2002, Commission staff notified FWS that its BO was overdue. In response, FWS filed a second request for additional information on July 29, 2002. Again, by letter dated August 14, 2002, Commission staff said it had no additional information to provide, saying it had already provided the "best available scientific and commercial information." Nevertheless, in that letter, Commission staff used information already provided to the FWS and developed a "second analysis" to try and answer some of FWS's specific questions. Commission staff indicated that this "second analysis" should not be used to reset the start date (January 15, 2002) for formal consultation and asked FWS to provide its BO (due May 30, 2002) as soon as possible.

40. On October 17, 2003, FWS filed its BO for the project concluding that the project is "likely to adversely affect" the bald eagle and valley elderberry longhorn beetle but is not likely to jeopardize the continued existence of these two species.²⁰ No critical habitat has been proposed or designated for the bald eagle and no designated critical habitat for the valley elderberry longhorn beetle exists within the project area.

41. WS included in its BO an incidental take statement with three reasonable and prudent measures and eight terms and conditions to minimize incidental take. We have included articles in the license that implement FWS's pertinent terms and conditions: (1) develop a bald eagle management plan (Article 404), and (2) survey for valley elderberry longhorn beetles prior to disturbing elderberry shrubs (Article 405). We note that term and condition No. 8 in the incidental take statement requires that any new owner of lands

²⁰FWS concluded that the proposed project is "not likely to adversely effect" the California red-legged frog.

in the project area, which were previously owned by the licensee, including holders of any conservation easements, must agree in writing to abide by all the terms and conditions in the BO. Condition No. 8 appears to require the Commission to require owners of lands not under Commission jurisdiction to agree, in writing, to abide by provisions of the terms and conditions in the BO. To implement term and condition No. 8, in a manner that reflects the Commission's jurisdictional limits, we will require the licensee to consult and obtain FWS concurrence for any proposed fee title, easement, lease, or other conveyance of project lands that are under Commission jurisdiction that may affect threatened and endangered species (Article 406).

RECOMMENDATIONS OF FEDERAL AND STATE FISH AND WILDLIFE AGENCIES AND SECTION 10(J) PROCESS

42. Section 10(j) of the FPA, 16 U.S.C. § 803(j)(1), requires the Commission, when issuing a license, to include license conditions based upon recommendations of federal and state fish and wildlife agencies submitted pursuant to the Fish and Wildlife Coordination Act, 16 U.S.C. §§ 661 et seq., to "adequately and equitably protect, mitigate damages to, and enhance, fish and wildlife (including related spawning grounds and habitat)" affected by the project. Neither FWS, nor the California Department of Fish and Game filed any recommendations under Section 10(j).

OTHER ISSUES

(A) Administrative Conditions

43. The Commission collects annual charges from licensees for administration of the FPA, and to reimburse the United States for the occupancy and use of any federal lands, including the transmission line related land discussed in the Project Boundary Section of this license order. Article 201 provides for the collection of funds for administration of the FPA.

44. The Commission requires licensees to file sets of approved project drawings on microfilm and in electronic file format. Article 202 provides for the filing of these drawings.

45. The Commission requires that for new major licenses, licensees must set up and maintain an amortization reserve account upon license issuance. Article 203 provides for the establishment of the account.

46. Some projects directly benefitted from headwater improvements that were constructed by other licensees, the United States, or permittees. Article 204 requires the licensee to reimburse such entities for these benefits if they were not previously assessed and reimbursed.

(B) Staff gage for boaters using the bypassed reach.

47. Boaters camping in the area, or traveling long distances to the bypassed reach, may not have access to real-time flow information being provided on the flow phone and Internet site under the recreation plan required by Forest Service 4(e) condition No. 10. Therefore, Article 402 requires the installation of a staff gage marked in 500-cfs increments at a location downstream of the confluence of Willow Creek and the San Joaquin River.

(C) Cultural Resources

48. On February 26, 2002, the California State Historic Preservation Officer, and the Commission executed a Memorandum of Agreement with an attached Cultural Resources Management Plan (CRMP) for managing historic properties that may be affected by relicensing of Big Creek 4. Execution and implementation of this agreement satisfies the Commission's responsibilities under Section 106 of the National Historic Preservation Act, 16 U.S.C. § 470s. Edison and the Forest Service signed the Memorandum of Agreement as concurring parties. Implementation of the CRMP would provide protection for historic properties located within the project boundary. Forest Service indicates, in its final Section 4(e) condition no. 31, that Edison should implement the CRMP dated April 2002, and attached to the Memorandum of Agreement. Article 403 requires the licensee to implement the Memorandum of Agreement, including but not limited to the CRMP for the project.

(D) North Fork Mono Tribe's Issues

49. In November, 2002, the Honorable Ron Goode, Chair of the North Fork Mono Tribe, submitted for filing an agreement between the North Fork Mono Tribe and Edison. Under the terms of the agreement, North Fork Mono Tribe withdrew opposition to the relicensing of Big Creek 4, and Edison agreed to specifically address five conditions for relicensing raised by the Tribe. The conditions that North Fork Mono and Edison resolved were notification to the Tribe of the use of chemicals and herbicides on native

plants; relocation of seven power poles and power lines that cross a native archaeological site; notification within two weeks of the date for the re-recording of the Sam Daniels archaeological site allowing the presence of tribal monitors; realignment of the Horseshoe Bend Trail away from the project penstock and stabilizing parts of the trail; and providing a \$30,000 donation to the Sierra Mono Museum.

50. Although North Fork Mono Tribe withdrew its motion to intervene based upon the agreement with Edison, the Tribe requests that the Commission address in this order its claim for compensation from the licensee for the continuing and pre-project damage to tribal waters, lands, cultural resources, archaeological and historic sites caused by the construction of dams, plants, penstocks or roadways. It has been long established that the Commission has no authority to adjudicate claims for, or require payment of, damages.²¹ To address a project's continuing environmental effects, the Commission can require licensees to take steps to improve or enhance various resources affected by a project, as we have done here. However, the broadest possible construction of its powers under Sections 4(e) and 10(a)(1) does not allow the Commission to require a licensee to grant a tribe compensation for past effects

STATE AND FEDERAL COMPREHENSIVE PLANS

51. Section 10(a)(2) of the FPA, 16 U.S.C. § 803(a)(2)(A), requires the Commission to consider the extent to which a hydroelectric project is consistent with federal and state comprehensive plans for improving, developing, or conserving waterways affected by the project.²² Under Section 10(a)(2)(A), federal and state agencies filed 39 comprehensive plans that address various resources in California. Staff identified and reviewed 9 plans relevant to Big Creek 4.²³ No inconsistencies were found.

²¹ See City of Tacoma Washington, 84 FERC ¶ 61,107 (1998).

²² Comprehensive plans for this purpose are defined at 18 CFR 2.19 (2003).

²³ (1) Recreation Outlook in Planning District 2. California Department of Parks and Recreation, 1980; (2) The California Water Plan: projected use and available water supplies to 2010, Bulletin 160-83, 1983. California Department of Water Resources; (3) California water plan update. Bulletin 160-93, 1994. California Department of Water Resources; (4) Water quality control plan report, 1975. California State Water Resources Control Board; (5) Recreation needs in California, 1983. California-the Resources Agency, Department of Parks and Recreation; (6) North American Waterfowl Management Plan, 1986, U.S. Department of the Interior, Fish and Wildlife Service and

APPLICANTS PLANS AND CAPABILITIES

52. In accordance with Sections 10(a)(2)(C) and 15(a) of the PPA, 16 U.S.C. §§ 803(a)(2)(C) and 808(a), the staff has evaluated Edison's record as a licensee with respect to the following: (1) conservation efforts; (2) compliance history and ability to comply with the new license; (3) safe management, operation, and maintenance of the project; (4) ability to provide efficient and reliable electric service; (5) need for power; (6) transmission services; (7) cost effectiveness of plans; and (8) actions affecting the public. I concur with staff's findings in each of the following areas.

(A) Conservation Efforts

53. PPA Section 10(a)(2)(C) requires the Commission to consider the extent of electric consumption efficiency programs in the case of license applicants primarily engaged in the generation or sale of electric power. Edison is such an applicant. Edison has programs to promote cost-effective conservation and load management for residential, commercial, industrial, and agricultural customers. Staff concludes that, through these programs, Edison is making satisfactory efforts to conserve electricity and reduce peak hour demands.

(B) Compliance History and Ability to Comply with the New License

54. Staff has reviewed Edison's compliance with the terms and conditions of the existing license. Staff finds that Edison's overall record of making timely filings and compliance with its license is satisfactory.

(C) Safe Management, Operation, and Maintenance of the Project

55. Staff has reviewed Edison's management, operation, and maintenance of Big Creek 4 pursuant to the requirements of 18 C.F.R. Part 12 of the Commission's

Canadian Wildlife Service; (7) Fisheries USA: The Recreational Fisheries Policy of the U.S. Fish and Wildlife Service, undated, U.S. Fish and Wildlife Service; (8) Sierra National Forest land and resource management plan, 1992, U.S. Department of Agriculture, Forest Service; and (9) Central Valley Habitat Joint Venture Implementation Plan: A Component of the North American Waterfowl Management Plan, 1990, U.S. Department of the Interior, Fish and Wildlife Service, California Department of Fish and Game, California Waterfowl Association, and Ducks Unlimited.

Engineering Guidelines and periodic Independent Consultant's Safety Inspection Reports. Staff concludes that the dams and other project works are safe, and that there is no reason to believe that Edison cannot continue to safely manage, operate, and maintain these facilities under a new license.

(D) Ability to Provide Efficient and Reliable Electric Service

56. Staff reviewed Edison's plans and its ability to operate and maintain the project in a manner most likely to provide efficient and reliable electric service. Based on staff's review, staff concludes that Edison has been operating the project in an efficient manner within the constraints of the existing license and is likely to continue to do so under a new license.

(E) Need for Power

57. The project, with an installed capacity of 98,822 MW, historically has generated an annual average of 439.4 gigawatt-hours (GWh) of renewable energy. To assess the need for power within the framework of restructuring energy markets brought about by de-regulation, staff looked at the forecasts of energy demand and planned capacity additions for the Western System Coordinating Council (WSCC) region. For the WSCC region as a whole, the peak demand is projected to grow at an average annual compound growth rate of 2.1 percent and planned generation additions to meet summer capability requirements total 30,214 MW over the 2000-2009 period. Based on this, staff concludes that there is a need for power in both the short and long term. Continued operation of Big Creek 4 will help to maintain the currently available capacity, contributing to both the near term (through 2009) and long term (beyond 2009) capacity and energy needs of Edison, California, and the WSCC region.

58. Staff concludes that present and future use of the project's power, its low cost, its displacement of nonrenewable fossil-fired generation, its contribution to a diversified generation mix and its maintenance of existing capacity support a finding that the power from Big Creek 4 will help meet a need for power in the state and region in both the short and long term.

F) Transmission Services

59. The project's transmission facilities include the transmission line, generator leads, station transformers, and buses located at the powerhouse. Edison proposes no changes that would affect transmission services.

(G) Cost Effectiveness of Plans

60. Edison is not proposing to increase capacity at Big Creek 4. Edison proposes environmental and recreational enhancements to the project, the need for usefulness, and economic impact of which are discussed above in this order and in the FEIS for Big Creek 4. Staff concludes that the project, as presently configured and as operated according to this order, is consistent with environmental considerations, and fully develops the economic hydroelectric potential of the site. (H) Actions Affecting the Public

61. Big Creek 4 generates electricity used to serve the needs of the public. Edison also pays taxes annually to local and state governments and the project provides employment opportunities. Staff concludes that environmental enhancement measures and recreational improvements included in the license will generally improve environmental quality, particularly for aquatic and wildlife resources, and will have a beneficial effect on public use of project facilities for recreational purposes.

COMPREHENSIVE DEVELOPMENT

62. Sections 4(c) and 10(a)(1) of the FPA, 16 U.S.C. §§ 797(c) and 803(a)(1), require the Commission, in acting on license applications, to give equal consideration to all the power and development purposes and to the purposes of energy conservation, the protection, mitigation of damage to, and enhancement of fish and wildlife; the protection of recreational opportunities; and the preservation of other aspects of environmental quality. Any license issued shall be such as in the Commission's judgment will be best adapted to a comprehensive plan for improving or developing a waterway for all beneficial public uses.

63. In determining whether a proposed project will be best adapted to a comprehensive plan for developing a waterway for beneficial public purposes, the Commission considers a number of public interest factors, including the economic benefits of project power. Under the Commission's approach to evaluating the economics of hydropower projects, as articulated in Meat Corporation,²⁴ the Commission employs

²⁴72 FERC ¶ 61,207 (1995).

an analysis that uses current costs to compare the costs of the project and likely alternative power, with no forecasts concerning potential future inflation, escalation, or deflation beyond the license issuance date. The basic purpose of the Commission's economic analysis is to provide a general estimate of the potential power benefits and the costs of a project, and reasonable alternatives to project power. The estimate helps to support an informed decision concerning what is in the public interest with respect to a proposed license. In making its decision, the Commission considers the project power benefits both with the applicant's proposed mitigation and enhancement measures and with the Commission's modifications and additions to the applicant's proposal.

64. To determine whether the proposed project is currently economically beneficial, the project's cost is subtracted from the value of the project's power. Edison's proposal would produce about 439.1 GWh of energy annually at a cost of about 9.4 mills/kWh, or about \$4,129,600 per year. The staff determined the annual value of project power would be \$17,563,900 or 40.0 mills/kWh.²⁵ Thus, Edison's power would cost about \$13,434,300 or 30.6 mills/kWh less than the likely alternative cost of power. When licensed in accordance with Commission staff and agency conditions adopted herein (assuming full implementation of wastewater releases and flow augmentation), the project power would produce about 436.0 GWh of energy annually at a cost of about 9.5 mills/kWh, or about \$4,140,100 per year. The staff determined that the annual value of project power with these conditions would be \$17,439,900, or 40.0 mills/kWh. Edison's power under these conditions would cost about \$13,299,800. Thus, the project's power would cost about 30.5 mills/kWh less than the likely alternative cost of power of 40 mills/kWh.

65. In analyzing public interest factors, the Commission takes into account that hydroelectric projects offer unique operational benefits to the electric utility system (ancillary benefits). These benefits include their value as almost instantaneous load-following response to dampen voltage and frequency instability on the transmission system, system-power-factor-correction through condensing operations, and a source of power available to help in quickly putting fossil-fuel based generating stations back on line following a major utility system or regional blackout. In the competitive California market, the ability of hydropower projects to provide ancillary services to the grid can increase the benefits of the project.

²⁵The alternative power cost of 40.0 mills per kWh is based on data obtained from the California Energy Commission. See FEIS on page 135.

66. Issuance of a new license would provide a beneficial, dependable, and inexpensive source of electric energy; the 98.8 MW of electric energy generated from renewable resources would continue to offset the use of fossil-fueled, steam-electric generating plants, thereby conserving nonrenewable resources and reducing atmospheric pollution; and the staff recommended and agency required environmental protection, mitigation, and enhancement measures would protect or enhance water quality, fishery resources, terrestrial resources, and land uses; improve public use of recreation facilities and access; and protect historic and archeological resources within the area affected by project operation.

LICENSE TERM

67. Pursuant to Section 15(e) of the FPA, 16 U.S.C. § 808 (e), relicense terms shall not be less than 30 years nor more than 50 years from the date on which the license is issued. The Commission's general policy is to establish 30, 40, or 50-year terms for projects with, respectively, little, moderate, or extensive redevelopment, new construction, new capacity, or additional environmental measures.²⁶ It is the Commission's policy to coordinate to a reasonable extent the license expiration dates of projects in a river basin, in order that subsequent relicense proceedings can also be coordinated.²⁷

68. The seven licensed projects in the Big Creek System are located in the Upper San Joaquin River Basin. The existing license term expiration dates for the other six projects in the Big Creek System are: Project No. 2086 expires on August 31, 2003; Project No. 2174 expires on March 31, 2005; Project No. 2085 expires on November 30, 2007; Project Nos. 120, 2175 and 67 expire on February 28, 2009.

69. The amount of proposed new investment in environmental measures at Big Creek 4 at issue here is relatively modest. However, to establish the license term for Big Creek 4, account must be given to the fact that it is one unit of the Big Creek System which is an integrated operation consisting of nine powerhouses, six reservoirs, conveyance

²⁶See Wisconsin Power Company, 94 FERC ¶ 61,037, at p.61,164 (2001).

²⁷In issuing new and original licenses, the Commission will coordinate the expiration dates of licenses to the maximum extent possible, to maximize future consideration of cumulative impacts at the same time in contemporaneous proceedings at relicensing. See 18 C.F.R. § 2.23(2003).

facilities, access roads and transmission facilities authorized under seven Commission licenses, all of which are operated together to maximize the value of hydropower produced from the available water supply.

70. In order to facilitate the Commission's future coordinated treatment of Big Creek 4 and the six other projects the expiration date for Big Creek 4 should coincide with the expiration dates for the other six projects in the Big Creek System. I will issue the license for Big Creek 4 for a term of 36 years.²⁸ This will enable issuance of licenses for the other six projects in the Big Creek System for terms of at least 30 years, such that the licenses could be made to expire at about the same time.

SUMMARY OF FINDINGS

71. The FEIS contains background information, analysis of effects and support for related license articles. The design of this project is consistent with the engineering standards governing dam safety. The project will be safe if operated and maintained in accordance with the requirements of this license.

72. Based upon a review of the agency and public comments filed on the project, and the staff's independent analysis pursuant to Sections 4(c), 10(a)(1), and 10(a)(2) of the FPA, I conclude that as licensed, the Big Creek No. 4 Hydroelectric Project, with the required environmental measures and other special license conditions, will be best adapted to the comprehensive development of the San Joaquin River for beneficial public uses.

The Director orders:

(A) This license is issued to Southern California Edison Company (licensee) to operate and maintain the Big Creek No. 4 Hydroelectric Project, for a period of 36 years, effective the first day of the month in which this order is issued. The license is subject to the terms and conditions of the Federal Power Act (FPA), which is incorporated by reference as part of this license, and subject to the regulations the Commission issues under the provisions of the FPA.

(B) The project consists of:

²⁸See Wisconsin Electric Power Company, 76 FERC ¶ 61,183 (1996).

(1) All lands, to the extent of the licensee's interests in those lands, enclosed by the project boundary shown by Exhibit G included in the application for new license, filed on February 26, 1997, letter from C. E. Miller, Manager of Hydro Generation, Southern California Edison Company to the Commission Secretary and as revised per paragraph (D).

Exhibit G-	FERC Drawing No. 2017-	Showing
1	1010	Project boundary
2	1011	Project boundary
3	1012	Project boundary
4	1013	Project boundary
5	1014	Project boundary
6	1015	Project boundary
7	1016	Project boundary
8	1017	Project boundary
9	1018	Project boundary
10	1019	Project boundary
11	1020	Project boundary
12	1021	Project boundary
13	1022	Project boundary
14	1023	Project boundary
15	1024	Project boundary
16	1025	Project boundary
17	1026	Project boundary
18	1027	Project boundary
19	1028	Project boundary
20	1029	Project boundary
21	1030	Project boundary
22	1031	Project boundary
23	1032	Project boundary
24	1033	Project boundary
25	1034	Project boundary
26	1035	Project boundary
27	1036	Project boundary

Exhibit G-	FERC Drawing No. 2017-	Showing
28	1037	Project boundary
29	1038	Project boundary
30	1039	Project boundary
31	1040	Project boundary
32	1041	Project boundary
33	1042	Project boundary
34	1043	Project boundary
35	1044	Project boundary
36	1045	Project boundary
37	1046	Project boundary
38	1047	Project boundary
39	1048	Project boundary
40	1049	Project boundary
41	1050	Project boundary
42	1051	Project boundary
43	1052	Project boundary

(2) Project works consisting of:

All facilities described in exhibit A and shown in exhibit F of the application and license amendment, as revised per paragraph (D) including: (1) a 248.5-foot-high, about 954-foot-long dam (known as Dam No. 7), impounding a reservoir (Redinger Reservoir) with approximately 465 surface acres and a gross storage capacity of 35,033-acre-feet at elevation 1,403 feet National Geodetic Vertical Datum (NGVD) when the surface water is at the top of the spillway gates; (2) a net operational storage capacity of 26,119 acre-feet because the project can operate from elevation 1,403 feet NGVD to 1,320 feet NGVD (a difference of 83 feet) and an unuseable storage of 8,914 acre-feet below elevation 1,320 feet NGVD; (3) a 373-kilowatt (kW) turbine installed in Dam No. 7 to use water released for instream flow purposes, and which is connected to a 350-kW generator which leads to a 12-kilovolt (KV) local distribution system (because the generator capacity is less than the turbine capacity, the installed capacity of the Dam No. 7 turbine is 350 kW); (4) a combination penstock/pressure tunnel about 11,770 feet long with a design capacity of about 3,565 cubic feet per second (cfs); (5) one powerhouse containing two vertical shaft Francis turbines, each rated at 49,236 kW (66,000 hp) and

each connected to a 50,000 kW generator, which supplies power to Edison's electrical distribution system; (6) transformer banks at the Big Creek 4 powerhouse; (7) a 300-foot-long 220-kV transmission line extending from the Big Creek 4 powerhouse to the bus in the Big Creek 4 powerhouse switchyard; (8) the Dam No. 7 switchyard; (9) all the leads and transmission facilities from the Dam No. 7 minimum flow unit to the Dam No. 7 switchyard; (10) the 75-foot-long, 12-kV transmission line from the Dam No. 7 switchyard to pole number 842894E; (11) all transmission facilities necessary to transmit power from the Big Creek 4 powerhouse and from the Dam No. 7 minimum flow unit to the interconnected points with Edison's distribution system at the Big Creek 4 switchyard and at pole number 842894E, respectively; (12) water diverted from the San Joaquin River at Dam No. 7 is returned to the river at the powerhouse, which is located about 6.3 miles downstream, thereby bypassing the 6.2-mile-long river section known as Horseshoe Bend and the 3,500-foot-long section known as Redfinger Gorge; however, only the portion of the bypassed river located from the dam to about 1,200 feet downstream in Redfinger Gorge and the last 400 feet upstream from the powerhouse in Horseshoe Bend, is within the project boundary; (13) a 10-mile-long communication cable located between the Big Creek 4 powerhouse and the Big Creek 3 powerhouse, which is located upstream of the Big Creek 4 Project, and allows for remote operation of the Big Creek 4 Project from the Big Creek 3 Project; and (14) appurtenant facilities.

The project would operate to provide maximum generation during peak demand periods, and it would generate about 439.4 GWh of energy annually. Two transmission lines and the Big Creek 4 switchyard and related facilities, found to be nonjurisdictional by Director Order 94 FERC ¶ 62,202 (2001), will be excluded from the project boundary upon the licensee receiving all necessary permits and approvals from the Forest Service for the continued use of National Forest System lands.

Exhibit A:

The following sections of Exhibit A Section 3: Turbines and Generators, Section 4: Transmission Lines, including the transmission line from the Springfield Substation to the Maguden Substation, and Section 5: Mechanical, Electrical, and Transmission Equipment, as revised per paragraph (D).

Exhibit F:

Edison Drawing No.	Exhibit F-	FERC Drawing No. 2017-	Showing
5250757	1	1001	Details of dam No. 7: plans and elevations
5250758	2	1002	Dam No. 7 spillway gates: section and elevation
5250759	3	1003	Intake structure: plan, section, profile, and gate details
5250760	4	1004	Conduit across Willow Creek; profile and details
5250761	5	1005	Penstock and surge chamber: plan and profile
5250762	6	1006	Powerhouse plan
5250763	7	1007	Switchrack, showing interconnection point with grid
5250764	8	1008	Powerhouse elevations
5250765	9	1009	Powerhouse plot plan

(3) All of the structures, fixtures, equipment or facilities used to operate or maintain the project and located within the project boundary, all portable property that may be employed in connection with the project and located within or outside the project boundary, and all riparian or other rights that are necessary or appropriate in the operation or maintenance of the project.

(C) The Exhibits A, F, and G described above are approved and made part of the license.

(D) Within 60 days of the date of issuance of this license, the licensee shall file for Commission approval, revised Exhibits A, F, and G to reflect the project features, boundaries, and facilities as they are approved in this license order including all such features, boundaries, and facilities whose deletion from the license is conditioned on the

receipt of approvals from the Forest Service, as specified in ordering paragraphs (G) and (H) below. At the same time, the licensee shall file a statement indicating the revised amount of federal lands occupied by the project so the Commission can amend Article 201 of the license regarding the licensee's payment for the use of federal lands.

(I) This license is subject to the conditions submitted by the Forest Service under Section 4(e) of the Federal Power Act, as those conditions are set forth in Appendix A to this order.

(F) This license is subject to the conditions submitted by the California State Water Resources Control Board, under Section 401 of the Clean Water Act, as those conditions are set forth in Appendix B to this order.

(G) The project transmission line access roads not required for project purposes as described in the text of this order are deleted from the project license, effective on the date the licensee receives all necessary permits and approvals from the U.S. Forest Service for the continued use of National Forest System Lands.

(II) The deletion of the project's transmission line access roads approved in this order, and the revision of the project boundary and deletion of transmission lines and other facilities and related exhibit drawings approved in the amendment orders at 94 FERC ¶ 62,202 (2001), reh'g 95 FERC ¶ 61,188 (2001), and 98 FERC ¶ 62,139 (2002), shall be effective on the date the licensee receives all necessary permits and approvals from the Forest Service for the continued use of the National Forest System Lands. The licensee shall file copies of all permits and approvals with the Commission within 30 days of receiving the permits or approvals.

(J) Within 60 days of the effective date of the deletions specified in ordering paragraph (H), the licensee shall file for Commission approval, revised exhibits A, F, and G drawings showing and describing the project features, boundaries, and facilities, as well as a statement indicating the revised amount of federal lands occupied by the project so the Commission can amend Article 201 of the license regarding the licensee's payment for the use of federal lands.

(J) This license is subject to the articles set forth in Form L-1 (October 1975), entitled "Terms and Conditions of License for Constructed Major Project Affecting Lands of the United States," 54 FPC 1792, 1799 (October 1975), and the following additional articles:

Article 201. Administrative Annual Charges. The licensee shall pay the United States the following annual charges, effective as of the first day of the month in which this license is issued, for the purposes of:

- a. Reimbursing the United States for the Commission's administrative costs, pursuant to Part I of the Federal Power Act, as determined in accordance with the provisions of the Commission's regulations in effect from time to time. The authorized installed capacity for that purpose is 98,822 kilowatts.
- b. Recompensing the United States for the use, occupancy and enjoyment of 1,201.82 acres of its lands, other than for the use of transmission lines.
- c. Recompensing the United States for the use, occupancy and enjoyment of 123.42 acres of lands for transmission lines.

Article 202. Exhibit Drawings. Within 60 days of the date of issuance of the license, the licensee shall file the approved exhibit drawings in aperture card and electronic file formats.

- a) Four sets of the approved exhibit drawings shall be reproduced on silver or gelatin 35mm microfilm. All microfilm shall be mounted on type D (3-1/4" X 7-3/8") aperture cards. Prior to microfilming, the FERC Drawing Number (e.g., P-2017-1001 through P-2017-1052) shall be shown in the margin below the title block of the approved drawing. After mounting, the FERC Drawing Number shall be typed on the upper right corner of each aperture card. Additionally, the Project Number, FERC Exhibit (e.g., F-1, G-1, etc.), Drawing Title, and date of this license shall be typed on the upper left corner of each aperture card.

Two of the sets of aperture cards along with form FERC-587 shall be filed with the Secretary of the Commission, ATTN: OEP/DHAC. The third set shall be filed with the Commission's Division of Dam Safety and Inspections San Francisco Regional Office. The remaining set of aperture cards and a copy of form FERC-587 shall be filed with the Bureau of Land Management office at the following address:

State Director
Bureau of Land Management
Branch of Adjudication and Records (CA-9433)

2800 Cottage Way, Suite W1834
 Sacramento, CA 95825-1886
 ATTN: FERC Withdrawal Recordation

- b) The licensee shall file two separate sets of exhibit drawings in electronic format with the Secretary of the Commission, ATTN: OEP/DHAC. A third set shall be filed with the Commission's Division of Dam Safety and Inspections, San Francisco Regional Office. Each drawing must be a separate electronic file, and the file name shall include: FERC Drawing Number, FERC Exhibit, Drawing Title, date of this license and file extension [e.g., P-2017-1001.F-1_Details of Dam No. 7.... 11-21-2003.TIF]. Electronic drawings shall meet the following format specification:

IMAGERY - black & white raster file
 FILE TYPE - Tagged Image File Format, (TIFF)CCITT Group 4
 RESOLUTION - 300 dpi
 DRAWING SIZE FORMAT - 24" X 36" (min), 28" X 40" (max)
 FILE SIZE - less than 1 MB

- c) The licensee shall file three separate sets of the project boundary data in a geo-referenced electronic format (such as ArcView shape files, GeoMedia files, MapInfo files, or any similar format) with the Secretary of the Commission, ATTN: OEP/DHAC. The file name shall include: FERC Project Number, data description, date of this license, and file extension [e.g., P-2017_boundary vector data, 11-21-2003.SHP]. The electronic boundary data must be positionally accurate to ±40 feet in order to comply with National Map Accuracy Standards for maps at a 1:24,000 scale. Each sheet must contain a minimum of three known reference points. The latitude and longitude coordinates, or state plane coordinates, or each reference point must be shown. The data must include a text file describing the map projection used (i.e., UTM, State Plane, Decimal Degrees, etc), the map datum (i.e., North American 27, North American 83, etc.), and the units of measurement (i.e., feet, meters, miles, etc.). The text file name shall include: FERC Project Number, data description, date of this license, and file extension [e.g., P-2017_boundary metadata, 11-21-2003.TXT].

Article 203. Amortization Reserve. Pursuant to Section 10(d) of the Federal Power Act, a specified reasonable rate of return upon the net investment in the project shall be used for determining surplus earnings of the project for the establishment and maintenance of amortization reserves. The licensee shall set aside in a project amortization reserve account at the end of each fiscal year one-half of the project surplus

earnings, if any, in excess of the specified rate of return per annum on the net investment.

To the extent that there is a deficiency of project earnings below the specified rate of return per annum for any fiscal year, the licensee shall deduct the amount of that deficiency from the amount of any surplus earnings subsequently accumulated, until absorbed. The licensee shall set aside one-half of the remaining surplus earnings, if any, cumulatively computed, in the project amortization reserve account. The licensee shall maintain the amounts established in the project amortization reserve account until further order of the Commission.

The specified reasonable rate of return used in computing amortization reserves shall be calculated annually based on current capital ratios developed from an average of 13 monthly balances of amounts properly included in the licensee's long-term debt and proprietary capital accounts as listed in the Commission's Uniform System of Accounts. The cost rate for such ratios shall be the weighted average cost of long-term debt and preferred stock for the year, and the cost of common equity shall be the interest rate on 10-year government bonds (reported as the Treasury Department's 10-year constant maturity series) computed on the monthly average for the year in question plus 4 percentage points (400 basis points).

Article 204. Headwater Benefits. If the licensee's project was directly benefited by the construction work of another licensee, a permittee, or the United States on a storage reservoir or other headwater improvement during the term of the original license (including extensions of that term by annual licenses), and if those headwater benefits were not previously assessed and reimbursed to the owner of the headwater improvement, the licensee shall reimburse the owner of the headwater improvement for those benefits, at such time as they are assessed, in the same manner as for benefits received during the term of this new license. The benefits will be assessed in accordance with Part 11, Subpart B of the Commission's regulations.

Article 301. As-Built Drawings. Within 90 days of completion of construction of the facilities directed by any article of this license (including but not limited to recreational facilities), the licensee shall file for Commission approval, revised Exhibits A, F, and G to describe and show the project facilities as-built.

Article 401. Commission Approval, Reporting, and Filing of Amendments.

- (a) Requirement to File Plans for Commission Approval

Various conditions of this license found in the U. S. Forest Service's (Forest Service's) Final Section 4(e) conditions (Appendix A) and the State Water Resources Control Board's (Water Board) final section 401 of the CWA conditions (Appendix B) require the licensee to prepare plans and reports in consultation with the Technical Review Group (TRG) or other entities for approval by the Forest Service or Water Board for submittal to the Commission and implement specific measures without prior Commission approval. Each such plan and report shall also be submitted to the Commission for approval. These plans are listed below.

WQC condition no.	Forest Service condition no.	Plan name	Due date
12	6	Adaptive management plan for river flows	within 1 year of license issuance
13	7	Native aquatic species management plan	within 1 year of license issuance
	10	Recreation plan	within 1 year of license issuance
	11	Transportation system management plan	within 1 year of license issuance
	12	Visual resource plan	within 1 year of license issuance
	13	Fire prevention and response plan	within 1 year of license issuance
	14	Vegetation management plan	within 1 year of license issuance
14	15	Sediment management plan	within 6 months of license issuance
	16	Noxious weed management plan	within 1 year of license issuance
	30	Hazardous substance plan	within 1 year of license issuance and at least 60 days prior to land disturbance
15		Comprehensive plan for standard maintenance and repair activities or specific maintenance and repair proposal for any non-emergency work involving the river	unspecified for comprehensive plan; at least 30 days prior to work for specific proposals

The licensee shall submit to the Commission documentation of its consultation, copies of comments and recommendations made in connection with the plan, and a description of how the plan accommodates the comments and recommendations. If the

licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information. The Commission reserves the right to make changes to any plan submitted. Upon Commission approval the plan becomes a requirement of the licensee, and the licensee shall implement the plan or changes in project operations or facilities, including any changes required by the Commission.

- (b) Requirement to Notify Commission of Planned and Unplanned Deviations from License Requirements

Two Forest Service conditions in Appendix A and one WQC condition in Appendix B would allow the licensee to temporarily modify project operations under certain conditions. The Commission shall be notified prior to implementing such modifications, if possible, or in the event of an emergency, as soon as possible, but no later than 10 days after each such incident. The California Department of Fish and Game and the U.S. Fish and Wildlife Service shall also be notified prior to implementing any modifications to the minimum flows required by WQC condition no. 11 and Forest Service condition no. 5.

WQC condition no.	Forest Service condition no.	License requirement
11	5	Minimum flows
12	6	Suspension of recreational flow releases during power emergencies

- (c) Requirement to File Amendment Applications.

Certain Forest Service conditions in Appendix A and WQC conditions in Appendix B contemplate unspecified long-term changes to project operations or facilities for the purpose of mitigating environmental impacts. These changes may not be implemented without prior Commission authorization granted after the filing of an application to amend the license. These conditions are listed below.

WQC condition no.	Forest Service condition no.	Modification
12	6	Operational changes to reduce or enhance the effects of controllable factors after the first 5 years of monitoring and evaluation
12 and 13	6 and 7	Changes to adjust minimum flows
13	7	New projects to protect or enhance habitat for native aquatic species in the project area
	9	Proposed changes to the project and its operation based on Forest Service review of the Report on Recreational Resources (filed with the Commission every 6 years)
	32	Project changes that result from modified Forest Service Section 4(c) conditions
17	33	Project changes based on Biological Opinion issued for the project by the U.S. Fish and Wildlife Service or the National Marine Fisheries Service

Article 402. *Flow Monitoring Plan.* Within six months of license issuance, the licensee shall file with the Commission, for approval, a plan to monitor instream flows to document compliance with the Forest Service 4(c) condition no. 5 (Appendix A) and the State of California Water Resources Control Board condition no. 11 (Appendix B) and to install a staff gage to assist boaters using the bypassed reach.

The plan shall include, at a minimum:

- (1) the method of collecting and recording the data;
- (2) the proposed locations, design, and calibration of the monitoring equipment;
- (3) a schedule for installing any flow monitoring equipment including, but not limited to, a staff gage marked in 500 cubic feet per second increments downstream of the confluence of Willow Creek and the San Joaquin River

that would be visible and legible from the whitewater staging area; and

- (4) a provision for providing data to the resource agencies in a timely manner.

The licensee shall prepare the plan after consultation with the U.S. Fish and Wildlife Service, the U.S. Geological Survey, the State Water Resources Control Board, the California Department of Fish and Game, and the California Department of Boating and Waterways.

The licensee shall include with the plan documentation of agency consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on site-specific information.

The Commission reserves the right to require changes to the plan. No ground-disturbing or land-clearing activities for the installation of the monitoring devices shall begin until the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

Article 403. Historic Properties. The licensee shall implement the "Memorandum of Agreement Between the Federal Energy Regulatory Commission and the California State Historic Preservation Officer, for Managing Historic Properties That May Be Affected By A License Issuing to the Southern California Edison Company For the Continued Operation and Maintenance of the Big Creek No. 4 Hydroelectric Project in California," executed on February 26, 2002, including but not limited to the Cultural Resources Management Plan (CRMP) for the project. In the event that the Memorandum of Agreement is terminated, the licensee shall implement the provisions of its approved CRMP.

Article 404. Bald Eagle Management Plan. Pursuant to the terms and conditions of the incidental take statement filed by the U.S. Fish and Wildlife Service (FWS) on October 17, 2003, the licensee shall file a bald eagle management plan, for Commission approval, within one year of license issuance.

The plan shall include, at a minimum:

- (1) provisions for conducting a survey to identify potential bald eagle habitat, including nesting and wintering habitat, within the project area, including but not limited to, Redinger Reservoir and downstream on the San Joaquin River to the Big Creek 4 powerhouse;
- (2) provisions for conducting a survey every five years for nesting bald eagles within identified potential bald eagle habitat. The first survey shall be completed within one year of Commission approval of the bald eagle management plan. If nesting bald eagles are detected in any given survey, the licensee shall repeat the survey the next year. All surveys shall be conducted during the bald eagle breeding season defined as January 1 through August 31;
- (3) provisions for conducting a survey every five years for wintering bald eagles, including wintering roost sites, within identified potential bald eagle habitat. The first survey shall be completed within one year of Commission approval of the bald eagle management plan. All surveys shall be conducted during the bald eagle wintering season defined as November 15 through March 15, preferably during the peak wintering population;
- (4) provisions for filing a monitoring report with the Commission, FWS, Forest Service-Sierra National Forest (USFS), and California Department of Fish and Game (CDFG) within six months of any survey completed pursuant to items (1) through (3) above (the licensee is encouraged to consolidate multiple reports in any calendar year to the extent possible in consultation with the FWS). Monitoring reports shall contain, at a minimum: (a) the survey data, (b) the status of any nesting or wintering bald eagles, (c) an analysis of any project impacts on bald eagles, and (d) any protective measures needed to minimize threats to bald eagles including any measures needed to protect wintering roost sites; and
- (5) a schedule for implementing all activities contained in the bald eagle monitoring plan.

The licensee shall prepare the plan after consultation with the FWS, USFS,

and CDFG. The licensee shall include with the plan documentation of agency consultation, copies of comments and recommendations on the completed plan after it has been prepared and provided to the consulted agencies, and specific descriptions of how the consulted agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the consulted agencies to comment and to make recommendations before filing the plan for Commission approval. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons based on site-specific information.

The Commission reserves the right to require changes to the plan. The plan shall not be implemented until the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

Article 405. Valley Elderberry Longhorn Beetle Survey. Pursuant to the terms and conditions of the incidental take statement filed by the U.S. Fish and Wildlife Service (FWS) on October 17, 2003, the licensee shall survey all potential valley elderberry longhorn beetle habitat in accordance with the FWS's July 9, 1999, Conservation Guidelines for the Valley Elderberry Longhorn Beetle (as those guidelines may be amended from time to time) prior to any project-related ground disturbance within 100 feet of elderberry shrubs or prior to any partial or complete removal of elderberry shrubs. Should any potential valley elderberry longhorn beetle habitat be detected, the licensee shall consult with the FWS and file an application for Commission approval, prior to the proposed ground disturbance or partial or complete removal of elderberry shrubs.

Article 406. ESA Consultation for Land Conveyance. Pursuant to the terms and conditions of the incidental take statement filed by the U.S. Fish and Wildlife Service (FWS), the licensee shall consult and obtain FWS approval for any fee title, easement, lease or other conveyance of project lands that may affect proposed, threatened, or endangered species or designated critical habitat.

Article 407. Recreation Plan. The Recreation Plan to be provided to the Commission by the licensee as specified by the Forest Service 4(e) Condition 10 shall include: 1) design drawings for the realignment of Horseshoe Bend Trail (item 2) and the construction of the Willow Creek general access trail (item 8); 2) site-specific erosion and sedimentation control measures that will be used at each of the two sites; 3) reference a cultural resource inventory and specify any appropriate procedures to avoid cultural impacts; and 4) shall also specify the schedule for implementation of all specific

measures.

Article 408. Use and Occupancy. (a) In accordance with the provisions of this article, the licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain types of use and occupancy, without prior Commission approval. The licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the licensee shall also have continuing responsibility to supervise and control the use and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if necessary, canceling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

(b) The type of use and occupancy of project lands and water for which the licensee may grant permission without prior Commission approval are:

- (1) landscape plantings;
- (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 watercraft at a time and where said facility is intended to serve single-family type dwellings;
- (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline; and
- (4) food plots and other wildlife enhancement.

To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the licensee shall require multiple use and

occupancy of facilities for access to project lands or waters. The licensee shall also ensure, to the satisfaction of the Commission's authorized representative, that the use and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements.

Before granting permission for construction of bulkheads or retaining walls, the licensee shall:

- (1) inspect the site of the proposed construction;
- (2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site; and
- (3) determine that the proposed construction is needed and would not change the basic contour of the reservoir shoreline.

To implement this paragraph (b), the licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the licensee's costs of administering the permit program. The Commission reserves the right to require the licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

(c) The licensee may convey easements or rights-of-way across, or leases of, project lands for:

- (1) replacement, expansion, realignment, or maintenance of bridges or roads where all necessary state and federal approvals have been obtained;
- (2) storm drains and water mains;
- (3) sewers that do not discharge into project waters;
- (4) minor access roads;
- (5) telephone, gas, and electric utility distribution lines;

(6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary;

(7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69-kV or less); and

(8) water intake or pumping facilities that do not extract more than one million gallons per day from a project reservoir.

No later than January 31 of each year, the licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed.

(d) The licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for:

- (1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained;
- (2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained;
- (3) other pipelines that cross project lands or waters but do not discharge into project waters;
- (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained;
- (5) private or public marinas that can accommodate no more than 10 waterfront at a time and are located at least one-half mile (measured over project waters) from any other private or public marina;

- (6) recreational development consistent with an approved Exhibit R or approved report on recreational resources of an Exhibit F; and
- (7) other uses, if: (i) the amount of land conveyed for a particular use is five acres or less; (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from project waters at normal surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year.

At least 60 days before conveying any interest in project lands under this paragraph (d), the licensee must submit a letter to the Director, Office of Energy Projects, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked exhibit G or K map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted, and any federal or state approvals required for the proposed use. Unless the Director, within 45 days from the filing date, requires the licensee to file an application for prior approval, the licensee may convey the intended interest at the end of that period.

- (c) The following additional conditions apply to any intended conveyance under paragraph (c) or (d) of this article:
 - (1) before conveying the interest, the licensee shall consult with federal and state fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer;
 - (2) before conveying the interest, the licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved exhibit R or approved report on recreational resources of an exhibit E; or, if the project does not have an approved exhibit R or approved report on recreational resources, that the lands to be conveyed do not have recreational value;
 - (3) the instrument of conveyance must include the following covenants running with the land: (i) the use of the lands conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project

- recreational use; (ii) the grantee shall take all reasonable precautions to ensure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project; and (iii) the grantee shall not unduly restrict public access to project waters; and
- (4) the Commission reserves the right to require the licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.
- (f) The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude land conveyed under this article only upon approval of revised exhibit G or K drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project only upon a determination that the lands are not necessary for project purposes, such as operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude lands conveyed under this article from the project shall be consolidated for consideration when revised exhibit G or K drawings would be filed for approval for other purposes.
- (g) The authority granted to the licensee under this article shall not apply to any part of the public lands and reservations of the United States included within the project boundary.
- (K) The licensee shall serve copies of any Commission filing required by this order on any entity specified in this order to be consulted on matters related to the filing. Proof of service on these entities must accompany the filing with the Commission.
- (L) This order is issued under the authority delegated to the Director and is final unless a request for rehearing is filed within 30 days from the date of its issuance, as provided in Section 313(a) of the FPA. The filing of a request for rehearing does not operate as a stay of the effective date of this license or any other date specified in this order, except as specifically ordered by the Commission. The licensee's failure to file a request for rehearing of this order shall constitute acceptance of this license.



J. Mark Robinson
 Director
 Office of Energy Projects

APPENDIX A

[Forest Service 4(c) Conditions Issued May 22, 2002]

FINAL LICENSE CONDITIONS NECESSARY FOR PROTECTION AND
 UTILIZATION OF THE SIERRA NATIONAL FOREST IN CONNECTION WITH
 THE APPLICATION FOR LICENSE PROJECT NO. 2017, BIG CREEK NO. 4
 WATERPOWER PROJECT SOUTHERN CALIFORNIA Edison COMPANY

Condition No. 1 - Forest Approval of Final Design

Before any construction of the project occurs on National Forest System land, the Licensee shall obtain prior written approval of the Forest Service for all final design plans for project components, which the Forest Service deems as affecting or potentially affecting National Forest System resources. The Licensee shall follow the schedules and procedures for design review and approval specified in the conditions herein. As part of such written approval, the Forest Service may require adjustments to the final plans and facility locations to preclude or mitigate impacts and to insure that the project is compatible with on-the-ground conditions. Should such necessary adjustments be deemed by the Forest Service, the Commission, or the Licensee to be a substantial change, the Licensee shall follow the procedures of Article 2 of the license. Any changes to the license made for any reason pursuant to Article 2 or Article 3 shall be made subject to any new terms and conditions of the Secretary of Agriculture made pursuant to section 4(e) of the Federal Power Act.

Condition No. 2 - Approval of Changes After Initial Construction

Notwithstanding any Commission approval or license provisions to make changes to the project, the Licensee shall get written approval from the Forest Service prior to making any changes in the location of any constructed project features or facilities, or in the uses of project lands and waters, or any departure from the requirements of any approved exhibits filed with the Commission. Following receipt of such approval from the Forest Service, and at least 60 days prior to initiating any such changes or departure, the Licensee shall file a report with the Commission describing the changes, the reasons for the changes, and showing the approval of the Forest Service for such changes. The Licensee shall file an exact copy of this report with the Forest Service at the same time it is filed with the Commission. This article does not relieve the Licensee from the

amendment or other requirements of Article 2 or Article 3 of this License.

Condition No. 3 - Consultation

Each year during the 60 days preceding the anniversary date of the license, the Licensee shall consult with the Forest Service with regard to measures needed to ensure protection and utilization of the National Forest resources affected by the project. Within 60 days following such consultation, the Licensee shall file with the Commission evidence of the consultation with any recommendations made by the Forest Service. The Forest Service reserves the right, after notice and opportunity for comment and administrative review, to require changes in the project and its operation through revision of the 4(c) conditions that require measures necessary to accomplish protection and utilization of National Forest resources.

Condition No. 4 - Adaptive Management Technical Review Group

Licensee shall, within 3 months of issuance of a new project license, establish an Adaptive Management Technical Review Group (TRG) for the purpose of consulting with the Licensee in the design of management and monitoring plans, review and evaluation of data, and in the development of adaptive management or other recommendations, as required by Conditions No. 6, 7 and 10. The Forest Service, California Department of Fish and Game (CDFG), California State Water Resources Control Board, Fish and Wildlife Service (FWS), National Park Service (NPS), the Crane Valley Project Licensee, Tribal Governments, and NGO's whom have expressed an interest will be invited to participate, at a minimum. The group shall be open to all interested parties, and the group's meetings will be open to the public. The Licensee will maintain, and make public, records of consultation, and will forward those records with any recommendations to the appropriate agencies and the Commission. The group shall establish communication protocols to facilitate interaction between group members, which allow for open participation, peer review, and communication between all parties.

Condition No. 5 - Minimum River Flow Requirements

During operation of the facilities authorized by this license, the Licensee shall maintain the San Joaquin River at the following continuous, minimum flows as measured at the gage locations indicated:

San Joaquin River below Dam No. 7 - Gage at Station 11242000

From October 1 to April 1 of Dry or Critically Dry Water Years for the San Joaquin Basin (as forecast on April 1 by the California Department of Water Resources (DWR) each year, with the reduced flow period beginning the following October):

15 cubic feet per second (cfs), provided the combined flow of the San Joaquin River and Willow Creek is maintained at 20 cfs (as measured by the combined flows at gages 11242000 and 11246550)

All other times: 20 cfs

Written consent from the Forest Service and State Water Resources Control Board will allow the flows in this condition to be temporarily modified, during and to the extent required: 1) for performance of required maintenance of the dams, their outlet facilities, and minimum flow release facilities; 2) by operating emergencies beyond the control of the Licensee; and 3) in the interest of public safety. The Licensee shall notify the Forest Supervisor at least five working days prior to any such departure, except during emergencies.

Condition No. 6 - Adaptive Management for River Flows

Licensee shall develop and implement an Adaptive Management Plan for River Flows. The plan shall be developed in consultation with the TRG and be submitted to the Forest Service and State Water Resources Control Board for approval within one year following the issuance of a new project license. Upon approval, the Licensee shall file the plan with the Commission.

The Adaptive Management Plan for River Flows shall include the following components:

Objective - The objective of river flow management for recreation is to provide flow releases for whitewater boating, through management of spill and by scheduled release, that are consistent with other resource objectives (as identified in the Forest Plan, Basin Plan, and License, as amended) within the bypass reach. The objective of river flow management for Minimum River Flow Requirements is to provide flows that would enhance the condition of the native fishery consistent with other resource objectives (as identified in the Forest Plan, Basin Plan, and License, as amended) within the bypass reach.

Spill Management for Recreation Flows - Licensee shall conduct a feasibility analysis and develop a plan to manage river flow below Dam 7 during weekend periods (Friday, Saturday, Sunday), between 11:00 a.m. to 3:00 p.m. periods when the reservoir is spilling. The plan shall analyze the feasibility of managing spill using existing infrastructure to provide recreational boating opportunities, and shall establish a practical method for managing flow control. The initial target range of flows is 1,000 to 1,500 cfs, subject to adjustment based on the required white water surveys. The Licensee shall evaluate the public use of these managed flows in consultation with the TRG, and include that evaluation in the Recreation Report required by Condition No. 9.

Monitoring, Evaluation, and Initial Implementation – The adaptive management actions will be based on an annual cycle of monitoring, evaluation and initial implementation during the first 5 years after plan approval. Monitoring will be designed to evaluate the condition of the native aquatic species, and the effect of flow on species condition. Monitoring will be consistent with the Native Aquatic Species Management Plan required by Condition 7. The monitoring, evaluation and initial implementation actions associated with the Adaptive Management Plan will incorporate the following process components, which may be further refined in consultation with the TRG:

Decision Process Adaptive management proposals will be developed by the Licensee in consultation with the TRG. The proposals, with the record from TRG consultation, will be submitted to the Forest Service and State Water Resources Control Board for review and approval. The Forest Service and State Water Resources Control Board will consult with appropriate state and federal agencies, tribal governments, and other interested parties prior to approving the proposal as submitted or modified. The Licensee will file the approved adaptive management proposal with the Commission and implement the approved actions.

Annual Schedule The Licensee will review and evaluate monitoring results and develop the next year's proposals, in consultation with the TRG, by March 15. The Forest Service and State Water Resources Control Board will review and approve the proposals by April 15. The Licensee will implement those approved actions, complete required monitoring, and prepare a report summarizing the results by the following January.

Monitoring Objectives Monitoring objectives will focus on evaluating aquatic species condition, with initial emphasis on hardhead, foothill yellow-legged frog

habitat, and western pond turtle, as related to project operations, minimum flows, and recreation flows. 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 project area as it relates to risk to, and potential enhancement of, the population from adaptive management actions.

Monitoring Parameters Monitoring parameters, which will be refined by the Licensee in consultation with the TRG, may include:

- Population abundance
- Population Age Structure
- Growth and Physical Condition
- Spawning and Population Recruitment
- Distribution
- Key habitats as influenced by minimum flow or scheduled releases
- Summer Water Temperature
- Cause and effect relationships
- Other critical factors developed in consultation with the TRG

Evaluation of Adaptive Management Actions Actions or conditions will be evaluated on the independent questions as to whether the species are in good condition, whether species are at risk to declines from proposed recreation flows, or whether species condition would be enhanced by changes in project operation. Proposals based on this evaluation could include scheduled recreation flows, or changes in project operations to reduce or enhance the effects of controllable factors.

Peer Review The peer review provided for in Condition No. 4 will play an important role in developing and evaluating adaptive management actions. The Licensee, in consultation with the TRG, will incorporate peer review into the adaptive management process, as appropriate, to support technical evaluations.

Operation rules – After the first five years of monitoring, evaluation, and initial implementation, the Licensee, in consultation with the TRG, will evaluate and propose, if appropriate, operating rules for release of scheduled whitewater boating flows or modification of Minimum River Flow Requirements specified in Condition No. 5. A

schedule for long range monitoring will also be evaluated and proposed. The proposed operating rules and long range monitoring plans will be submitted to the Forest Service and the State Water Resources Control Board for approval prior to filing them with the Commission. If results of the first five years of monitoring, evaluation, and initial implementation are inconclusive due to insufficient observations during a range of water year types, the Forest Service and State Water Resources Control Board may extend the monitoring and evaluation period until sufficient data is collected.

Cap on release days - The Licensee in consultation with the TRG, shall propose an initial scheduled flow proposal. The initial proposal will consider a minimum starting release of one scheduled boating flow, if consistent with other resource objectives. Days will be added to the initial releases based on use. The use trigger for adding a day is set at 40 boats/day (with a raft counting as 2 boats). The down trigger for deleting a day is set at 20 boats/day. This down trigger would not apply to the initial release. Adjustments to days would be made the following year, based on the results of the previous years use monitoring for that particular day. Total annual scheduled release days, based on a thirty year license term, will be capped at 6 days per year for wet years, 3 days per year for above normal years, and 9 days per year for below normal, dry, and critically dry years, as defined by DWR for the San Joaquin basin. The Forest Service and State Water Resources Control Board will review and approve the proposal as submitted or modified, in consultation with other agencies as appropriate. The Licensee shall notice FERC of the schedule, and implement the proposal.

Whitewater flow surveys - The Licensee, in consultation with the TRG, shall develop a whitewater flow survey. The purpose of the survey is to determine the navigability of the first rapid for intermediate boaters. The range of flows to be evaluated will be 1,000 to 1,500 cfs. The Forest Service and State Water Resources Control Board will review and approve, as appropriate, the survey as submitted or modified, in consultation with other agencies. The Licensee shall implement the approved survey and report the results to the Forest Service, State Water Resources Control Board, and TRG. The results will be used as the basis by the Forest Service and State Water Resources Control Board to set the subsequent release flows.

Whitewater Use Monitoring - Licensee shall monitor white water recreation use annually from May 1st through August 31st, through on site boat counts, or video. If video is used, accuracy of video system will be verified initially through on-site boat counts. Monitoring shall be done using a stratified sampling design, to assure 75% of weekend days, and 50% of weekdays are monitoring during spill periods, and 100% of days during

scheduled releases.

Ramping Rates - Licensee, in consultation with the TRG, shall evaluate ramping rates as part of the feasibility study for managing river flows. A range of ramping rate targets will be considered, including 150 cfs/hour up, and 100 cfs/hour down. These ramping rates will be evaluated to determine rates that are adequate to protect public safety and ecological resources.

Suspension of Recreational Flow Releases - Power generation shall take priority over scheduled recreational flow releases during the Cal ISO Stage 1 through Stage 3 (or equivalent) power emergencies.

Condition No. 7 - Native Aquatic Species Management Plan

Licensee shall develop and implement a Native Aquatic Species Management Plan. The plan shall be developed in consultation with the TRG and be submitted to the Forest Service and State Water Resources Control Board for approval within one year following the issuance of a new project license. Upon approval, the Licensee shall file the plan with the Commission. The purpose of the Native Aquatic Species Management Plan shall be to establish a framework for the protection and preservation of an existing refugeum for native transition-zone fish, amphibians, and reptiles in and around Redinger Lake and the Horseshoe Bend Reach.

Specific objectives of the management plan are:

1. Describe the significance of the project area as a native aquatic species refugia relative to other west slope Sierran streams. The Plan will describe the status of the native aquatic species in the Project area and identify fish, reptile, and amphibian species to be protected and managed.
2. Habitat protection measures and enhancement opportunities will be identified. In addition, potential threats to the habitat and to the native aquatic species communities will be described. Actions to protect against identified threats will be described.
3. Habitat and native aquatic species monitoring will be conducted in accordance with the Adaptive Management Plan to determine if project operations are having a beneficial or detrimental effect. If declines in habitat conditions or aquatic

communities are detected in the project monitoring, and the decline is determined to be minimum instream flow related, the minimum instream flow requirements specified in Condition No. 5 shall be modified. The minimum instream flow requirements specified in Condition No. 5 shall also be modified if it is determined that habitat conditions or aquatic communities would be enhanced from reasonable changes in project operation. In addition, efforts to protect and/or enhance habitats within the Project area will be assessed and new projects prioritized every five years. Licensee shall only be responsible for project related controllable factors.

Condition No. 8 - Protection of Threatened, Endangered, Proposed for Listing and Sensitive Species

Before taking actions to construct new project features (including but not limited to proposed recreation developments) that may affect a species proposed for listing, or listed under the federal Endangered Species Act, or that may affect that species' critical habitat, or a Forest Service sensitive species or its habitat, the Licensee shall prepare a Biological Evaluation evaluating the potential impact of the action on the species or its habitat and submit it to the Forest Service for approval. In consultation with the Commission, the Forest Service may require mitigation measures for the protection of the affected species.

Condition No. 9 - Recreation Survey

Licensee shall conduct a Recreational Survey and prepare a Report on Recreational Resources once every six years from license issuance. The Recreational Survey shall include but not be limited to changes in kinds of use and use patterns, user survey as to preferences in recreation activities, kinds and sizes of recreation vehicles, preference for day use versus overnight use and recreation user trends within the project area. A copy of the survey and survey results will be provided to the Forest Service. The Report on Recreational resources shall comply with the FERC's regulations at 18 CFR section 4.51(f) (1996), and shall be provided to the Forest Service for review and comment prior to being filed with the Commission. The Forest Service reserves the right, after notice and opportunity for comment and administrative review, to require changes in the project and its operation through revision of the 4(e) conditions that require measures necessary to accomplish protection and utilization of National Forest resources identified as a result of these surveys.

Condition No. 10 - Recreation Plan- Facilities and Interpretive Services

Licensee shall file a Recreation Plan with the Commission within one year following the issuance of a new project license. This plan will be submitted to the Forest Service for approval prior to filing with the Commission. The plan will address development and management of project related recreation opportunities. Project specific construction or implementation plans will be developed by the Licensee for required facilities, and will be submitted to the Forest Service for approval prior to construction. Approved construction plans will be incorporated into the Recreation Plan and filed with the Commission.

As part of the project recreation management, the Licensee shall provide the following additional recreational facilities or services:

- 1) Complete the balance of the rehabilitation of the Redinger Reservoir Boat Launch, and camping area not previously rehabilitated by the Forest Service, under a Department of Boating and Waterways grant, or the Licensee in 1998. This will consist of:
 - a) One Sweet Smelling Toilet (SST) at the east end of the camping area.
 - b) Chip seal the access road to the Redinger boat launch ramp.
 - c) Plant at least 10 trees at locations designated by the Forest Service.
 - d) Purchase and install 2 concrete picnic tables on the former toilet pads at the Redinger boat launch ramp.
- 2) Relocate and reconstruct the Horseshoe Bend trail around Powerhouse No. 4 to avoid project facilities. Reconstruct the remainder of the existing trail west of Powerhouse No. 4 (approximately 1/2 mile) and County Road 235 to correct existing drainage problems, widen the trail tread, install waterbars and drainage structures, and reroute steep sections to attain proper drainage. Incorporate Best Management Practices into all construction and maintenance work to reduce erosion and protect water resources. Install appropriate directional signs to direct the public to the end of the trail and to ensure the trail can be followed.
- 3) Install an emergency telephone near the Redinger boat launch with a listing of emergency phone numbers.

- 4) Post speed limit signs at the Redinger boat launch facility and at various locations around the reservoir to discourage excessive boating speeds.
- 5) Install signs at the Italian Bar Bridge crossing to discourage people from jumping off the bridge into Redinger Reservoir.
- 6) Install signs at the existing boat ramp facility and in the camping area informing boaters of safe boating practices.
- 7) Establish and maintain a refuse collection service for the recreation facilities adjacent to Redinger Reservoir.
- 8) Construct a general recreational access trail beginning near the junction of County Road 235 and Willow Creek and ending at the San Joaquin River near its confluence with Willow Creek. Design trail to protect sensitive resources and suitable for carrying a 14 foot raft to the river. (i.e. six feet wide, with few obstacles, and controlled grades).
- 9) Establish an Internet site and flow phone to provide real time flow data including previous 7 days, and scheduled dates (and updates) of whitewater flow releases when implemented. Scheduled releases will be forecasted by April 15, with weekly updates as conditions change. Licensee, in consultation with the TRG, will develop the format for flow information.

Licensee shall be responsible for maintenance, repair and major rehabilitation of project recreation facilities, which are defined to include any Licensee owned or Forest Service owned facilities that are included in the Recreation Plan.

Condition No. 11 - Transportation System Management Plan

Licensee shall file with the Commission, within one year following the issuance of a new project license, a Transportation System Management Plan, approved by the Forest Service, for protection and maintenance of roads associated with this license. At a minimum the Plan should include a map showing all roads associated with this project, identify the uses (i.e. recreation, facility access) of the roads, condition surveys, construction/reconstruction needs, road closure, safety, jurisdiction (i.e., county, state), and identify roads with respect to the project boundary and maintenance responsibilities.

Condition No. 12 - Visual Resource Plan

Licensee shall file with the Commission, within one year following the issuance of a new project license, a Visual Resource Plan (VRP), approved by the Forest Service, for protection and rehabilitation of National Forest System visual resources affected by the project. At a minimum the VRP should evaluate clearings, and project facilities like diversion structures, penstocks, pipes, ditches, powerhouses, other buildings, transmission lines, corridors, and access roads. The VRP should consider building colors, landscaping, and screening. The VRP will provide a proposed mitigation and implementation schedule to bring the project into compliance with visual resource standards and guidelines in the Sierra National Forest Land and Resource Management Plan.

Condition No. 13 - Fire Prevention and Response Plan

The Licensee shall file with the Commission, within one year following the issuance of a new project license, a Fire Prevention and Response Plan, approved by the Forest Service which shall set forth in detail the plan for prevention, reporting, control, and extinguishing of fires in the vicinity of the Licensee's project. Such plans shall be reviewed and revised at intervals of not more than three years.

Condition No. 14 - Vegetation Management Plan

The Licensee shall file with the Commission, within one year following the issuance of a new project license, a Vegetation Management Plan, approved by the Forest Service, for the protection and maintenance of forest resources associated with vegetation management near project facilities. The plan must be consistent with the Standard and Guidelines for affected management areas in the Sierra National Forest Land and Resource Management Plan. The plan at a minimum must address access routes, season of operations, cultural resources, consultation with local Native Americans regarding gathering, slash treatment, vegetation treatment (falling, limbing, topping), wildlife and botanical concerns, noxious weeds, visually sensitive areas, and Forest Service notification procedures.

Condition No. 15 - Sediment Management Plan

Within 6 months of the date of the issuance of a new project license, the Licensee shall file with the Commission, a plan approved by the Forest Service, for sediment

management within the Project area. Licensee will develop a plan to reduce project induced sediment delivery into the Horseshoe Bend reach of the San Joaquin River within the Project area. The Licensee shall develop the plan in consultation with the State Water Resources Control Board, and the Central Valley Regional Water Quality Control Board, and other appropriate federal and state resource agencies and will ensure the plan meets the goals and objectives defined in the Native Aquatic Species Management Plan on file with the Commission. The plan will include the following components:

- 1) Identification of sediment sources and delineation of opportunities for controlling and stabilizing problem areas with the Project area. Both management activities and natural events contributing sediment to the Horseshoe Bend reach will be identified and evaluation of specific causes of sedimentation from Willow Creek, the toe of Long Ridge, and Backbone Creek will be included.
- 2) A prescription section will define management measures and procedures designed to reduce sediment movement and delivery to the San Joaquin River. Procedures may include: a) revegetating slopes exposed by past construction, land management practices or fire; b) constructing berms or installing culverts to reduce erosion; and c) stabilizing banks and slopes with manmade or natural materials.
- 3) An implementation section will identify scheduling for completion of the identified stabilization projects. Effectiveness monitoring will be conducted for the projects within 3 years of completion and a project maintenance schedule will be identified as necessary.

The Licensee shall be responsible for completing any stabilization projects identified as project induced, non-project related projects identified in the plan would not be the responsibility of the Licensee.

Condition No. 16 - Noxious Weed Management Plan

The Licensee shall file with the Commission, within one year following the issuance of a new project license, a Noxious Weed Management Plan, approved by the Forest Service for the purpose of controlling and containing the spread of noxious weeds. The plan must be consistent with the Standard and Guidelines for affected management areas in the Sierra National Forest Land and Resource Management Plan. The plan will meet the

objectives described in this condition. The plan shall include a monitoring plan that details corrective measures that will be taken if noxious or exotic weeds are found. The plan shall include a requirement for an annual written report documenting the results of the monitoring. The plan at a minimum must include:

- a) Inventory, mapping and monitoring
- b) Prevention strategies for invader plant species (such as cleaning equipment, use of weed free materials)
- c) Treatment of new and established infestations
- d) Education program for project employees

The licensee shall thoroughly clean all equipment before entering project areas. The licensee shall employ whatever cleaning methods are necessary to ensure that seeds of noxious weeds are not introduced in these areas. The licensee shall notify Forest Service at least 10 working days prior to moving each piece of equipment on to National Forest Land, unless otherwise agreed. Notification will include identifying the location of the equipment's most recent operations. If the prior location of the equipment cannot be identified, Forest Service may assume that it was infested with noxious weed seeds. Upon request of Forest Service, arrangements will be made for Forest Service to inspect each piece of equipment prior to it being placed in service.

The licensee shall use certified weed-free straw for all construction or restoration needs. If certified weed-free straw is not available, rice straw may be substituted. The licensee shall use an approved mix of species native to the Sierra National Forest for restoration or erosion control purposes.

Condition No. 17 - Maintenance of Improvements

The Licensee shall maintain the improvements and premises to standards of repair, orderliness, neatness, sanitation, and safety. For example, trash, debris, unusable machinery, etc., will be disposed of separately; other materials will be stacked, stored neatly, or within buildings. Disposal will be at an approved existing location, except as otherwise agreed to by the Forest Service.

Condition No. 18 - Existing Claims

The licensee shall be subject to all valid claims and existing rights.

Condition No. 19 - Compliance with Regulations

The Licensee shall comply with the regulations of the Department of Agriculture and all Federal, State, county, and municipal laws, ordinances, or regulations in regard to the area or operations covered by this license, to the extent federal law does not preempt ordinances or regulations.

Condition No. 20 - Protection of United States Property

The Licensee shall exercise diligence in protecting from damage the land and property of the United States covered by and used in connection with this license.

Condition No. 21 - Surrender of License or Transfer of Ownership

Prior to any surrender of this license, the Licensee shall restore National Forest System resources to a condition satisfactory to the Forest Service. In advance of the proposed surrender, the Licensee shall file a restoration plan for approval by the Forest Service. The restoration plan shall identify the measures to be taken to restore National Forest System resources and shall include adequate financial assurances such as a bond or letter of credit, to ensure performance of the restoration measures.

Any agreement made by the licensee to transfer or sell the License shall require the transferee or purchaser to post a bond to cover the cost of surrender and restoration of National Forest System resources. Prior to any request for approval from the commission for a sale or transfer of ownership of the license, the licensee shall pay for the cost of experts, selected by the Forest Service, to develop a restoration plan and estimate the cost of surrender and restoration. The licensee will not request approval from the commission for the sale or transfer until the restoration plan and cost estimates are completed and the transferee or purchaser posts a bond, approved by the Forest Service, to cover the estimated cost of surrender and restoration.

Condition No. 22 - Self Insurance

The Licensee shall indemnify, defend, and hold the United States harmless for any costs, damages, claims, liabilities, and judgments arising from past, present, and future acts or omissions of the Licensee in connection with the use and/or occupancy authorized by this license. This indemnification and hold harmless provision applies to any acts and omissions of the Licensee or the Licensee's heirs, assigns, agents, employees, affiliates,

subsidiaries, fiduciaries, contractors, or lessees in connection with the use and/or occupancy authorized by this license which result in: (1) violations of any laws and regulations which are now or which may in the future become applicable, and including but not limited to environmental laws such as the Comprehensive Environmental Response Compensation and Liability Act, Resource Conservation and Recovery Act, Oil Pollution Act, Clean Water Act, Clean Air Act; (2) judgments, claims, demands, penalties, or fees assessed against the United States; (3) costs, expenses, and damages incurred by the United States; or (4) the release or threatened release of any solid waste, hazardous substances, pollutant, contaminant, or oil in any form in the environment.

Condition No. 23 - Water Pollution

Unless authorized by the State, the Licensee shall discharge no waste or byproduct if it contains any substances in concentrations that would result in violation of water quality standards set forth by the State, would impair present or future beneficial uses of water, would cause pollution, nuisance, or contamination, or would unreasonably degrade the quality of any waters in violation of any federal or state law. During any new construction, the Licensee shall prevent water pollution by using management practices identified as necessary by the Forest Service.

Condition No. 24 - Damage--High Hazard

The Licensee is hereby made liable for all injury, loss, or damage to the United States land and property, including but not limited to fire suppression costs, directly or indirectly resulting from or caused by the Licensee's power lines covered by this license, or any other high risk use and occupancy of the area covered by this license, regardless of whether the Licensee is negligent or otherwise at fault, provided that the maximum liability without fault shall not exceed \$1,000,000 for any one occurrence, and provided further that the Licensee shall not be liable when such injury, loss, or damage results wholly, or in part, from a negligent act of the United States, or from an act of a third party not involving the facilities of Licensee.

Determination of liability for injury, loss, or damage, including fire suppression costs, in excess of the specified maximum, shall be according to the laws governing ordinary negligence.

Condition No. 25 - Risks and Hazards

The Licensee is responsible for inspecting its site, right of way and immediate adjoining area for dangerous trees, hanging limbs, and other evidence of hazardous conditions and is responsible for removing such hazards, after securing permission from the Forest Service, except in an emergency where there is an imminent risk of death or injury to the public or facilities in which case the Licensee shall notify the Forest Service of the action as soon as possible.

Condition No. 26 - Signs

The Licensee shall consult with the Forest Service prior to erecting signs related to safety issues on the area covered by this license. Prior to the Licensee erecting any other signs or advertising devices on the area covered by this license, the Licensee must obtain the approval of the Forest Service as to location, design, size, color, and message. The Licensee shall not be required to consult or obtain the prior approval of the Forest Service regarding signs on Licensee owned land that will not be visible from National Forest System land. The Licensee shall be responsible for maintaining all Licensee erected signs to neat and presentable standards.

Condition No. 27 - Pesticide-Use Restrictions

Pesticides may not be used to control undesirable woody and herbaceous vegetation, aquatic plants, insects, rodents, trash fish, etc., without the prior written approval of the Forest Service. The Licensee shall submit a request for approval of planned uses of pesticides. The request must cover annual planned use and be updated as required by the Forest Service. The Licensee shall provide information essential for review in the form specified by the Forest Service. Exceptions to this schedule may be allowed only when unexpected outbreaks of pests require control measures that were not anticipated at the time the report was submitted. In such an instance, an emergency request and approval may be made.

The Licensee shall use on National Forest System land only those materials registered by the U.S. Environmental Protection Agency for the specific purpose planned. The Licensee must strictly follow label instructions in the preparation and application of pesticides and disposal of excess materials and containers.

Condition No. 28 - Area Access

The United States shall have unrestricted use of any road constructed within the project

area for all purposes deemed necessary or desirable in connection with the protection, administration, management, and utilization of Federal lands or resources and shall have the right to extend rights and privileges for use of the right-of-way and road thereon to States and local subdivisions thereof, as well as to other users, including members of the public, except contractors, agents and employees of the Licensee; provided, that the agency having jurisdiction shall control such use so as not unreasonably to interfere with use of the road by the Licensee or cause the Licensee to bear a share of the cost of maintenance greater than the Licensee's use bears to all use of the road.

Condition No. 29 - Road Use

The Licensee shall confine all project vehicles, including but not limited to administrative and transportation vehicles and construction and inspection equipment, to roads or specifically designed access routes. The Forest Service reserves the right to close any and all such routes where damage is occurring to the soil or vegetation, or if requested by Licensee, to require reconstruction/construction by the Licensee to the extent needed to accommodate the Licensee's use. The Forest Service agrees to provide notice to the Licensee and the FERC prior to road closures, except in an emergency, in which case notice will be provided as soon as practicable.

Condition No. 30 - Hazardous Substance Plan

Within one year following the date of acceptance of this license and at least 60 days before starting any activities the Forest Service determines to be of a land-disturbing nature on National Forest System land, the Licensee shall file with the Commission, a plan approved by the Forest Service for oil and hazardous substances storage and spill prevention and cleanup.

At a minimum, the plan must require the Licensee to: (1) maintain in the project area, a cache of spill cleanup equipment suitable to contain any spill from the project; (2) to periodically inform the Forest Service of the location of the spill cleanup equipment on National Forest System land and of the location, type, and quantity of oil and hazardous substances stored in the project area; and (3) to inform the Forest Service immediately of the nature, time, date, location, and action taken for any spill.

The Licensee shall not commence activities the Forest Service determines to be affected by the plan until after 60 days following the filing date, unless the Commission prescribes a different commencement schedule.

Condition No. 31 - Cultural Resources Management Plan

The licensee shall implement the April 2002 Cultural Resources Mitigation Plan attached to the Project Memorandum of Agreement submitted to the Advisory Council on Historic Preservation.

Condition No. 32 - Implementation and Modification of Forest Service Conditions After Appeal

These license conditions are effective at the latter of either the issuance of a new license, or the conclusion of the Forest Service administrative appeal process (36 CFR Part 215). If the Forest Service modifies its 4(e) conditions as a result of the administrative appeals process, the Forest Service reserves the right to file the revised final 4(e) conditions with the Commission.

Condition No. 33 - Modification of Forest Service Conditions After Biological Opinion

The Forest Service reserves the right to modify these conditions, if necessary, to respond to any Final Biological Opinion issued for this project by the Fish and Wildlife Service or National Marine Fisheries Service.

APPENDIX B

[State of California, State Water Resources Control Board
40J Conditions issued June 13, 2003]

IN THE MATTER OF WATER QUALITY CERTIFICATION FOR
THE SOUTHERN CALIFORNIA Edison COMPANY
BIG CREEK NO. 4 HYDROELECTRIC PROJECT
FEDERAL ENERGY REGULATORY COMMISSION (FERC)
PROJECT NO 2017

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, division 3, chapter 28, article 6 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. The SWRCB may add to or modify the conditions of this certification as appropriate to coordinate the operations of this project with (1) measures taken to implement water quality objectives adopted to protect the beneficial uses of the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Estuary) or (2) water right decisions or orders implementing the objectives. The SWRCB will make such additions or modifications to this certification only when reasonably necessary to achieve the water quality objectives or protect the beneficial uses of water in the Bay-Delta Estuary.
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 state 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 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 Basin Plan, the operation of the project shall not add the following substances to surface waters:

- Taste or odor-producing substances that impart undesirable tastes to domestic and municipal water supplies or odors to fish flesh or other edible products of aquatic origin, or that cause nuisance or adversely affect beneficial uses;
- Perceptible floating material including, but not limited to, solids, liquids, foams or scums that 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 that are harmful to human health; and,
- Coliform organisms attributable to human wastes.

7. This certification is not intended and shall not be construed to apply to issuance of any FERC license or FERC license amendment other than the FERC license specifically identified in Licensee's application for certification.

8. Any change to Big Creek No. 4, including project operation, that would have a significant or material effect on the findings, conclusions, or conditions of this certification must be submitted to the Chief of the Division of Water Rights for prior review and written approval.

9. The SWRCB may add to or modify the conditions of this certification as appropriate to coordinate the operations of this project with other water development projects, including other projects that are part of the Big Creek System or the Central Valley Project, where coordination of operations is reasonably necessary to achieve water quality standards or protect the beneficial uses of water.

10. Licensee shall, within 3 months of issuance of a new project license, establish an Adaptive Management Technical Review Group (TRG) for the purpose of consulting with the Licensee in the design of management and monitoring plans, review and evaluation of data, and in the development of adaptive management or other recommendations, as required by conditions 12, 13 and 14. At a minimum, SWRCB staff, USFS, Department of Fish and Game (DFG), U.S. Fish and Wildlife Service (USFWS), National Park Service (NPS), the Crane Valley Project Licensee, Tribal Governments, and Non-Governmental Organizations (NGO) who have expressed an interest may participate. The TRG shall be open to all interested parties and the group's meetings will be open to the public. The Licensee shall maintain, and make public, records of consultation, and shall forward those records with any recommendations to the appropriate agencies and the FERC. The TRG shall establish communication protocols to facilitate interaction between group members, that allow for open participation, peer review, and communication between all parties.

11. During operation of the facilities authorized by the new project license, the Licensee shall maintain the San Joaquin River below Dam No. 7 at a continuous, minimum flow of 20 cubic feet per second (cfs) as measured at gage station 11242000 with the following exceptions:

- From October 1 to April 1 of a dry or critical water year for the San Joaquin Basin, as defined in the SWRCB's 1995 Bay-Delta Water Quality Control Plan, with the reduced flow period beginning the following October:

15 cubic feet per second (cfs) as measured at gage 11242000 below Dam No. 7, provided the combined flow of the San Joaquin River and Willow Creek (as measured by gage 11246500) is maintained at 20 cfs. For purposes of this condition, the water year type shall be based on the California Department of Water Resources' (DWR) final May San Joaquin Valley Water Year Hydrologic Classification.

- With the written consent of the Chief of the Division of Water Rights, the flows in this condition may be temporarily modified during and to the extent required for performance of required maintenance of the dam, the outlet facility, and minimum flow release facilities. The Licensee shall notify the Chief of the Division of Water Rights at least five working days prior to any such departure. The Licensee also may modify the minimum flow requirement temporarily in the event of operating emergencies beyond the control of the Licensee or in the interest of public safety, in which case the Licensee shall notify the SWRCB and the USFS as soon as practicable, but at most 10 days, after making such an emergency flow modification.

- Licensee shall within one year of issuance of a new project license develop an Adaptive Management Plan for river flows (AMP) and submit the plan to the Chief of the Division of Water Rights for approval. The river flow AMP shall be developed in consultation with the TRG. After notice and opportunity for hearing, the Division Chief may modify the AMP as appropriate. Within 45 days of approval, the Licensee shall file the AMP with the FERC and implement the AMP.

The AMP shall include the following elements:

Objective

The objectives of the AMP shall be: (1) to provide flow releases for whitewater boating, through management of spill and by scheduled release, that are consistent with resource objectives (as identified in the Basin Plan, Forest Plan, and License, as amended) within the bypass reach, and (2) to provide minimum flows that would enhance and/or protect

the condition of the native fishery consistent with other resource objectives (as identified in the Basin Plan, Forest Plan, and License, as amended) within the bypass reach.

Monitoring, Evaluation, and Initial Implementation

River flow AMP actions shall be based on an annual cycle of monitoring, evaluation and initial implementation for a five-year period after AMP approval. The monitoring, evaluation and initial implementation actions shall incorporate the following components, which may be further refined in consultation with the TRG:

- Whitewater flow survey – The AMP shall provide for a whitewater flow survey. The purpose of the survey shall be to determine the navigability of the fast rapid for intermediate boaters. The range of flows to be evaluated shall be 1,000 to 1,500 cfs. The Licensee shall implement the approved survey and report the results to the SWRCB by March 15 of the calendar year following approval of the AMP, unless implementing the survey and reporting the results by that date is not feasible, in which case the Licensee shall implement the survey and report the results by March 15 of the subsequent year. Based on the results of the survey, the SWRCB may set the subsequent whitewater release flows.
 - Monitoring - The AMP shall provide for a five-year monitoring program. Monitoring shall be designed to evaluate whether the native aquatic species are in good condition, and the effect of flow on species condition. Monitoring shall be consistent with the final Native Aquatic Species Management Plan required by condition 13. The first year of the monitoring program shall consist of an initial evaluation whether aquatic species are in good condition, with an emphasis on hardhead, foothill yellow-legged frog, and western pond turtle populations and habitats, and the impact of project operations, including both minimum flows and recreational flows, on the condition of aquatic species.
- Monitoring parameters, which shall be refined by the Licensee in consultation with the TRG, may include but are not limited to:
- " Population abundance
 - " Population age structure
 - " Growth and physical condition

- " Spawning and population recruitment
- " Distribution
- " Key habitats influenced by minimum flow or scheduled releases
- " Summer water temperature
- " Cause and effect relationships
- " Other critical factors developed in consultation with the TRG

- Adaptive Management Reports -For each year of the five-year adaptive management period, the Licensee shall review monitoring results and evaluate the effect of project operations, including minimum flows and recreational flows, on the condition of aquatic species. For the first four years of the adaptive management period, the Licensee shall develop, in consultation with the TRG and any other interested persons, adaptive management proposals for the following year, which may include increased minimum flows, a change in the volume or schedule of recreation flows, or other changes in project operations designed to reduce or enhance the effects of controllable factors. The Licensee shall prepare a report that contains monitoring results, an evaluation of the condition of aquatic species, any adaptive management proposals, and the record of TRG consultation. The report shall be submitted to the Chief of the Division of Water Rights for review and approval. Based on the report, the Division Chief may, after notice and opportunity for hearing, require additions or modifications to Licensee's adaptive management proposals. The Licensee shall file the approved report with the FERC and implement the approved actions.

- Long-Term Operating Rules- Upon completion of the fifth year of monitoring, evaluation, and initial implementation, the Licensee, in consultation with the TRG, shall evaluate and propose, if appropriate, operating rules for release of scheduled whitewater boating flows, or modification of minimum river flow requirements specified in condition 11, that unless further modified would apply for the remaining term of the new project license. The Licensee, in consultation with the TRG, also shall evaluate the need and schedule for long-term monitoring. The Licensee shall prepare a report that contains a summary of the monitoring results from the five-year adaptive management period, an evaluation of the condition of aquatic species, proposed long-term operating rules, and the record of TRG consultation. Licensee shall submit the report to the Chief of

the Division of Water Rights for review and approval. Based on the report, the Division Chief may, after notice and opportunity for hearing, require additions or modifications to Licensee's proposed long-term operating rules. Within 45 days of approval, the Licensee shall file the approved report with the FERC and implement the requirements. If results of the first five years of monitoring, evaluation, and initial implementation are inconclusive due to insufficient observations during a range of water year types, the SWRCB may extend the monitoring and evaluation period until sufficient data are collected.

- Annual Schedule - The Licensee shall submit the first annual report described above to the Division Chief by March 15 of the calendar year following approval of the AMP, unless submitting the report by that date is not feasible, in which case the Licensee shall submit the report by March 15 of the subsequent year. The SWRCB will attempt to review and approve any proposed changes by April 15. Each subsequent report shall be due by March 15th of the following calendar year.

- Evaluation of Adaptive Management Proposals - Adaptive management actions shall be evaluated based on:
 1. whether affected species are in good condition;
 2. whether species are at risk of decline due to proposed recreation flows; or
 3. whether species condition would be enhanced, or be more fully protected by changes in project operation.

The definition of species in good condition articulated by Dr. Peter Moyle in his testimony in the Putah Creek Water Cases, Putah Creek Council v. Solano Irrigation District et al., Judicial Council Coordination No. 2565, Sacramento County Superior Court No. 515766, and referenced in Moyle et al., Fish Health and Diversity: Justifying Flows for a California Stream, in Fisheries, Vol. 23, No. 7 (July 1998), shall be used to evaluate the status of aquatic species in the project area and the risk to, and potential enhancement of, the population from adaptive management actions.

- Peer Review -The Licensee, in consultation with the TRG, shall incorporate peer review into the adaptive management process, as appropriate, to support technical evaluations.

- Spill Management for Recreation Flows - The Licensee shall analyze the feasibility of managing spill using existing infrastructure to provide recreational boating opportunities below Dam No. 7 during weekend periods (Friday, Saturday), between 1:00 a.m. and 3:00 p.m., and include the results of this analysis in the AMP. If managing spill is feasible, Licensee shall develop and include in the AMP a plan to manage spill that establishes a practical method for managing flow control. The initial target range of flows shall be 1,000 to 1,500 cfs, subject to adjustment based on the required white water flow survey.
- Ramping Rates - The Licensee, in consultation with the TRG, shall evaluate ramping rates as part of the feasibility study for managing river flows. A range of ramping rate targets shall be considered, including 150 cfs per hour up, and 100 cfs per hour down. The Licensee, in consultation with the TRG, shall evaluate these ramping rates to determine rates that are adequate to protect public safety and ecological resources. The results of the Licensee's evaluation of ramping rates also shall be included in the AMP.
- Cap on Release Days - The Licensee, in consultation with the TRG, shall develop and include in the AMP a proposed initial schedule for boating flow release days. The schedule shall include at least one day, and may include only one day if consistent with other resource objectives. The initial boating flow release days shall be scheduled during the first year of the five-year adaptive management period described above. Days shall be added to or deleted from the initial schedule based on boater use. Adjustments to days shall be made each year, based on the use monitoring results for scheduled boating days the previous year. The use trigger for adding a day shall be 40 boats/day (with a raft counting as 2 boats). The down trigger shall not apply to the number of days scheduled for boating flow releases in the first year. Provided that the new project license is for a 30-year term, total annual scheduled boating flow release days shall be capped at 6 days per year for wet years, 3 days per year for above normal years, and 9 days per year for below normal, dry, and critical years, as defined by DWR for the San Joaquin Basin. For purposes of this condition, the water year type shall be based on the DWR final May San Joaquin Valley Water Year Hydrologic Classification.

In the event that the new project license is for a term longer than 30 years,

- the Division Chief may, after notice and opportunity for hearing, modify the cap on release days based on recreational demand.
- Whitewater Use Monitoring - Licensee shall monitor whitewater recreation use annually from May 1st through August 31st, through on-site boat counts, or video. If video is used, the Licensee shall verify the accuracy of video system initially through on-site boat counts. The Licensee shall monitor using a stratified sampling design, to assure 75% of weekend days, and 50% of weekdays are monitoring during spill periods, and 100% of days during any scheduled releases.
 - Suspension of Recreational Flow Releases - Power generation shall take priority over scheduled recreational flow releases during Cal ISO Stage 1 through Stage 3 (or equivalent) power emergencies.
13. Within one year following the issuance of a new project license, the Licensee shall develop a final Native Aquatic Species Management Plan (NASMP) and submit it to the Chief of the Division of Water Rights for approval. The NASMP shall be developed in consultation with the TRG. After notice and opportunity for hearing, the Division Chief may modify the NASMP as appropriate. Upon approval, the Licensee shall file the plan with the FERC and implement any required actions. The purpose of the NASMP shall be to establish a framework for the protection and preservation of an existing refugium for native transition-zone fish, amphibians, and reptiles in and around Redinger Lake and the Horseshoe Bend reach of the San Joaquin River. The NASMP and its objectives as amended shall remain in effect for the life of the new project license.
- Specific objectives of the NASMP shall be:
- Describe the significance of the project area as a native aquatic species refugium relative to other west slope Sierra streams. The NASMP shall describe the status of the native aquatic species in the Project area and identify fish, reptile, and amphibian species' populations to be protected and managed. A baseline condition for habitat and populations of native aquatic species shall be established.
 - Identify habitat protection measures and enhancement opportunities. In addition, identify potential threats to habitats and native aquatic species'

communities, and propose actions to protect against identified threats to habitats and/or native aquatic species communities.

The NASMP shall include the following elements:

- The NASMP shall provide for monitoring of habitat and target native aquatic species consistent with the AMP described in condition 12, above, to determine if project operations are having a beneficial or detrimental effect. The Licensee shall develop monitoring protocols in consultation with the TRG that must be approved by the Chief of the Division of Water Rights before monitoring is implemented. The Licensee shall review monitoring results annually. If monitoring results indicate that a decline in baseline habitat conditions or aquatic communities has occurred, then Licensee shall evaluate, in consultation with the TRG, whether the decline is related to minimum instream flows, and whether the minimum instream flow requirements specified in condition 11 should be modified. The Licensee shall prepare a report that contains monitoring results, the evaluation described above, and the record of TRG consultation, and submit the report to the Chief of the Division of Water Rights. Based on the report, the Division Chief may modify, after notice and opportunity for hearing, the minimum instream flow requirements specified in condition 11.
- In addition, the Licensee shall evaluate, in consultation with the TRG, opportunities to protect or enhance habitats within the project area every five years. Licensee shall only be responsible for project-related controllable factors. Licensee shall prepare a report that contains this evaluation and the record of TRG consultation, and submit the report to the Chief of the Division of Water Rights. Based on the report, the Division Chief may, after notice and opportunity for hearing, require reasonable changes in project operations designed to enhance or more fully protect habitat conditions or aquatic communities.

14. Within one year of the date of the issuance of a new project license, the Licensee shall file with the FERC a plan approved by the Chief of the Division of Water Rights for sediment management within the project area. The purpose of the plan shall be to reduce project induced sediment delivery into the Horseshoe Bend reach of the San Joaquin River within the Project area. The Licensee shall develop

the plan in consultation with the TRG and other appropriate state and federal resource agencies and shall ensure that the plan meets the goals and objectives defined in the NASMP.

The plan, shall include but shall not be limited to the following components:

- Identification of project induced sediment sources and delineation of opportunities for controlling and stabilizing problem areas within the project area. Both project-related activities and natural events contributing sediment to the Horseshoe Bend reach shall be identified, and evaluation of specific causes of sedimentation from Willow Creek, the toe of Long Ridge, and Backbone Creek shall be included.
 - A prescription section shall define management measures and procedures designed to reduce project-induced sediment movement and delivery to the San Joaquin River. Procedures may include: 1) revegetating slopes exposed by past construction, land management practices or fire; 2) constructing berms or installing culverts to reduce erosion; and 3) stabilizing banks and slopes with manmade or natural materials.
 - An implementation section shall identify a schedule for completion of the identified stabilization projects. Effectiveness monitoring shall be conducted for the projects within 3 years of completion, and a project maintenance schedule shall be identified as necessary.
15. At least 30 days prior to conducting any non-emergency project maintenance or repair work involving the river, including desilting of the dam impoundment, impoundment drawdowns to facilitate repair or maintenance work, dredging, and exercising of valves, the Licensee shall submit a proposal to the Chief of the Division of Water Rights for prior review and approval. Any request for approval of a proposal to conduct maintenance or repair work shall include:
 - A description of potential impacts to designated beneficial uses from the proposed activity, including any possible changes in chemical or physical water quality parameters.
 - A description of proposed monitoring measures. Monitoring may include measurements of turbidity, dissolved oxygen, pH, total and dissolved

metals, biostimulatory compounds, bacteria, petroleum products, and other relevant physical and chemical water quality parameters. Water quality sampling may also include stream bioassessment sampling and measurement of fish spawning-substrate quality prior to and following any release of sediment from project reservoirs and/or impoundments.

- Proposed or anticipated stream flow schedule during and following the planned maintenance or repair.
- A description of water quality mitigation or enhancement measures necessary to protect the beneficial uses of the river, including a description of emergency procedures to be implemented in the event of accidental or uncontrolled release of flow, sediment, or potentially toxic substances.

The Licensee may develop a comprehensive plan for standard maintenance and repair activities. Provided the plan is approved by the Chief of the Division of Water Rights, the Licensee may conduct maintenance or repair work consistent with the plan without the need for separate approval, of a particular activity covered by the plan.

16. Any recreation plans developed pursuant to the USFS (4e) conditions that may result in erosion or discharge of materials into waters of the state shall be submitted to the Chief of the Division of Water Rights and the RWOCB for review and comment prior to, or concurrent with, the submittal of the plan to the USFS for approval.
17. 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 (Fish & G. Code §§ 2050 to 2097) or the federal Endangered Species Act (16 U.S.C.A. §§ 1531 to 1544). If a "take" will result from any act authorized under this certification, or any water rights held by the Licensee, the Licensee shall obtain authorization for the take prior to any construction or operation of the project. Licensee shall be responsible for meeting all requirements of the applicable Endangered Species Act for the project authorized under this certification.
18. The authorization to operate the project pursuant to this certification is conditioned upon payment of all applicable fees for review and processing the application for

water quality certification and administering the State's water quality certification program, including but not limited to timely payment of any annual fees or similar charges that may be imposed by future statutes or regulations for the State's reasonable costs of a program to monitor and oversee compliance with conditions of water quality certification.