

UNITED STATES OF AMERICA 114 FERC ¶62,081
FEDERAL ENERGY REGULATORY COMMISSION

South San Joaquin Irrigation and Oakdale Irrigation District

Project No. 2005-012

ORDER ISSUING NEW LICENSE

(January 30, 2006)

INTRODUCTION

1. On December 23, 2002, South San Joaquin Irrigation District and Oakdale Irrigation District, cooperatively operating as the Tri-Dam Project (Tri-Dam or licensee) filed an application for a new license, pursuant to sections 4(e) and 15 of the Federal Power Act (FPA),¹ to continue operation and maintenance of the Beardsley/Donnells Hydroelectric Project No. 2005. The project's authorized capacity being licensed is 82.5 megawatts (MW). The Beardsley/Donnells Hydroelectric Project is located on the Middle Fork Stanislaus River in Tuolumne County, California. The project is entirely within the Stanislaus National Forest and occupies 1,366 acres of lands of the United States. As discussed below, I am issuing a new license for the project.

BACKGROUND

2. The current license for the project, issued on July 26, 1949,² expired on December 31, 2004. Since then, Tri-Dam has operated the project under an annual license pending the disposition of its new license application.

3. On January 2, 2004, the Commission issued a public notice accepting the application and requesting motions to intervene, protests, comments, recommendations, terms and conditions, and prescriptions. The following entities filed timely, unopposed motions to intervene: American Whitewater Affiliation; California State Water Resources Control Board (Water Board); Friends of the River; Central Sierra Environmental Resources Center; Trout Unlimited; County of Tuolumne; Tuolumne Public Power Agency; Tuolumne Utilities District; Pacific Gas and Electric Company (PG&E); and U.S. Forest Service (Forest Service).³ Untimely motions to intervene were

¹ 16 U.S.C §§ 797(e) and 808, respectively.

² 8 FPC 1027 (1949), 9 FPC 654 (1950), and 10 FPC 810 (1951).

³ Timely unopposed motions to intervene are granted by operation of Rule 214 of the Commission's Rules of Practice and Procedure. 18 C.F.R. § 385.214 (2005).

filed by Calaveras Public Power Agency and County of Calaveras. These late interventions were granted in a notice issued July 18, 2005. None of the intervenors oppose the project. Comments in response to the Commission's notice were filed by the Forest Service and the U.S. Department of the Interior (Interior).

4. On March 1, 2004, Tri-Dam submitted recommended resource measures for the Beardsley/Donnells Project that replaced the originally proposed measures in the license application. Consensus from a relicensing collaborative group resulted in these recommended protection, mitigation, and enhancement measures. The specific details of these consensus measures are discussed below.

5. On September 30, 2004, Commission staff issued for comment a multi-project draft environmental impact statement (EIS)⁴ which included the evaluation of the environmental effects from Tri-Dam's proposal with the consensus measures and alternatives for relicensing the Beardsley/Donnells Project. Comments were due by December 7, 2004. In addition, the Commission accepted oral testimony on the draft EIS at two meetings, both held on November 16, 2004, in Sonora, California. Commission staff considered all oral and written comments received in preparing the final EIS, which was issued on March 1, 2005. All motions to intervene, comments, and recommendations have been fully considered in determining whether, and under what conditions to issue this license.

PROJECT DESCRIPTION

6. The existing Beardsley/Donnells Project is composed of the Beardsley and Donnells developments. The current authorized capacity of the Beardsley unit is 9.99 MW. The licensee plans to upgrade the Beardsley turbine and generator, increasing the capacity to 10.5 MW. The current authorized capacity of the Donnells unit is 55.875 MW. The licensee upgraded the Donnells unit from 55.875 to 72.0 MW, which was completed in 1990.⁵ The new authorized capacity for the entire Project is 82.5 MW.

7. The Donnells development consists of: (1) the 425-acre Donnells reservoir, with a gross storage capacity of 64,325 acre-feet at normal maximum water surface elevation of 4,921 feet (USGS datum)^{6,7} and a useable storage capacity of 59,325 acre-feet; (2)

⁴ EIS for the Stanislaus River Projects, FERC Nos. 2130, 2005, 2118, and 2067.

⁵ On August 18, 1999, Tri-Dam reported an increase in generation capacity to 72 MW. On June 29, 2000, the Commission's Office of Energy Projects responded that the change in capacity would be evaluated during the relicensing process.

⁶ Normal maximum water surface elevations in USGS vertical datum for

Donnells dam, a 483-foot-high, 960-foot-long concrete arch dam with a 220-foot-long spillway controlled by five 35-foot by 19-foot radial gates and one 48-inch-diameter and one 16-inch-diameter low-level outlet; (3) Donnells tunnel, a 37,065-foot-long, 11-foot-diameter unlined horseshoe tunnel with a maximum hydraulic capacity of 750 cubic feet per second (cfs); (4) Donnells penstock, a 2,600-foot-long, 81-inch-diameter exposed riveted steel penstock; (5) Donnells powerhouse, a 93-foot by 77-foot concrete structure; (6) one generating unit driven by a vertical-axis Pelton turbine with a maximum hydraulic capacity of 770 cfs; (7) Donnells switchyard; and (8) other appurtenant facilities.

8. The Beardsley development consists of: (1) the 720-acre Beardsley reservoir with a gross storage capacity of 97,802 acre-feet at a normal maximum water surface elevation of 3,405 feet (USGS datum)⁸ and a usable storage capacity of 72,644 acre-feet; (2) Beardsley dam, a 280-foot-high, 1,000-foot-long rockfill dam with a 180-foot-long spillway controlled by four 40-foot by 30-foot radial gates and one 48-inch-diameter low-level outlet; (3) Beardsley tunnel, a 696-foot-long, 15.5-foot-diameter unlined horseshoe tunnel with a maximum hydraulic capacity of 800 cfs; (4) Beardsley penstock, a 742-foot-long, 96-inch-diameter riveted steel penstock; (5) Beardsley powerhouse, a 63-foot by 65-foot concrete structure; (6) one generating unit driven by a vertical-axis Francis turbine with a maximum hydraulic capacity of 800 cfs that is currently limited to 620 cfs; (7) Beardsley switchyard; (8) the 33-acre Beardsley afterbay reservoir with a gross storage capacity of 355 acre-feet at a normal maximum water surface elevation of 3,142.7 feet (USGS datum) and a usable storage capacity of 121 acre-feet; (9) Beardsley afterbay dam, a 30-foot-high, 112-foot-long timber crib and rockfill dam with an uncontrolled 114-foot-long spillway and one 72-inch square slide gate that serves as a low-level outlet; and (10) other appurtenant facilities.

9. The Donnells-Curtis Transmission Line Project owned by PG&E (FERC No. 2118) includes the primary transmission lines from the Beardsley and Donnells powerhouses.⁹ An 8-mile-long, 115-kilovolt (kV) transmission line extends from the

Beardsley/Donnells reservoirs are based on adjustment factors applied to Tri-Dam vertical datum as shown on area-capacity curves provided by Tri-Dam (letter from S. Felte, General Manager, Tri-Dam, to the Commission, dated August 13, 2003). This adjustment is different from that presented in the license application.

⁷ The water surface in Donnells reservoir varies by approximately 130 feet, with the highest levels typically in June and lowest elevation in late winter or early spring.

⁸ The water surface in Beardsley reservoir varies by approximately 60 feet, with the highest levels typically in July and lowest elevation in late winter.

⁹ PG&E filed an application for a new license for the Donnells-Curtis

Donnells powerhouse to PG&E's Spring Gap Junction. A 2.2-mile-long, 115-kV transmission line tap extends from the Beardsley powerhouse to the Donnells transmission line.

10. The Beardsley/Donnells Project is located entirely within Forest Service lands on the Middle Fork Stanislaus River in Tuolumne County, within the Sierra Nevada Mountain Range of north-central California. Operation of the Beardsley/Donnells Project is coordinated with the operation of PG&E's Spring Gap-Stanislaus Project (FERC No. 2130). At the headwaters to the Middle Fork Stanislaus River, approximately 16 miles upstream of Donnells reservoir, PG&E's Relief reservoir (FERC No. 2130) is the uppermost project facility and acts as a storage reservoir for both PG&E's and Tri-Dam's downstream hydropower projects. Releases from Relief reservoir are coordinated with Tri-Dam to limit spill at Donnells reservoir. Donnells reservoir is a storage facility and is usually operated to limit spillage at Donnells dam and the downstream Beardsley dam during the peak spring runoff period. At Donnells dam (the downstream end of Donnells reservoir), most flow is diverted into the 8-mile-long Donnells power tunnel. The power tunnel feeds Donnells powerhouse, located near the upstream end of Beardsley reservoir on the Middle Fork Stanislaus River. The required minimum flow¹⁰ is released at Donnells dam into the 8.1-mile-long bypassed reach of the Middle Fork Stanislaus River. Immediately downstream of the Donnells powerhouse, the Middle Fork Stanislaus River flows into Beardsley reservoir. Beardsley reservoir is usually operated to limit spillage during the peak spring runoff period and to provide generation during the summer months. The intake to Beardsley powerhouse is located at the base of Beardsley dam. There is no bypassed reach and flow from the powerhouse is returned immediately to the river. Approximately one mile downstream of the Beardsley dam and powerhouse is the Beardsley afterbay impoundment and dam. The Beardsley afterbay is cycled to maintain minimum flows (below the afterbay dam) to the Middle Fork Stanislaus River, and to provide water for peak power production at PG&E's downstream Spring-Gap Stanislaus Project (FERC No. 2130).

11. The project boundary incorporates lands occupied by project structures, access roads, and recreational facilities. Recreational facilities within the project boundary include: (1) a whitewater boating take-out and put-in at Donnells dam; (2) Beardsley dam campground; (3) Beardsley day-use area and boat launch; and (4) China Flat day-use area. At the Donnells development, the 425-acre reservoir is surrounded by 79 acres of project land. The project boundary includes all land

Transmission Line Project on December 26, 2002. This proceeding is currently pending before the Commission.

¹⁰ The required minimum flow amount is set by the Water Quality Certification and varies depending on the water year type and time of year.

within five vertical feet of the normal maximum water surface elevation of 4,921 feet (USGS), encompassing less than 20 horizontal feet at most locations around the reservoir because of the adjoining steep topography. However, within about 600 feet of Donnells dam, the project boundary flairs out to encompass land about 300 feet from the waters edge on the north side of the reservoir and 1,100 feet from the waters edge on the south side of the reservoir, including an aggregate quarry site use during the construction of Donnells dam (adit 2 spoil pile). The project boundary at the Donnells development also includes a 200-foot-wide strip of land over the power tunnel, a 66-foot-wide right-of-way associated with the access road to Donnells dam (FS Road 5N09X), about five acres of land associated with adit 2 and the associated spoil pile, and about 19 acres associated with the Donnells powerhouse, including the USGS gage at Hell's Half-Acre.

12. At the Beardsley development, the 720-acre reservoir is surrounded by about 46 acres of project land. The project boundary includes all land within five vertical feet of the normal maximum water surface elevation of 3,405 feet, encompassing less than 20 horizontal feet at most locations around the reservoir because of the steep topography. At the site of the Beardsley campground, the project boundary extends horizontally up to about 400 feet from the edge of the normal full pond level. The project boundary also includes about 24 acres of land around the 33 acre Beardsley afterbay, which provides from about 100 to 250 feet of horizontal distance from the waters edge on the north shore of the afterbay (near the China Flats day-use area) and from about five to 75 feet of horizontal distance from the waters edge on the south shore of the afterbay. In addition, the project boundary for the Beardsley development includes a 60-foot-wide right-of-way associated with the access road to Donnells dam (FS Road 5N02).

13. The final EIS recommended inclusion of Forest Service Road 4N29 into the project boundary of a new license for the project. This road is approximately one mile long and provides public access to the Beardsley day-use area. This road serves project purposes because it is needed for access by the public for recreational use of project lands and waters, and to ensure necessary operations and maintenance of the day-use area. Ordering paragraph (F) requires the addition of this road to the project boundary, and Article 203 requires the revised Exhibit G drawings to include Forest Service Road 4N29.

14. Tri-Dam proposes to continue to operate the project as it has historically been operated, but with additional environmental measures. As part of these measures, Tri-Dam will maintain minimum instream flows and spring supplemental instream flows, provide regulated ramping rates, perform a trout density study, stabilize a spoil pile site,

and implement numerous environmental management plans. There will also be a new flow gaging station at Donnells dam and extensive rehabilitation of four existing recreational facilities.

WATER QUALITY CERTIFICATION

15. Under section 401(a)(1) of the Clean Water Act (CWA),¹¹ the Commission may not issue a license for a hydroelectric project unless the state water quality certifying agency either has 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 provides that the certification shall become a condition on any federal license that authorizes construction or operation of the project.¹²

16. On December 10, 2002, Tri-Dam applied to the Water Board for certification for the Beardsley/Donnells Project. Each year since that date, Tri-Dam has withdrawn and refiled its application. On September 16, 2005, the Water Board issued certification for the Beardsley/Donnells Project that includes 25 conditions, which are set forth in Appendix A of this order and incorporated into the license (see ordering paragraph D). This certification includes requirements for: protecting the water quality standards of the Middle Fork Stanislaus River; coordinating project operations with PG&E's Spring Gap-Stanislaus Project (FERC No. 2130) and Tri-Dam's Sand Bar Project (FERC No. 2975); passing large woody debris; annually determining water year type; releasing minimum and supplemental flows; studying trout density; making recreation streamflow information publicly available; stabilizing a project-related spoils pile; rehabilitating Beardsley campground; providing boating access below Donnells dam; and submitting a bald eagle and peregrine falcon management plan. Article 401 requires the licensee to file, for Commission approval, plans required by the certification conditions.

SECTION 4(e) FINDINGS AND CONDITIONS

17. Section 4(e) of the FPA, 16 U.S.C. § 797(e), provides that the Commission can issue a license for a project located within any 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.

¹¹ 33 U.S.C. § 1341(a)(1).

¹² 33 U.S.C. § 1341(d).

18. The Stanislaus National Forest was established in 1897.¹³ At that time, the Organic Administration Act of 1897¹⁴ stated that all national forest lands were established and administered only for watershed protection and timber production. There is no evidence or allegation in this proceeding that relicensing the Beardsley/Donnells Project would interfere with the purposes of the Stanislaus National Forest within which the project is located. Therefore, I find that this license, as conditioned, will not interfere or be inconsistent with the purposes for which the Stanislaus National Forest was created.

19. FPA section 4(e) further requires that Commission licenses for projects located within federal reservations must include all conditions that the Secretary of the department under whose supervision the reservation falls shall deem necessary for the adequate protection and utilization of such reservation. The Beardsley/Donnells Project is located entirely within the Stanislaus National Forest, under Forest Service supervision, and occupies 1,366 acres.

20. On November 30, 2004, the Forest Service timely filed 41 section 4(e) conditions for the project. These conditions are contained in Appendix B and included in this license by ordering paragraph (E). Condition 1 reserves the Forest Service's authority to modify these final terms and conditions in the event that the parties enter into a settlement agreement, resolving issues raised in this relicensing proceeding, in order to provide terms and conditions consistent with the terms of any such settlement. Condition 2 reserves the Forest Service's right to modify the section 4(e) conditions if any final biological opinion is issued for this project by the U.S. Fish and Wildlife Service (FWS), or any certification issued for this project by the Water Board.

21. The remaining conditions require the following: (3) Forest Service approval prior to any new construction on Forest Service lands; (4) Forest Service approval prior to making any changes to the project; (5) consultation with the Forest Service with regard to measures needed to ensure protection and utilization of the National Forest resources affected by the project; (6) assurance that National Forest resources are restored to satisfactory condition prior to any surrender of the license; (7) a hazardous substances plan; (8) requirements for the use of explosives; (9) a fire prevention, response, and investigation plan; (10) unrestricted road use by the United States government; (11)

¹³ The Stanislaus Forest Reserve was established by Presidential Proclamation on February 22, 1897, 29 Stat 898. Section 4(e) of the FPA, 16 U.S.C. § 797(e), authorizes the Commission to issue licenses for projects that are located on reservations of the United States, and section 3(2) of the FPA, 16 U.S.C. § 796(2), defines reservations as including national forests.

¹⁴ 16 U.S.C. § 475.

restriction of project vehicles to specifically designated access routes; (12) maintenance of the project to standards acceptable to the Forest Service; (13) a safety-during-construction plan for any ground-disturbing activity; (14) restrictions for pesticide use; (15) an erosion control plan; (16) the project being subject to all valid rights and claims by third parties; (17) complying with all laws and regulations; (18, 19, and 21) protection of United States' lands and indemnification of the United States for any violations; (20) avoiding disturbance to all land survey monuments, property corners, and boundary markers; (22) identifying and reporting of all hazardous conditions within the project boundary; (23) maintaining suitable road and trail crossings; (24) Forest Service reservation to use any part of the licensed area on National Forest System lands for any purpose, if it does not interfere with the project; (25) consulting with the Forest Service before erecting safety signs; (26) a fuel treatment plan; (27) a road management plan; (28) a recreation implementation plan; (29) making recreation streamflow information publicly available; (30) a heritage resources management plan; (31) annually determining the forecasted water-year type; (32) maintaining specified minimum streamflows in the Donnell's Reach; (33) maintaining specified ramping rates below Donnell's dam; (34) passing large woody debris downstream of Donnell's dam; (35) providing annual employee awareness training regarding special status species and noxious weeds; (36) annual review of the list of special status species and a resurvey of suitable habitat every 10 years; (37) consulting with the Forest Service regarding any proposed activities not specifically addressed in the Commission's NEPA document; (38) implementing measures for bats; (39) performing a study of trout density in the Middle Fork Stanislaus River from Donnell's dam to Beardsley reservoir; (40) a bald eagle and peregrine falcon management plan; and (41) a noxious weed management plan.

FISHWAY PRESCRIPTIONS

22. Section 18 of the FPA,¹⁵ 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.

23. By letter dated March 1, 2004, Interior requested that the Commission reserve authority to prescribe fish passage facilities for the project. Consistent with the Commission's policy, Article 405 of this license reserves the Commission's authority to require fishways that may be prescribed by Interior for the project.

THREATENED AND ENDANGERED SPECIES

24. Section 7(a)(2) of the Endangered Species Act of 1973¹⁶ requires federal agencies

¹⁵ 16 U.S.C. § 811.

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 their designated critical habitat.

25. The project could potentially affect two federally listed threatened species: the valley elderberry longhorn beetle and the bald eagle. No critical habitat would be affected. In the EIS, we concluded that relicensing the project would have no effect on the beetle.

26. In the EIS, we also concluded that relicensing the project, with our recommended measures, is likely to adversely affect the bald eagle as a result of the potential effects of recreational use on the known nesting site at Beardsley reservoir. By letter dated October 5, 2004, we initiated formal consultation with the U.S. Fish and Wildlife Service.

27. On April 26, 2005, the U.S. Fish and Wildlife Service issued a biological opinion concluding that the project is not likely to result in jeopardy to the bald eagle. It included one term and condition calling for the implementation of the “project description as described in the final EIS and final section 4(e) conditions submitted by the Forest Service.” This license includes the environmental measures discussed in the EIS (Articles 401 through 408) and incorporates the final section 4(e) conditions (Appendix B), consistent with the term and condition.

28. In the biological opinion, the U.S. Fish and Wildlife Service also provided a conservation recommendation calling for Tri-Dam to continue to assist the U.S. fish and Wildlife Service in implementing recovery efforts for the bald eagle.

29. The WQC condition 13 and section 4(e) condition require the licensee to develop the bald eagle and peregrine falcon management plan and Article 401 requires the licensee to submit the plan for Commission approval. The plan would identify habitat protection measures and enhancement opportunities, identify potential threats to habitat or prey base and describe protective actions, provide for periodic monitoring, and include development of a GIS database to map and track habitat, use patterns, potential threats, and protective actions. This plan would minimize adverse effects on the bald eagle. This plan is consistent with the conservation recommendation.

NATIONAL HISTORIC PRESERVATION ACT ISSUES

30. On September 21, 2005, the California State Historic Preservation Officer and the Commission’s Office of Energy Projects executed a programmatic agreement for

¹⁶ 16 U.S.C. § 1536(a).

managing historic properties that may be affected by the relicensing and continued operation of the Beardsley/Donnells and Tulloch Projects. Article 408 requires the licensee to implement the agreement, including but not limited to the associated historic properties management plan for the projects. The agreement serves to satisfy the Commission's responsibilities under section 106 of the National Historic Preservation Act.¹⁷

RECOMMENDATIONS OF FEDERAL AND STATE FISH AND WILDLIFE AGENCIES

31. Section 10(j)(1) of the FPA,¹⁸ requires the Commission, when issuing a license, to include conditions based on recommendations by federal and state fish and wildlife agencies submitted pursuant to the Fish and Wildlife Coordination Act,¹⁹ to "adequately and equitably protect, mitigate damages to, and enhance fish and wildlife (including related spawning grounds and habitat)" affected by the project. Neither the FWS nor California Department of Fish and Game (Cal Fish and Game) filed section 10(j) recommendations for the Beardsley/Donnells Project.

OTHER ISSUES

Consensus-recommended Resource Measures

32. On March 1, 2004, Tri-Dam submitted 17 recommended resource measures for the Beardsley/Donnells Project that replaced the originally proposed measures in the license application. Consensus from a relicensing collaborative group²⁰ resulted in these recommended measures. These measures address the following issues: (1) annual employee awareness training regarding special status species and noxious weeds; (2) coordinated operations with Spring-Gap Stanislaus Project; (3) large woody debris; (4) special status species; (5) ground-disturbing activities; (6) water-year types; (7) ramping rate; (8) minimum flows; (9) trout density study; (10) noxious weeds management; (11) bats; (12) bald eagle and peregrine falcon; (13) heritage resource management plan; (14)

¹⁷ 16 U.S.C. §470(f).

¹⁸ 16 U.S.C. §803(j)(1).

¹⁹ 16 U.S.C. §§ 661, *et seq.*

²⁰ Participants in the relicensing collaborative group included Tri-Dam, PG&E, Cal Fish and Game, Central Sierra Environmental Resources Center, Forest Service, Friends of the River, Water Board, Tuolumne Utilities District, Trout Unlimited, FWS, National Park Service, and American Whitewater.

recreation streamflow information; (15) recreation facilities and administration; (16) fuel treatment plan; and (17) road management plan.

33. No opposition regarding these recommended resource measures was filed. Requirements of the WQC and the section 4(e) conditions have incorporated all of these measures.

Coordination Agreement with the Spring-Gap Stanislaus Project

34. The WQC condition 1 requires Tri-Dam to coordinate project operations with the operations of PG&E's Spring-Gap Stanislaus Project, consistent with a "Coordinated Operations Agreement." This agreement has not yet been filed with the Commission, nor does WQC condition 1 contain a mechanism for establishing protocols regarding specific flow releases. The final EIS recommended a detailed operations agreement. The WQC condition 1 requires coordination of project operations and Article 402 requires the filing of a detailed operations agreement.

Flow Release and Monitoring Plan

35. The WQC conditions 6 and 7 and section 4(e) conditions 32 and 33 require specific minimum flows and ramping rates for the project, but did not include any specific requirements regarding how these provisions would be monitored. The final EIS recommended that Tri-Dam develop a flow release and monitoring plan to assure compliance with the required flows and ramping rates. Additionally, the final EIS recommended that the plan includes procedures for establishing a new flow gage below Donnells dam and conceptual designs for any structural changes needed to implement the required flow changes. Article 403 requires a flow release and monitoring plan.

Adit Number 2 Spoil Pile Stabilization and Management Plan

36. The excavation of the Donnells power tunnel resulted in the deposition of excavated rock material 0.5 mile from Donnells reservoir and upslope of the Donnells reach within the project boundary. Tri-Dam and the FS have used material from this pile as road base over the past 30 years. The storage and subsequent erosion of excavated material from the adit no. 2 spoil pile may adversely affect water quality within Lily Creek (tributary to the MFSR that passes through the spoil pile site) and the Donnells reach of the Middle Fork Stanislaus River.

37. Although the WQC condition 10 requires Tri-Dam to submit an adit no. 2 spoil pile plan, it only requires that the plan include specific measures to protect water quality in Lily Creek. The final EIS recommended that this stabilization and management plan should be expanded to include the Middle Fork Stanislaus River and provide more details

such as provisions for an overall plan schedule, phased stabilization of the spoil pile, and procedures for removing and disposing the scrap metal in the pile. The WQC condition 10 requires an adit number 2 spoil pile stabilization and Article 404 requires a more detailed management plan that is developed in consultation with both the Forest Service and the Water Board.

Protection of Special Status Raptors during Construction Activities

38. The final EIS recommended that Tri-Dam consult with the Forest Service annually, and identify limited construction periods during upcoming recreation facility rehabilitation, expansion, or construction or other planned ground-disturbing activities that may be needed to prevent disturbance to northern goshawks and California spotted owls. Article 406 requires a plan for the protection of special status raptors during construction activities.

Road Management Plan

39. Although the section 4(e) condition 27 requires Tri-Dam to file a road management plan, the condition does not include specific guidelines for road access, new project-related construction, or other road maintenance actions not specifically covered in the road management plan. The final EIS recommended a road management plan developed in consultation with the Forest Service. In addition to the requirements of the section 4(e) condition, the final EIS recommended that such a plan include: specific guidelines that define recreational access during the winter, taking into account public safety and potential disturbance of bald eagles during the breeding season; and when the licensee will be responsible for conducting studies, analyses, and review associated with any needed new project-related construction, realignment, closure, or other road maintenance actions not specifically covered in the road management plan. The section 4(e) condition 27 requires a road management plan and Article 407 requires more plan specificity.

ADMINISTRATIVE CONDITIONS

A. Annual Charges

40. The Commission collects annual charges from licensees for administration of the FPA. Article 201 provides for the collection of funds for administration of the FPA.

B. Exhibit Drawings

41. The Commission requires licensees to file sets of approved project drawings on microfilm and in electronic file format. Article 202 and 203 requires the filing of these drawings.

C. Headwater Benefits

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

D. Review of Final Plans and Specifications

43. As recommended in the final EIS, this license requires construction of new facilities, including the new flow gaging station at Donnells dam and recreational facilities. Article 301 requires Tri-Dam to file revised exhibits A, F, and G to describe and show the project facilities as-built.

STATE AND FEDERAL COMPREHENSIVE PLANS

44. Section 10(a)(2)(A) of the FPA,²¹ requires the Commission to consider the extent to which a project is consistent with federal or state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by the project.²² Under section 10(a)(2)(A), federal and state agencies filed comprehensive plans that address various resources in California. Of these, the staff identified and reviewed 20 comprehensive plans that are relevant to this project.²³ No conflicts were found.

APPLICANT'S PLANS AND CAPABILITIES

45. In accordance with sections 10(a)(2)(c) and 15(a) of the FPA, we have evaluated Tri-Dam's record as a licensee with respect to the following: (A) conservation efforts; (B) compliance history and ability to comply with the new license; (C) safe management, operation, and maintenance of the project; (D) ability to provide efficient and reliable electric service; (E) need for power; (F) transmission service; (G) cost effectiveness of

²¹ 16 U.S.C. § 803(a)(2)(A).

²² Comprehensive plans for this purpose are defined at 18 C.F.R. § 2.19.

²³ The list of applicable plans can be found in section 5.5 of the final EIS for the project, issued March 2005.

plans; and (H) actions affecting the public. I accept staff's findings in each of the following areas.

A. Conservation Efforts

46. Section 10(a)(2)(C) of the FPA requires the Commission to consider the electricity consumption improvement program of the applicant, including its plans, performance, and capabilities for encouraging or assisting its customers to conserve electricity cost-effectively, taking into account the published policies, restrictions, and requirements of state regulatory authorities. Tri-Dam sells the project's energy to PG&E, a utility. PG&E promotes conservation of electricity use by its customers.

47. Staff concludes that, given the limits of its ability to influence users of the electricity generated by the project, Tri-Dam complies with section 10(a)(2)(C) of the FPA.

B. Compliance History and Ability to Comply with the New License

48. Based on a review of Tri-Dam's compliance with the terms and conditions of the existing license, staff finds that Tri-Dam's overall record of making timely filings and compliance with its license is satisfactory. Staff concludes that Tri-Dam can satisfy the conditions of a new license.

C. Safe Management, Operation, and Maintenance of the Project

49. Commission staff reviewed Tri-Dam's management, operation, and maintenance of the Beardsley/Donnells Project pursuant to the requirements of 18 C.F.R. Part 12 and the Commission's Engineering Guidelines and periodic Independent Consultant's Safety Inspection Reports. Staff concludes that the dam and other project works are safe, and that there is no reason to believe that Tri-Dam cannot continue to safely manage, operate, and maintain these facilities under a new license.

D. Ability to Provide Efficient and Reliable Electric Service

50. Commission staff reviewed Tri-Dam's plans and its ability to operate and maintain the project in a manner most likely to provide efficient and reliable electric service. Tri-Dam has been operating the project in an efficient manner within the constraints of the existing license. Staff concludes that Tri-Dam is capable of operating the project to provide efficient and reliable electric service in the future.

E. Need for Power

51. The Stanislaus River Projects are a resource that is important to the operation of the Stanislaus River system as a whole. The project has been providing hydroelectric generation for about 50 years. Under the conditions of this license, the Beardsley/Donnells Project can continue to meet part of California's power requirements, resource diversity, and capacity needs.

52. The Beardsley/Donnells Project has an installed capacity of 81.99 MW and currently generates an average of 370,500 MWh per year. With the Beardsley generator and turbine upgrade the installed capacity will increase to 82.5 MW, however Tri-Dam does not expect an increase in annual generation.

53. The North American Electric Reliability Council (NERC) annually forecasts electrical supply and demand nationally and regionally for a 10-year period. The Beardsley/Donnells Project is located in the California-Mexico Power Area (CA/MX) of the Western Electricity Coordinating Council (WECC). According to the NERC's most recent 2004 forecast, peak demands and annual energy requirements for the CA/MX are projected to grow at annual compound rates of 2.2 percent and 2.4 percent, respectively, from 2004 through 2013. NERC projects resource capacity margins (generating capacity in excess of demand) will range between 22.8 percent and 39.4 percent of firm peak demand during the 10-year forecast period, including estimated new capacity additions. Over the next 10 years, CA/MX estimates that about 5,541 MW of additional capacity will be brought on line. I conclude that power from the Beardsley/Donnells Project would help meet a need for power and ancillary services in the CA/MX in both the short and long term.

F. Transmission Services

54. The project's transmission facilities that are required to be licensed include the generator leads, station transformers, buses and switchyard located at the powerhouse. Tri-Dam proposes no changes that would affect transmission facilities.

G. Cost Effectiveness of Plans

55. Tri-Dam plans to make a number of facility and operational modifications to both improve project generating capability and enhance environmental resources affected by the project. Based on Tri-Dam's record as an existing licensee, I conclude that these plans are likely to be carried out in a cost-effective manner.

H. Actions Affecting the Public

56. Tri-Dam provided extensive opportunity for public involvement in the

development of its application for a new license for the Beardsley/Donnells Project. In its license application, Tri-Dam cites flat-water recreational opportunities as the most direct benefit provided to the public by the operation of the project.

PROJECT ECONOMICS

57. In determining whether to issue a new license for an existing hydroelectric project, 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 *Mead Corp.*,²⁴ the Commission 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 of 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.

58. In applying this analysis to the Beardsley/Donnells Project, we have considered three options: no action, the applicant's proposal, and the project as licensed herein. Under the no-action alternative, the levelized annual cost of operating the Beardsley/Donnells Project is \$4,803,000, or \$13.0/megawatt-hour (MWh). The project now generates 370,534 MWh annually. When we multiply our estimate of average generation by the alternative power cost of \$36.2/MWh,²⁵ we get a total value of the project's power of \$13,410,000 in 2004 dollars. To determine whether the project is currently economically beneficial, staff subtracts the project's cost from the value of the project's power.²⁶ Therefore, in the first year of a new license, the project would cost \$8,607,000, or \$23.2/MWh, less than the likely alternative cost of power.

59. Under Tri-Dam's Proposal (including the completed and planned turbine and generator upgrades at Beardsley and Donnells, respectively), the levelized annual cost of operating the project would be about \$5,363,000, or \$15.2/MWh. Based on an estimated average of 352,552 MWh, the project would produce power valued at \$12,506,000 when

²⁴ 72 FERC ¶ 61,027 (1995).

²⁵ Based on Tri-Dam's average cost of energy from qualified facilities. Staff assumed the value would apply for 2004 and added a rate of \$30/kilowatt-year for dependable capacity.

²⁶ Details of staff's economic analysis for the project as licensed herein and for various alternatives are included in the final EIS issued March 2005.

multiplied by the \$35.5/MWh value of the project's power. Therefore, in the first year of the new license, the power would cost \$7,143,000, or \$20.2/MWh, less than the likely cost of alternative power.

60. As licensed herein, with the mandatory conditions and staff measures, the levelized annual cost of operating the project would be about \$5,366,490, or \$15.2/MWh. Based on an estimated average of 352,552 MWh as licensed, the project would produce power valued at \$12,506,000 when multiplied by the \$35.5/MWh value of the project's power. Therefore, in the first year of the new license, project power would cost \$7,139,000, or \$20.3/MWh, less than the likely cost of alternative power.

61. In considering public interest factors, the Commission takes into account that hydroelectric projects offer unique operational benefits to the electric utility system (ancillary service benefits). These benefits include their capability to provide an 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.

COMPREHENSIVE DEVELOPMENT

62. Sections 4(e) and 10(a)(1) of the FPA,²⁷ respectively, require the Commission to give equal consideration to the power 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 or waterways for all beneficial public uses. The decision to license this project, and the terms and conditions included herein, reflect such consideration.

63. The EIS for the Beardsley/Donnells Project contains background information, analysis of effects, support for related license articles, and the basis for a finding that the project will not result in any major, long-term adverse environmental effects. The project would be safe if operated and maintained in accordance with the requirements of this license.

64. Based on my independent review and evaluation of the Beardsley/Donnells Project, recommendations from the resource agencies and other stakeholders, and the no-action alternative, as documented in the EIS, I have selected the Beardsley/Donnells

²⁷ 16 U.S.C. §§ 797(e) and 803(a)(1).

Project, with staff-recommended measures, and find that it is best adapted to a comprehensive plan for improving or developing the Stanislaus River.

65. I selected this alternative because: (1) issuance of a new license would serve to maintain a beneficial, dependable, and inexpensive source of electric energy; (2) the required environmental measures would protect and enhance fish and wildlife resources, water quality, recreational resources, and historic properties; and (3) the 82.5 MW of electric energy generated from a renewable resource would continue to offset the use of fossil-fueled, steam-electric generating plants, thereby conserving nonrenewable resources and reducing atmospheric pollution.

LICENSE TERM

66. Section 15(e) of the FPA²⁸ provides that any new license issued shall be for a term that the Commission determines to be in the public interest, but not less than 30 years or more than 50 years. The Commission's general policy is to establish 30-year terms for projects with little or no redevelopment, new construction, new capacity, or environmental mitigation and enhancement measures; 40-year terms for projects with a moderate amount of such activities; and 50-year terms for projects with extensive measures. Additionally, 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 relicensing proceedings can also be coordinated.²⁹

67. This license requires upgrades to the Beardsley turbine and generator as well as a moderate amount of environmental enhancement measures including: (1) minimum instream flows; (2) spring supplemental instream flows; (3) regulated ramping rates; (4) trout density study; (5) stabilization of a spoil pile site; (6) new flow gaging station at Donnells dam; (7) rehabilitation of four existing recreational facilities; and (8) implementation of environmental management plans for the protection and enhancement of aquatic, terrestrial, and recreational resources. Consequently, a 40-year license for the Beardsley/Donnells Project is appropriate.

²⁸ 16 U.S.C. § 808(e).

²⁹ In issuing new 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 (2004).

The Director orders:

(A) This license is issued to the South San Joaquin Irrigation District and Oakdale Irrigation District, cooperatively operating as the Tri-Dam Project (Tri-Dam or licensee), for a period of 40 years, effective the first day of the month in which this order is issued, to construct, operate and maintain the Beardsley/Donnells Hydroelectric Project. This license is subject to the terms and conditions of the 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:

(1) All lands enclosed by the project boundary shown by Exhibit G filed December 23, 2002:

Exhibit G:

<u>Drawing</u>	<u>FERC No.</u>	<u>Description</u>
G-1	2005-1001	Beardsley Project-Map of Project Boundary
G-2	2005-1002	Donnells Project-General Layout, Tunnel & Powerhouse
G-3	2005-1003	Donnells Project-Map of reservoir Project Boundary
G-4	2005-1004	Donnells Project-Topography of Reservoir Area (1 of 2)
G-5	2005-1005	Donnells Project-Topography of Reservoir Area (2 of 2)
G-6	2005-1006	Maps of Project Boundary
G-7	2005-1007	Beardsley Afterbay Dam-Map of Project Boundary
G-8	2005-1008	Beardsley Project-Access roads to Beardsley Dam

(2) The Beardsley/Donnells Project is composed of the Beardsley and Donnells developments and has a total authorized capacity of 82.5 MW. The Donnells development consists of: (1) the 425-acre Donnells reservoir, with a gross storage capacity of 64,325 acre-feet at normal maximum water surface elevation of 4,921 feet

(USGS datum) and a useable storage capacity of 59,325 acre-feet; (2) Donnells dam, a 483-foot-high, 960-foot-long concrete arch dam with a 220-foot-long spillway controlled by five 35-foot by 19-foot radial gates and one 48-inch-diameter and one 16-inch-diameter low-level outlet; (3) Donnells tunnel, a 37,065-foot-long, 11-foot-diameter unlined horseshoe tunnel with a maximum hydraulic capacity of 750 cfs; (4) Donnells penstock, a 2,600-foot-long, 81-inch-diameter exposed riveted steel penstock; (5) Donnells powerhouse, a 93-foot by 77-foot concrete structure; (6) one 72-MW generating unit driven by a vertical-axis Pelton turbine with a maximum hydraulic capacity of 770 cfs; (7) Donnells switchyard; and (8) other appurtenant facilities.

The Beardsley development consists of: (1) the 720-acre Beardsley reservoir with a gross storage capacity of 97,802 acre-feet at a normal maximum water surface elevation of 3,405 feet (USGS datum) and a usable storage capacity of 72,644 acre-feet; (2) Beardsley dam, a 280-foot-high, 1,000-foot-long rockfill dam with a 180-foot-long spillway controlled by four 40-foot by 30-foot radial gates and one 48-inch-diameter low level outlet; (3) Beardsley tunnel, a 696-foot-long, 15.5-foot-diameter unlined horseshoe tunnel with a maximum hydraulic capacity of 800 cfs; (4) Beardsley penstock, a 742-foot-long, 96-inch-diameter riveted steel penstock; (5) Beardsley powerhouse, a 63-foot by 65-foot concrete structure; (6) one 10.5-MW generating unit driven by a vertical-axis Francis turbine with a maximum hydraulic capacity of 800 cfs that is currently limited to 620 cfs; (7) Beardsley switchyard; (8) the 33-acre Beardsley afterbay reservoir with a gross storage capacity of 355 acre-feet at a normal maximum water surface elevation of 3,142.7 feet (USGS datum) and a usable storage capacity of 121 acre-feet; (9) Beardsley afterbay dam, a 30-foot-high, 112-foot-long timber crib and rockfill dam with an uncontrolled 114-foot-long spillway and one 72-inch square slide gate that serves as a low-level outlet; and (10) other appurtenant facilities.

The project works generally described above are more specifically shown and described by those parts of Exhibits A and F shown below:

Exhibit A: The following sections of exhibit A filed on December 23, 2002:

Pages A-5 to Page A-10

Exhibit F: The following sections of exhibit F filed on December 23, 2002:

<u>Drawing</u>	<u>FERC No.</u>	<u>Showing</u>
F-1	2005-1009	Donnells Project-Tunnel Control Works
F-2	2005-1010	Donnells Project-Tunnel and Penstock, Profile & Sections

F-3	2005-1011	Donnells Development-Plan of Powerplant, Turbine Level
F-4	2005-1012	Donnells Development-Plan of Powerplant, Generator Floor Level
F-5	2005-1013	Beardsley Powerhouse-General Layout
F-6	2005-1014	Beardsley Tunnel and Penstock Structures-General Structures
F-7	2005-1015	Beardsley Powerhouse-General Layout
F-8	2005-1016	Beardsley Switchyard-General Layout
F-9	2005-1017	Donnells Power Tunnel-General Layout
F-10	2005-1018	Donnells Power Tunnel-Structures, General Sections
F-11	2005-1019	Donnells Penstock-General Layout
F-12	2005-1020	Donnells Powerhouse General Layout

(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 and other rights that are necessary or appropriate in the operation or maintenance of the project.

(C) The Exhibits A and F described above are approved and made part of this license. The Exhibit G drawings filed as part of the application for license do not conform to Commission regulations and are not approved.

(D) This license is subject to the conditions submitted by the California State Water Resources Control Board under section 401(a)(1) of the Clean Water Act, 33 U.S.C. § 1431(a)(1), as those conditions are set forth in Appendix A to this order.

(E) This license is subject to the conditions submitted by the United States Department of Agriculture's Forest Service under section 4(e) of the FPA, as those conditions are set forth in Appendix B to this order.

(F) This license includes the addition of Forest Service Road 4N29 to the project boundary. The licensee shall file with the Commission a statement indicating the revised amount of federal lands occupied by the project within 30 days of this order, so the Commission can amend Article 201 of the license regarding the licensee's payment for the use of federal lands.

(G) 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 Navigable Waters," and the following additional articles:

Article 201. *Administrative Annual Charges.* The licensee shall pay the United States an annual charge, effective as of the first day of the month in which this license is issued, for the purpose 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. From January 1, 1990, the authorized installed capacity for that purpose is 81.99 megawatts (MW), until the date of the Beardsley unit upgrade, after which time the authorized installed capacity is 82.5 MW.
- b. Recompensing the United States for the use, occupancy, and enjoyment of 1,366 acres of its lands.

Article 202. *Exhibit Drawings.* Within 45 days of license issuance, 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 Project-Drawing Number (i.e., P-2005-1001 through P-2005-####) 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 (i.e., F-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-943.5)
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 raster 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. Exhibit F drawings must be identified as (CEII) material under 18 CFR §388.113(c). Each drawing must be a separate electronic file, and the file name shall include: FERC Project-Drawing Number, FERC Exhibit, Drawing Title, date of this license, and file extension in the following format [P-2005-####, F-1, Project Works, 01-01-2006.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 desired, (200 dpi min)
DRAWING SIZE FORMAT – 24” X 36” (min), 28” X 40” (max)
FILE SIZE – less than 1 MB desired

Article 203. Exhibit G Drawings. Within 90 days of license issuance, the licensee shall file with the Commission for approval, revised Exhibit G drawings enclosing within the project boundary all principal project works necessary for operation and maintenance of the project. The Exhibit G drawings shall also include Forest Service Road 4N29, as described in ordering paragraph (F). The Exhibit G drawings must comply with sections 4.39 and 4.41 of the Commission's regulations.

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, the new

flow gaging station at Donnells dam and recreational facilities), the licensee shall file, for Commission approval, revised exhibits A, F, and G, as applicable, to describe and show those project facilities as built. A courtesy copy shall be filed with the Commission's D2SI-San Francisco Regional Engineer, the Director, D2SI, and the Director, DHAC.

Article 401. Plans Required by Mandatory Conditions.

(a) Requirement to File Plans and Reports for Commission Approval

Various conditions of this license found in the California State Water Resources Control Board's (Water Board) Water Quality Certification (WQC) (Appendix A) and the U.S. Forest Service's (Forest Service) final section 4(e) conditions (Appendix B) require the licensee to implement measures without filing the plans for the measures with the Commission for approval, prepare reports documenting the results of studies and surveys for approval by the Forest Service or the Water Board, and enter into agreements with the Forest Service or the Water Board, without filing the reports or agreements with the Commission for approval. Each such plan, report, and agreement shall also be submitted to the Commission for approval. These plans, reports, and agreements are listed below.

WQC No.	Section 4(e) Condition No.	Plan Name	Due Date From License Issuance
1	--	Revisions or amendments to the coordinated operations agreement ³⁰	As needed
7	--	Water temperature trigger recommendation	1 year
8	--	Donnells Reach trout density study report	6 years
9	--	Modifications to the Internet posting protocols for recreation streamflow information	As needed
10	--	Adit No. 2 spoil pile stabilization and management plan ³¹	1 year
11	28	Beardsley campground site development plan	1 year ³²

³⁰ See Article 402.

³¹ See Article 404.

³² This plan must be filed within one year, as required by the WQC. The final 4(e) condition 28 requires an overall recreation implementation plan to be filed with the

13	40	Bald eagle and peregrine falcon management plan	1 year
--	7	Hazardous substances plan	1 year
--	9	Fire prevention, response, and investigation plan	1 year
--	13	Safety during construction activity plan	60 days prior to ground-disturbing activity
--	14	Pesticide use request for approval	As needed
--	15	Erosion control plan	As needed
--	25	Project-related signage plan	60 days prior to installation
--	26	Fuel treatment plan	1 year
--	27	Road management plan ³³	1 year
--	41	Noxious weed management plan	1 year

The licensee shall submit to the Commission documentation of its consultation, copies of comments and recommendations made in connection with each plan, report, or agreement, and a description of how each plan, report, or agreement 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, report, or agreement submitted. Upon Commission approval, each plan, environmental measure, or agreement becomes a requirement of the license, and the licensee shall implement the plan, measure, or agreement, or after notice and opportunity for hearing, changes in project operations or facilities that may be deemed necessary based upon data generated by the plans.

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

Commission for approval within one year of license issuance. However, we note that under the final 4(e) condition 28, the Forest Service required that the specific site development plan for the Beardsley Campground be submitted within three years of license issuance.

³³ See Article 407.

The WQC condition 1 requires the licensee to notify the Water Board in advance if it is unable to coordinate its operation to enable Pacific Gas and Electric Company to meet the flow conditions of the Spring Gap-Stanislaus Project (FERC No. 2130) license and water quality certification, including minimum daily flows, supplemental flows, and recreation streamflow events. The WQC condition 3 requires the licensee to notify the Water Board in advance if flows from the Sand Bar Project (FERC No. 2975) are to be reduced.

The Commission shall be notified in advance of any such inability to coordinate project operations with the Spring Gap-Stanislaus Project or reductions in flows at the Sand Bar Project. A report documenting the reason for any such coordination problems and proposed corrective actions, if appropriate, will also be provided to the Commission within one month after such an event occurs.

The final section 4(e) condition 33 specifies a ramping rate for licensee-controlled streamflow releases at Donnells dam but would allow the licensee to temporarily modify the specified ramping rates due to emergency or law enforcement activities, agency requirements, equipment malfunction, or electric system emergencies beyond the control of the licensee. However, there are no provisions in this condition to notify any entity of any such deviations from license requirements. The WQC condition 6 provides for notification to the Water Board of any temporary modifications of the specified ramping rate, including prior to any needed facility modifications to consistently achieve the specified ramping rate.

The Commission shall be notified no later than 10 days after each such incident. A report documenting the reason that ramping rates were not followed will also be provided to the Commission within 30 days after such an event occurs.

(c) Requirement to File Amendment Applications.

Certain final section 4(e) and WQC conditions contemplate unspecified long-term changes to project operations or facilities for the purpose of compensating for currently unknown environmental affects. These changes may not be implemented until Commission authorization is granted after the filing of an application to amend the license. These conditions are listed below.

WQC Condition No.	Section 4(e) Condition No.	Modification
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WQC Condition No.	Section 4(e) Condition No.	Modification
1, 3	--	Project changes that result from modifications of the conditions of the water quality certification to address coordination with operations of the Spring Gap-Stanislaus Project and Sand Bar Project as needed to protect water quality
20	--	Project changes that result from additions or modifications of the water quality certification as a result of violations of the conditions of the certification issued on September 16, 2005
22	--	Project changes that result from modification or revocation of the water quality certification as a result of administrative or judicial review
23	--	Project changes that result from modification or revocation of the water quality certification as a result of monitoring that indicates that continued operation of the project would violate water quality objectives or impair the beneficial uses of the Middle Fork Stanislaus River and tributaries
24	--	Project changes that result from additions or modifications of the water quality certification as a result of implementation of any new or revised water quality standards and implementation plans
25	--	Project changes that result from additions or modifications of the water quality certification as a result of coordination of this project with other water development projects, where coordination is reasonably necessary to achieve water quality standards or protect beneficial uses of water
--	1	Project changes based on a recreation settlement agreement
--	28	Substantive changes to the Beardsley day use area that result from proposed recreational use monitoring

Article 402. Coordination Agreement of Project Operations with those of the Spring-Gap Stanislaus Project. Within one year of license issuance, the licensee shall file with the Commission for approval, an agreement with the licensee of the Spring Gap-Stanislaus Project regarding protocols for the licensee of the Spring Gap-Stanislaus Project to call for release of water at Beardsley dam or powerhouses to maintain the flow regime in the Sand Bar dam reach, downstream of the Sand Bar diversion dam, that is specified in a new license for the Spring Gap-Stanislaus Project. In the event that an

agreement cannot be reached by the one-year time period, the licensee shall file a report with the Commission providing details regarding why agreement cannot be reached and whether or not negotiations to reach agreement are ongoing and, if so, when the expected agreement shall be filed with the Commission.

Any report documenting reasons why agreement cannot be reached shall be developed in consultation with the licensee of the Spring Gap-Stanislaus Project. The licensee shall include with the report that it files with the Commission, documentation of consultation with the licensee of the Spring Gap-Stanislaus Project, copies of comments and recommendations made in connection with the report, and a description of how the report accommodates the comments and recommendations. The licensee shall allow a minimum of 30 days for the licensee of the Spring Gap-Stanislaus Project to comment and to make recommendations before filing the report with the Commission. 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 require changes to any agreement that may be reached. The agreement shall not be implemented until the licensee is notified that the agreement is approved. Upon Commission approval, the licensee shall implement the agreement, including any changes required by the Commission. In the absence of an agreement, the Commission reserves the right to require implementation of protocols that it specifies, based on the evidence available in the record for this proceeding.

Article 403. Flow Release and Monitoring Plan. Within one year of license issuance, the licensee shall file with the Commission for approval, a flow release and monitoring plan. The plan shall include, at a minimum: (1) a description of how the minimum daily flows, minimum supplemental flows, and ramping rates specified in California State Water Resources Control Board (Water Board) water quality certification (WQC) conditions 6 and 7 (Appendix A) and U.S Forest Service (Forest Service) section 4(e) conditions 32 and 33 (Appendix B) will be implemented; (2) the location of the new flow gage at or near Donnells dam; (3) the location(s) of the staff gage(s) near the Donnells dam spillway channel outlet and, if feasible, other angling access points (as specified in section 4(e) condition 29, WQC condition 9); (4) the equipment that will be used to measure and record the minimum daily flows and river stage (for ramping rate compliance documentation) specified in item (2); (5) a description of the frequency and procedures for calibrating the staff gage specified in (3) and equipment specified in (4); (6) the proposed means to enable the recreating public to correlate the water level indications on the staff gage specified in (3) with flow in the Donnells reach in cubic feet per second; (7) a schedule for installing all flow measuring devices; and (8) procedures for reporting any non-compliance with the specified minimum daily flows, minimum supplemental flows, and ramping rates.

In the event that structural modifications are proposed to better enable achievement of the minimum daily flows, minimum supplemental flows, or ramping rate criteria, established in section 4(e) conditions 32 and 33, and WQC conditions 6 and 7, the licensee shall include in the flow release and monitoring plan a structural modification plan. The plan shall include, at a minimum: (1) conceptual designs for any structural changes that are proposed; (2) the advantages of the proposed modifications over existing flow release or ramping rate control measures; (3) the costs of implementing the structural changes; (4) any alternatives that may be more cost-effective (while achieving the objectives of achieving the specified flows and minimizing downramping effects); and (5) a schedule for implementing the proposed structural change.

The flow release and monitoring plan shall be developed in consultation with the Forest Service, U.S. Geological Survey, the Water Board, and California Department of Fish and Game. The licensee shall include with the flow release and monitoring plan that it files with the Commission, documentation of agency consultation, copies of comments and recommendations made in connection with the plan, and a description of how the plan accommodates the comments and recommendations. The licensee shall allow a minimum of 60 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 project-specific information.

The Commission reserves the right to require changes to the plan. Any structural aspects of the plan shall not be implemented until the licensee is notified that the plan is approved. However, specified flows and ramping rates shall be provided within 6 months of license issuance within the capabilities of the existing facilities, in accordance with the section 4(e) conditions 32 and 33, and WQC conditions 6 and 7. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

Article 404. *Adit Number 2 Spoil Pile Stabilization and Management Plan.* Within one year of license issuance, the licensee shall file with the Commission for approval, an adit number 2 spoil pile stabilization and management plan to protect water quality and minimize fire hazards and aesthetic effects. The plan shall include, at a minimum, the following: (1) specific measures that will be implemented to protect the water quality of Lily Creek and the Middle Fork Stanislaus River, consistent U.S. Forest Service (Forest Service) section 4(e) condition 15 (Appendix B); (2) provisions for phased stabilization of portions of the spoil pile that are no longer actively used for off-site purposes; (3) specific procedures that will be used for removing and properly disposing of scrap metal embedded in the spoil pile that minimizes fire hazards; (4) a conceptual site restoration plan, including diagrams, that describes measures that will be implemented to restore the site once all usable material has been removed; (5) a proposed monitoring plan and schedule during stabilization and following site restoration to ensure

that implemented environmental protection measures are functioning as planned and to identify the need for remedial action; and (6) an overall schedule for stabilization and restoration of the entire spoil pile site, once all useable material has been removed.

The plan shall be developed in consultation with the Forest Service and the State Water Resources Control Board. The licensee shall include with the adit number 2 spoil pile stabilization and management plan that it files with the Commission, documentation of agency consultation, copies of comments and recommendations made in connection with the plan, and a description of how the plan accommodates the comments and recommendations. The licensee shall allow a minimum of 60 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 project-specific information.

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

Article 405. *Reservation of Authority to Prescribe Fishways.* Authority is reserved to the Commission to require the licensee to construct, operate, and maintain, or to provide for the construction, operation, and maintenance of, such fishways, as may be prescribed by the Secretary of the Interior, pursuant to Section 18 of the Federal Power Act.

Article 406. *Protection of Special Status Raptors during Construction Activities.* Within one year of license issuance, the licensee shall file with the Commission for approval, a plan for the protection of special status raptors during construction activities. The plan shall include, at a minimum: (1) identification of limited construction periods during upcoming recreation facility rehabilitation, expansion, or construction, or other planned ground-disturbing activities that may be needed to prevent disturbance to northern goshawks and California spotted owls; and (2) provisions for how these protective measures would be incorporated into the annual employee awareness training, specified in section 4(e) condition 35, and in the peregrine and bald eagle management plan, specified in section 4(e) condition 40.

The plan for the protection of special status raptors during construction shall be developed in consultation with the U.S. Forest Service. The licensee shall include with plan that it files with the Commission, documentation of agency consultation, copies of comments and recommendations made in connection with the plan, and a description of how the plan accommodates the comments and recommendations. The licensee shall allow a minimum of 60 days for the agency 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 project-specific information.

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

Article 407. Road Management Plan. The licensee shall include in the road management plan that will be filed with the Commission for approval pursuant to U.S. Forest Service (Forest Service) section 4(e) condition 27 (Appendix B), the following: (1) specific guidelines that will be used to open the gate of Forest Service Road 5N02 to provide recreational access during the winter, taking into account public safety and potential disturbance of bald eagles during the breeding season; and (2) specific guidelines that define when the licensee will be responsible for conducting studies, analyses, and review associated with any needed new project-related construction, realignment, closure, or other road maintenance actions not specifically covered in the road management. The guidelines developed pursuant to item (1) above, shall also be included in the bald eagle and peregrine falcon management plan, specified in section 4(e) condition 40.

The plan shall be developed in consultation with the U.S. Forest Service. The licensee shall include with plan that it files with the Commission, documentation of agency consultation, copies of comments and recommendations made in connection with the plan, and a description of how the plan accommodates the comments and recommendations. The licensee shall allow a minimum of 60 days for the agency 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 project-specific information.

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

Article 408. Implementation of Approved Programmatic Agreement. The licensee shall implement the "Programmatic Agreement Among the Federal Energy Regulatory Commission (FERC) and the California State Historic Preservation Officer for Managing Historic Properties That May be Affected by Licenses Issued to Tri-Dam Project for the Continued Operation of the Beardsley/Donnells and Tulloch Projects in Tuolumne and Calaveras Counties, California (FERC Nos. 2005 and 2067)" executed on September 21,

2005, including but not limited to the Historic Properties Management Plan (HPMP) for the Beardsley/Donnells Project attached to the Programmatic Agreement. In the event the Programmatic Agreement is terminated, the licensee shall implement the provisions of the approved HPMP. The Commission reserves the authority to require changes to the HPMP at any time during the term of the license. If the Programmatic Agreement is terminated, the licensee shall obtain approvals from or make notifications to the Commission, the Forest Service, and the California State Historic Preservation Officer where the HPMP calls upon the licensee to do so.

(H) The Licensee shall serve copies of any Commission filing required by this order on any entity specified in the Order to be consulted on matters relating to that filing. Proof of service on these entities must accompany the filing with the Commission.

(I) This order 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 of any other date specified in this order, except as specifically ordered by the Commission. The Licensee's failure to file a request for rehearing shall constitute acceptance of this order.

J. Mark Robinson
Director
Office of Energy Projects

Form L-1
(October, 1975)

FEDERAL ENERGY REGULATORY COMMISSION

**TERMS AND CONDITIONS OF LICENSE
FOR CONSTRUCTED MAJOR PROJECT AFFECTING
LANDS OF THE UNITED STATES**

Article 1. The entire project, as described in this order of the Commission, shall be subject to all of the provisions, terms, and conditions of the license.

Article 2. No substantial change shall be made in the maps, plans, specifications, and statements described and designated as exhibits and approved by the Commission in its order as a part of the license until such change shall have been approved by the Commission: *Provided, however,* That if the Licensee or the Commission deems it necessary or desirable that said approved exhibits, or any of them, be changed, there shall be submitted to the Commission for approval a revised, or additional exhibit or exhibits covering the proposed changes which, upon approval by the Commission, shall become a part of the license and shall supersede, in whole or in part, such exhibit or exhibits theretofore made a part of the license as may be specified by the Commission.

Article 3. The project area and project works shall be in substantial conformity with the approved exhibits referred to in Article 2 herein or as changed in accordance with the provisions of said article. Except when emergency shall require for the protection of navigation, life, health, or property, there shall not be made without prior approval of the Commission any substantial alteration or addition not in conformity with the approved plans to any dam or other project works under the license or any substantial use of project lands and waters not authorized herein; and any emergency alteration, addition, or use so made shall thereafter be subject to such modification and change as the Commission may direct. Minor changes in project works, or in uses of project lands and waters, or divergence from such approved exhibits may be made if such changes will not result in a decrease in efficiency, in a material increase in cost, in an adverse environmental impact, or in impairment of the general scheme of development; but any of such minor changes made without the prior approval of the Commission, which in its judgment have produced or will produce any of such results, shall be subject to such alteration as the Commission may direct.

Article 4. The project, including its operation and maintenance and any work

incidental to additions or alterations authorized by the Commission, whether or not conducted upon lands of the United States, shall be subject to the inspection and supervision of the Regional Engineer, Federal Energy Regulatory Commission, in the region wherein the project is located, or of such other officer or agent as the Commission may designate, who shall be the authorized representative of the Commission for such purposes. The Licensee shall cooperate fully with said representative and shall furnish him such information as he may require concerning the operation and maintenance of the project, and any such alterations thereto, and shall notify him of the date upon which work with respect to any alteration will begin, as far in advance thereof as said representative may reasonably specify, and shall notify him promptly in writing of any suspension of work for a period of more than one week, and of its resumption and completion. The Licensee shall submit to said representative a detailed program of inspection by the Licensee that will provide for an adequate and qualified inspection force for construction of any such alterations to the project. Construction of said alterations or any feature thereof shall not be initiated until the program of inspection for the alterations or any feature thereof has been approved by said representative. The Licensee shall allow said representative and other officers or employees of the United States, showing proper credentials, free and unrestricted access to, through, and across the project lands and project works in the performance of their official duties. The Licensee shall comply with such rules and regulations of general or special applicability as the Commission may prescribe from time to time for the protection of life, health, or property.

Article 5. The Licensee, within five years from the date of issuance of the license, shall acquire title in fee or the right to use in perpetuity all lands, other than lands of the United States, necessary or appropriate for the construction maintenance, and operation of the project. The Licensee or its successors and assigns shall, during the period of the license, retain the possession of all project property covered by the license as issued or as later amended, including the project area, the project works, and all franchises, easements, water rights, and rights or occupancy and use; and none of such properties shall be voluntarily sold, leased, transferred, abandoned, or otherwise disposed of without the prior written approval of the Commission, except that the Licensee may lease or otherwise dispose of interests in project lands or property without specific written approval of the Commission pursuant to the then current regulations of the Commission. The provisions of this article are not intended to prevent the abandonment or the retirement from service of structures, equipment, or other project works in connection with replacements thereof when they become obsolete, inadequate, or inefficient for further service due to wear and tear; and mortgage or trust deeds or judicial sales made thereunder, or tax sales, shall not be deemed voluntary transfers within the meaning of this article.

Article 6. In the event the project is taken over by the United States upon the

termination of the license as provided in Section 14 of the Federal Power Act, or is transferred to a new licensee or to a nonpower licensee under the provisions of Section 15 of said Act, the Licensee, its successors and assigns shall be responsible for, and shall make good any defect of title to, or of right of occupancy and use in, any of such project property that is necessary or appropriate or valuable and serviceable in the maintenance and operation of the project, and shall pay and discharge, or shall assume responsibility for payment and discharge of, all liens or encumbrances upon the project or project property created by the Licensee or created or incurred after the issuance of the license: *Provided*, that the provisions of this article are not intended to require the Licensee, for the purpose of transferring the project to the United States or to a new licensee, to acquire any different title to, or right of occupancy and use in, any of such project property than was necessary to acquire for its own purposes as the Licensee.

Article 7. The actual legitimate original cost of the project, and of any addition thereto or betterment thereof, shall be determined by the Commission in accordance with the Federal Power Act and the Commission's Rules and Regulations thereunder.

Article 8. The Licensee shall install and thereafter maintain gages and stream-gaging stations for the purpose of determining the stage and flow of the stream or streams on which the project is located, the amount of water held in and withdrawn from storage, and the effective head on the turbines; shall provide for the required reading of such gages and for the adequate rating of such stations; and shall install and maintain standard meters adequate for the determination of the amount of electric energy generated by the project works. The number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, shall at all times be satisfactory to the Commission or its authorized representative. The Commission reserves the right, after notice and opportunity for hearing, to require such alterations in the number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, as are necessary to secure adequate determinations. The installation of gages, the rating of said stream or streams, and the determination of the flow thereof, shall be under the supervision of, or in cooperation with, the District Engineer of the United States Geological Survey having charge of stream-gaging operations in the region of the project, and the Licensee shall advance to the United States Geological Survey the amount of funds estimated to be necessary for such supervision, or cooperation for such periods as may mutually agreed upon. The Licensee shall keep accurate and sufficient records of the foregoing determinations to the satisfaction of the Commission, and shall make return of such records annually at such time and in such form as the Commission may prescribe.

Article 9. The Licensee shall, after notice and opportunity for hearing, install additional capacity or make other changes in the project as directed by the Commission, to the extent that it is economically sound and in the public interest to do so.

Article 10. The Licensee shall, after notice and opportunity for hearing, coordinate the operation of the project, electrically and hydraulically, with such other projects or power systems and in such manner as the Commission may direct in the interest of power and other beneficial public uses of water resources, and on such conditions concerning the equitable sharing of benefits by the Licensee as the Commission may order.

Article 11. Whenever the Licensee is directly benefited by the construction work of another licensee, a permittee, or the United States on a storage reservoir or other headwater improvement, the Licensee shall reimburse the owner of the headwater improvement for such part of the annual charges for interest, maintenance, and depreciation thereof as the Commission shall determine to be equitable, and shall pay to the United States the cost of making such determination as fixed by the Commission. For benefits provided by a storage reservoir or other headwater improvement of the United States, the Licensee shall pay to the Commission the amounts for which it is billed from time to time for such headwater benefits and for the cost of making the determinations pursuant to the then current regulations of the Commission under the Federal Power Act.

Article 12. The operations of the Licensee, so far as they affect the use, storage and discharge from storage of waters affected by the license, shall at all times be controlled by such reasonable rules and regulations as the Commission may prescribe for the protection of life, health, and property, and in the interest of the fullest practicable conservation and utilization of such waters for power purposes and for other beneficial public uses, including recreational purposes, and the Licensee shall release water from the project reservoir at such rate in cubic feet per second, or such volume in acre-feet per specified period of time, as the Commission may prescribe for the purposes hereinbefore mentioned.

Article 13. On the application of any person, association, corporation, Federal agency, State or municipality, the Licensee shall permit such reasonable use of its reservoir or other project properties, including works, lands and water rights, or parts thereof, as may be ordered by the Commission, after notice and opportunity for hearing, in the interests of comprehensive development of the waterway or waterways involved and the conservation and utilization of the water resources of the region for water supply or for the purposes of steam-electric, irrigation, industrial, municipal or similar uses. The Licensee shall receive reasonable compensation for use of its reservoir or other project properties or parts thereof for such purposes, to include at least full reimbursement for any damages or expenses which the joint use causes the Licensee to incur. Any such compensation shall be fixed by the Commission either by approval of an agreement between the Licensee and the party or parties benefiting or after notice and opportunity for hearing. Applications shall contain information in sufficient detail to afford a full understanding of the proposed use, including satisfactory evidence that the applicant

possesses necessary water rights pursuant to applicable State law, or a showing of cause why such evidence cannot concurrently be submitted, and a statement as to the relationship of the proposed use to any State or municipal plans or orders which may have been adopted with respect to the use of such waters.

Article 14. In the construction or maintenance of the project works, the Licensee shall place and maintain suitable structures and devices to reduce to a reasonable degree the liability of contact between its transmission lines and telegraph, telephone and other signal wires or power transmission lines constructed prior to its transmission lines and not owned by the Licensee, and shall also place and maintain suitable structures and devices to reduce to a reasonable degree the liability of any structures or wires falling or obstructing traffic or endangering life. None of the provisions of this article are intended to relieve the Licensee from any responsibility or requirement which may be imposed by any other lawful authority for avoiding or eliminating inductive interference.

Article 15. The Licensee shall, for the conservation and development of fish and wildlife resources, construct, maintain, and operate, or arrange for the construction, maintenance, and operation of such reasonable facilities, and comply with such reasonable modifications of the project structures and operation, as may be ordered by the Commission upon its own motion or upon the recommendation of the Secretary of the Interior or the fish and wildlife agency or agencies of any State in which the project or a part thereof is located, after notice and opportunity for hearing.

Article 16. Whenever the United States shall desire, in connection with the project, to construct fish and wildlife facilities or to improve the existing fish and wildlife facilities at its own expense, the Licensee shall permit the United States or its designated agency to use, free of cost, such of the Licensee's lands and interests in lands, reservoirs, waterways and project works as may be reasonably required to complete such facilities or such improvements thereof. In addition, after notice and opportunity for hearing, the Licensee shall modify the project operation as may be reasonably prescribed by the Commission in order to permit the maintenance and operation of the fish and wildlife facilities constructed or improved by the United States under the provisions of this article. This article shall not be interpreted to place any obligation on the United States to construct or improve fish and wildlife facilities or to relieve the Licensee of any obligation under this license.

Article 17. The Licensee shall construct, maintain, and operate, or shall arrange for the construction, maintenance, and operation of such reasonable recreational facilities, including modifications thereto, such as access roads, wharves, launching ramps, beaches, picnic and camping areas, sanitary facilities, and utilities, giving consideration to the needs of the physically handicapped, and shall comply with such reasonable modifications of the project, as may be prescribed hereafter by the Commission during the

term of this license upon its own motion or upon the recommendation of the Secretary of the Interior or other interested Federal or State agencies, after notice and opportunity for hearing.

Article 18. So far as is consistent with proper operation of the project, the Licensee shall allow the public free access, to a reasonable extent, to project waters and adjacent project lands owned by the Licensee for the purpose of full public utilization of such lands and waters for navigation and for outdoor recreational purposes, including fishing and hunting: *Provided*, that the Licensee may reserve from public access such portions of the project waters, adjacent lands, and project facilities as may be necessary for the protection of life, health, and property.

Article 19. In the construction, maintenance, or operation of the project, the Licensee shall be responsible for, and shall take reasonable measures to prevent, soil erosion on lands adjacent to streams or other waters, stream sedimentation, and any form of water or air pollution. The Commission, upon request or upon its own motion, may order the Licensee to take such measures as the Commission finds to be necessary for these purposes, after notice and opportunity for hearing.

Article 20. The Licensee shall clear and keep clear to an adequate width lands along open conduits and shall dispose of all temporary structures, unused timber, brush, refuse, or other material unnecessary for the purposes of the project which results from the clearing of lands or from the maintenance or alteration of the project works. In addition, all trees along the periphery of project reservoirs which may die during operations of the project shall be removed. All clearing of the lands and disposal of the unnecessary material shall be done with due diligence and to the satisfaction of the authorized representative of the Commission and in accordance with appropriate Federal, State, and local statutes and regulations.

Article 21. Timber on lands of the United State cut, used, or destroyed in the construction and maintenance of the project works, or in the clearing of said lands, shall be paid for, and the resulting slash and debris disposed of, in accordance with the requirements of the agency of the United States having jurisdiction over said lands. Payment for merchantable timber shall be at current stumpage rates, and payment for young growth timber below merchantable size shall be at current damage appraisal values. However, the agency of the United States having jurisdiction may sell or dispose of the merchantable timber to others than the Licensee: *Provided*, that timber so sold or disposed of shall be cut and removed from the area prior to, or without undue interference with, clearing operations of the Licensee and in coordination with the Licensee's project construction schedules. Such sale or disposal to others shall not relieve the Licensee of responsibility for the clearing and disposal of all slash and debris from project lands.

Article 22. The Licensee shall do everything reasonably within its power, and shall require its employees, contractors, and employees of contractors to do everything reasonably within their power, both independently and upon the request of officers of the agency concerned, to prevent, to make advance preparations for suppression of, and to suppress fires on the lands to be occupied or used under the license. The Licensee shall be liable for and shall pay the costs incurred by the United States in suppressing fires caused from the construction, operation, or maintenance of the project works or of the works appurtenant or accessory thereto under the license.

Article 23. The Licensee shall interpose no objection to, and shall in no way prevent, the use by the agency of the United States having jurisdiction over the lands of the United States affected, or by persons or corporations occupying lands of the United States under permit, of water for fire suppression from any stream, conduit, or body of water, natural or artificial, used by the Licensee in the operation of the project works covered by the license, or the use by said parties of water for sanitary and domestic purposes from any stream, conduit, or body of water, natural or artificial, used by the Licensee in the operation of the project works covered by the license.

Article 24. The Licensee shall be liable for injury to, or destruction of, any buildings, bridges, roads, trails, lands, or other property of the United States, occasioned by the construction, maintenance, or operation of the project works or of the works appurtenant or accessory thereto under the license. Arrangements to meet such liability, either by compensation for such injury or destruction, or by reconstruction or repair of damaged property, or otherwise, shall be made with the appropriate department or agency of the United States.

Article 25. The Licensee shall allow any agency of the United States, without charge, to construct or permit to be constructed on, through, and across those project lands which are lands of the United States such conduits, chutes, ditches, railroads, roads, trails, telephone and power lines, and other routes or means of transportation and communication as are not inconsistent with the enjoyment of said lands by the Licensee for the purposes of the license. This license shall not be construed as conferring upon the Licensee any right of use, occupancy, or enjoyment of the lands of the United States other than for the construction, operation, and maintenance of the project as stated in the license.

Article 26. In the construction and maintenance of the project, the location and standards of roads and trails on lands of the United States and other uses of lands of the United States, including the location and condition of quarries, borrow pits, and spoil disposal areas, shall be subject to the approval of the department or agency of the United States having supervision over the lands involved.

Article 27. The Licensee shall make provision, or shall bear the reasonable cost, as determined by the agency of the United States affected, of making provision for avoiding inductive interference between any project transmission line or other project facility constructed, operated, or maintained under the license, and any radio installation, telephone line, or other communication facility installed or constructed before or after construction of such project transmission line or other project facility and owned, operated, or used by such agency of the United States in administering the lands under its jurisdiction.

Article 28. The Licensee shall make use of the Commission's guidelines and other recognized guidelines for treatment of transmission line rights-of-way, and shall clear such portions of transmission line rights-of-way across lands of the United States as are designated by the officer of the United States in charge of the lands; shall keep the areas so designated clear of new growth, all refuse, and inflammable material to the satisfaction of such officer; shall trim all branches of trees in contact with or liable to contact the transmission lines; shall cut and remove all dead or leaning trees which might fall in contact with the transmission lines; and shall take such other precautions against fire as may be required by such officer. No fires for the burning of waste material shall be set except with the prior written consent of the officer of the United States in charge of the lands as to time and place.

Article 29. The Licensee shall cooperate with the United States in the disposal by the United States, under the Act of July 31, 1947, 61 Stat. 681, as amended (30 U.S.C. sec. 601, *et seq.*), of mineral and vegetative materials from lands of the United States occupied by the project or any part thereof: *Provided*, that such disposal has been authorized by the Commission and that it does not unreasonably interfere with the occupancy of such lands by the Licensee for the purposes of the license: *Provided further*, that in the event of disagreement, any question of unreasonable interference shall be determined by the Commission after notice and opportunity for hearing.

Article 30. If the Licensee shall cause or suffer essential project property to be removed or destroyed or to become unfit for use, without adequate replacement, or shall abandon or discontinue good faith operation of the project or refuse or neglect to comply with the terms of the license and the lawful orders of the Commission mailed to the record address of the Licensee or its agent, the Commission will deem it to be the intent of the Licensee to surrender the license. The Commission, after notice and opportunity for hearing, may require the Licensee to remove any or all structures, equipment and power lines within the project boundary and to take any such other action necessary to restore the project waters, lands, and facilities remaining within the project boundary to a condition satisfactory to the United States agency having jurisdiction over its lands or the Commission's authorized representative, as appropriate,

or to provide for the continued operation and maintenance of nonpower facilities and fulfill such other obligations under the license as the Commission may prescribe. In addition, the Commission in its discretion, after notice and opportunity for hearing, may also agree to the surrender of the license when the Commission, for the reasons recited herein, deems it to be the intent of the Licensee to surrender the license.

Article 31. The right of the Licensee and of its successors and assigns to use or occupy waters over which the United States has jurisdiction, or lands of the United States under the license, for the purpose of maintaining the project works or otherwise, shall absolutely cease at the end of the license period, unless the Licensee has obtained a new license pursuant to the then existing laws and regulations, or an annual license under the terms and conditions of this license.

Article 32. The terms and conditions expressly set forth in the license shall not be construed as impairing any terms and conditions of the Federal Power Act which are not expressly set forth herein.

APPENDIX A

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the Matter of Water Quality Certification for the

TRI-DAM PROJECT
BEARDSLEY/DONNELLS HYDROELECTRIC PROJECT

FEDERAL ENERGY REGULATORY COMMISSION PROJECT NO. 2005

SOURCES: Middle Fork of the Stanislaus River and Tributaries

COUNTY: Tuolumne County

WATER QUALITY CERTIFICATION FOR FEDERAL PERMIT OR LICENSE

ISSUED SEPTEMBER 16, 2005

BY THE EXECUTIVE DIRECTOR:

The **TRI-DAM PROJECT** has applied to the Federal Energy Regulatory Commission (FERC) for a new license for the Beardsley/Donnells Hydroelectric Project (Project). The Tri-Dam Project, owned by the Oakdale and South San Joaquin Irrigation Districts, is the Licensee of the Project. The Project is located on the Middle Fork of the Stanislaus River in the Stanislaus National Forest near the town of Strawberry. The Project includes the Donnells development and the Beardsley development. The Donnells development includes the Donnells Dam and Reservoir (capacity of 64,325 acre feet), a tunnel and penstock, and a powerhouse with a capacity of 84.6 megawatts. The Beardsley development includes Beardsley Dam and Reservoir (capacity of 97,802 acre feet), a tunnel and penstock, a powerhouse with a capacity of 9.99 megawatts, and the Beardsley Afterbay and Dam.

1. The Federal Clean Water Act (33 U.S.C. §§ 1251-1387) was enacted “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” (33 U.S.C. § 1251(a).) Section 101 of the Clean Water Act (33 U.S.C. § 1251 (g)) requires federal agencies to “co-operate with the State and local agencies to develop

comprehensive solutions to prevent, reduce and eliminate pollution in concert with programs for managing water resources.”

2. Section 401 of the Clean Water Act (33 U.S.C. §1341) requires every applicant for a federal license or permit which may result in a discharge into navigable waters to provide the licensing or permitting federal agency with certification that the project will be in compliance with specified provisions of the Clean Water Act, including water quality standards and implementation plans promulgated pursuant to section 303 of the Clean Water Act (33 U.S.C. § 1313). Clean Water Act section 401 directs the agency responsible for certification to prescribe effluent limitations and other limitations necessary to ensure compliance with the Clean Water Act and with any other appropriate requirement of state law. Section 401 further provides that state certification conditions shall become conditions of any federal license or permit for the project. The State Water Resources Control Board (State Water Board) has delegated this function to the Executive Director by regulation. (Cal. Code Regs., tit. 23, § 3838, subd. (a).)
3. The California Regional Water Quality Control Boards have adopted, and the State Water Board has approved, water quality control plans (basin plans) for each watershed basin in the State. The basin plans designate the beneficial uses of waters within each watershed basin and water quality objectives designed to protect those uses. Section 303 of the Clean Water Act requires the states to develop and adopt water quality standards. (33 U.S.C. § 1313.) The beneficial uses together with the water quality objectives that are contained in the basin plans constitute State water quality standards under section 303.
4. The basin plan for the Central Valley-Sacramento/San Joaquin River Basins identifies municipal and domestic supply, irrigation, stock watering, power, warm and cold freshwater habitat, contact and non-contact recreation, canoeing and rafting and wildlife habitat as beneficial uses of the Stanislaus River above New Melones Reservoir. Protection of the instream beneficial uses identified in the basin plan requires maintenance of adequate instream flows as well as effluent limitations and other limitations on discharges of pollutants from point and nonpoint sources to the Middle Fork Stanislaus River and its tributaries.
5. The State Water Board has reviewed and considered: (a) the Tri-Dam Project’s final FERC License Application; (b) comments on the final License Application by agencies and interested parties; (c) the U.S. Forest Service Final 4(e) Conditions; and (d) the FERC Final Environmental Impact Statement prepared pursuant to the National Environmental Policy Act for the Stanislaus River Projects. Further, the State Water Board has considered the basin plan, the existing water quality conditions and project-related controllable factors.

6. The State Water Board, as responsible agency, has reviewed and considered the proposed project and conditions incorporated into the project to protect the environment pursuant to the California Environmental Quality Act (CEQA). The Tri-Dam Project, as lead agency, prepared a Mitigated Negative Declaration for this Project (State Clearinghouse Number 2004102061), adopted on November 18, 2004. The State Water Board will file a Notice of Determination within five days from the issuance of this order.

ACCORDINGLY, BASED ON ITS INDEPENDENT REVIEW OF THE RECORD, THE STATE WATER BOARD CERTIFIES THAT THE OPERATION OF THE BEARDSLEY/ DONNELLS HYDROELECTRIC PROJECT BY THE TRI-DAM PROJECT UNDER A NEW LICENSE ISSUED BY FERC FOR TRI-DAM'S PROPOSED PROJECT will comply with sections 301, 302, 303, 306 and 307 of the Clean Water Act, and with applicable provisions of state law provided the Tri-Dam Project complies with the following terms and conditions:

1. Licensee shall coordinate Project operations with operations of the Spring Gap-Stanislaus Project (Project No. 2130) consistent with the Coordinated Operations Agreement among the Oakdale and South San Joaquin Irrigation Districts, Tri-Dam Power Authority, and Pacific Gas and Electric Company. Any revisions or amendments to the Coordinated Operations Agreement shall be filed with the Chief of the Division of Water Rights (Division). Licensee shall notify the Division in advance if it is unable to coordinate its operation to enable Pacific Gas and Electric Company to meet the flow conditions of the Spring Gap-Stanislaus Project license and water quality certification, including minimum daily flows, supplemental flows, and recreation streamflow events. After notice and opportunity for hearing, the State Water Board may modify terms and conditions in this certification to address project coordination necessary to protect water quality.
2. Nothing in this certification shall be construed as State Water Board approval of the validity of any consumptive water rights, including pre-1914 claims, referenced in the Coordinated Operations Agreement or elsewhere. The State Water Board has separate authority under the Water Code to investigate and take enforcement action as necessary to prevent any unauthorized or threatened unauthorized diversions of water.
3. Licensee shall notify the Chief of the Division in advance if flows from the Sand Bar Project are to be reduced. After notice and opportunity for hearing, the State Water Board may modify terms and conditions in this certification to address water quality in the Sand Bar Reach.

4. Beginning the first full calendar year after license issuance, Licensee shall make a reasonable effort to return large woody debris to the Middle Fork Stanislaus River immediately downstream of Donnell's Dam by allowing the large wood to pass through the Donnell's Dam spillway during spill periods. Large woody debris, as used in this measure, refers to downed, dead or dying wood at least 30 feet long (assumes a piece of wood that would be at least one-half bankfull in length if it occurred in Donnell's Reach). If spills are not adequate to pass the large woody debris and Licensee collects the large woody debris from Donnell's Reservoir, Licensee shall consult with the Forest Service and the Chief of the Division concerning alternative means to return the large woody debris to the river.
5. Each year from February through May, Licensee shall determine water year type, based on the California Department of Water Resources (DWR) forecast for annual unimpaired inflow into New Melones Reservoir as set forth in DWR's Bulletin 120, *Water Conditions in California* (see following table). Licensee shall use this determination in implementing conditions of this certification that are dependent on water year type. From February through April, the water year type shall be based on DWR's forecast for the month and shall apply from the 10th of the month through the 9th of the next month. From May 10 through February 9 of the following year, the water year type shall be based on DWR's May 1 forecast. Licensee shall maintain a five-year record of its water year type determinations, and shall provide this record to the State Water Board annually.
- 6.

Water Year Types for the Beardsley/Donnell's Project

<i>Water Year Type</i>	<i>DWR Forecast Annual Unimpaired Inflow into New Melones Reservoir (acre-feet)</i>
Critically Dry	Less than or equal to 350,000
Dry	Greater than 350,000 and less than or equal to 676,000
Normal	Greater than 676,000 and less than 1,585,000
Wet	Greater than or equal to 1,585,000

6. Beginning as soon as reasonably feasible and no later than six months after license issuance, Licensee shall increase or decrease regulated minimum Daily Flows at a stream stage change (ramping) rate of 6 inches or less per hour. The point of compliance shall be at a flow measurement gauge installed and maintained by Licensee at or immediately downstream of Donnell's Dam. The ramping rate may be temporarily modified if required by equipment malfunction, emergency or law

enforcement activity, or electric system emergencies beyond the control of Licensee. The licensee shall notify the Chief of the Division of any temporary modifications. Where facility modification is required for Licensee to provide the specified ramping rate, Licensee shall complete such modifications as soon as reasonably practicable and no later than three years after license issuance. Prior to such required facility modifications, Licensee shall make a good faith effort to provide the specified ramping rate within the capabilities of the existing facilities. The licensee shall notify the Chief of the Division if it is unable to meet the ramping rates prior to facility modification.

7. Beginning no more than six months after license issuance, Licensee shall maintain in Donnells Reach minimum Daily Flows in Normal, Dry, Critically Dry and Wet water years, and Supplemental Flows in Normal, Dry, and Wet water years. Donnells Reach is the 8.1 mile-long reach of the Middle Fork Stanislaus River extending from Donnells Dam to Hell's Half-Acre Bridge. Minimum Daily Flows may consist of any combination of regulated flow releases from Donnells Dam and spill at Donnells Dam. Supplemental Flows may consist of any combination of regulated flow releases from Donnells Dam, spill at Donnells Dam, and natural accretion in Donnells Reach.

Minimum Daily Flows

Licensee shall maintain in Donnells Reach the minimum Daily Flow as specified in the following table. The specified minimum Daily Flow is the minimum mean flow over a continuous 24-hour period. Instantaneous flow may deviate below the specified minimum Daily Flow by up to 10 percent or 4 cubic feet per second (cfs), whichever is less, so long as the minimum mean daily flow requirement is met. The minimum Daily Flows shall be measured at a gauge installed and maintained by Licensee at or immediately downstream of Donnells Dam.

Minimum Daily Flow schedule for the Donnells Reach (in cubic feet per second)

<i>Month</i>	<i>Water Year Type</i>		
	<i>Normal</i>	<i>Critically Dry and Dry</i>	<i>Wet</i>
October 1-31	40	25	45
November 1-30	40	25	40
December 1-31	40	25	40
January 1 - February 9	40	25	40
February 10 - March 9	40	25	50
March 10 - April 9	40	25	50
April 10 - May 9	40	25	50

May 10 – May 31	40	25	50
June 1 – 30	40	25	50
July 1- 31	45	25	60
August 1 – 31	45	25	60
September 1 – 30	40	25	50

Minimum Supplemental Flows

In order to assure that an adequate spring peak flow event occurs each year, Licensee shall, in addition to the minimum Daily Flows specified above, maintain the minimum Supplemental Flows in the following table. The specified minimum Supplemental Flow for a week is the average flow for the week, with instantaneous flows at least equal to the specified minimum Supplemental Flow for the lower of the two adjoining weeks. Licensee is not required to provide minimum Supplemental Flows in Donnell's Reach in Critically Dry Water Years. Minimum Supplemental Flows shall be measured at the existing United States Geological Survey gaging station at Hell's Half-Acre.

The minimum Supplemental Flow period shall be 13 continuous weeks in length. For years in which Donnell's Reservoir is forecast to spill, Licensee may initiate the Supplemental Flow period any time between March 1 and May 1 to best coincide with the period of spill ("Date Trigger"). For years in which Donnell's Reservoir is forecast not to spill, Licensee shall initiate the 13-week-long Supplemental Flow period at a time between March 1 and May 1 so that the peak Supplemental Flow will occur approximately two weeks after the forecast peak inflow to Donnell's Reservoir ("Peak Flow Trigger").

Minimum Supplemental Flow schedule for the Donnell's Reach ¹ (in cubic feet per second)

<i>Week</i>	<i>Water Year Type</i>		
	<i>Normal</i>	<i>Dry</i>	<i>Wet</i>
1	5	5	5
2	10	10	10
3	25	25	25
4	35	35	35
5	75	75	75
6	125	125	125
7	200	200	200

<i>Week</i>	<i>Water Year Type</i>		
	<i>Normal</i>	<i>Dry</i>	<i>Wet</i>
8	325	325	325
9	175	175	175
10	95	95	95
11	55	55	55
12	25	25	25
13	10	10	10

¹Minimum Supplemental Flows are additive to the specified minimum Daily Flows.

Licensee shall consult with the United States Forest Service (Forest Service), Chief of the Division, California Department of Fish and Game (CDFG), United States Fish and Wildlife Service (USFWS) and other interested parties to develop a recommendation for a “Water Temperature Trigger” to function in combination with the Date and Peak Flow Triggers described above for initiating Supplemental Flows in years that Donnell’s Reservoir is forecast not to spill. The Water Temperature Trigger shall not apply for years in which Donnell’s Dam is forecast to spill. The Water Temperature Trigger shall be developed based on available information. Within one year of license issuance, Licensee shall file the Water Temperature Trigger recommendation with the FERC, including evidence of consultation, and shall implement the Water Temperature Trigger required by the Forest Service and Division Chief. Use of the Water Temperature Trigger shall be based on water temperatures measured using a continuous water temperature recorder installed and maintained by Licensee upstream of Donnell’s Powerhouse. In the interim and while Licensee develops the Temperature Trigger, Licensee shall implement the minimum Supplemental Flows as specified without the Temperature Trigger.

Licensee may meet the minimum Supplemental Flow requirement with flow magnitudes in excess of those specified; however, the rate of decline in flow shall be no steeper than the specified decline for Supplemental Flows any time actual streamflow at Hell’s Half-Acre is less than the peak magnitude specified for the Supplemental Flow. Exceptions to the decline rate will be allowed when natural events, such as storms and variation in rate of snowmelt, cause short duration (not greater than one week in length) flow fluctuations that exceed the flows specified for the declining limb of the Supplemental Flow. Licensee shall make downward adjustments in Supplemental Flow in approximately equal steps to achieve a smooth decline.

The requirements of this measure may be temporarily modified if required by equipment malfunction, emergency or law enforcement activity, or electrical system

emergencies beyond the control of Licensee. In the event of such temporary modifications, Licensee shall within 24 hours of a modification, notify, with confirmation of receipt, the Chief of the Division.

In Critically Dry water years, Licensee may propose modifications to the specified minimum Daily Flows. If such modifications are proposed, Licensee shall consult with the Forest Service, Chief of the Division, and CDFG, and others who request consultation as to the possible justifications for such modifications of the minimum Daily Flows specified for Dry and Critically Dry water years. Licensee shall maintain the specified minimum Daily Flows until such modifications are approved by the responsible agencies and the Commission.

Where facility modification is required to implement the specified minimum Daily Flows or Supplemental Flows, Licensee shall complete such modifications as soon as reasonably practicable and no later than three years after license issuance. Prior to completion of such required facility modifications, Licensee shall make a good faith effort to provide the specified minimum Daily Flows and Supplemental Flows within the capabilities of the existing facilities.

8. Within six years after license issuance and in consultation with the Forest Service, Division, and CDFG, Licensee shall perform a study of trout density in the Middle Fork Stanislaus River from Donnell's Dam to Beardsley Reservoir. The purpose of the study shall be to investigate: (a) trout density in the Donnell's Reach in response to the 2001 surveys that identified relatively low trout populations in the Hell's Half-Acre area as compared to other areas of the stream reach; and (2) if needful, if the Project could improve trout density in this area. The field survey portion of the study shall be done at the same time that the CDFG routinely surveys trout density in the Wild Trout portion of the Middle Fork Stanislaus River (usually every three years), and shall use sampling methods similar to those used by the CDFG. The study shall include sampling at the same sites as the 2001 survey: Hell's Half-Acre, and near Donnell's Dam. Based on the study, Licensee shall prepare a study report including objectives, methods, results (including incidental observations of otters), recommended reasonable resource management measures where appropriate, and a schedule of implementation. Licensee shall provide a draft of the final report to the Chief of the Division for review, comment and approval. Licensee shall implement those resource management measures required by the Division Chief.
9. Beginning as soon as reasonably feasible and no later than one year after license issuance, Licensee shall annually make recreation streamflow information available to the public. Unless otherwise noted, the flow information shall be available to the public via the internet. The flow information protocols listed below may be modified

upon mutual agreement of Licensee and the Chief of the Division.

Licensee shall make the following information available as noted:

- By April 10, a preliminary forecast of the water year type and the initiation date and duration of anticipated spill or Supplemental Flows at Donnell's Dam. Licensee shall update the information by May 10, and update weekly thereafter through the duration of the spill period.
 - From May 1 through October 31, the hourly average streamflow for the Middle Fork Stanislaus River as measured at the U. S. Geological Survey's streamflow gaging station at Hell's Half-Acre (USGS Gage 11292700). Licensee shall post the flow information at 9:00 AM, Noon and 4:00 PM daily for the current day and the prior seven days. Streamflows may be rounded up to the nearest 50 cfs, and all plots and tables showing this data shall be labeled, "THESE PROVISIONAL DATA HAVE NOT BEEN REVIEWED OR EDITED AND MAY BE SUBJECT TO SIGNIFICANT CHANGE."
 - Licensee shall install and maintain one simple staff gauge/depth indicator in the Middle Fork Stanislaus River downstream of Donnell's Dam near the spillway channel outlet. Licensee shall make a good faith attempt to locate the staff gauge/depth indicator near a location used for whitewater boating put-in, and, if possible, angling access points, so it is easily accessible for public reference. Licensee shall provide at the staff gauge/depth indicator a means by which to reasonably correlate staff gauge/depth indicator readings to cubic feet per second.
10. Within one year from the issuance of the FERC license, Licensee shall submit for review and approval by the Chief of the Division plans to stabilize the adit No. 2 spoils pile. The plan must include specific measures to protect water quality in Lily Creek. Upon approval, Licensee shall implement the plan.
 11. Within one year from the issuance of the FERC license, Licensee shall submit for review and approval by the Chief of the Division the site development plan for the removal, restoration, and rehabilitation for the Beardsley Campground. The plan must include specific measures to protect water quality during construction. Upon approval, Licensee shall implement the plan.
 12. Within six months from the issuance of the FERC license, Licensee shall provide and maintain boating access to the Middle Fork Stanislaus River directly below Donnell's Dam. This may be done through modification of the fence near the caretaker's cabin to allow boats to pass through the gate.

13. Within one year of FERC license issuance, Licensee shall submit to the Chief of the Division a copy of the Bald Eagle and Peregrine Falcon management plan. Licensee shall submit to the Chief of the Division any monitoring reports for Bald Eagles and Peregrine Falcons prepared during the life of the FERC license.
14. This certification is contingent on compliance with all applicable requirements of the Water Quality Control Plan for the Sacramento and San Joaquin River Basins, except as may be modified by the specific conditions of the certification.
15. Licensee must submit to the Chief of the Division for prior review and written approval any change to the Beardsley/Donnells Hydroelectric Project, including project operation that would have a significant or material effect on the findings, conclusions, or conditions of this certification.
16. 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. Licensee shall take all reasonable measures to protect the beneficial uses of water of the Middle Fork of the Stanislaus River and tributaries.
17. The authorization to operate the Project pursuant to this certification is conditioned upon payment of all applicable fees for review and processing of 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.
18. 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 described above.
19. 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 - 2097) or the federal Endangered Species Act (16 U.S.C. §§ 1531 - 1544). If a "take" will result from any act authorized under this certification or water rights held by Licensee, 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.

20. 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 applicable state or federal law. For the purposes of section 401(d) of the Clean Water Act, the applicability of any State law authorizing remedies, penalties, process or sanctions for the violation or threatened violation constitutes a limitation necessary to 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 State Water Board may require the holder of any federal permit or license subject to this certification to furnish, under penalty of perjury, any technical or monitoring reports the State Water Board deems appropriate, provided that the burden, including costs, of the reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. In response to any violation of the conditions of this certification, the State Water Board may add to or modify the conditions of this certification as appropriate to ensure compliance.
21. Any change to the operation of the Project 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.
22. This certification is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Water Code section 13330 and California Code of Regulations, title 23, division 3, chapter 28, article 6 (commencing with § 3867).
23. The State Water Board reserves authority to modify or revoke this certification if monitoring results indicate that continued operation of the project would violate water quality objectives or impair the beneficial uses of the Middle Fork Stanislaus River and tributaries.
24. The State Water Board 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.

25. The State Water Board may add to or modify the conditions of this certification as appropriate to coordinate the operations of this project with other water development projects, where coordination of operations is reasonably necessary to achieve water quality standards or protect beneficial uses of water.

ORIGINAL SIGNED BY

Celeste Cantú
Executive Director

APPENDIX B

**PACIFIC SOUTHWEST REGION
USDA FOREST SERVICE
FINAL 4(E) TERMS AND CONDITIONS AND 10(A)
RECOMMENDATIONS**

**Beardsley/Donnells Hydroelectric Project
FERC Project No. 2005**

I. Introduction

The Forest Service hereby submits its Final 4(e) Terms and Conditions (Conditions) and Section 10(a) recommendations, as applicable, for the Beardsley/Donnells Hydroelectric Project (FERC Project No. 2005), in accordance with 18 CFR 4.34(b)(1)(i). Wording in [brackets] in these conditions indicates that the Forest Service determined that this portion of the condition was not within its jurisdiction; however the Forest Service recommends it be included in the license under Section 10(a) of the Federal Power Act.

Section 4(e) of the Federal Power Act 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. This is an independent threshold determination made by FERC, with the purpose of the reservation defined by the authorizing legislation or proclamation (see *Rainsong v. FERC*, 106 F.3d 269 (9th Cir. 1977)). The Forest Service, for its protection and utilization determination under Section 4(e) of the FPA may rely on broader purposes than those contained in the original authorizing statutes and proclamations in prescribing conditions (see *Southern California Edison v. FERC*, 116F.3d 507 (D.C. Cir. 1997)). These terms and conditions are based on those resource and management requirements enumerated in the Organic Administration Act of 1897 (30 Stat. 11), the Multiple-Use Sustained Yield Act of 1960 (74 Stat. 215), the National Forest Management Act of 1976 (90 Stat. 2949), and any other law specifically establishing a unit of the National Forest System or prescribing the management thereof (such as the Wilderness Act or the Wild and Scenic Rivers Act), as such laws may be amended from time to time, and as implemented by regulations and approved Land and Resource Management Plans prepared in accordance with the National Forest Management Act. Specifically, the 4(e) conditions are based on the Land and Resource Management Plans (as amended) for the Stanislaus National Forest, as approved by the Regional Forester of the Pacific Southwest Region.

Pursuant to Section 4(e) of the Federal Power Act, the Secretary of Agriculture, acting by and through the Forest Service, considers the following conditions necessary for the adequate protection and utilization of the land and resources of the Stanislaus National Forest. License articles contained in the Federal Energy Regulatory Commission's (hereinafter referred to as the Commission) Standard Form L-1 (revised October 1975) issued by Order No. 540, and dated October 31, 1975, cover general requirements. Section II of this document includes standard conditions deemed necessary for the administration of National Forest System lands. Section III covers specific requirements for protection and utilization of National Forest System lands and shall also be included in any license issued.

II. Standard Forest Service Conditions

Condition No. 1—Settlement Agreement

The Forest Service reserves the authority to add to, delete from, or modify the Final terms and conditions contained herein in the event that the Licensee, the Forest Service and/or other federal and state agencies enter into a settlement agreement resolving some or all of the issues raised in this ongoing license proceeding in order to provide Final terms and conditions that are consistent with the terms of any such settlement.

Forest Service and Licensee have been negotiating a draft Recreation Settlement Agreement (DRSA) relating to Forest Service facilities that are currently outside the Project boundary. The DRSA has been substantially negotiated, but not yet finalized by the parties. As a result, if the DRSA is not executed by the time the new FERC license is issued, then the relevant, material and agreed upon portions of the last version of the DRSA, including the scope of work, party responsibilities for performance of work, cost responsibilities and implementation schedules, will be deemed incorporated into these Final conditions so that those agreed upon portions of the DRSA remain the same and become part of the new FERC license for the Project. The incorporated DRSA portions will be of no further force or effect if the DRSA is fully executed by the Forest Service and the Licensee and filed with the Commission. Any disagreements between Forest Service and Licensee regarding the provisions of the DRSA that may be incorporated into the new FERC license under this Section 4(e) condition will be resolved pursuant to the alternative dispute resolution procedures available through FERC.

Condition No. 2—Modification of 4(e) Conditions After Biological Opinion or Water Quality Certification

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 United States Fish and Wildlife Service; or any Certification issued for this Project by the State Water Resources Control Board.

Condition No. 3—Forest Service Approval of Final Design

Before any new construction of the Project occurs on National Forest System lands, 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. 4—Approval of Changes

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. 5—Consultation

Each year in between March 15 and April 15, 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, 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.

When Forest Service section 4(e) conditions require the Licensee to file a plan with the Commission that is approved by the Forest Service, the Licensee shall provide the

Forest Service a minimum of 60 days to review and approve the plan before filing with the Commission. Upon Commission approval, the Licensee shall implement Forest Service required and approved plans.

Condition No. 6—Surrender of License or Transfer of Ownership

Prior to any surrender of this license, the Licensee shall provide assurance acceptable to the Forest Service that Licensee shall restore National Forest System resources to a condition satisfactory to the Forest Service upon or after surrender of the license, as appropriate. 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.

In the event of any transfer of the license or sale of the Project, the Licensee shall guarantee or assure that, in a manner satisfactory to the Forest Service, that the Licensee or transferee will provide for the costs of surrender and restoration. If deemed necessary by the Forest Service to assist it in evaluating the Licensee's proposal, the Licensee shall conduct an analysis, using experts approved by the Forest Service, to estimate the potential costs associated with surrender and restoration of the Project area to Forest Service specifications. In addition, the Forest Service may require the Licensee to pay for an independent audit of the transferee to assist the Forest Service in determining whether the transferee has the financial ability to fund the surrender and restoration work specified in the analysis.

Condition No. 7—Hazardous Substances Plan

Within one year of license issuance, the Licensee shall file with the Commission a plan approved by the Forest Service for hazardous substances storage and spill prevention and cleanup for Project facilities on or affecting National Forest System Lands. In addition, during planning and prior to any new construction or maintenance not addressed in an existing plan, the Licensee shall notify the Forest Service, and the Forest Service shall make a determination whether a plan approved by the Forest Service for oil and hazardous substances storage and spill prevention and cleanup is needed.

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 lands 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 affecting National Forest System lands and Licensee adjoining property.

Condition No. 8—Use of Explosives

Use of explosives shall be consistent with state and local requirements.

1. The Licensee shall use only electronic detonators for blasting on National Forest System lands and Licensee adjoining property, except near high-voltage powerlines. The Forest Service may allow specific exceptions when in the public interest.
2. In the use of explosives, the Licensee shall exercise the utmost care not to endanger life or property and shall comply with the requirements of the Forest Service. The Licensee shall contact the Forest Service prior to blasting to obtain the requirements from the Forest Service. The Licensee shall be responsible for any and all damages resulting from the use of explosives and shall adopt precautions to prevent damage to surrounding objects. The Licensee shall furnish and erect special signs to warn the public of the Licensee's blasting operations. The Licensee shall place and maintain such signs so they are clearly evident to the public during all critical periods of the blasting operations, and shall ensure that they include a warning statement to have radio transmitters turned off.
3. The Licensee shall store all explosives on National Forest System lands in a secure manner, in compliance with State and local laws and ordinances, and shall mark all such storage places "DANGEROUS—EXPLOSIVES." Where no local laws or ordinances apply, the Licensee shall provide storage that is satisfactory to the Forest Service and in general not closer than 1,000 feet from the road or from any building or camping area.
4. When using explosives on National Forest System lands, the Licensee shall adopt precautions to prevent damage to landscape features and other surrounding objects. When directed by the Forest Service, the Licensee shall leave trees within an area designated to be cleared as a protective screen for surrounding vegetation during blasting operations. The Licensee shall remove and dispose of trees so left when blasting is complete. When necessary, and at any point of special danger, the Licensee shall use suitable mats or some other approved method to smother blasts.

Condition No. 9—Fire Prevention, Response, and Investigation**Fire Prevention and Response Plan**

Within one year of license issuance the Licensee shall file with the Commission a Fire Management and Response Plan that is approved by the Forest Service, and developed in consultation with appropriate State and local fire agencies. The plan shall set forth in detail the Licensee's responsibility for the prevention (excluding fuel treatment as described in Condition No. 26), reporting, control, and extinguishing of fires in the vicinity of the Project.

At a minimum the plan shall address the following categories:

1. Fuels Treatment/Vegetation Management

Identification of fire hazard reduction measures to prevent the escape of project-induced fires.

2. Prevention

Availability of fire access roads, community road escape routes, helispots to allow aerial firefighting assistance in the steep canyon, water drafting sites and other fire suppression strategies.

Address fire danger and public safety associated with project-induced recreation, including fire danger associated with dispersed camping, existing and proposed developed recreation sites, trails, and vehicle access.

3. Emergency response preparedness

Analyze fire prevention needs including equipment and personnel availability.

4. Reporting

Licensee shall report any project related fires to the Forest Service within 24 hours.

5. Fire control/extinguishing

Provide the Forest Service a list of the locations of available fire suppression equipment and the location and availability of fire suppression personnel.

Include appropriate measures from Condition 41 and assure fire prevention measures will conform to water quality protection practices as enumerated in USDA, Forest Service, Pacific Southwest Region, Water Quality Management for National Forest System Lands in California-Best Management Practices.

Investigation of Project Related Fires

The Licensee agrees to fully cooperate with the Forest Service on all fire investigations. The Licensee shall produce upon request all material and witnesses, over which the Licensee has control, related to the fire and its investigation including:

- Article I. All investigation reports
- Article II. All witness statements
- Article III. All photographs
- Article IV. All drawings
- Article V. All analysis of cause and origin

Article VI. All other, similar materials and documents regardless of how collected or maintained

The Licensee shall preserve all physical evidence, and give custody to the Forest Service of all physical evidence requested.

Condition No. 10—Road Use by Government

The United States shall have unrestricted use of any road within the project area for all purposes deemed necessary and desirable in connection with the protection, administration, management, and utilization of National Forest System lands or resources and shall have the right to extend rights and privileges of use of such road 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 to unreasonably interfere with the safety or security uses, or cause the Licensee to bear a share of the costs of maintenance greater than the Licensee's use bears to all use of the road.

Condition No. 11—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, as identified in the Road Management and Maintenance Plan (refer to Condition No. 27). 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.

Condition No. 12—Maintenance of Improvements

The Licensee shall maintain all its improvements and premises on National Forest System lands to standards of repair, orderliness, neatness, sanitation, and safety acceptable to the Forest Service. The Licensee shall comply with all applicable Federal, State, and local laws, regulations, including but not limited to, the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq., the Resources Conservation and Recovery Act, 42 U.S.C. 6901 et seq., the Comprehensive Environmental Response, Control, and Liability Act, 42 U.S.C. 9601 et seq., and other relevant environmental laws, as well as public health and safety laws and other laws relating to the siting, construction, operation, maintenance of any facility, improvement, or equipment.

Condition No. 13—Safety during Project Construction

Sixty days prior to ground-disturbing activity related to new Project construction on or affecting National Forest System Lands, the Licensee shall file a Safety During

Construction Plan with the Commission that is approved by the Forest Service that identifies potential hazard areas and measures necessary to protect public safety. Areas to consider include construction activities near public roads, trails and recreation area and facilities.

The Licensee shall perform daily (or on a schedule otherwise agreed to by the Forest Service in writing) inspections of Licensee's construction operations on National Forest System lands and Licensee adjoining fee title property while construction is in progress. The Licensee shall document these inspections (informal writing sufficient) and shall deliver such documentation to the Forest Service on a schedule agreed to by the Forest Service. The inspections must specifically include fire plan compliance, public safety, and environmental protection. The Licensee shall act immediately to correct any items found to need correction.

Condition No. 14—Pesticide Use Restrictions

Pesticides may not be used to control undesirable woody and herbaceous vegetation, aquatic plants, fish, insects, and rodents on National Forest System lands 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. Exceptions to this schedule may be allowed only when unexpected outbreaks of pests require control measures that were not anticipated at the time the request was submitted. In such an instance, an emergency request and approval may be made.

The Licensee shall use on National Forest System lands 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. 15—Erosion Control Plan

During planning and before any new construction or non-routine maintenance projects with the potential for causing erosion and/or stream sedimentation on or affecting National Forest System Lands (including but not limited to the planned recreation-related construction), the Licensee shall file with the Commission an Erosion Control Measures Plan that is approved by the Forest Service. The Plan shall include measures to control erosion, stream sedimentation, dust, and soil mass movement.

The plan shall be based on actual-site geological, soil, and groundwater conditions and shall include:

1. A description of the actual site conditions;

2. Detailed descriptions, design drawings, and specific topographic locations of all control measures;
3. Measures to divert runoff away from disturbed land surfaces;
4. Measures to collect and filter runoff over disturbed land surfaces, including sediment ponds at the diversion and powerhouse sites;
5. Revegetating disturbed areas in accordance with current direction on use of native plants and locality of plant and seed sources;
6. Measures to dissipate energy and prevent erosion; and,
7. A monitoring and maintenance schedule.

Condition No. 16—Valid Claims and Existing Rights

This License is subject to all valid rights and claims of third parties. The United States is not liable to the Licensee for the exercise of any such right or claim.

Condition No. 17—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 regards to the area or operations covered by this license, to the extent those laws, ordinances, or regulations are not preempted by federal law.

Condition No. 18—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 the license.

Condition No. 19—Indemnification

The Licensee shall indemnify, defend, and hold the United States harmless for any violations incurred under any such laws and regulations or for judgments, claims, or demands assessed against the United States in connection with the Licensee's use or occupancy authorized by this license. The Licensee's indemnification of the United States shall include any loss by personal injury, loss of life or damage to property in connection with the occupancy or use authorized by this license. Indemnification shall include, but is not limited to, the value of resources damaged or destroyed; the costs of restoration, cleanup, or other mitigation; fire suppression or other types of abatement costs; third party claims and judgments; and all administrative, interest, and other legal costs. This paragraph shall survive the termination of this license, regardless of cause.

Condition No. 20—Surveys, Land Corners

The Licensee shall avoid disturbance to all public land survey monuments, private

property corners, and forest boundary markers. In the event that any such land markers or monuments are destroyed by an act or omission of the Licensee, in connection with the use and/or occupancy authorized by this license, depending on the type of monument destroyed, the Licensee shall reestablish or reference same in accordance with (1) the procedures outlined in the "Manual of Instructions for the Survey of the Public Land of the United States," (2) the specifications of the County Surveyor, or (3) the specifications of the Forest Service.

Further, the Licensee shall ensure that any such official survey records affected are amended as provided by law.

Condition No. 21—Damage to Land, Property, and Interests of the United States

The Licensee has an affirmative duty to protect the land, property, and interests of the United States from damage arising from occupancy and use of the license.

In addition to the general requirements of Articles 22 and 24, the Licensee is strictly liable for and shall pay all damages, costs and expenses associated with damage to the land, property and interests of the United States cause by or in connection with the occupancy or use authorized by the license, including but not limited to damages, costs, and expenses resulting from fire. Such damages, costs and expenses shall include, but not be limited to:

- Article VII. Fire suppression costs
- Article VIII. Rehabilitation and restoration costs
- Article IX. Value of lost resources
- Article X. Abatement costs
- Article XI. Investigation and administrative expenses
- Article XII. Attorneys' fees

Damages will be determined by the value of the resources lost or impaired, as determined by the Forest Service. The basis for damages will be provided to the Licensee. The licensee shall accept transaction registers certified by the appropriate Forest Service official as evidence of costs and expenses. The Licensee shall promptly pay to the United States such damages, costs and expenses upon written demand by the United States.

Condition No. 22—Risks and Hazards

As part of the occupancy and use of the license area, the Licensee has a continuing responsibility to identify and report all hazardous conditions within the project boundary

that would affect the improvements, resources, or pose a risk of injury to individuals. Licensee will abate those conditions, except those caused by third parties not related to the occupancy and use authorized by the License. Any non-emergency actions to abate such hazards on National Forest System lands shall be performed after consultation with the Forest Service. In emergency situations, the Licensee shall notify the Forest Service of its actions as soon as possible, but not more than 48 hours, after such actions have been taken. Whether or not the Forest Service is notified or provides consultation; the Licensee shall remain solely responsible for all abatement measures performed. Other hazards should be reported to the appropriate agency as soon as possible.

Condition No. 23—Crossings

The Licensee shall maintain existing crossings as required by the Forest Service for all roads and trails that intersect the right-of-way occupied by linear Project facilities (powerline, penstock, ditch, and pipeline).

Condition No. 24—Access

The Forest Service reserves the right to use or permit others to use any part of the licensed area on National Forest System lands for any purpose, provided such use does not interfere with the rights and privileges authorized by this license or the Federal Power Act.

Condition No. 25—Signs

The Licensee shall consult with the Forest Service prior to erecting signs related to safety issues on National Forest System lands covered by the license. Prior to the Licensee erecting any other signs or advertising devices on National Forest System lands covered by the license, the Licensee must obtain the approval of the Forest Service as to location, design, size, color, and message. The Licensee shall be responsible for maintaining all Licensee-erected signs to neat and presentable standards.

III. Project Specific Forest Service Conditions

Condition No. 26—Fuel Treatment Plan

Within one year of license issuance the Licensee shall file with the Commission a plan approved by the Forest Service for fuel treatment on or affecting National Forest System lands. The purpose of the plan shall be to reduce the potential for wildfires originating at Project facilities. At a minimum, the Fuel Treatment Plan shall:

1. Analyze fuel loading on Stanislaus National Forest lands that extend from the edge of each Project facility area (excluding the area around reservoir shorelines) for a distance of 300 feet in the upslope direction to determine the condition of the existing fuels.

2. Identify for each such area approved fuel treatment methods to mitigate identified hazard fuels. Such treatment methods shall be limited to thinning of small trees, removing excess brush, and reducing fuel load and continuity of surface and ladder fuels.
3. Include a map and schedule of treatments proposed by the Licensee.
4. Identify treatments with specifications for each.
5. Maintain fuel profiles within the project area commensurate with Standards and Guidelines set forth in the Stanislaus Forest Land and Resource Management Plan, as amended (USDA 1991, 2004).
6. Be responsible for the initial treatment (or the cost of mutually agreeable Forest Service treatment).
7. Be responsible for maintaining the treatment areas by repeat treatments once every eight years.

Condition No. 27—Road Management Plan

Within one year of license issuance the Licensee shall file with the Commission a plan approved by the Forest Service for management of all Forest Service and unclassified roads required by the Licensee to access the Project area. The Project Road Management Plan shall include:

1. Identification of all Forest Service roads and unclassified roads on National Forest System lands needed for project access, including road numbers.
2. A map of all Forest Service roads and unclassified roads on National Forest System land used for Project Access, including digital spatial data accurate to within 40 feet, identifying each road by Forest Service road number.
3. A description of each Forest Service road segment and unclassified roads on National Forest System land needed for project access including:
 - a. Termini
 - b. Length
 - c. Purpose and use
 - d. Party responsible for maintenance
 - e. Level of maintenance
 - f. Structures accessed
 - g. Location and status of gates and barricades, if any

- h. Ownership of road segment and underlying property
 - i. Instrument of authorization for road use
 - j. Existing road conditions (condition assessment)
4. Provisions for the Licensee to consult with the Forest Service in advance of performing any road construction, realignment, or closure involving Forest Service roads or lands.

The Licensee shall obtain appropriate authorization (e.g. special use permit, road use permit, maintenance agreement) for all project access roads outside the project boundary including unclassified roads and Forest Service System roads needed for project access. The term of the authorization shall be the same as the term of the license. The 1987 road maintenance agreement shall be replaced by a new authorization with current Forest Service maintenance standards. The authorization shall require road maintenance and cost sharing in reconstruction commensurate with the Licensee's use and project-induced use. The authorization shall specify road maintenance and management standards that provide for traffic safety, minimize erosion and damage to natural resources and that are acceptable to the Forest Service.

The Licensee shall complete an annual maintenance plan subject to Forest Service review and approval once each year.

Any needed new construction, realignment, closure or other road maintenance actions not covered in the road management plan shall be reviewed and approved by the Forest Service and shall be subject to Forest Service standards in effect at the time. The Licensee shall be responsible for completion of any required studies, analyses or reviews.

The Licensee shall provide reasonable winter recreation access to the Beardsley Reservoir. The Licensee shall be responsible for management of Road 5N02 during winter months (November 1 through March 31) including opening and closing the gate and plowing of snow for public recreation access, when conditions exist for the public to safely access the reservoir. Snow removal on Road 5N02 and other project roads shall be performed so as to minimize erosion during runoff periods.

The Licensee shall amend the Road Management Plan, including the review and approval process, if any additional Forest Service or unclassified roads not covered by the initial Road Management Plan are subsequently needed for Licensee access to the Project area.

Condition No. 28—Recreation Facilities and Administration

Within one year of license issuance, the Licensee shall file with the Commission a

Recreation Implementation Plan approved by the Forest Service. The Recreation Implementation Plan shall include detailed descriptions of each measure to the conceptual design level, implementation schedules, responsibilities for planning, responsibilities for design and construction, responsibilities for annual maintenance and operation, responsibilities for replacement, responsibilities for ownership and whether the facility is a Project facility, and responsibilities for funding. Additionally, the plan shall provide a mechanism for the Licensee and the Forest Service to meet periodically over the term of the license to assess the adequacy of the implemented measures. The Licensee shall provide a draft of the plan to the Forest Service for review, comment and approval. Once approved by the Forest Service, the Licensee shall file the final plan, including evidence of consultation, with the Commission and shall implement those measures approved by the Commission.

Definitions

The following definitions apply to this Condition.

1. Planning and Design

Design Narrative: Describes the management objectives, design criteria, and constraints associated with the development. It should include: (a) management objectives; (b) design criteria, including criteria on type and color of materials and accessibility; (c) existing physical conditions; (d) any rehabilitation and new construction; (e) anticipated management problems that design may minimize; (f) site capacity, durability, and protection; (g) user safety; and (h) interpretive services.

Concept Plan: A preliminary graphic illustration of proposed facilities and utilities in relationship to existing site features, facilities, and utilities. It communicates proposed development ideas or alternatives. A blow-up of a typical area or camping unit, which indicates placement, and orientation of facilities may be included to clarify the concept. Aerial photography or topographic maps may be used.

NEPA Compliance: Conduct appropriate environmental analysis. After an environmental analysis or environmental impact statement is conducted on the concept plan and an alternative selected, the concept plan becomes the basis of the master development plan.

Site Development Plan: A comprehensive graphic illustration of the facilities and utilities (both existing and proposed) to be built or modified as approved by the NEPA decision. The development plan is based on an accurate survey, usually drawn to a scale ranging from 1" = 20' to 1" = 100', with appropriate contour information, and may also include descriptions or lists of features.

The plan must be approved before construction proposals are prepared. The plan must be consistent with the concept plan approved by the NEPA decision or revised through the NEPA process.

Construction Plans: Professionally prepared engineering, architectural, or landscape architectural plans and specifications for buildings, utilities, roads, grading, plantings, and related improvements. After review, construction plans must be approved by the appropriate line officer after review.

2. Maintenance

Keeping fixed assets in acceptable condition, including preventive maintenance, repairs, replacement of parts and structural components. Maintenance includes work needed to meet laws, regulations, codes, and other legal direction (such as compliance with ADA) as long as the original intent or purpose of the fixed asset is not changed. Maintenance excludes activities aimed at expanding the capacity of an asset or otherwise upgrading it to serve needs different from, or significantly greater than those originally intended.

Operational Maintenance: Maintenance or reconditioning that neither materially adds to the value of the property nor appreciably prolongs its life. The work serves only to keep the facility in an ordinary, efficient operation condition. From an accounting or tax perspective, it is work that may be expensed. Examples include interior painting, repair of broken windows, light bulb replacement, cleaning, unplugging drains, preventive maintenance, greasing, servicing, inspecting, oiling adjusting, and tightening, aligning, sweeping, and general snow removal.

Heavy Maintenance: Maintenance or reconditioning that arrests deterioration and appreciably prolongs the life of the property. From an accounting standpoint, the expenditures may be capitalized. Examples include installing a new roof, new floor, or new siding, replacing electrical wiring or heating systems, repairing or replacing pipes, pumps and motors, repairing or maintaining government property threatened or damaged by heavy snow or ice, repairing or maintaining the paths, lands, walks, or walls adjacent to other government-owned structures, and performing exterior painting or refinishing.

Reconditioning: Restoring a facility to its original condition or to meet current national standards, such as the ADA, accessibility guidelines or Uniform Building Code. Reconditioning does not include construction of new facilities (i.e. a capital improvement).

3. Capital Improvement

The construction, installation, or assembly of a new fixed asset, or the significant alteration, expansion, or extension of an existing fixed asset to accommodate a change of purpose.

Beardsley Campground (Existing Campground)

1. **Site Development Plan:** Prepare a conceptual site development plan (not detailed construction drawings) to rehabilitate the campground consistent with applicable Forest Service standards. Redesign the campground to remove approximately 10 sites along Beardsley Road and maintain the same approximate number of campsites (16) [investigate feasibility of additional sites along railroad grade road] along the campground access road while incorporating accessibility design standards. Submit the Plan to the Forest Service for approval within 3 years of the date of license issuance. Include a vegetation management component in the Plan.
2. **Campsite Removal and Restoration:** Remove 10 campsites along the Beardsley Road. Install barriers and signage to allow day use parking only. Provide a foot trail down to the shoreline from a central point in the area and barrier/rehab other trails. Restore the area where the campsites are removed including erosion control measures and revegetation.
3. **Campground Rehabilitation:** Re-grade and pave the access road through the campground and install directional signs and barriers to manage parking. Install an entrance gate, and bulletin/information board at the entrance. Reconstruct individual sites by grading tent sites and parking spurs or pullouts, installing tables, fire rings, wildlife resistant food storage lockers and site markers. Install an accessible 2-stall vault restroom and remove existing vault restroom at the end of its useful life. Install wildlife resistant trash and recycle bins with pads. Develop a potable water system for the campground with two spigots. If the Licensee's cost to develop a potable water supply source exceeds \$20,000, the Licensee shall consult with the Forest Service regarding alternatives including development of a non-potable water system for the site. The combined cost for development of water supply sources (3 recreation sites) shall not exceed \$80,000. Construct two paths down to the shoreline from the campground and barrier/rehabilitate other trails. Construct a boat mooring facility for up to 6 boats.
4. **Implementation:** Rehabilitation of this facility and other proposed resource measures shall have target dates for completion as follows:

Submit Site Development Plan to the Forest Service for approval	Year 3 after the date of license issuance
Campground Rehabilitation and campsite	Year 6 after the date of license

removal/restoration	issuance
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5. **Planning:** The Licensee shall be responsible for preparing a site development plan for the Beardsley Campground for Forest Service approval and completion of any necessary environmental analysis as required by the National Environmental Policy Act (NEPA).
6. **Design and Construction:** The Licensee shall be responsible for performing design and construction of the facilities and improvements unless the Licensee and Forest Service agree otherwise.
7. **Annual Maintenance and Operation:** The Forest Service will perform annual operation and maintenance of the Beardsley Campground unless the Forest Service and the Licensee agree otherwise.
8. **Replacement:** The Licensee shall be responsible for performing replacement of the improvements due to *force majeure* with a maximum of \$100,000 per event and up to four events within the license period.
9. **Ownership:** The facilities and improvements constructed under this measure are included in the FERC Project Boundary and will be owned by the Forest Service.
10. The Licensee shall be responsible for funding preparation of the site development plan and the reasonable cost of designing and constructing the facilities and improvements unless the Forest Service and the Licensee agree otherwise. The Licensee shall provide the reasonable annual cost of operating and maintaining the Beardsley Campground. If a fee system is deemed feasible and desirable in the future by the Forest Service and Licensee, fees collected will be used to offset Licensees cost responsibilities as applicable and compatible with authorizing authorities. The Licensee will fund Forest Service administrative costs for administering and managing a fee recovery program. The Licensee shall contribute \$5,000 per year to an interest bearing account, to be maintained by the Licensee, for the purpose of replacement of project related recreation facilities (the "depreciation fund") after their normal operating life. The fund may be used for any recreation facility identified in these provisions.

Beardsley Day Use Area (Existing Day Use Area)

1. **Site Development Plan:** Prepare a conceptual site development plan (not detailed construction drawings) to rehabilitate the existing day use area consistent with applicable Forest Service standards. Maintain the same approximate number of picnic sites; add one group site and a fish cleaning station. Incorporate accessibility design standards. Submit the Plan to the Forest Service for approval within 2 years

of the date of license issuance. Include a vegetation management component in the Plan.

2. **Day Use Area Rehabilitation:** Rehabilitate the day use area. Demolish the existing restroom and install a six-unit accessible flush unisex restroom. Repave the parking lot, repair/replace curbing and install directional signs and an entrance gate. Install bulletin/information boards, and rebuild the handrails and fences to control foot traffic. Resurface paths and grade flat areas for picnic sites. Install approximately 10 fire grills and 20 picnic tables. Develop a new water system to provide a reliable potable water supply and replace 6 water spigots. If the Licensee's cost to develop a potable water supply source exceeds \$20,000, the Licensee shall consult with the Forest Service regarding alternatives including development of a non-potable water system for the site. The combined cost for development of water supply sources (3 recreation sites) shall not exceed \$80,000. Install wildlife resistant trash and recycle bins with pads. Reconstruct the 0.25-mile Beardsley Interpretive Trail with a hardened surface and interpretive signing. Consider feasibility of ADA access and incorporate where possible. Extend the existing boat ramp by approximately 250 feet and rebuild the courtesy dock to comply with accessibility standards.
3. **Future Development:** Future expansion may include an additional restroom, picnic sites and paths along the shoreline to the north of the existing day use area. A monitoring Plan will be developed within 1 year of license issuance identifying future development triggers for Forest Service approval. Implementation of this monitoring plan will be the responsibility of the Licensee.
4. **Boat Patrols on Beardsley Reservoir:** The Licensee will provide funding to the Forest Service for a Level 2 Law Enforcement Officer to conduct boat patrols on Beardsley Reservoir. The Licensee will provide 50% funding for the purchase of a boat for reservoir patrol use.
5. **Implementation:** Rehabilitation of this facility shall have a target date for completion as follows:

Submit Site Development Plan to the Forest Service for approval	Year 2 after the date of license issuance
Monitoring Plan	Year 1 after the date of license issuance
Day use area rehabilitation	Year 5 after the date of license issuance
Future expansion of day use area	As determined by monitoring

	triggers
Boat Patrols on Beardsley Reservoir	Year 1 after the date of license issuance

6. **Planning:** The Licensee shall be responsible for preparing a site development plan for the Beardsley Day Use Area for Forest Service approval and completion of any necessary environmental analysis as required by the National Environmental Policy Act (NEPA).
7. **Design and Construction:** The Licensee shall be responsible for performing design and construction of the facilities and improvements unless the Licensee and Forest Service agree otherwise. The Licensee shall be responsible for performing design and construction of the facilities and improvement for the future development of the Day Use Area when monitoring triggers have been met.
8. **Annual Maintenance and Operation:** The Forest Service shall perform annual operation and maintenance of the Beardsley Day Use Area unless the Forest Service and the Licensee agree otherwise.
9. **Replacement:** The Licensee shall be responsible for performing replacement of the improvements due to *force majeure* with a maximum of \$100,000 per event and up to four events within the license period.
10. **Ownership:** The facilities and improvements constructed under this measure are included in the Project boundary and will be owned by the Forest Service.
11. **Funding:** The Licensee shall be responsible for funding preparation of the site development plan and the reasonable cost of designing and constructing the facilities and improvements unless the Forest Service and the Licensee agree otherwise. The Licensee shall provide the reasonable annual cost of operating and maintaining the Beardsley Day Use Area. If a fee system is deemed feasible and desirable in the future by the Forest Service and Licensee, fees collected will be used to offset Licensees cost responsibilities as applicable and compatible with authorizing authorities. The Licensee will fund Forest Service administrative costs for administering and managing a fee recovery program. The Licensee's contributions (\$5,000 annually) to the "depreciation fund" will be available for the purpose of replacement of project related recreation facilities after their normal operating life.

China Flat Day Use Area (Existing Day Use Area)

1. **Site Development Plan:** Prepare a conceptual site development plan (not detailed construction drawings) to rehabilitate the existing day use area consistent with applicable Forest Service standards. Maintain the existing footprint of the facility

and incorporate accessibility design standards. Submit the Plan to the Forest Service for approval within five years of the date of license issuance. Include a vegetation management component in the Plan.

2. Day Use Area Rehabilitation: Re-grade and provide a graveled surface on the existing parking area and install barriers and directional signs to manage parking. Consider expanding the parking area in the area towards the east. Provide a bulletin/information board. Install a new accessible 1-stall unisex restroom and demolish existing vault restroom at the end of its useable life. Develop an accessible path, including seating, leading to the shoreline of the Beardsley Afterbay for fishing and wildlife viewing. Construct a wildlife viewing blind structure along Afterbay shoreline with accessible access. Include interpretive signing/display.
3. Implementation: Rehabilitation of this facility shall have a target date for completion as follows:

Submit Site Development Plan to the Forest Service for approval	Year 5 after the date of license issuance
Day use area rehabilitation	Year 8 after the date of license issuance

4. Planning: The Licensee shall be responsible for preparing a site development plan for the China Flat Day Use Area for Forest Service approval and completion of any necessary environmental analysis as required by the National Environmental Policy Act (NEPA).
5. Design and Construction: The Licensee shall be responsible for performing design and construction of the facilities and improvements unless the Forest Service and the Licensee agree otherwise.
6. Annual Maintenance and Operation: The Forest Service shall perform annual operation and maintenance of the China Flat Day Use Area unless the Forest Service and the Licensee agree otherwise.
7. Replacement: The Licensee shall be responsible for performing replacement of the improvements due to *force majeure* with a maximum of \$100,000 per event and up to four events within the license period.
8. Ownership: The facilities and improvements constructed under this measure are included in the Project boundary and will be owned by the Forest Service.
9. Funding: The Licensee shall be responsible for funding preparation of the site development plan and the reasonable cost of designing and constructing the facilities and improvements unless the Forest Service and the Licensee agree otherwise. The

Licensee shall provide the reasonable annual cost of operating and maintaining the China Flat Day Use Area. If a fee system is deemed feasible and desirable in the future by the Forest Service, fees collected will be used to offset Licensees cost responsibilities as applicable and compatible with authorizing authorities. The Licensee will fund Forest Service administrative costs for administering and managing a fee recovery program. The Licensee's contributions (\$5,000 annually) to the "depreciation fund" will be available for the purpose of replacement of project related recreation facilities after their normal operating life.

Donnells Reservoir

1. Road Access: Improve and reconstruct, as necessary, unclassified road 61835A from Forest Service Road 5N09X to the quarry site to Forest Service level two standards.
2. Dispersed Campsite Improvements: Install improvements, consistent with applicable Forest Service standards, at the areas traditionally used for dispersed camping along, unclassified road 61835A (quarry site). Install approximately 10 fire rings, barriers to manage parking and, block off existing sites where camping causes concern for fire risk and other unacceptable resource impacts. Provide bulletin/information boards and directional signs on Forest Service Roads 5N09X and, unclassified road 61835A. Locate and construct a trail to the shoreline for hand launching/retrieving boats near the quarry site. Prepare a conceptual site plan showing proposed locations for fire rings, barriers, bulletin boards, directional signs and footpath and submit the Plan to the Forest Service for approval within two years of the date of license issuance. Modify the fence near the caretaker's cabin to allow small boats to be passed through the gate for river access.
3. Annual Patrol: Annually patrol the reservoir to remove abandoned boats and trash and notify the Forest Service when boats are left along the shoreline near the dam.
4. Implementation: The activities and improvements associated with this measure shall have target dates for completion as follows:

Submit Conceptual Plan to the Forest Service for approval	Year 2 after the date of license issuance
Dispersed campsite improvements and trail construction	Year 5 after the date of license issuance
Improve/reconstruct access roads	Year 3 after the date of license issuance
Annual Patrol of Reservoir and Shoreline	Year 1 after the date of license issuance

5. **Planning:** The Licensee shall be responsible for preparing a conceptual site plan for the locations of the fire rings, barriers, bulletin boards, directional signs and footpath to the shoreline for Forest Service approval and completion of any necessary environmental analysis as required by the National Environmental Policy Act (NEPA).
6. **Design and Construction:** The Licensee shall be responsible for improving and reconstructing 5N09X and unclassified road 61835A. The Licensee shall be responsible for design and construction of the improvements at Donnells Reservoir unless the Forest Service and the Licensee agree otherwise.
7. **Annual Maintenance and Operation:** The Forest Service will perform annual operation and maintenance of the improvements installed at Donnells Reservoir unless the Forest Service and the Licensee agree otherwise. The Licensee shall be responsible for performing annual maintenance on unclassified road 61835A and 5N09X. The Licensee shall perform the annual patrol of the reservoir shoreline and remove trash and abandoned boats.
8. **Replacement:** The Licensee shall not be responsible for performing replacement of the improvements due to *force majeure* that result in significant or catastrophic loss of facilities or end of service life.
9. **Ownership:** The improvements constructed under this measure are included in the Project boundary and will be owned by the Forest Service.
10. **Funding:** The Licensee shall be responsible for funding preparation of the conceptual site plan for improvements at Donnells Reservoir and the reasonable cost of designing and constructing the improvements unless the Licensee and Forest Service agree otherwise. The Licensee shall provide the reasonable annual cost of operating and maintaining the improvements and patrolling and removing trash along the shoreline of the reservoir. The Licensee's contributions (\$5,000 annually) to the "depreciation fund" will be available for the purpose of replacement of project related recreation facilities after their normal operating life.

Visitor Education and Information

Within two years of the date of license issuance, develop and implement a Visitor Education and Information Plan. Elements of the Plan to include: 1) developing information about recreation opportunities for dissemination at points of visitor contact, 2) developing visitor education/interpretive mediums, 3) establishing periods of seasonal closure for snow, 4) funding for printed materials, 5) scheduling for updating information, 6) implementation schedule and 7) a collection agreement with Forest Service to implement portions of the Plan.

Vegetation Management Plan and Implementation

Within three years of the date of license issuance, develop a vegetation treatment plan to reduce fire risk and improve forest health in the area of the Beardsley Campground, Beardsley Day Use Area, Donnells Dam and the quarry site (near Donnells Reservoir). Include in the Plan descriptions of the methods of treatment, proposed schedule for treatment, monitoring, provisions for modifying the plan and responsibilities. Develop the plan in consultation with the Forest Service. Provide a draft of the Plan to the Forest Service for review, comment and approval. After Forest Service approval the Licensee shall be responsible for removing vegetation in these areas for fuel reduction in accordance with the Plan.

Funding Contribution for Operations, Maintenance, Visitor Contact and Patrols

Beginning the first full calendar year after licensee issuance, the Licensee shall contribute up to \$106,770 (2005 dollar cost basis; costs to be annually escalated based on the U.S. Gross Domestic Product—Implicit Price Deflator) funding annually for operations and operational maintenance, visitor information/interpretive services and patrol for the Beardsley and Donnells Reservoir areas. The Licensee shall be responsible for Law Enforcement Officer funding for Level 4 law enforcement activities related to the Project. A collection agreement will be developed with the Forest Service to provide this level of funding. The Licensee shall enter into a collection agreement with Forest Service to provide 50% funding for the purchase of a boat for reservoir patrol use up to a one-time cost of \$6,000 to be provided within one year of license issuance.

Condition No. 29—Recreation Streamflow Information

The Licensee shall, beginning as soon as reasonably feasible as and no later than one year after license issuance, annually make recreation streamflow information available to the public as described below. Unless otherwise noted, the flow information shall be available to the public via the Internet, which may be accomplished through a third party. The flow information protocols may be modified upon mutual agreement of the Licensee, responsive stakeholders and approval by the Commission.

1. By April 10, a preliminary forecast of the water year type and the initiation date and duration of anticipated spill or Supplemental Flows at Donnells Dam. The information shall be updated by May 10, and shall be updated weekly thereafter through the duration of the spill period.
2. From May 1 through October 31, the hourly average streamflow for the Middle Fork Stanislaus River as measured at the U. S. Geological Survey's streamflow gaging

station at Hell's Half-Acre (USGS Gage 11292700). The flow information shall be posted at 9 AM, Noon and 4 PM daily for the current day and the past 7 days. Streamflows may be rounded up to the nearest 50 cfs, and all plots and tables showing this data shall be labeled "These provisional data have not been reviewed or edited and may be subject to significant change."

3. The Licensee shall install and maintain one simple staff gage/depth indicator in the Middle Fork Stanislaus River downstream of Donnell's Dam near the spillway channel outlet. The Licensee shall make a good faith attempt to locate the staff gage/depth indicator near a location used for whitewater boating put-in, and if possible angling access points, so it is easily accessible for public reference. The Licensee shall provide a means at the staff gage/depth indicator to reasonably correlate staff gage/depth indicator readings to cfs.

Condition No. 30—Heritage Resources

Within one year of license issuance, the Licensee shall complete a Heritage Resources Management Plan (HRMP) that is approved by the Forest Service, and file the HRMP with the Commission. The HRMP shall be incorporated into the Programmatic Agreement by reference. The HRMP, as appropriate, shall accurately define the area of potential effects, including effects of implementing Section 4(e) conditions, and take into account project effects on National Register properties; Native American traditional cultural values; and Project impacts to archaeological properties on National Forest System lands. The HRMP shall also provide measures to mitigate the identified impacts, a monitoring program, and management protocols for the ongoing protection of archaeological properties.

If, prior to or during ground-disturbing activities or as a result of project operations, items of potential cultural, historical, archeological, or paleontological value are reported or discovered, or a known deposit of such items is disturbed on National Forest System lands and Licensee adjoining fee title property, the Licensee shall immediately cease work in the area so affected. The Licensee shall then notify the Forest Service and shall not resume work on ground-disturbing activity until it receives written approval from the Forest Service.

If it deems it necessary, the Forest Service may require the Licensee to perform recovery, excavation, and preservation of the site and its artifacts at the Licensee's expense through provisions of an Archaeological Resources Protection Act permit issued by the Forest Service.

The Licensee shall implement the plan upon approval by the Commission.

Condition No. 31—Water Year Types

The Licensee shall, each year in each of the months of February through May, determine water-year type based on the California Department of Water Resource's (DWR) forecast for annual unimpaired inflow into New Melones Reservoir (as set forth in DWR's Bulletin 120 entitled Water Conditions in California). The Licensee shall use this determination in implementing articles and conditions of the license that are dependent on water-year type. In each of February, March and April, the water-year type shall be based on DWR's forecast for the month and shall apply from the 10th day of the month through the 9th day of the next month. From May 10 through February 9 of the following calendar year, the water-year type shall be based on DWR's May 1 forecast. The Licensee shall maintain a five-year record of its water-year type determinations, and shall provide this record to the Commission annually.

A Normal water year is defined as one in which DWR's forecast is for more than the 25th percent exceedence value but less than the 75th percent exceedence value of DWR's historic May 1 forecasts of runoff into Melones Reservoir for each water year from 1946 through 2002. The values for each water year type are in the table below.

Water Year Types for the Beardsley/Donnells Project.

Water Year Type	DWR Forecast Annual Unimpaired Inflow—New Melones Reservoir (acre-feet)
Critically Dry	Less than or equal to 350,000
Dry	Greater than 350,000 and less than or equal to 676,000
Normal	Greater than 676,000 and less than 1,585,000
Wet	Greater than or equal to 1,585,000

Condition No. 32—Streamflows in Donnells Reach

The Licensee shall, beginning no more than six months after license issuance, maintain in Donnells Reach minimum Daily Flows in Normal, Dry, Critically Dry and Wet water year types and Supplemental Flows in Normal, Dry, and Wet water year types. Donnells Reach is the 8.1-mile-long reach of the Middle Fork Stanislaus River extending from Donnells Dam to Hell's Half-Acre Bridge. Minimum Daily Flows may consist of any combination of regulated flow releases from Donnells Dam and spill at Donnells Dam. Supplemental Flows may consist of any combination of regulated flow releases from Donnells Dam, spill at Donnells Dam, and natural accretion in the reach.

Minimum Daily Flows

In order to assure adequate year-round biological baseline, the Licensee shall maintain in Donnells Reach the minimum Daily Flows in the following table. The specified minimum Daily Flows are the minimum mean flow over a continuous 24-hour period. Instantaneous flow may deviate below the specified minimum Daily Flow by up to 10 percent or 4 cfs, whichever is less. However, the Licensee shall make a good faith effort to meet the specified minimum Daily Flows at all times. The minimum Daily Flows shall be measured at a gage installed and maintained by the Licensee at or immediately downstream of Donnells Dam.

Minimum Daily Flow schedule for the Donnells Reach.

Month	Water Year Type		
	Normal	Critically Dry and Dry	Wet
October 1-31	40	25	45
November 1-30	40	25	40
December 1-31	40	25	40
January 1 - February 9	40	25	40
February 10 - March 9	40	25	50
March 10 - April 9	40	25	50
April 10 - May 9	40	25	50
May 10 - May 31	40	25	50
June 1 - 30	40	25	50
July 1- 31	45	25	60
August 1 - 31	45	25	60
September 1 - 30	40	25	50

Minimum Supplemental Flows

In order to assure an adequate spring peak flow event occurs each year, the Licensee shall, in addition to the minimum Daily Flows specified above, maintain the minimum

Supplemental Flows in the following table. The specified minimum Supplemental Flow for a week is the average flow for the week, with instantaneous flows at least equal to the specified minimum Supplemental Flow for the lower of the two adjoining weeks. The Licensee is not required to provide minimum Supplemental Flows in Donnell's Reach in Critically Dry Water Years. Minimum Supplemental Flows shall be measured at the existing United States Geological Survey gaging station at Hell's Half-Acre.

The minimum Supplemental Flow period shall be 13 continuous weeks in length. For years in which Donnell's Reservoir is forecast to spill, the Licensee may initiate the Supplemental Flow period any time between March 1 and May 1 to best coincide with the period of spill (Date Trigger). For years in which Donnell's Reservoir is forecasted not to spill, the Licensee shall initiate the 13-week-long Supplemental Flow period at a time between March 1 and May 1 so that the peak Supplemental Flow will occur approximately two weeks after the forecasted peak inflow to Donnell's Reservoir (Peak Flow Trigger).

Minimum Supplemental Flow schedule for the Donnell's Reach¹.

Week	Water Year Type		
	Normal	Dry	Wet
1	5	5	5
2	10	10	10
3	25	25	25
4	35	35	35
5	75	75	75
6	125	125	125
7	200	200	200
8	325	325	325
9	175	175	175
10	95	95	95
11	55	55	55
12	25	25	25
13	10	10	10

¹ Minimum Supplemental Flows are additive to the specified minimum Daily Flows.

The Licensee shall consult with the Forest Service, State Water Resources Control Board (SWRCB), California Department of Fish and Game (CDFG), United States Fish and Wildlife Service (USFWS) and other interested parties, to develop a recommendation for the Water Temperature Trigger to function in combination with the Date and Peak Flow triggers described above for initiating Supplemental Flows in years that Donnell's Reservoir is forecasted not to spill. The Water Temperature Trigger shall not apply for years in which Donnell's Dam is forecasted to spill. The Water Temperature Trigger shall be developed based on available information. The Licensee shall, within one year of license issuance, file the recommendation, including evidence of consultation, and shall implement the Water Temperature Trigger approved by the Forest Service, [SWRCB], and the Commission. Use of the Water Temperature Trigger shall be based on water temperatures measured using a continuous water temperature recorder installed and maintained by the Licensee upstream of Donnell's Powerhouse.

The Licensee may meet the minimum Supplemental Flow requirement with flow magnitudes in excess of those specified; however, the rate of decline in flow shall be no steeper than the specified decline for Supplemental Flows any time actual streamflow at Hell's Half-Acre is less than the peak magnitude specified for the Supplemental Flow. Exceptions to the decline rate are allowed when natural events, such as storms and variation in rate of snowmelt, cause short duration (not greater than approximately one week in length) flow fluctuations that exceed the flows specified for the declining limb of the Supplemental Flow. The Licensee shall make downward adjustments in Supplemental Flow in approximately equal steps to achieve a smooth decline.

The requirements of this measure may be temporarily modified if required by equipment malfunction, emergency or law enforcement activity, or electric system emergencies beyond the control of the Licensee. In the event of such temporary modifications, the Licensee shall promptly notify, with confirmation of receipt, the Commission, Forest Service, SWRCB, CDFG, USFWS and others that request such notification.

In Critically Dry water years, the Licensee may propose modifications to specified minimum Daily Flows. If such modifications are proposed the Licensee shall consult with Forest Service, SWRCB, CDFG, and others who request consultation as to the possible justification for such modifications of the minimum Daily Flow specified for Dry and Critically Dry water years. The Licensee shall maintain the specified minimum Daily Flows until any such modifications are approved by the responsive agencies and the Commission.

Where facility modification is required to implement the specified minimum Daily Flows or Supplemental Flows, the Licensee shall complete such modifications as soon as reasonably practicable and no later than 3 years after license issuance. Prior to

completion of such required facility modifications, the Licensee shall make a good faith effort to provide the specified minimum Daily Flows and Supplemental Flows within the capabilities of the existing facilities.

Condition No. 33—Ramping Rate

The Licensee shall, beginning as soon as reasonably feasible and no later than 6 months after license issuance, increase or decrease regulated minimum Daily Flows at a stream stage change rate of six inches or less per hour. The point of compliance shall be at a gage installed and maintained by the Licensee at or immediately downstream of Donnells Dam. The ramping rate may be temporarily modified if required by equipment malfunction, emergency or law enforcement activity, agency requirements, or electric system emergencies beyond the control of the Licensee. Where facility modification is required for the Licensee to provide the specified ramping rate, the Licensee shall complete such modifications as soon as reasonably practicable and no later than 3 years after license issuance. Prior to such required facility modifications, the Licensee shall make a good faith effort to provide the specified ramping rate within the capabilities of the existing facilities.

Condition No. 34—Large Wood

The Licensee shall, beginning the first full calendar year after license issuance, make a reasonable effort to annually return large wood to the Middle Fork Stanislaus River immediately downstream of Donnells Dam by allowing the large wood to pass through the Donnells Dam spillway during spill periods. Large wood, as used in this measure, refers to downed, dead or dying wood at least 30 feet long (assumes a piece of wood that would be at least one-half bankfull in length if it occurred in Donnells Reach). If spills are not adequate to pass the large wood and the Licensee collects the large wood from Donnells Reservoir, the Licensee shall consult with the Forest Service and other interested parties concerning alternative means to return the large wood to the river.

Condition No. 35—Annual Employee Awareness Training

The Licensee shall, beginning the first full calendar year after license issuance, provide annual employee awareness training in coordination with the Forest Service. The goal of the training shall be to familiarize the Licensee maintenance and operations staff with local resource issues, special status species, noxious weeds, procedures for reporting to the Forest Service, and Forest Service orders that pertain to the Stanislaus National Forest lands in the vicinity of the Project. Information on special status species and noxious weeds and their locations in the Project area shall be provided to field personnel.

Condition No. 36—Special Status Species

The Licensee shall, beginning the first full calendar year after license issuance, in consultation with the Forest Service, annually review the current list of special status plant and wildlife species (species that are Federal Endangered or Threatened, Forest Service Sensitive, or Stanislaus National Forest Watch List) that occur within the Project Boundary. When a species is added to one or more of these lists, the Forest Service in consultation with the Licensee shall determine if the species or un-surveyed suitable habitat for the species is likely to occur within the Project Boundary. If the Forest Service determines that the species is likely to occur, the Licensee shall develop and implement a study plan in consultation with the Forest Service to reasonably assess the effects of the Project on the species. The Licensee shall prepare a report on the study including objectives, methods, results, recommended resource measures where appropriate, and a schedule of implementation, and shall provide a draft of the final report to the Forest Service for review and approval. The Licensee shall file the report, including evidence of consultation, with the Commission and shall implement those resource management measures approved by the Commission.

In addition, areas within the Project boundary that have suitable habitat or known occurrences of selected special status wildlife or plant species shall be resurveyed every ten years in order to (a) determine if special status plant or wildlife species have changed in location (i.e. migrated into or moved within the Project area), and (b) monitor for impacts caused by on-going Project activities. The licensee shall consult with the FS to determine which species need to be resurveyed. The survey interval may be adjusted based on the amount of movement or impacts to the species that are observed. Survey results shall be provided to the Forest Service. If negative impacts are determined by the Forest Service, the Licensee shall submit a proposal for actions to reduce or eliminate impacts to special status species. The Licensee shall file the report, including evidence of consultation, with the Commission and shall implement those resource management measures required by the Forest Service and approved by the Commission.

Condition No. 37—Ground Disturbing Activities

If the Licensee proposes activities that were not specifically addressed in the Commission's National Environmental Policy Act (NEPA) processes, the Licensee, in consultation with the Forest Service, shall determine the scope of work, and the potential Project-related effects and whether additional information is required to proceed with the planned ground disturbing activity. Upon Forest Service's request, the Licensee shall enter into an agreement with the Forest Service under which the Licensee shall fund a reasonable portion of Forest Service's staff time and expenses for staff

activities related to the proposed activities.

Condition No. 38—Bats

The Licensee shall, as soon as is reasonably feasible but no later than one year after license issuance: a) install a barrier in the restroom at the Stanislaus National Forest's Beardsley Day Use Area restroom once bat use of the facility is in a non-critical period of the year so that bats can no longer use the restroom as a night roost; b) ensure the restroom door is self-closing to keep bats out, and place bilingual signs requesting the public keep the doors closed; c) install and maintain up to three bat houses or bat sheds at strategically located sites within the Project Boundary; and d) provide employee awareness training so that operation staff can perform Project maintenance with minimal disturbance to bats that use Project facilities.

Condition No. 39—Donnells Reach Trout Density Study

The Licensee shall, within six years after license issuance and in consultation with the Forest Service, State Water Resources Control Board (SWRCB) and California Department of Fish and Game (CDFG), perform a study of trout density in the Middle Fork Stanislaus River from Donnells Dam to Beardsley Reservoir. The purpose of the study shall be to investigate trout density in the Donnells Reach in response to the 2001 surveys that identified relatively low trout populations in the Hell's Half-Acre area as compared to other areas of the stream reach and, if so, if the Project could improve trout density in this area. The field survey portion of the study shall be done at the same time that the CDFG routinely surveys trout density in the Wild Trout portion of the Middle Fork Stanislaus River (usually, every 3 years), and shall use sampling methods similar to those used by the Department. The study will include sampling at the same sites as the 2001 survey: (1) Hell's Half-Acre, and (2) near Donnells Dam. Based on the study, the Licensee shall prepare a study report including objectives, methods, results (including incidental observations of otters), recommended reasonable resource management measures where appropriate, and a schedule of implementation, and shall provide a draft of the final report to the Forest Service, SWRCB, CDFG and others upon request for review and comment. The Licensee shall file the report, including evidence of consultation, with the Commission and shall implement those resource management measures approved by the Commission.

Condition No. 40—Bald Eagle and Peregrine Falcon

The Licensee shall file with the Commission within one year of license issuance a plan developed by the Licensee in consultation with California Department of Fish and Game, U.S. Fish and Wildlife Service, and the Forest Service for the management of bald eagles and peregrine falcons and associated habitat within the Project Boundary.

The purpose of the plan is to minimize impacts of project operations and other Project-related activities that affect bald eagles and peregrine falcons at and around project reservoirs. The primary purpose by the multi-agency cooperation and coordination of the bald eagle and peregrine falcon management plan is to conserve, sustain, and increase habitat quantity and quality for one or more bald eagle and peregrine falcon nesting territory reproductive pairs and over wintering bald eagle migrants. Measures of success will be determined through periodic monitoring of nesting pair(s) with nesting success on par with the State of California overall average number of young produced per territory. Another purpose is to identify opportunities to maintain or enhance the habitat conditions for nesting and foraging which includes protection of essential sites from human disturbance such as from recreation events, rock-climbing, boating, fireworks, road and parking uses, and Project maintenance and construction activities. Habitat improvements that should be considered such as silvicultural treatments and possibly designating permanent or seasonal use (public) restrictive areas.

At a minimum, the plan shall:

1. Identify habitat protection measures and enhancement opportunities.
2. Identify potential threats to the habitat and to prey bases and their habitat. Describe actions to protect against identified threats.
3. Conduct and document periodic habitat and species monitoring to determine if standards and guidelines from the plan are implemented and affected; and if Project operations, and Project-related recreation or other management activities are having a trend in beneficial or detrimental effects. If declining trends in habitat conditions or populations are detected within the project area the agencies should consider revisions of the management plan to deal more effectively with the trends and/ or reestablish goals and objectives for the species and/or area.
4. Develop a GIS database and maps depicting existing vegetation, structures, roads, power lines, and schedules and areas for potential implementation of projects. Habitat protection measures and enhancement opportunities will be identified. In addition, potential threats to the habitat and to native species communities will be described. Actions to protect against identified Project-related threats will be described.

Condition No. 41—Noxious Weed Management Plan

The Licensee shall, within one year of license issuance, file with the Commission a Noxious Weed Management Plan, that is approved by the Forest Service, for the purpose of controlling and containing the project-related spread of noxious weeds on National Forest System lands, which might be related to the Licensee's activities. The

purpose of the plan is to establish (a) which populations of noxious weeds are the result of project activities and (b) which are a priority for eradication. At a minimum the plan shall:

1. Include a list of current infestations of Project-related noxious weeds and pathogens (e.g. sudden oak death) with priorities for treatment.
2. Include a description of methods to eradicate existing populations of noxious weeds caused by the Project or project-related recreation, including those that extend from the Project or have spread downstream from Project facilities. At the current time, these include cheat grass, yellow star thistle, Himalayan blackberry, bull thistle and woolly mullein. Where these populations are contiguous with populations outside the Project Boundary or are downstream from those populations, the Licensee shall make reasonable efforts to eradicate the entire population unit.
3. Describe efforts to control the spread of Project-caused noxious weeds and plant pathogens/diseases within the Project Boundary. At a minimum these efforts should include:
 - a. Assuring that Project staff is aware of the current location of these weeds and how to identify the noxious weeds likely to occur in the Project area.
 - b. Advising the Forest Service of observed new populations of noxious weeds and coordinating with the Forest Service for the eradication of the population.
 - c. Thoroughly cleaning all construction equipment and other equipment that operates off roads or moves soil before entering the Project Boundary and using reasonable cleaning methods to reasonably ensure that seeds of noxious weeds are not introduced.
 - d. Using 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 plant species native to the Stanislaus National Forest for restoration or erosion control purposes.
 - e. Monitoring of known populations of noxious weeds to evaluate the effectiveness of re-vegetation and noxious weed control measures.
 - f. Conducting an inventory for new noxious weed infestations at Licensee facilities and other possible points of introduction every five years using the current list of noxious weeds of concern to the Stanislaus National Forest. This frequency may be adjusted based on the results of these inventories. This inventory shall be used to help prevent the spread of noxious weeds and will also serve as monitoring for the weed introduction prevention measures (c-d and g).

- g. Avoiding entering areas with existing populations of noxious weeds. If necessary to enter these areas, the Licensee shall, where reasonably feasible, conduct work in clean areas first and then in the areas with weeds to avoid spreading weeds within the Project Boundary.
- 4. Establish responsibility for, and priority of, eradication efforts, i.e. which noxious weed populations are the Licensee's responsibility, the Forest Service's responsibility or shared responsibility.

-END-