UNITED STATES OF AMERICA 117 FERC ¶ 62, 044
FEDERAL ENERGY REGULATORY COMMISSION

El Dorado Irrigation District Project No. 184-065

ORDER ISSUING NEW LICENSE

(October 18, 2006)

INTRODUCTION

1. On February 22, 2000, El Dorado Irrigation District (District) filed an application for a new major license pursuant to sections 4(e) and 15 of the Federal Power Act (FPA),[1] to continue operation and maintenance of the El Dorado Hydroelectric Project No. 184. The 21-megawatt (MW) project is located on the South Fork of the American River and its tributaries in El Dorado, Alpine, and Amador counties, California, and occupies federal lands administered by the U.S. Forest Service. As discussed below, I am issuing a new license for the project.

PRELIMINARY MATTERS

2. Portions of the project are located within the Desolation Wilderness Areas of the Eldorado National Forest. Section 4(c) of the Wilderness Act[2] prohibits any commercial enterprise, structure, or installation within designated wilderness areas, unless the act establishing the wilderness area provides that the Commission can do so.[3]

3. In 1969, the 63,960-acre Desolation Wilderness Area was congressionally designated and included in the National Wilderness Preservation System.[4] Section 3 of the 1969 act states that the Desolation Wilderness Area "shall be administered by the

[1] 16 U.S.C. §§ 797(e) and 808 (2000).

[2] 16 U.S.C. § 1133(c) (2000).

[3] See *Thornton Lake Resources Company*, 50 FERC ¶ 61,086 (1990).

[4] Public Law 91-82.

Secretary of Agriculture in accordance with the provisions of the Wilderness Act governing areas designated by that Act as wilderness areas, ... except that the owners and operators of existing federally licensed hydroelectric facilities shall have the right of reasonable access to the areas for purposes of operating and maintaining such facilities in a manner that is consistent with past practices without prior approval of the Secretary [of Agriculture]." Accordingly, the El Dorado Hydroelectric Project may be relicensed.

BACKGROUND

4. The Commission issued the original license for the project to Pacific Gas and Electric Company (PG&E) in 1922, and that license expired in 1972. A new license was issued to PG&E on December 11, 1980.[5] By order dated April 2, 1999, that license was transferred to the District.[6] The 1980 license expired February 23, 2002. Since then, the District has operated the project under annual license pending disposition of its license application.

5. Notice of the application was published in the Federal Register on February 13, 2001. The California Department of Fish & Game (Cal Fish and Game); County of Amador; California State Water Resources Control Board (Water Board); Alpine County, et al.;[7] Center for Sierra Nevada Conservation; Trout Unlimited and Friends of the River; Maidu Group of the Mother Lode of the Sierra Club; Forest Service; El Dorado County Citizens for Water; Sacramento Municipal Utility District; El Dorado County Water Agency; the U.S. Department of the Interior (Interior); California Trout; American Whitewater Affiliation; Chris Shackleton; and Dreamflows timely filed motions to

[5] 13 FERC ¶ 62,269 (1980).

[6] 87 FERC ¶ 61,022 (1999).

[7] Alpine County filed jointly with the League to Save Sierra Lakes, El Dorado County Taxpayers for Quality Growth, the Greater Yosemite Council of the Boy Scouts of America, Plasse Homestead Homeowners' Association, Kit Carson Lodge, Caples Lake Resort, Kirkwood Meadows Public Utilities District, Northern Sierra Summer Homeowners' Association, East Silver Lake Improvement Association, South Silver Lake Homeowners' Association, Lake Kirkwood Association, Plasse's Resort, California Sportfishing Protection Alliance, Environmental Planning and Information Council of Western El Dorado County, Kirkwood Meadows Association, East Meadows Homeowners' Association, The Lodge at Kirkwood Association, The Center for Sierra Nevada Conservation, Safegrow, California Native Plant Society, Caples Lake Homeowners' Association, Sorensen's Resort, and the Sierra Club.

intervene. None of the intervenors oppose the project.

6. On July 31, 2002, the Commission issued public notice that the project was ready for environmental analysis and solicited comments, recommendations, terms and conditions, and prescriptions. In response, comments and recommendations were filed by American Whitewater Affiliation, Interior, National Park Service (Park Service), Forest Service, Cal Fish & Game, Chris Shutes, Trout Unlimited, Friends of the River, League to Save Sierra Lakes, Chris Shackleton, Dreamflows, Kit Carson Lodge, Paul Creger, and Robert Payne.

7. On June 26, 2001, various parties agreed to engage in a public, collaborative process with the goal of executing a multiple party Settlement Agreement (Settlement) that would resolve outstanding issues for the project relicensing. A draft environmental impact statement (EIS) containing background information, analysis of impacts, and support for related license articles was prepared by Commission staff and issued on March 7, 2003. Following the issuance of the Commission's draft EIS, the District filed with the Commission the *El Dorado Relicensing Settlement Agreement* on April 29, 2003. On April 30, 2003, the Commission issued notice of the Settlement for comment and extended the comment period for the draft EIS to May 19, 2003.

8. The U.S. Environmental Protection Agency (EPA), El Dorado Citizens for Water, Forest Service, Alice Q. Howard, Cal Fish and Game, the District, the Water Board, Shingle Springs Rancheria, League to Save Sierra Lakes, et al.,[8] and U.S. Army Corps of Engineers filed comments on the draft EIS. The Commission staff considered these comments and the proposed Settlement provisions in preparing the final EIS, which was issued on August 12, 2003.

[8] The League to Save Sierra Lakes filed jointly with El Dorado County Taxpayers for Quality Growth, Greater Yosemite Council of the Boy Scouts of America, Plasse Homestead Homeowners' Association, Kit Carson Lodge, Caples Lake Resort, Kirkwood Meadows Public Utilities District, Northern Sierra Summer Homeowners' Association, East Silver Lake Improvement Association, South Silver Lake Homeowners' Association, Lake Kirkwood Association, Environmental Planning and Information Council of Western El Dorado County, Inc., Kirkwood Meadows Association, East Meadows' Homeowners Association, The Lodge at Kirkwood Association, The Center For Sierra Nevada Conservation, Safegrow, California Native Plant Society, Caples Lake Homeowners Association, and Sorensen's Resort.

9. The motions to intervene, comments, and recommendations have been fully considered in determining whether, and under what conditions, to issue this license.

PROJECT DESCRIPTION

10. The 21-MW project includes: (1) four storage reservoirs (Echo, Aloha, Caples, and Silver Lakes), impounded by a total of 16 dams ranging in height from 1.5 to 69.5 feet, that divert water to the South Fork American River; (2) a 20-foot-high diversion dam on the South Fork American River that diverts water into the 22.3-mile-long El Dorado Canal; (3) a 70-foot-long, 9.5-foot-high concrete diversion dam on Alder Creek; (4) 6 small diversion dams that divert water from 6 creeks (Mill, Carpenter, Ogilby, No Name, Bull, and Esmeralda Creeks) into the El Dorado Canal; (4) the 91-foot-high El Dorado Forebay Dam that diverts water from the canal into a 2.8-mile-long pipeline and penstock; (5) a powerhouse containing two generators having a total installed capacity of 21 MW; and (6) a switchyard.

11. The reservoirs, which are described in more detail below, store water from both the Truckee and American River basins for release after spring runoff.

12. Lake Aloha, which is located in the Desolation Wilderness Area of the Eldorado National Forest, is formed by a main dam and 11 auxiliary dams.[9] Auxiliary dam number 6 functions as the spillway together with the main dam. The reservoir covers 678.82 acres (at full pond elevation of 8,114.07 feet National Geodetic Vertical Datum [NGVD]), with a usable storage of 5,179 acre-feet. Water is released from Lake Aloha into Pyramid Creek, a tributary to the South Fork, through a conduit located at the main dam. The current license requires a minimum flow release from the dam of the lesser of 2 cubic feet per second (cfs) or inflow.

13. Echo Lake, which is located in the Lake Tahoe Basin Management Unit of the Eldorado National Forest, has a main dam that is 320 feet long and 14 feet high and covers 369.63 acres (at full pond elevation of 7,411.5 feet NGVD) with a usable storage of 1,943 acre-feet. It is the only one of the project's reservoirs that is located in the Truckee River Basin. Water is released from the lake through the dam into the 6,125-foot-long Echo Lake Conduit and discharged into the South Fork drainage. The current license has no minimum flow requirements for Echo Lake.

14. Caples Lake is formed by a main and an auxiliary dam. The main dam is 1,200

[9] The 11 auxiliary dams are used to impound the low-lying areas around Lake Aloha and keep water contained within the reservoir.

feet long and 84.5 feet high and covers 738.3 acres (at full pond elevation 7,797.7 feet NGVD) with a usable storage of 20,338 acre-feet. Caples Lake also has a 164-foot-long concrete auxiliary dam with a crest elevation of 7,800.9 feet NGVD and 1-foot-high wooden flashboards, a 131.5-foot-long concrete arch spillway with a fixed crest elevation of 7,797.9 feet NGVD and 3-foot-high wooden flashboards, and an earthfill section with a concrete core that is 291.5 feet long with a crest elevation of 7,803.9 feet NGVD. Occasionally, during May through July, when inflow to Caples Lake exceeds the capacity of the Caples Lake outlet, flow is released from a spillway at the auxiliary dam.

15. Silver Lake, which is located within the Eldorado National Forest, has a 280-foot-long, 30-foot-high rock and earthfill dam with a crest elevation of 7,261.07 feet NGVD. Silver Lake covers 691.57 acres (at full pond elevation of 7,261.07 feet NGVD) and has a usable storage of 8,640 acre-feet.

16. Water is stored in the four upstream reservoirs (Lake Aloha, Echo Lake, Caples Lake, and Silver Lake) and released directly into the South Fork of the American River or via its tributaries or a conduit. Flows are then diverted into the 22.3-mile-long El Dorado Canal by the El Dorado diversion dam located on the South Fork of the American River downstream of the mouth of the Silver Fork American River.[10] Flows in the canal are augmented by the diversion of seven small tributaries of the South Fork of the American River (Alder Creek, Mill Creek, Bull Creek, Carpenter Creek, Ogilby Creek, Esmeralda Creek and No Name Creek). [11]

17. At the end of the 22.3-mile-long canal, the El Dorado forebay dam creates the El Dorado forebay, which serves as a regulating reservoir for the El Dorado powerhouse. During powerhouse operations, the District releases flows from the forebay into a 2.8-mile-long pipeline and penstock. The powerhouse, with an authorized capacity of 21 MW, discharges back into the South Fork of the American River at the Slab Creek

[10] The tributaries and conduits that convey water from the project reservoirs to the South Fork American River are as follows: Echo Lake (Echo conduit), Lake Aloha (Pyramid Creek), Caples Lake (Caples Creek), and Silver Lake (Silver Fork American River).

[11] The El Dorado canal has a maximum hydraulic capacity of 165 cfs. The actual volume of flow being diverted from the South Fork of the American River at the El Dorado diversion dam is dependant on the volume of flow entering the canal from the seven diverted tributaries. Flows up to 15 cfs are diverted from Alder Creek and flows up to 10 cfs are diverted from the remaining six creeks.

reservoir.[12] The resulting project bypassed reach is approximately 22 miles long. Ordering paragraph (B) describes the project in detail.

18. Currently, the El Dorado Hydroelectric project is required to release 2 cfs, or inflow, whichever is less, from Lake Aloha during July and August. In September through November, water is drawn from Echo Lake, with no minimum instream flow provisions. Caples Lake provides a minimum instream flow of 5 cfs, or inflow, from approximately August through early March and has a minimum storage capacity of 2,000 acre feet. Silver Lake provides a minimum instream flow of 2 cfs or inflow, whichever is less. Continuous minimum flows from the El Dorado diversion dam for November to August, September, and October, during a normal year, are 50, 38, and 43 cfs, respectively. Continuous minimum flows from the El Dorado diversion dam for November to August, September, and October, during a dry year, are 18, 10, and 15 cfs, respectively.

19. As discussed below, this license requires increased minimum flows within all stream reaches affected by project operations, and minimum water levels for project reservoirs that would result in generally higher and less variable lake levels, as compared to current conditions.

20. The El Dorado Project boundary currently incorporates lands occupied by project structures and the entire Silver Lake East campground, the Caples dam parking area, the Pacific Crest Trail crossing at the Echo Lake conduit, the Echo Lake trailhead, and part of the Silver Lake West campground. As discussed below, this license requires modifications to the project boundary to include the Silver Lake West Campground, the Caples Lake Campground, the unconstructed kiosk on highway 88, the unconstructed Caples Lake boat launch and associated facilities, and the Echo Lake upper parking area and associated road from the parking area to the east end of Echo Lake.

21. In its application (Exhibit A), the District states that the project occupies 2,237.02 acres of federal lands (of which 1,334.03 acres are administered by the Eldorado National Forest). However, the Commission's annual charges for federal lands is based on the project's use of 2,211.48 acres of federal lands. As discussed below, to resolve this inconsistency Article 205 requires the District to file a statement with supporting documentation verifying the amount of federal land occupied by the project.

SETTLEMENT AGREEMENT

[12] The Slab Creek Reservoir is licensed as part of the Sacramento Municipal Utility District's Upper American River Project No. 2101 [28 F.P.C. 750 (1962)].

22. On April 29, 2003, the District filed with the Commission a Settlement Agreement (Settlement) that contains recommended protection, mitigation, and enhancement measures as proposed by the parties to the Settlement.[13] The Settlement addresses the following issues: flow regimes and lake levels for project development, channel stabilization, monitoring measures, protective fish measures, wildlife and sensitive plant protective measures, noxious weed control, public information services, recreational enhancements, visual resource protection, road and trail access, and facility management.[14] There was no opposition to the Settlement.

A. Content

23. As noted above, the District proposes, through the Settlement, to establish measures for the protection, mitigation, and enhancement of resources affected by the project under a new license, and specifies procedures to be used by the parties to ensure the implementation of the license articles contained in the new license, including an adaptive management framework for future collaborative efforts. The Settlement is divided into six sections and includes five appendices. Sections 1 through 6 establish the effective date of the Settlement and the general terms and conditions that govern the relationship among the parties and provide for implementation of the Settlement.

24. Appendix A of the Settlement, summarized below, specifies protection, mitigation

[13] The parties to the Settlement are: the District, Forest Service, Park Service, Cal Fish and Game, County of Alpine, County of Amador, El Dorado County Water Agency, E1 Dorado Citizens for Water, Friends of the River, Trout Unlimited, Sierra Club, American Whitewater, Citizens for Water, AKT Development, Chris Shutes, Richard D. Wentzel, Alice Q. Howard, Paul J. Creger, League to Save Sierra Lakes, Kirkwood Meadows Public Utility District, and the East Silver Lake Improvement Association. See the District's filing on October 21, 2004.

[14] In addition to the proposed measures to be included in the new license, the Settlement also includes measures agreed to among the parties but specifically requested not to be included in any license issued for the project. These measures include: definition of resource management objectives, definition of the role and responsibilities of the Ecological Resource Committee (ERC), access improvements along the South Fork American River that are located outside of the project area, periodic review of potential gaging improvements to monitor and gage flows in the system, and no alteration or elimination of the Oyster Creek leakage from Silver Lake, except for reasons of dam safety. (The ERC is composed of representatives of the original parties to the Settlement. The Forest Service and Water Board will designate liaisons to the ERC).

and enhancement measures. Appendices B, C, D, and E provide other information relative to ancillary matters, and are not for inclusion in this license.

25. Section 1 of Appendix A provides that the District shall maintain minimum streamflows in Echo Creek below Echo Lake dam; Pyramid Creek below Lake Aloha's dam; Caples Creek below Caples Lake dam; Silver Fork American River below Silver Lake dam; South Fork of the American River below Kyburz diversion;[15] and Carpenter, No Name, Alder, Mill, Bull, Ogilby, and Esmeralda Creeks below their diversions to the El Dorado canal, as specified in minimum streamflow schedules.

26. Section 2 sets forth ramping rates for streamflow releases at Echo Lake and Lake Aloha.

27. Section 3 provides for operation and maintenance of Lake Aloha, including prevention of spills and removal of trout if a spill occurs, a trout survey below seven of the 11 auxiliary dams that help form Lake Aloha, and development of a plan for removal of trout if observed during the survey, and authorization of one flight per year into the Desolation Wilderness Area.

28. Section 4 provides for pulse flows in Caples Creek below Caples Lake dam. In addition, for the fall months, releases into Caples Creek can be no more than 150 cfs and releases into the Caples Lake spillway channel cannot exceed 60 cfs.

29. Section 5 provides for a survey of the Oyster Creek channel and development of a plan for stabilization.

30. Section 6 provides that the District survey the Esmeralda Creek channel, located on the National Forest System lands and develop a plan for its restoration.

31. Section 7 provides that the District develop monitoring programs for: (1) rainbow trout and hardhead fish populations; (2) macroinvertebrates; (3) mountain and foothill yellow legged frogs; (4) riparian vegetation species composition; (5) riparian vegetation recruitment; (6) geomorphology;[16] (7) water temperature; (8) general water quality; (9) trout populations at Lake Aloha; (10) South Fork of the American River flow fluctuations; (11) wildlife at the El Dorado canal; (12) heritage resources; (13) recreation; (14) recreation developments; and (15) target lake levels.

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[15] The El Dorado diversion dam is locally known as the Kyburz diversion dam.

[16] In addition to monitoring, the licensee shall evaluate the channel areas.

32. Section 8 provides that the District shall implement an ecological resource's adaptive management program consisting of measures to be implemented if warranted by the results of the monitoring.

33. Section 9 provides for screening the diversion structures at Carpenter and Alder Creeks to protect all life stages of trout.

34. Section 10 provides that the District develop a streamflow and reservoir gaging plan, which meet United States Geological Survey (USGS) standards, for 13 sites.

35. Section 11 provides that the District develop a plan to designate preferred canal drainage structures and release points that will minimize adverse impacts to water quality and will be used in the event of an emergency or maintenance.

36. Section 12 provides that the District develop a water temperature monitoring plan.

37. Section 13 provides measures to protect wildlife along the El Dorado canal and to identify and protect sensitive species. An annual report is required that reviews the date, location, and species information found in the El Dorado canal and determines the need for additional protective measures.

38. Section 14 provides that the District implement an approved noxious weed plan.

39. Section 15 provides that the District shall meet annually with the resource agencies to review and discuss issues relating to ecological values affected by the project.

40. Section 16 provides a recreation plan that includes a construction schedule for recreational facilities.

41. Section 17 provides that every six years the District conduct a recreation survey and prepare a report on recreational resources.

42. Section 18 provides that the District provide a liaison with the Forest Service for planning, construction, or maintenance of recreation facilities on National Forest System lands.

43. Section 19 provides that the District will meet at least every six years to review all recreation facilities and areas associated with the project. The review will include maintenance, rehabilitation, construction and reconstruction work needed and timing.

44. Section 20 provides that specific recreation facilities be completed in the specified time periods. The recreation facilities are: (1) Silver Lake East Campground; (2) Caples Lake Campground; (3) Caples Lake dam parking area; (4) Caples Lake boat launching

facility; (5) information kiosk on Highway 88; (6) Martin Meadow overflow camping area; (7) Echo Lakes upper parking facility; and (8) the Pacific Crest National Scenic Trail Crossing.

45. Section 21 establishes the extent of the District's responsibility for operation and maintenance of the following recreation facilities: (1) Caples Lake dam parking; (2) Caples Lake boat launching facility; (3) Echo Lake trailhead; and (4) information kiosk on Highway 88. In addition, this section provides for: (1) special use administration funding; (2) heavy maintenance at facilities; (3) dispersed area patrol funding on lands affected by the project; and (4) the District's recreation sites accessibility standards.

46. Section 22 establishes target lake levels and minimum pool levels at Echo Lake, Caples Lake, Silver Lake, and Lake Aloha. The District will provide a report within 5 years and every 5 years thereafter describing target lake levels.

47. Section 23 provides for public information services including: (1) streamflow and lake level information; (2) recreation information; (3) a project recreation brochure/map; and (4) winter safety signs.

48. Section 24 provides measures to protect visual resources.

49. Sections 25 and 26 provide that the District complete a Heritage Properties Management Plan (HPMP), which will be incorporated into the Programmatic Agreement (PA), and that the District stop work in any area where cultural, historical, archeological, or paleontological items are discovered.

50. Section 27 provides that the District shall develop a transportation management plan for project-related roads.

51. Section 28 provides that the District shall develop a trail system management plan.

52. Section 29 provides that the District develop a facility management plan, which at a minimum includes a map showing all project facilities, identification of the type and season of use of each structure, and identification of the physical condition of each structure.

53. Section 30 provides that the District develop an analysis of the effects of any future proposed development at Caples Lake, Silver Lake and Echo lakes, and on adjacent Forest System lands.

54. Section 31 provides that the District develop a proposal for possible land

exchanges or other management actions that would result in more efficient land management.

B. Discussion

55. The Settlement addresses the signatories' various environmental concerns while preserving power production at the project. Overall, the terms of the Settlement achieve an appropriate balance between continued project generation and environmental measures. I commend the parties reaching consensus on the broad range of issues involved in the operation of this project and the development of a sound framework for a continuing collaborative approach to the management of the project and its resources.

56. As discussed below, the mandatory conditions filed by the Water Board and the Forest Service, section 401 water quality certification and section 4(e) conditions, respectively, include the 31 measures of Appendix A of the Settlement. As such, they are being required by this license.

WATER QUALITY CERTIFICATION

57. Under section 401(a)(1) of the Clean Water Act,[17] the Commission may not issue a license for a hydroelectric project unless the state water quality certifying agency either has issued a water quality certification 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 of any federal license that authorizes construction or operation of the project.[18]

58. On June 20, 2001, the District applied to the Water Board for water quality certification for the El Dorado Hydroelectric Project. Every year since that date, the District has withdrawn and refiled its application. On April 4, 2006, the Water Board issued certification for the El Dorado Project that includes 35 conditions, which are set forth in Appendix B of this order and incorporated into the license (see ordering paragraph (E)). The certification includes requirements for lake levels, minimum instream flows, ecological resources monitoring programs, stabilization and restoration plans, temperature and water quality monitoring, and fish screens. Article 401 requires the District to file, for Commission approval, plans required by the certification

[17] 33 U.S.C. § 1341(a)(1) (2000).

[18] 33 U.S.C. § 1341(d) (2000).

conditions.

59. Condition 17 of the water quality certification requires the District to mitigate the cumulative impacts of water diversions on the beneficial uses of the Sacramento-San Joaquin Delta Estuary (Term 91 of the state water permit).[19] The District filed a petition for reconsideration of its water quality certification asserting that Term 91 does not apply to diversion of water for the generation of power. The petition also asks the Water Board to modify certain other conditions to reflect actions El Dorado has already taken under the Settlement.[20]

60. On May 8, 2006, the District requested that the Commission defer action on its license application pending the resolution of petition for reconsideration and stated that "under applicable state law, if the Water Board decides to reconsider the Water Quality Certification in response to the District's Petition, the Certification would not be final or legally effective while the matter is pending before the Water Board." In response to the District's request for deferring action on the license, the Water Board, on May 22, 2006, filed a letter with the Commission, in opposition to this request and stated "The State Water Board's water quality certification decision is final and no stay of the certification is in effect." On June 1, 2006, the District filed a response. The parties held alternative dispute resolution conferences on May 24 and June 1. The result of these meetings was that the District, on June 15, amended its request asking that the Commission defer action on the pending license application only until October 15, 2006. However, by letter dated October 12, 2006, the District again requested that the Commission defer action on the license application until the Water Board has responded to the District's request for reconsideration.

61. The Water Board asked the Commission to include the conditions of the water quality certification as conditions of any license that the Commission may issue for

[19] Term 91 of the state water right permit prohibits diversions when natural and abandoned flows in the Sacramento-San Joaquin Delta and its tributaries are insufficient to meet water quality objectives in the Delta and other inbasin uses, and the State's two major water supply projects, the Central Valley Project and the State Water Project, are supplementing natural and abandoned flows with imported or previously stored water in order to meet flow-dependent water quality objectives.

[20] The Water Board is not a signatory to the Settlement. In Appendix D of the Settlement, the Water Board provided its collaborative process participation statement to be made part of the Settlement package.

Project No. 184. Specifically, the Water Board certified that the El Dorado Hydroelectric Project, as proposed, would comply with sections 301, 302, 303, 306, and 307 of the CWA and applicable provisions of state law provided that the District complied with the project specific terms and conditions of the water quality certification.[21] In its May 22, 2006, letter, the Water Board states that judicial review of the water quality certification could take years.

62. Delays in issuing the water quality certification for this project have precluded issuance of a new license for the past three years. Although these delays were understandable, further deferral of license issuance would be unwarranted now that certification has been issued. Further, it would be in the public interest for the project to begin operating under conditions that address present environmental concerns. As mentioned above, the Water Board has not stayed the certification. Therefore, the license will be issued including the conditions under which the certification was issued. Those conditions are attached as Appendix B to this order and made requirements of this license by ordering paragraph (E). Ordering paragraph (E) also reserves the Commission's authority to revise those conditions as necessary upon disposition of the reconsideration, as well as to modify the license as necessary to ensure consistency with those conditions.[22]

SECTION 4(e) FINDINGS AND CONDITIONS

63. Section 4(e) of the FPA[23] 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 the reservation was created or acquired. The project occupies portions of Eldorado National Forest, portions of the Desolation Wilderness Area, and portions of the Lake Tahoe Basin Management Unit.[24] These lands are administered by the Forest Service.

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[21] See Water Quality Certification at 9.

[22] Any certification that is under appeal is in a sense non-final since it is subject to change. That does not invalidate the certification or prevent us from acting while an appeal is pending. *See Flambeau Hydro, LLC*, 113 FERC ¶ 61,291 (2005).

[23] 16 U.S.C. § 797(e) (2000).

[24] Some of these lands have been proposed for designation as the Caples Creek Wilderness Area, but the prohibition on licensing does not extend to lands proposed for designation.

64. I have reviewed the Organic Administration Act of 1897 (1897 Act),[25] which established the purposes for forest reservations, and the presidential proclamations that created and expanded the Eldorado National Forest. There is no evidence or allegation in this proceeding to indicate that relicensing the El Dorado Project would interfere with the purposes of the Eldorado National Forest or the Lake Tahoe Basin Management Unit,[26] within which the project is located. Therefore, I find that this license, as conditioned, will not interfere or be inconsistent with those purposes.

65. 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.

66. The Forest Service filed its final section 4(e) conditions on October 30, 2003. The 65 conditions, which are summarized below, are set forth in Appendix A of this order and incorporated into this license by ordering paragraph (D).

67. The first 30 conditions are standard conditions that require the District to: (1) obtain Forest Service special-use authorization; (2) obtain Forest Service approval of final designs for any new project facilities; (3) obtain Forest Service approval of changes; (4) consult with the Forest Service; (5) allow the Forest Service to modify 4(e) conditions after biological opinion or water quality certification; (6) guarantee the costs of surrender of license or transfer of ownership; (7) maintain a surety bond; (8) be subject to valid claims and existing rights; (9) comply with regulations; (10) protect United States property; (11) be liable for damage to life or property; (12) avoid disturbance to surveys

[25] 16 U.S.C. § 473 *et seq*. (2000).

[26] The lands encompassing the Tahoe National Forest were first set aside in 1891 by President Benjamin Harrison as part of the four million acre "Sierra Forest Reserve," which stretched from Yosemite National Park northward. In 1899, President William McKinley created the "Lake Tahoe Forest Reserve," a 136,335-acre portion of the Sierra Reserve, as a "forestry reserve and public park." Formed from parts of the Tahoe and the Stanislaus National Forests, President William Howard Taft established the Eldorado National Forest as a separate unit by Presidential Proclamation on July 28, 1910. U.S. Statutes at Large, 61st. Cong., 1909-1911, Vol. 36, p. 2729. In 1973, the Lake Tahoe Basin Management Unit was created from portions of the three existing National Forests, forming a single “management unit.” For most intents and purposes, the Lake Tahoe Basin Management Unit is managed as a separate National Forest, with a Forest Supervisor and staff.

and land corners; (13) file a hazardous substances plan; (14) comply with state and local explosive requirements; (15) obey pesticide restrictions; (16) be liable for damage and high hazards; (17) be liable for risks and hazards; (18) rehabilitate, and minimize erosion on, project access roads; (19) allow road use by the U.S. government; (20) use traffic safety measures; (21) limit road use; (22) maintain crossings; (23) allow access on National Forest System lands; (24) obtain Forest Service approval of signs; (25) complete construction inspections; (26) prevent leaving construction equipment on Forest Service lands; (27) maintain improvements on Forest Service lands; (28) complete an erosion control plan for new construction and measures for project maintenance and operations; (29) determine whether a solid waste and waste water plan is needed for new construction and project operation and maintenance; and (30) comply with water quality and water pollution standards.

68. The next 35 conditions are project-specific conditions that require the District to: (31) maintain specified minimum streamflows; (32) maintain specified ramping rates; (33) operate and maintain Lake Aloha as specified; (34) provide Caples Lake releases and meet flow limitations; (35) develop an Oyster Creek restoration plan; (36) develop an Esmeralda Creek restoration plan; (37) implement a monitoring program; (38) implement an ecological resources adaptive management; (39) develop a plan to mitigate for entrainment in Alder and Carpenter creeks; (40) develop a streamflow and reservoir storage gaging plan; (41) develop a preferred canal drainage structure and release point plan; (42) develop a water temperature plan; (43) develop wildlife and sensitive plant protection measures; (44) implement a noxious weed plan upon approval; (45) hold an annual review of ecological conditions meeting; (46) develop a recreation implementation plan; (47) conduct a recreation survey; (48) provide a Forest Service liaison; (49) review recreation developments; (50) construct specific recreation facilities; (51) operate and maintain recreation facilities; (52) maintain target lake levels and minimum pool levels; (53) develop public information services; (54) develop a visual resource protection plan; (55) develop a HPMP; (56) report heritage resource discovery; (57) develop a transportation system management plan; (58) develop a trails system management plan; (59) develop a facility management plan; (60) conduct analysis before undertaking future commercial development at Caples Lake, Silver Lake, and Echo lakes; (61) develop a land adjustment proposal; (62) update obsolete Forest Service special-use authorizations; (63) develop an Alder Creek spoils disposal site plan; (64) restore the El Dorado canal bench; and (65) develop a tunnel groundwater plan.

SECTION 18 FISHWAY PRESCRIPTION

69. Section 18 of the FPA,[27] provides that the Commission shall require the construction, maintenance, and operation by a licensee of such fishways as may be prescribed by the Secretary of the Interior or the Secretary of Commerce, as appropriate. Neither agency filed a fishway prescription or a request to reserve the Commission's authority to require fishways that may be prescribed by Interior or Commerce in the future.

THREATENED AND ENDANGERED SPECIES

70. Section 7(a)(2) of the Endangered Species Act of 1973 requires federal agencies to ensure that their actions are not likely to jeopardize the continued existence of federally listed threatened and endangered species, or result in the destruction or adverse modification of their designated critical habitat.

71. There are three federally listed threatened species that could occur in the project area. The bald eagle has been documented in the project area; however, the valley elderberry longhorn beetle and the California red-legged frog have not. In the final EIS, staff determined that with their recommended measures, relicensing the El Dorado Project is not likely to adversely affect the California red-legged frog and bald eagle or their habitat, and will have no effect on valley elderberry longhorn beetle or its habitat.[28] By letters dated May 18, 2004, and July 26, 2004, the FWS concurred with staff's determination of not likely to adversely effect for bald eagles and the California red-legged frog, respectively.

NATIONAL HISTORIC PRESERVATION ACT ISSUES

72. Under Section 106 of the National Historic Preservation Act (NHPA)[29] and its implementing regulations,[30] federal agencies must take into account the effect of any proposed undertaking on properties listed or eligible for listing in the National Register (defined as historic properties) and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on the undertaking. This generally requires the Commission to consult with the State Historic Preservation Officer (SHPO) to determine

[27] 16 U.S.C. § 811 (2000).

[28] See final EIS at 168-170.

[29] 16 U.S.C. § 470 (2000) et seq.

[30] 36 C.F.R. Part 800 (2006).

whether and how a proposed action may affect historic properties, and to seek ways to avoid or minimize any adverse effects.

73. To satisfy these responsibilities, on December 4, 2004, the Commission executed a Programmatic Agreement (PA) with the California State Historic Preservation Officer and with the District as a concurring party to the PA. The PA requires the District to implement a HPMP for the term of any new license issued for this project. Execution of the PA demonstrates the Commission's compliance with section 106 of the NHPA. Article 403 requires the District to implement the PA and the approved HPMP. The PA serves to satisfy the Commission's responsibilities under section 106 of the NHPA.[31]

RECOMMENDATIONS OF FEDERAL AND STATE FISH AND WILDLIFE AGENCIES

Recommendations Pursuant to Section 10(j) of the FPA

74. Section 10(j)(1) of the FPA,[32] 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,[33] to "adequately and equitably protect, mitigate damages to, and enhance fish and wildlife (including related spawning grounds and habitat)" affected by the project.

75. In response to the July 31, 2002, public notice that the project was ready for environmental analysis, Cal Fish and Game filed 28 different recommendations on October 29, 2002.[34] By letter filed May 19, 2003, Cal Fish and Game stated that the provisions of the Settlement resolved its concerns, and that with the inclusion in the license of conditions substantially similar to the Settlement, it considers the section 10(j) process complete.

OTHER ISSUES

[31] 16 U.S.C. §470s (2000).

[32] 16 U.S.C. §803(j)(1) (2000).

[33] 16 U.S.C. §§ 661, *et seq.* (2000).

[34] Six of the recommendations were determined to be outside the scope of section 10(j).

Minimum Instream Flows

76. In the final EIS, staff supported the District's proposal to provide minimum flows for stream reaches affected by the project. These minimum flow requirements were developed through the settlement process to support the integrity of aquatic resources affected by the project.

77. Specifically, to enhance existing habitat conditions for rainbow and brown trout in Pyramid Creek, downstream of Lake Aloha, and in Echo Creek, this license requires: (1) an increase in the existing minimum flow releases from Lake Aloha of 2 cfs, to flow releases ranging from 1 to 20 cfs; and (2) for Echo Lake, which currently has no minimum instream flow release requirements, minimum flow releases ranging from 6 to 45 cfs are being required.

78. To increase habitat for rainbow trout in Caples Creek and the Silver Fork American River this license requires an increase in the existing 5-cfs minimum flow release from Caples Lake to flows ranging between 5 and 55 cfs. Additionally, an increase in the existing 2-cfs minimum flow release from Silver Lake to those ranging from 8 to 100 cfs is being required. To provide additional habitat and cooler water temperatures for rainbow trout, minimum flow releases in the South Fork of the American River, downstream of the El Dorado diversion dam, will be 15 to 240 cfs as opposed to the current 10 to 50 cfs requirement.

79. Currently, all flows up to 10 cfs can be diverted from Carpenter, No Name, Mill, Bull, Ogilby, and Esmeralda creeks, and up to 15 cfs can be diverted from Alder Creek. None of these creeks have a minimum flow requirement. To enhance habitat conditions for rainbow and brown trout, and improve benthic macroinvertebrate production below the diversion structures in these creeks, this license requires minimum streamflows for these creeks below the diversion structures. The required minimum flows may vary from month to month and/or be dependant on water year type. The following identifies the range over which the minimum flows will be provided to the identified stream reaches: (1) 1 cfs for No Name and Bull creeks; (2) 1 to 2 cfs for Ogilby and Esmeralda creeks; (3) 1 to 5 cfs for Carpenter Creek; (4) 1 to 7 cfs for Mill Creek; and (5) 5 to 90 cfs for Alder Creek.

80. With the incorporation of the Water Board's water quality certification and the Forest Service's 4(e) conditions, the above minimum flows are a requirement of this license.

Loss of Reservoir Storage and Spillway Adequacy

81. This license requires revised target water levels and minimum flow releases at the

project's storage reservoirs. The final EIS describes model results of expected lake levels based on historic flows. The model shows Caples Lake, operating under the proposed conditions, would be held generally higher and experience less seasonal variability than under current conditions. The loss of storage could affect the amount and frequency of flows being passed by Caples Lake dam. This change could affect the spillway adequacy and safety of the development. Therefore, this license requires that the District file a report describing these effects (Article 302).

82. As a result, the District shall not alter project operations to incorporate the revised target water levels at the Caples Lake development until a report is submitted describing the effects of limiting reservoir drawdowns on the flooding of low-lying structures and spillway adequacy, and the Division of Dam Safety and Inspections' San Francisco Regional Engineer determines that the altered project operations have no adverse impact on dam safety.

83. The District shall also submit written operating procedures describing how all storage reservoirs will be operated to meet the licensed target water level and minimum flow requirements (Article 303).

Recreational Resources

84. As recommended by staff in the final EIS, this license requires that the District continue to provide recreational opportunities at the Silver Lake East campground and the Silver Lake West campground. Additionally, by requiring the District to construct and maintain the Caples Lake boat launching facility, parking area and picnic area, this license provides for additional recreation opportunities at the project.[35] Finally, by requiring the District to provide for and maintain the Pacific Crest Trail crossing at the Echo Lake conduit, the Echo Lake trailhead, the Echo Lake upper parking area and the road leading from the parking area to the east end of Echo Lake, and the Caples dam parking area, this license ensures recreational access to the project over the term of the license.

85. These facilities and access routes have been included in this license by the incorporation of the Forest Service's 4(e) conditions.

Project Boundary

86. Historically, the El Dorado Project license included a transmission line extending

[35] Article 301 requires the District to submit its plans and specifications for approval, prior to commencing construction.

a distance of about 8.9 miles from the switchyard at the powerhouse to a junction with PG&E's interconnected transmission system. In a December 22, 1998 order the Commission authorized the removal of the transmission line from the license because the line was no longer considered a primary line. [36] The order delayed the effectiveness of deletion of the non-primary line until such time as PG&E (owner of the transmission line) received all necessary permits from the Forest Service for the continued use of its federal lands.

87. On February 10, 2006, PG&E filed an easement agreement from the Forest Service, signed on September 26, 2005. By order dated May 16, 2006, the Commission deleted the transmission line from the project and required the filing of revised exhibits and a statement of federal lands by the earlier of 45 days after the issuance date of the new license, or 180 days from the May 16 issuance. [37] As a result, the El Dorado-Placerville 115-kV transmission line (also referred to as El Dorado-Gold Hill No. 1 and 2 – 115-kV transmission line) has been removed from the project boundary and shall not be included within the Exhibit G drawings. Article 203 requires the filing of the Exhibit G drawings and Article 205 requires the filing of a statement of federal lands.

88. Based on staff's analysis in the final EIS, I conclude that the Silver Lake West Campground (which currently is only partially within the project boundary), the Caples Lake Campground, the unconstructed kiosk on highway 88, the unconstructed Caples Lake boat launching facility including the parking area and picnic area, and the Echo Lake upper parking area and the road leading from the parking area to the east end of Echo Lake are necessary for project purposes.[38] Article 203 of this license requires the project boundary be expanded to encompass these areas in their entirety.

Land Use and Aesthetics

89. A coordinated approach to address visual effects of the existing facilities and proposed new facilities would help to protect aesthetic resources within the project area and help ensure that project facilities would be consistent with current visual quality standards for the project area. Forest Service condition 54 requires that visual resource plans be developed during planning and prior to any new construction or maintenance of facilities that have the potential to affect national forest lands. However, these

[36] 85 FERC ¶ 61,411 (1998).

[37] 115 FERC ¶ 62,172 (2006).

[38] See final EIS at 201, 202, and 204.

requirements did not provide specifics for developing such plans and the circumstances for which the plans would be needed. In the final EIS, staff concluded that these additional measures would be needed to develop a coordinated approach to address visual effects. [39] Therefore, Article 402 requires that such a plan be developed, and that all lands within the project boundary, whether they occupy Forest Service lands or not, are addressed.

Temporary Modification of Project Operations

90. Temporary modification to project operations is permitted by the water quality certification and section 4(e) conditions, allowing the District to temporarily modify project operations due to public safety, equipment malfunction, operating emergencies beyond the control of the District, law enforcement, search and rescue activities or large storm events. To ensure that the Commission is aware of these temporary modifications, Article 404 requires that the District file a report documenting any deviations to project operations within 10 days of the event.

Filing of Plans

91. Eleven water quality certification and 4(e) conditions contemplate changes to project operations or facilities over the course of the new license based upon the collection of additional data. These adaptive management provisions are made part of the Water Board's water quality certification and the Forest Service's 4(e) conditions. Because the "comprehensive development" standard of FPA section 10(a)(1) continues to govern regulation of a project throughout the term of its license, [40] it is the Commission's responsibility to give prior approval, through appropriate license amendments, for all material changes to the project and its maintenance and operation. [41]

ADMINISTRATIVE CONDITIONS

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[39] See final EIS at 234.

[40] *See, e.g., S.D. Warren Co*., 68 FERC ¶ 61,213 at 62,022 (1994).

[41] The Commission's regulations, as well as the terms of the license and basic due process principles, govern what types of alterations require what sorts of submittals or public notice. A license article can not provide for automatic amendment of the license based on future occurrences. Rather, the licensee is free to file with the Commission for an amendment of its license, if future conditions warrant.

Annual Charges

92. 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 and for recompensing the United States for the use of its lands.

93. In its application (Exhibit G), the District identified the amount of federal lands the project occupies; however, the amount identified (2,237.02 acres) is inconsistent with what is currently in the charge records with the Commission (2,211.48 acres). Additionally, this order requires changes to the project's boundary to: (1) include additional federal lands to support recreational opportunities at the project; and (2) the removal of the El Dorado-Placerville 115-kV transmission line and its associated federal lands. Therefore, to clarify the amount of federal lands occupied by the project, as licensed, Article 205 requires the District to file a statement of the amount of federal land occupied by the project.

Exhibit F and G Drawings

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

Headwater Benefits

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

Use and Occupancy of Project Lands and Waters

96. Requiring a licensee to obtain prior Commission approval for every use or occupancy of project land would be unduly burdensome. Therefore, Article 405 allows the District to grant permission, without prior Commission approval, for the use and occupancy of project lands for such minor activities as landscape planting. Such uses must be consistent with the purposes of protecting and enhancing the scenic, recreational, and environmental values of the project.

STATE AND FEDERAL COMPREHENSIVE PLANS

97. Section 10(a)(2) of the FPA[42] 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. Under section 10(a)(2)(A), federal and state agencies filed 49 comprehensive plans that address various resources in California. Staff identified and reviewed 17 plans relevant to the project.[43] No conflicts were found.

APPLICANT'S PLANS AND CAPABILITIES

98. In accordance with sections 10(a)(2)(C) and 15(a) of the FPA,[44] Commission staff evaluated the District's record as a licensee for these areas: (1) conservation efforts; (2) compliance history and ability to comply with the new license; (3) safe management, operation, and maintenance of the project; (4) ability to provide efficient and reliable electric service; (5) need for power; (6) transmission services; (7) cost-effectiveness of plans; and (8) actions affecting the public. I accept the staff's findings in each of the areas.

Conservation Efforts

99. 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. The District sells the project's energy to PG&E, a utility. PG&E promotes conservation of electricity use by its customers.

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

Compliance History and Ability to Comply with the New License

101. Based on a review of the District's compliance with the terms and conditions of

[42] 16 U.S.C. § 803(a)(2)(A) (2000).

[43] The list of applicable plans can be found in section 5.0 of the final EIS for the project.

[44] 16 U.S.C. §§ 803(a)(2)(C) and 808(a) (2000).

the existing license, I find that the District's overall record of making timely filings and compliance with its license is satisfactory and that the District can satisfy the conditions of a new license.

Safe Management, Operation, and Maintenance of the Project

102. I have reviewed the District's management, operation, and maintenance of the El Dorado 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 dams and other project works are safe, and that there is no reason to believe that the District cannot continue to safely manage, operate, and maintain these facilities under a new license.

Ability to Provide Efficient and Reliable Service

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

Need for Power

104. The District is a water and wastewater utility, does not have retail or wholesale electric customers, and does not use power from the project at any of its facilities. Power from the project is sold on the open market in California, and the District uses revenues from the sale of project power to offset operation, maintenance, and capital costs associated with the project.

105. To anticipate how the regional demand for electricity is expected to change in the future, staff looked at the regional need for power as reported by the North American Electricity Reliability Council (NERC) (NERC, 2005). The El Dorado Project is located in the California-Mexico Power (CMP) area of the Western Systems Coordinating Council (WSCC) region. The CMP area encompasses most of California and a portion of Baja California in Mexico. The CMP area has a significant summer peak demand.

106. For the period from 2005 through 2014, WSCC forecasts peak demand and annual energy requirements in the area to grow at annual compound rates of 2.4 and 2.6 percent, respectively. Even with assumptions about future generation and transmission extension projects, short-term statewide and local reliability problems exist. Resource capacity margins for the area range between 13.2 and 14.8 percent of firm peak summer demand for the next 10 years, including allowances for projected new capacity. The

report predicts winter reserves to fall from about 31.0 percent to about 15.0 during the forecast period. Available reserves in the California-Mexico Power area are projected to decrease below generally accepted values of 15 to 18 percent. The capacity from this existing project would continue to help meet the power needs of the region.

107. Present and future use of the project's power, its low cost, its displacement of nonrenewable fossil-fired generation, contribution to a diversified generation mix, and maintenance of existing capacity support a finding that the power from the El Dorado Project will help meet a need for power in the state and region in both the short- and long-term.

Transmission Services

108. The project does not include any transmission facilities and the District is proposing no changes that would affect its own or other transmission services in the region.

Cost Effectiveness of Measures

109. The District proposes a number of measures to enhance environmental resources affected by the project. Based on the District's record as an existing licensee, staff concludes that these measures are likely to be carried out in a cost-effective manner.

Actions Affecting the Public

110. The District provided extensive opportunity for public involvement in the development of its application for a new license for the El Dorado Project. During the previous license period, in addition to helping meet local power needs and providing employment opportunities, the District provided recreational opportunities and facilities to enhance the public use of project lands, and operated the project with consideration for the protection of downstream uses of the South Fork of the American River.

PROJECT ECONOMICS

111. 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.,*[45] the Commission uses

[45] 72 FERC ¶ 61,027 (1995).

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.

112. In applying this analysis to the El Dorado Project, I have considered two options: the District's proposal and the project as licensed herein. As proposed by the District, the levelized annual cost of operating the El Dorado Project is about $5,569,430 or $60.93 /MWh. The proposed project would generate an estimated average of 91,401 MWh of energy annually. When we multiply our estimate of average generation by the alternative power cost of $66.30/MWh, [46] we get a total value of the project's power of $6,059,890 in 2005 dollars. To determine whether the proposed project is currently economically beneficial, staff subtracts the project's cost from the value of the project's power. [47] Therefore, in the first year of operation, the project would have a benefit of $490,630 or $5.37/MWh, when compared to the likely alternative cost of power.

113. As licensed herein, with the mandatory conditions and staff measures,[48] the levelized annual cost of operating the project would be about $5,576,850, or $61.02/MWh. Based on an estimated average of 91,401 MWh as licensed, the project would produce power valued at $6,059,890 when multiplied by the $66.30/MWh value of the project's power. Therefore, in the first year of the new license, project power would have a benefit of $483,210, or $5.28/MWh, when compared to the likely cost of alternative power.

COMPREHENSIVE DEVELOPMENT

114. Sections 4(e) and 10(a)(1) of the FPA[49] require the Commission to give equal

[46] The alternative power cost of $66.30 per MWh is based on energy value projections using data from the Energy Information Administration and our estimated value for dependable capacity.

[47] Details of staff's economic analysis for the project as licensed herein and for various alternatives are included in the final EIS issued August 2003.

[48] Additional staff measures include the completion of a *Dam Safety and Spillway Adequacy Report* (Article 302) and the creation of an *Operating Manual* (Article 303).

[49] 16 U.S.C. §§ 797(e) and 803(a)(1) (2000).

consideration to 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.

115. The final EIS for the project contains background information, analysis of effects, and support for related license articles. The project will be safe if operated and maintained in accordance with the requirements of this license.

116. Based on my independent review and evaluation of the El Dorado Project, recommendations from the resource agencies and other stakeholders, and the no-action alternative, as documented in the final EIS, I have selected the proposed El Dorado Project, with the mandatory conditions and staff-recommended measures, and find that it is best adapted to a comprehensive plan for improving or developing the South Fork of the American River.

117. I selected this alternative because: (1) issuance of a new license will serve to maintain a beneficial and dependable source of electric energy; (2) the required environmental measures will protect and enhance fish and wildlife resources, water quality, recreational resources and historic properties; and (3) the 21-MW of electric energy generated from renewable resource will continue to offset the use of fossil-fueled, steam-electric generating plants, thereby conserving nonrenewable resources and reducing atmospheric pollution.

LICENSE TERM

118. Section 15(e) of the FPA[50] 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.[51]

[50] 16 U.S.C. § 808(e) (2000).

[51] *See Consumers Power Company*, 68 FERC ¶ 61,383-84 (1994).

119. This license requires a moderate amount of mitigation and enhancement measures including: flow regimes and lake levels for project developments, channel stabilization, fish protective measures, wildlife and sensitive plant protective measures, noxious weed control, recreational enhancements, visual resource protection, and road and trail access. Consequently, a 40-year license term for the El Dorado Hydroelectric Project is appropriate.

The Director orders:

(A) This license is issued to the El Dorado Irrigation District (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 El Dorado Hydroelectric Project. This license is subject to the terms and conditions of the Federal Power Act (FPA), which is incorporated by reference as part of this license, and subject to the regulations the Commission issues under the provisions of the FPA.

(B) The project consists of:

(1) All lands, to the extent of the licensee's interests in those lands, described in the project description and the project boundary discussion of this order.

(2) The following existing facilities: (1) a 113-foot-long, 20-foot-high rubble and masonry main dam with a crest elevation of 8,114 feet mean sea level (msl) and 11 auxiliary dams, impounding Lake Aloha, a reservoir that covers 678.82 acres (at full pond) with a usable storage of 5,179 acre-feet; (2) a 320-foot-long, 14-foot-high roller-compacted concrete dam with a crest elevation of 7,413 feet msl, impounding lower Echo Lake, a reservoir that covers 369.63 acres (at full pond) with a usable storage of 1,900 acre-feet; (3) a 6,125-foot-long conduit from lower Echo Lake to the South Fork of the American River; (4) a 1,200-foot-long, 84.5-feet-high gunite-core earthfill main dam with a crest elevation of 7,959.5 feet msl and one auxiliary dam, impounding Caples Lake, a reservoir that covers 738.3 acres (at full pond) with a usable storage of 22,490 acre-feet; (5) a 280-foot-long, 30-foot-high rock and earthfill dam with a crest elevation of 7,261 feet msl, impounding Silver Lake, a reservoir that covers 691.57 acres (at full pond) with a usable storage of 13,280 acre-feet; (6) a 160-foot-long, 15-foot-high rockfill reinforced binwall diversion dam with a crest elevation of 3,910.5 feet msl, impounding 200 acre-feet of the South Fork of the American River ; (7) a 22.3-mile-long conveyance from the diversion dam to the forebay; (8) a 70-foot-long, 9.5-foot-high concrete diversion dam with a crest elevation of 3,997.8 feet msl on Alder Creek; (9) six small diversion dams that divert into the conveyance - Mill Creek, Bull Creek, Carpenter Creek, Ogilby Creek, Esmeralda Creek and No Name Creek; (10) a 836-foot-long, 91-foot-high earthfill forebay dam with a crest elevation of 3,804 feet msl, a reservoir that covers 23 acres (at full pond) with a usable storage of 356 acre-feet; (11) a 2.8-mile

combination pipeline and penstock conveyance, with surge tank, from the forebay to the powerhouse; (12) a 110-foot-long by 40-foot-wide steel frame powerhouse with reinforced concrete walls and an installed capacity of 21,000 kilowatts, producing about 106 gigawatt-hours annually when operational; and (13) other appurtenances.

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

Exhibit A: The following sections of exhibit A filed on February 22, 2000:

Pages A-1 to Page A-10

Exhibit F: The following sections of exhibit F filed on February 22, 2000:

Drawing	FERC No.	Showing
F-1	184-1001	Lake Aloha Dam Details
F-2	184-1002	Echo Lake Dam and Conduit
F-3	184-1003	Caples Lake Main Dam
F-4	184-1004	Caples Lake Auxiliary Dam
F-5	184-1005	Silver Lake Dam and Spillway
F-6	184-1006	Diversion Dam, El Dorado Canal
F-7	184-1007	Diversion Dam, Alder Creek Feeder
F-8	184-1008	El Dorado Canal – Typical Sections
F-9	184-1009	Alder Creek Siphon
F-10	184-1010	Plum Creek Siphon
F-11	184-1011	Forebay Dam and Spillway
F-12	184-1012	Surge Chamber, Pipe Sections and Profile of Penstock
F-13	184-1013	Plans and Sections of Power House
F-14	184-1014	Caples Lake and Silver Lake Existing Fish Ladders
F-15	184-1015	Deer Escapes and Deer Crossings

(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 U.S. Department of Agriculture under section 4(e) of the FPA, as those conditions are set forth in Appendix A to this order.

(E) This license is subject to the conditions of the water quality certification issued by the California Water Resources Control Board pursuant to section 401(a) of the Clean Water Act, 33 U.S.C. § 1341(a)(1), as those conditions are set forth in Appendix B to this order. Authority is reserved to the Commission to amend this license to include such water quality certification conditions as may be required by the California Water Resources Control Board upon resolution of the appeal filed by the licensee of the water quality certification issued April 4, 2006, and to modify existing conditions of this license as necessary to achieve consistency with any such additional certification conditions.

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

Article 201. *Annual Charges*. The licensee shall pay the United States the following annual charges, effective as of the first day of the month in which this license is issued and as determined in accordance with the provisions of the Commission's regulations in effect from time to time, for the purposes of:

(1) reimbursing the United States for the administration of Part I of the Federal Power Act. The authorized installed capacity for that purpose is 21 MW.

(2) recompensing the United States for the use, occupancy and enjoyment of lands the amount to be determined pursuant to Articles 203 and 205.

Article 202. *Exhibit F Drawings*. Within 45 days of the issuance date of this license, the licensee shall file the approved exhibit drawings in aperture card and electronic file formats.

a) Four sets of the approved exhibit drawings shall be reproduced on silver or gelatin 35mm microfilm. All microfilm shall be mounted on type D (3-1/4" X 7-3/8") aperture cards. Prior to microfilming, the FERC Project-Drawing Number (i.e., P-184-1001 thru P-184-1015) 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-184-1001, 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 45 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 the Caples Lake Campground, the upper Echo Lake parking area and road leading from the parking area to the east end of Echo Lake and all lands needed for the development of the unconstructed kiosk on highway 88, and the unconstructed Caples Lake boat launching facility including the parking area and picnic area. The Exhibit G drawings shall exclude the El Dorado-Placerville 115-kV transmission line (also referred to as El Dorado-Gold Hill No. 1 and 2 – 115-kV transmission line) because the line is no longer considered a primary line. 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 205. *Statement of Federal Lands.* Within 45 days of the date this license, the licensee shall file documentation of the amount of federal land occupied by the project. The acreage should be consistent with the federal lands identified on the revised exhibit G drawings required by Article 203.

Article 301. *Revised Exhibits*. Within 90 days of completion of construction of the facilities authorized by this license, the licensee shall file, for Commission approval, revised exhibits A, F, and G, as applicable, to describe and show the project facilities as built. A courtesy copy shall be filed with the Commission's Division of Dam Safety and Inspections' San Francisco Regional Engineer, the Director, of the Division of Dam Safety and Inspections, and the Director of the Division of Hydropower Administration and Compliance.

Article 302. *Dam Safety and Spillway Adequacy Report.* Within 60 days of the date of this license, the licensee shall submit one copy to the Division of Dam Safety and Inspections – San Francisco Regional Engineer and two copies to the Commission (one of these shall be a courtesy copy to the Director, Division of Dam Safety and Inspections), of a report describing the effects of the target reservoir levels required by this license on upstream and downstream flooding and spillway adequacy of the Caples Lake dams.

The report shall include a flood routing study that evaluates the ability of the developments to safely pass flows up to the Inflow Design Flood. The report should compare the expected frequency that: (1) flows overtop the flashboards, (2) the flashboards activate, and (3) non-overflow structures would be overtopped between the historical and licensed water levels. The report shall assess if there would be an increased likelihood of low-lying structures being flooded under the new operating scenario. If necessary, the report shall include a plan and schedule for performing any remedial measures necessary to ensure the continued safe operation of the developments

during high flows.

The licensee shall not implement the water level requirements of this license for Caples Lake until the Division of Dam Safety and Inspections' San Francisco Regional Engineer determines that these altered project operations have no adverse impact on dam safety and issues a letter so indicating.

Article 303. *Operating Manual.* At least 60 days prior to implementation of the new target reservoir levels and minimum flows required by this license, the licensee shall submit one copy to the Division of Dam Safety and Inspections – San Francisco Regional Engineer and two copies to the Commission (one of these shall be a courtesy copy to the Director, Division of Dam Safety and Inspections), of an Operating Manual providing details on how the storage reservoirs are to be operated to achieve the desired target levels and flows. The manual should also describe any proposed measures that will be taken to warn downstream recreationists/inhabitants prior to making large releases while drawing down the storage reservoirs.

Article 401. *Plans, Reports, and Agreements Required by Mandatory Conditions*.

(a) Requirement to file plans and recommendations 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 B) and the U.S. Forest Service's (Forest Service) final section 4(e) conditions (Appendix A) require the licensee to implement measures without filing the plans for the measures with the Commission for approval. Additionally, some of the WQC and section 4(e) conditions require some reports to include recommendations for various actions without requiring the report to be filed with the Commission, allowing for Commission approval of the recommended actions. Therefore, each such plan or report shall also be submitted to the Commission for approval. These plans and reports are listed below.

WQC Condition No.	Section 4(e) Condition No.	Description	Due Date From License Issuance or as Otherwise Noted

WQC Condition No.	Section 4(e) Condition No.	Description	Due Date From License Issuance or as Otherwise Noted
5 (general)	--	Any proposals for project maintenance or repair work involving the river, including desilting of the dam impoundment, impoundment drawdowns to facilitate repair or maintenance work, and tailrace dredging	60 days prior to implementation
7 (general)	--	Any technical or monitoring reports that the Water Board deems appropriate in response to a suspected violation of any condition of the WQC	As needed, as determined by the Water Board for a suspected violation
--	15	Pesticide use request for approval	60 days prior to use
--	30	Water quality and water pollution control plan	60 days prior to any project construction, operation, or maintenance.
4 (project specific)	33	Agreement between licensee, CDFG, and the Forest Service to stop monitoring for trout following spills at Lake Aloha auxiliary dams if none found, and discontinue annual monitoring report preparation	After 5 years of surveys
4 (project specific)	33	Plan to remove trout from pools below Aloha Lake auxiliary dams, if found	Within 1 year and 30 days from locating the trout
6 (project specific)	35	Oyster Creek stabilization plan	2 years
7 (project specific)	36	Esmeralda Creek restoration plan	2 years

WQC Condition No.	Section 4(e) Condition No.	Description	Due Date From License Issuance or as Otherwise Noted
13 (project specific)	37	Final monitoring and study plans and changes to such plans that may be appropriate based on monitoring and study results.	30 days from license issuance to allow for implementation within 3 months of license issuance (pursuant to FS 4(e) No. 38).
5 (project specific)	38.4.a	Caples Creek feasibility study for modifying the spillway and outlet works to release up to 600 cfs in pulsed flows	2 years
12 (project specific)	39	Carpenter and Alder creeks fish screening plan	Within 180 days
--	43.1.c	El Dorado Canal wildlife mortality report with any agency determinations that additional fencing is needed	Annually by April 1st
--	43.2	Biological Evaluation	As needed
18 (project specific)	45	Annual Operations and Maintenance Plan (including the expected duration and timing of any scheduled maintenance of project facilities)	Two Weeks Prior to April 1st Annual Meeting
--	64	Report on the stability of El Dorado canal bench, any proposed corrective actions, and any proposed modifications to the monitoring regime	Annually, until October 2008 (5 years following completion of canal restoration)

WQC Condition No.	Section 4(e) Condition No.	Description	Due Date From License Issuance or as Otherwise Noted
--	65	Reports documenting the results of groundwater monitoring and monitoring of springs and creeks influenced by the construction of the Mill to Bull creek tunnel, any proposed corrective actions, and any proposed modifications to the monitoring regime	Annually, for 5 years after the license is issued for spring and creek monitoring, not specified for other monitoring

The licensee shall submit to the Commission documentation of any consultation required by the conditions, copies of comments and recommendations by consulted entities made in connection with each plan or report and a description of how each plan or report 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 or recommendation submitted. Upon Commission approval, each plan or recommended measure becomes a requirement of the license, and the licensee shall implement the plan or measure.

(b) Requirement to file reports.

Various conditions of this license found in the Water Board's WQC (Appendix B) and the Forest Service's final section 4(e) conditions (Appendix A) require the licensee to prepare reports documenting license compliance and the results of various studies and surveys without filing the reports with the Commission. Each such report shall also be filed with the Commission. These reports are listed below.

WQC Condition No.	Section 4(e) Condition No.	Description	Due Date From License Issuance or as Otherwise Noted
4 (project specific)	33	Report regarding whether spill occurred at Lake Aloha auxiliary dams and whether	Annually, by July 30

		trout were found and removed	
14 (project specific)	--	Annual temperature monitoring reports	By June 30th of each year
15 (project specific)	--	Annual water quality monitoring reports	By June 30th of each year

The licensee shall submit to the Commission documentation of any consultation, and copies of any comments and recommendations made by any consulted entity in connection with the each report.

(c) Requirement to file amendment applications.

Certain 4(e) and WQC conditions in Appendix A and B, respectively, contemplate unspecified long-term changes to project operations or facilities for the purpose of compensating for currently unknown environmental effects. 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**
4 (general)	--	Project changes that result from modification or revocation of the water quality certification as a result of administrative or judicial review
6, 8 (general)	--	Project changes that result from additions or modifications of the water quality certification as a result of violations or threatened violations of the conditions of the certification issued on April 4, 2006
10 (general)	--	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 South fork American River and project-affected tributaries

WQC Condition No.	Section 4(e) Condition No.	Modification
11 (general)	--	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
12 (general)	--	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
13 (general)	--	Project changes that result from additions or modifications of the water quality certification as a result of coordination of this project with water quality objectives adopted to protect the beneficial uses of the San Francisco Bay/Sacramento-San Joaquin Estuary or water right decisions or orders implementing the objectives
--	4	Project changes that result from modified Forest Service Section 4(e) conditions
14 (general)	5	Project changes based on any future Biological Opinion issued for the project by the U.S. Fish and Wildlife Service or the National Marine Fisheries Service
5, 13.c, 17, 18 (project specific)	31, 37, 38, 45	Changes to adjust minimum flows (i.e., at Silver Fork American River downstream of the confluence of Oyster Creek) and other permanent modifications to the flow regime or project operations specified in this license order.
--	47, 49	Substantive changes to specified recreational facilities that may be recommended by the agencies
--	65	Substantive corrective measures to reduce groundwater seepage into and out of the Mill to Bull Creek tunnel

Article 402. *Visual Resource Management Plan.* Within one year of license issuance, the licensee shall file with the Commission for approval, a visual resource management plan. The plan will coordinate the provisions required by the Forest Service final 4(e) condition 54, in Appendix A. In addition to the provisions of condition 54, the plan shall include a description of the process for visual resource protection, such as

when a visual resource protection plan would be needed (i.e., new construction and type of maintenance activities) and shall address all lands within the project boundary.

The licensee shall develop the plan in consultation with the Forest Service. The licensee shall include with the plan, 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 30 days for the agencies to comment and to make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on 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 403. *Programmatic Agreement and Historic Properties Management Plan*. The licensee shall implement the "Programmatic Agreement Between the Federal Energy Regulatory Commission and the California Historic Preservation Officer for Managing Historic Properties that May be Affected by Issuance of a License to the El Dorado Irrigation District for the Continued Operation of the El Dorado Hydroelectric Project in Amador, and Alpine Counties, California (FERC No. 184)," executed on December 4, 2004, and including but not limited to the Historic Properties Management Plan (HPMP) for the project. In the event that the Programmatic Agreement is terminated, the licensee shall continue to implement the provisions of its 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 modifications of the Commission and the California State Historic Preservation Office where the HPMP calls upon the licensee to do so.

Article 404. *Deviation from Minimum Flow Requirements*. Any minimum flow requirements for this license, as specified in Appendices A and B, may be temporarily modified if required by operating emergencies beyond the control of the licensee, or for short periods upon agreement between the licensee, the U.S. Forest Service (Forest Service), the California Department of Fish and Game (Cal Fish and Game), and the California State Water Resources Control Board (Water Board). If the flow is so modified, the licensee shall notify the Commission, the Forest Service, the Cal Fish and Game, and the Water Board as soon as possible, but no later than 10 days, after each such incident.

Article 405. *Use and Occupancy*. (a) In accordance with the provisions of this article, the licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain types of use and occupancy, without prior Commission approval. The licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the licensee shall also have continuing responsibility to supervise and control the use and occupancies, for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if necessary, canceling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

(b) The type of use and occupancy of project lands and waters for which the licensee may grant permission without prior Commission approval are: (1) landscape plantings; (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 water craft at a time and where said facility is intended to serve single-family type dwellings; (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline; and (4) food plots and other wildlife enhancement. To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the licensee shall require multiple use and occupancy of facilities for access to project lands or waters. The licensee shall also ensure, to the satisfaction of the Commission's authorized representative, that the use and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements. Before granting permission for construction of bulkheads or retaining walls, the licensee shall: (1) inspect the site of the proposed construction; (2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site; and (3) determine that the proposed construction is needed and would not change the basic contour of the impoundment shoreline. To implement this paragraph (b), the licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the licensee's costs of administering the permit program. The Commission reserves the right to require the licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or

procedures.

(c) The licensee may convey easements or rights-of-way across, or leases of project lands for: (1) replacement, expansion, realignment, or maintenance of bridges or roads where all necessary state and federal approvals have been obtained; (2) storm drains and water mains; (3) sewers that do not discharge into project waters; (4) minor access roads; (5) telephone, gas, and electric utility distribution lines; (6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary; (7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69 kV or less); and (8) water intake or pumping facilities that do not extract more than one million gallons per day from a project impoundment. No later than January 31 of each year, the licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed. If no conveyance was made during the prior calendar year, the licensee shall so inform the Commission in writing no later than January 31 of each year.

(d) The licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for: (1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained; (2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained; (3) other pipelines that cross project lands or waters but do not discharge into project waters; (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained; (5) private or public marinas that can accommodate no more than 10 water craft at a time and are located at least one-half mile (measured over project waters) from any other private or public marina; (6) recreational development consistent with an approved report on recreational resources of an Exhibit E; and (7) other uses, if: (i) the amount of land conveyed for a particular use is five acres or less; (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from project waters at normal surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year. At least 60 days before conveying any interest in project lands under this paragraph (d), the licensee must submit a letter to the Director, Office of Energy Projects, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked Exhibit G map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted, and any federal or state approvals required for the proposed use. Unless the Director, within 45 days from the filing date, requires the licensee to file an application for prior approval, the licensee may convey the intended

interest at the end of that period.

(e) The following additional conditions apply to any intended conveyance under paragraph (c) or (d) of this article:

(1) Before conveying the interest, the licensee shall consult with federal and state fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer.

(2) Before conveying the interest, the licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved report on recreational resources of an Exhibit E; or, if the project does not have an approved report on recreational resources, that the lands to be conveyed do not have recreational value.

(3) The instrument of conveyance must include the following covenants running with the land: (i) the use of the lands conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; and (ii) the grantee shall take all reasonable precautions to ensure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project.

(4) The Commission reserves the right to require the licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.

(f) The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude land conveyed under this article only upon approval of revised Exhibit G drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project only upon a determination that the lands are not necessary for project purposes, such as operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude lands conveyed under this article from the project shall be consolidated for consideration when revised Exhibit G drawings would be filed for approval for other purposes.

(g) The authority granted to the licensee under this article shall not apply to any part of the public lands and reservations of the United States included within the project boundary.

(G) 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.

(H) 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 any 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 3l, 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 ad 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

Forest Service Final Terms and Conditions Provided Under 18 CFR § 4.34 (b)(1) In Connection with the Application for Relicensing of the El Dorado Hydroelectric Project (FERC No. 184)

October 31, 2003

I. GENERAL

The Forest Service (FS) provides the following final 4(e) conditions for the El Dorado Hydroelectric Project, FERC No. 184 (Project), in accordance with 18 CFR 4.34(b)(1)(i) in response to FERC's issuance of a final environmental impact statement for the Project.

License articles contained in the FERC's Standard Form L-1 (revised October 1975) issued by Order No. 540, dated October 31, 1975, cover general requirements that the Secretary of Agriculture, acting by and through the FS, considers necessary for the adequate protection and utilization of the land and resources of the Eldorado National Forest and Lake Tahoe Basin Management Unit. For the FS's determination[52] under Section 4(e) of the Federal Power Act (16 U.S.C. 797(e)), the purposes for which national forest lands were created or acquired shall be the protection and utilization of those resources 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 or prescribing the management thereof (such as the Wilderness

[52] 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 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)).

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 Forest Plans prepared in accordance with the National Forest Management Act. Specifically, these conditions are based on the Land and Resource Management Plans (as amended) for the Eldorado National Forest and Lake Tahoe Basin Management Unit, as approved by the Regional Forester of the Pacific Southwest Region. Therefore, pursuant to Section 4(e) of the Federal Power Act, the following conditions covering specific requirements for protection and utilization of national forest lands shall also be included in any license amendment issued.

II. STANDARD FOREST SERVICE CONDITIONS

Condition No. 1-Requirement to Obtain a Forest Service Special-Use Authorization
The licensee shall obtain a new special-use authorization from the FS for the occupancy and use of National Forest System lands currently authorized by special-use permit. The licensee shall obtain the executed authorization before beginning ground-disturbing activities on National Forest System lands or within 6 months of license issuance if no construction or reconstruction was proposed in the application for license.

The licensee may commence ground-disturbing activities authorized by the license and special-use authorization no sooner 60 days following the date the licensee files the FS special-use authorization with the Commission, unless the Commission prescribes a different commencement schedule.

In the event there is a conflict between any provisions of the license and FS special-use authorization, the special-use authorization shall prevail to the extent that the FS, in consultation with the Commission, deems necessary to protect and utilize National Forest System resources.

Condition No. 2 - 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 FS for all final design plans for Project components, which the FS 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 FS 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 FS, FERC, 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. 3 - Approval of Changes

Notwithstanding any FERC approval or license provisions to make changes to the Project, the licensee shall get written approval from the FS 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 FERC. Following receipt of such approval from the FS, and at least 60 days prior to initiating any such changes or departure, the licensee shall file a report with FERC describing the changes, the reasons for the changes, and showing the approval of the FS for such changes. The licensee shall file an exact copy of this report with the FS at the same time it is filed with FERC. This article does not relieve the licensee from the amendment or other requirements of Article 2 or Article 3 of this license.

Condition No. 4 - Consultation

Each year during the 60 days preceding the anniversary date of the license, the licensee shall consult with the FS 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 FERC evidence of the consultation with any recommendations made by the FS. The FS 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.

III. OTHER FOREST SERVICE CONDITIONS

Condition No. 5 - Modification of 4(e) Conditions After Biological Opinion or Water Quality Certification

The FS 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. 6 - Surrender of License or Transfer of Ownership

The licensee shall guarantee or assure, in a manner satisfactory to the FS, that the costs of license surrender and restoration of Project-affected National Forest System lands will be provided for by the licensee. The licensee shall conduct an analysis, using experts approved by the FS, to estimate the potential costs associated with surrender and restoration of National Forest System lands to FS specifications. In addition, the licensee shall pay for an independent audit to assist the FS in determining whether the licensee has the financial ability to fund the surrender and restoration work specified in the analysis.

As a condition of any transfer of the license or sale of the Project, the licensee shall

guarantee or assure that, in a manner satisfactory to the FS, the costs of surrender and restoration of Project-affected National Forest System lands will be provided for by the licensee or transferee. If deemed necessary by the FS to assist it in evaluating the licensee's proposal, the licensee shall conduct an analysis, using experts approved by the FS, to estimate the potential costs associated with surrender and restoration of the Project area to FS specifications. In addition, the FS may require the licensee to pay for an independent audit of the transferee to assist the FS in determining whether the transferee has the financial ability to fund the surrender and restoration work specified in the analysis.

Condition No. 7 – Bonds, Performance
The licensee shall maintain a surety bond in the amount of $1,000,000 to guarantee National Forest System resources related to the license amendment for the Mill to Bull Tunnel and associated restoration work are protected in the event the license is surrendered or the licensee otherwise fails to carry out the measures of the license amendment. The licensee shall secure the bond prior to the commencement of activities on National Forest System lands and shall maintain the bond until one calendar year after the construction of the Mill to Bull Tunnel and associated restoration work are complete and accepted by the FS. In the event license conditions are not carried out, an authorized FS officer shall issue written instructions to the licensee, setting forth the work required to comply and the timeframe in which the work is to be completed.

Failure to initiate the license conditions related to resource protection of National Forest System lands within the timeframes established by the authorized FS officer is cause for the FS to issue a demand letter to the surety for the amount due under the bond. Payment by the surety of the amount required in the bond is due upon receipt of the demand letter. In lieu of payment, the surety may perform the work required under the written instructions from the authorized FS officer within the timeframe set forth in the instructions.

Pursuant to the Debt Collection Act, as amended (31 U.S.C. 3701, et seq.), if the FS does not receive payment within 30 days of issuance of the demand letter, the surety shall pay: Simple interest on the delinquent amount due at a fixed rate equal to the Current Value of Funds Rate published annually by the Secretary of the Treasury in the Federal Register, or the Prompt Payment interest rate established by the Secretary of the Treasury under Section 12 of the Contract Disputes Act of 1978, whichever is higher. Interest shall accrue from the date the FS issues the initial written demand to the surety.

The surety is liable for administrative charges in addition to the delinquent amount due. Administrative charges are those additional costs incurred by the Government in processing, handling, and collecting delinquent debts.

A penalty charge of 6 percent per annum shall be assessed on any portion of the debt that is delinquent more than 90 days. This penalty charge will be in addition to the interest and administrative charges in the preceding two paragraphs. Such penalty charge shall accrue from the date indicated on the demand letter issued to the surety and shall be assessed on all outstanding amounts, including interest and administrative charges assessed in the previous two paragraphs.

The payment of interest, administrative costs, and penalty is in addition to the principal amount due and is not limited by the stated penal sum of the bond.

All monies described herein may, upon failure of the licensee to fulfill all and singular requirements herein set forth or made a part hereof, be retained by the United States to be applied to the satisfaction of the licensee's obligations assumed hereunder, without prejudice whatever to any other rights and remedies of the United States.

Condition No. 8 - Valid Claims and Existing Rights
The licensee shall be subject to all valid claims and existing rights.

Condition No. 9 - 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. 10 - 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. 11 - Liability for Damage to Life or Property
The licensee shall indemnify, defend, and hold the United States harmless for any costs, damages, claims, liabilities, and judgments arising from past, present, and future acts or omissions of the licensee in connection with the use and/or occupancy authorized by the license. This indemnification and hold harmless provision includes but is not limited to acts and omissions of the licensee or the licensee's heirs, assigns, agents, employees, contractors, or lessees in connection with the use and/or occupancy authorized by this license which result in: (1) violations of any laws and regulations that are now or that may in the future become applicable, and include but are not limited to environmental laws such as the Comprehensive Environmental Response Compensation and Liability Act, Oil Pollution Act, Clean Water Act, or Clean Air Act; (2) judgments, claims, demands, penalties, or fees assessed against the United States; (3) costs, expenses, and

damages incurred by the United States; or (4) the release or threatened release of any solid waste, hazardous substances, pollutant, contaminant, or oil in any form in the environment.

Condition No. 12 - 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 FS.

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

Condition No. 13 - Hazardous Substances Plan
Within 1 year of license issuance, the licensee shall file with FERC a plan approved by the FS for oil and hazardous substances storage and spill prevention and cleanup. In addition, during planning and prior to any new construction or maintenance not addressed in an existing plan, the licensee shall notify the FS, and the FS shall make a determination whether a plan approved by the FS for oil and hazardous substances storage and spill prevention and cleanup is needed. Any such plan shall be filed with FERC.

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 FS 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 FS immediately of the nature, time, date, location, and action taken for any spill affecting National Forest System lands and licensee adjoining property. The plan shall include measures to address findings from the following relicensing study: Sampling of structures/soils to determine whether leaks or contamination exist.

Condition No. 14 - 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 FS 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 FS. The licensee shall contact the FS prior to blasting to obtain the requirements from the FS. 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 FS 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 FS, 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. 15 - Pesticide Use Restrictions

Pesticides may not be used to control undesirable woody and herbaceous vegetation, aquatic plants, insects, rodents on National Forest System lands without the prior written approval of the FS. 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 FS. 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. 16 - Damage, High Hazards
The licensee is hereby made liable for all injury, loss, or damage to the United States land and property, including but not limited to fire suppression costs, directly or indirectly resulting from or caused by any high risk use and occupancy of the area covered by this license, regardless of whether the licensee is negligent or otherwise at fault, provided that the maximum liability without fault shall not exceed $1,000,000 for any one occurrence, and provided further that the licensee shall not be liable when such injury, loss, or damage results wholly, or in part, from a negligent act of the United States, or from an act of a third party not involving the licensee's facilities.

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

Condition No. 17 - Risks and Hazards
The licensee is responsible for inspecting its site, right-of-way, and the immediate adjoining area for dangerous trees, hanging limbs, and other evidence of hazardous conditions and is responsible for removing such hazards, after securing permission from the FS, except in an emergency where there is an imminent risk of death or injury to the public or facilities, in which case the licensee shall notify the Forest of the action as soon as possible.

Condition No. 18 - Project Access Roads
The licensee shall, in consultation with the FS, take appropriate measures to rehabilitate existing erosion damage and minimize further erosion of the non-public Project access roads on National Forest System lands. Gates or other vehicle control measures will be installed where necessary to achieve erosion protection or other resource protection needs.

Condition No. 19 - Road Use by Government
The United States shall have unrestricted use of any road constructed within the Project area for all purposes deemed necessary and desirable in connection with the protection, administration, management, and utilization of Federal lands or resources and shall have the right to extend rights and privileges 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 unreasonably to 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. 20 - Traffic Safety

When construction is in progress adjacent to or on FS Service controlled roads open to public travel, the licensee shall furnish, install, and maintain temporary traffic controls to provide the public with adequate warning and protection from hazardous or potentially hazardous conditions associated with the licensee's operations. Devices must be appropriate to current conditions and must be covered or removed when not needed. Except as otherwise agreed, flagmen and devices must be as specified in the "Manual on Uniform Traffic Control Devices."

Condition No. 21 - Road Use

The licensee shall confine all Project vehicles, including but not limited to, administrative and transportation vehicles, and construction and inspection equipment, to roads or specifically designed access routes. The FS 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. 22 – Crossings

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

Condition No. 23 - Access

The FS 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. 24 - Signs

The licensee shall consult with the FS 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 FS as to location, design, size, color, and message. The licensee shall be responsible for maintaining all licensee-erected signs to neat and presentable standards.

Condition No. 25 - Construction Inspections

Within 60 days of planned ground-disturbing activity, the licensee shall file with FERC a Safety During Construction Plan that identifies potential hazard areas and measures necessary to address public safety. Areas to consider include construction activities near public roads, trails, and recreation areas and facilities.

The licensee shall perform daily (or on a schedule otherwise agreed to by the FS in writing) inspections of licensee's construction operations on National Forest System lands and licensee adjoining property while construction is in progress. The licensee shall document these inspections (informal writing sufficient) and shall deliver such documentation to the FS on a schedule agreed to by the FS. 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.

A registered professional engineer of the appropriate specialty shall regularly conduct construction inspections of structural improvements on a schedule approved by the FS.

Condition No. 26 - Unattended Construction Equipment

The licensee shall not place construction equipment on National Forest System lands prior to actual use or allow it to remain on National Forest System lands subsequent to actual use, except for a reasonable mobilization and demobilization period agreed to by the FS. The licensee shall remove equipment from National Forest System lands unless a permit is issued for equipment storage.

Condition No. 27 - Maintenance of Improvements

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

Condition No. 28 - Erosion Control Plan For New Construction and Measures For Project Maintenance and Operations

During planning and prior to any new ground-disturbing construction or non-routine maintenance not addressed in an existing plan that may affect National Forest System lands (including but not limited to any recreation-related construction), the licensee shall file with FERC, a plan approved by the FS for the control of 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 outside of the roadbed; (6) measures to dissipate energy and prevent erosion at the tailrace; and, (7) a monitoring and maintenance schedule. The FS may require changes to the plan to ensure adequate

protection of the environmental, scenic, and cultural values of the Project area. This plan must identify requirements for construction, operation, and maintenance measures to meet FS erosion control objectives and standards.

Condition No. 29 - Solid Waste and Waste Water Plan, New Construction and Project Operation and Maintenance

During planning and prior to any new construction or maintenance not addressed in an existing plan (including but not limited to any recreation-related construction), the licensee shall notify the FS, and the FS shall make a determination whether a plan shall be filed with FERC. At a minimum, the plan must address the estimated quantity of solid waste and waste water generated each day; the location of disposal sites and methods of treatment; the implementation schedule; areas available for disposal of wastes; design of facilities; comparisons between on- and off-site disposal; and maintenance programs.

Condition No. 30 – Water Quality and Water Pollution

The licensee shall comply with state water quality standards to ensure compliance with the Clean Water Act, protection of beneficial uses, and adequate protection during utilization of the Forests.

The licensee shall discharge no waste or byproduct on or affecting National Forest System lands if it contains any substances in concentrations that would result in violation of water quality standards set forth by the State; would impair present or future beneficial uses of water; would cause pollution, nuisance, or contamination; or would unreasonably degrade the quality of any waters in violation of any federal or state law. Prior to construction, and during operation and maintenance of the Project, the licensee shall develop a plan approved by the FS and subject to requirements of other federal and state water quality agencies.

IV. PROJECT-SPECIFIC FOREST SERVICE CONDITIONS

A. Ecological Resource Management

Condition No. 31 – Minimum Streamflows

The licensee shall, beginning as early as reasonably practicable within 3 months after license issuance, maintain minimum streamflows in Echo Creek below Echo Dam; Pyramid Creek below Lake Aloha; Caples Creek below Caples Dam; Silver Fork American River below Silver Lake Dam; South Fork American River below Kyburz Diversion Dam; and Carpenter, No Name, Alder, Mill, Bull, Ogilby, and Esmeralda Creeks below their diversions at the El Dorado Canal, as specified in the following minimum streamflow schedules. All specified streamflows are in cubic feet per second (cfs). The schedules specify minimum streamflows, by month and water year type, for

each of the specified stream reaches. Minimum streamflows for February through May shall begin on or before the 5th day of each month. In all other months, minimum streamflows shall begin by the 1st of the month.

The minimum streamflows specified in the schedules may be temporarily modified if required by equipment malfunction or operating emergencies reasonably beyond the control of the licensee. If the streamflow is so modified, the licensee shall provide notice to the FS*, ERC, and SWRCB* as soon as possible, but no later than 10 days after such incident. The minimum streamflows specified may also be temporarily modified for short periods in non-emergency situations 5 days after FS*, ERC, and SWRCB* approval, for areas within its jurisdiction.

Where facility modification is required to maintain the specified minimum streamflows, 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 minimum streamflows within the capabilities of the existing facilities.

In order for the licensee to adjust operations to meet the required minimum streamflows, the licensee shall have a 3-year period after the license is issued or 3 years after completion of necessary facility modifications, whichever is later, in which daily mean streamflows may vary up to 10 percent below the amounts specified in the minimum streamflow schedules, provided that the average monthly streamflow in any given month equals or exceeds the required minimum amount for the month. After the applicable period, the licensee shall meet the minimum streamflow requirements specified in the minimum streamflow schedules.

Water Year Types. The minimum streamflow schedules have been separated into five water year types: Wet, Above Normal (AN), Below Normal (BN), Dry, and Critically Dry (CD). The licensee shall determine water year type based on the forecast of unimpaired inflow to Folsom Reservoir for the period of April through July, as set forth in Bulletin 120 (Water Conditions in California as published by the California Department of Water Resources) until an alternative forecasting tool is approved by the FS*, ERC, SWRCB, and FERC*. Water year types are defined as follows:

Wet = greater than 125 percent of average
AN = less than 125 percent but greater than or equal to 100 percent of average

BN = less than 100 percent but greater than or equal to 75 percent of average

Dry = less than 75 percent but greater than or equal to 50 percent of average
CD = less than 50 percent of average

Each February through May, the licensee shall operate for that month, beginning on or before the 5th day of these 4 months (February through May), after forecasting information is available, using a water year type designation for that month based on the Bulletin 120 forecast or the alternative forecasting tool that has been approved by the FS*, ERC, SWRCB, and FERC*. The May forecast shall be used to establish the final water year type for the remaining months of the year until the next February, when forecasting shall begin again. The licensee shall provide notice to the FS*, ERC, SWRCB, and FERC* of the final water year type determination within 10 days of making the determination.

An exception to the operating rules in the previous paragraph shall be that a separate forecasting method for January and February, as described in Condition No. 52, shall be established within 1 year of license issuance. This forecasting method, once approved by the FS*, SWRCB, ERC and FERC,* shall govern the January and February operation of Caples Lake and the Kyburz Diversion Dam.

Echo Creek Below Echo Lakes Dam

The licensee shall maintain the minimum streamflow or natural flow, whichever is less, as specified in the following schedule based on month and water year type. The compliance point for Echo Creek is the gaging station located downstream of the Echo Lake Dam (USGS Gage No. 10336608, EID Gage No. A-3). Echo Creek minimum streamflows flow into the Truckee River Basin and not the SFAR Basin.

Echo Creek Below Echo Lakes Dam						
	Month	Minimum Streamflow by Water Year (cfs)				
		CD	DRY	BN	AN	WET
	OCT	6 or NF	6 or NF	6 or NF	6 or NF	6 or NF
	NOV	6 or NF	6 or NF	6 or NF	6 or NF	6 or NF
	DEC	6 or NF	6 or NF	6 or NF	6 or NF	6 or NF
	JAN	6 or NF	6 or NF	6 or NF	6 or NF	6 or NF
	FEB	6 or NF	6 or NF	6 or NF	10 or NF	10 or NF
	MAR	6 or NF	6 or NF	6 or NF	15 or NF	15 or NF
	APR	6 or NF	10 or NF	15 or NF	25 or NF	25 or NF
	MAY	6 or NF	15 or NF	30 or NF	45 or NF	45 or NF
	JUNE	6 or NF	15 or NF	30 or NF	40 or NF	40 or NF
	JULY	6 or NF	10 or NF	15 or NF	20 or NF	20 or NF
	AUG	6 or NF	6 or NF	6 or NF	6 or NF	6 or NF
	SEPT	6 or NF	6 or NF	6 or NF	6 or NF	6 or NF

Pyramid Creek Below Lake Aloha Dam

The licensee shall maintain the minimum streamflow or natural flow, whichever is less,

as specified in the following schedule based on month and water year type. The compliance point for Pyramid Creek is the gaging station located near Highway 50 at Twin Bridges (USGS Gage No. 11435100, EID Gage No. A-40). This location, along with other compliance points, may be modified when the licensee develops a Streamflow and Reservoir Storage Gaging Plan as required in Condition No. 40.

Pyramid Creek Below Lake Aloha Dam						
	Month	Minimum Streamflow by Water Year (cfs)				
		CD	DRY	BN	AN	WET
	OCT	1 or NF	1 or NF	2 or NF	3 or NF	3 or NF
	NOV	1 or NF	3 or NF	4 or NF	5 or NF	5 or NF
	DEC	2 or NF	3 or NF	5 or NF	6 or NF	6 or NF
	JAN	2 or NF	3 or NF	5 or NF	6 or NF	6 or NF
	FEB	2 or NF	4 or NF	6 or NF	8 or NF	8 or NF
	MAR	2 or NF	5 or NF	7 or NF	10 or NF	10 or NF
	APR	3 or NF	5 or NF	8 or NF	11 or NF	11 or NF
	MAY	5 or NF	10 or NF	15 or NF	20 or NF	20 or NF
	JUNE	5 or NF	10 or NF	14 or NF	19 or NF	19 or NF
	JULY	2 or NF	4 or NF	6 or NF	8 or NF	8 or NF
	AUG	1 or NF	2 or NF	3 or NF	4 or NF	4 or NF
	SEPT	1 or NF	1 or NF	2 or NF	2 or NF	2 or NF

Caples Creek Below Caples Lake Dam

Except in CD years, the licensee shall maintain the minimum streamflow or natural flow, whichever is less, as specified in the following schedule, based on month and water year type, unless the natural flow is less than 5 cfs, in which case the minimum flow would be 5 cfs. The compliance point for Caples Creek is the gaging station located downstream of the Caples Lake Dam (USGS Gage No. 11434500, EID Gage No. A-6).

Caples Creek Below Caples Lake Dam						
	Month		Minimum Streamflow by Water Year (cfs)			
			CD	DRY	BN	AN	WET
	OCT		5	5	5	5	5
	NOV		5	6 or NF	8 or NF	10 or NF	10 or NF
	DEC		5	7 or NF	10 or NF	10 or NF	10 or NF
	JAN		5	7 or NF	10 or NF	15 or NF	15 or NF
	FEB		5	7 or NF	10 or NF	15 or NF	15 or NF
	MAR		5	10 or NF	15 or NF	20 or NF	20 or NF
	APR		10	12 or NF	18 or NF	25 or NF	25 or NF
	MAY		14	27 or NF	40 or NF	55 or NF	55 or NF
	JUNE		14	28 or NF	42 or NF	55 or NF	55 or NF
	JULY		12	25 or NF	35 or NF	50 or NF	50 or NF
	AUG		5	5	6 or NF	8 or NF	8 or NF
	SEPT		5	5	5	5	5

Silver Fork American River Below Silver Lake Dam

The licensee shall maintain the minimum streamflow or natural flow, whichever is less, as specified in the following schedule based on month and water year type. The compliance point for Silver Fork American River is the gaging station located downstream of the Silver Lake Dam (USGS Gage No. 11436000, EID Gage No. A-8).

Silver Fork American River Below Silver Lake Dam			
	Month		
			ALL
	OCT		4 or NF
	NOV		4 or NF
	DEC		4 or NF
	JAN		4 or NF
	FEB		4 or NF
	MAR		4 or NF
	APR		4 or NF
	MAY		4 or NF
	JUNE		4 or NF
	JULY		4 or NF
	AUG		4 or NF
	SEPT		4 or NF

Silver Fork American River Below Oyster Creek

The licensee shall maintain the minimum streamflow or natural flow, whichever is less, as specified in the following schedule based on month and water year type. "Natural flow" for the purposes of the Silver Fork American River below Oyster Creek includes the natural inflow of water into Silver Lake plus the natural leakage and accretion flow of

water out of Silver Lake directly into Oyster Creek. The recommended compliance point for Silver Fork American River is the gaging station located downstream of Oyster Creek. This gage site has not been formally installed and may be modified when the licensee develops a Streamflow and Reservoir Storage Gaging plan as required in Condition No. 40.

If the FS determines that the flow of Oyster Creek associated with Silver Lake stage height has substantially changed, the FS shall, after notice and opportunity for comment and in consultation with the ERC and SWRCB, develop an alternative minimum streamflow regime for the Silver Fork American River below Oyster Creek.

Silver Fork American River Below Oyster Creek						
	Month	**Minimum Streamflow by Water Year (cfs)**				
		CD	DRY	BN	AN	WET
	OCT	8 or NF	8 or NF	8 or NF	8 or NF	8 or NF
	NOV	8 or NF	8 or NF	10 or NF	16 or NF	16 or NF
	DEC	8 or NF	8 or NF	10 or NF	16 or NF	16 or NF
	JAN	8 or NF	8 or NF	12 or NF	16 or NF	16 or NF
	FEB	8 or NF	10 or NF	17 or NF	23 or NF	23 or NF
	MAR	8 or NF	15 or NF	26 or NF	35 or NF	35 or NF
	APR	8 or NF	18 or NF	50 or NF	50 or NF	50 or NF
	MAY	10 or NF	20 or NF	90 or NF	100 or NF	100 or NF
	JUNE	8 or NF	10 or NF	60 or NF	60 or NF	60 or NF
	JULY	8 or NF	8 or NF	18 or NF	20 or NF	25 or NF
	AUG	8 or NF	8 or NF	8 or NF	8 or NF	8 or NF
	SEPT	8 or NF	8 or NF	8 or NF	8 or NF	8 or NF

South Fork American River Below Kyburz Diversion Dam

The licensee shall maintain the minimum streamflow specified in the following schedule based on month and water year type. The recommended compliance point for SFAR is the gaging station located downstream of the Kyburz Diversion Dam (USGS Gage No. 11439500, licensee Gage No. A-12).

South Fork American River Below Kyburz Diversion						
	Month	Minimum Streamflow by Water Year (cfs)				
		CD	DRY	BN	AN	WET
	OCT	15	15	40	50	50
	NOV	15	18	40	50	50
	DEC	15	25	40	50	50
	JAN	15	25	40	50	50
	FEB	20	30	40	50	75
	MAR	30	60	110	110	110
	APR	60	120	180	180	180
	MAY	60	120	180	240	240
	JUNE	60	120	180	240	240
	JULY	40	85	125	160	160
	AUG	18	18	65	65	65
	SEPT	15	15	50	50	50

Carpenter Creek

The licensee shall maintain the minimum streamflow or natural flow, whichever is less, as specified in the following schedule. There is currently no compliance gage for this site. This site must be addressed in the Streamflow and Reservoir Storage Gaging Plan required in Condition No. 40.

Carpenter Creek Below Carpenter Creek Diversion Dam		
	Month	
		ALL
	OCT	1 or NF
	NOV	1 or NF
	DEC	2 or NF
	JAN	2 or NF
	FEB	3 or NF
	MAR	4 or NF
	APR	5 or NF
	MAY	4 or NF
	JUNE	2 or NF
	JULY	1 or NF
	AUG	1 or NF
	SEPT	1 or NF

No Name Creek

The licensee shall maintain the minimum streamflow or natural flow, whichever is less, as specified in the following schedule. There is currently no compliance gage for this site. This site must be addressed in the Streamflow and Reservoir Storage Gaging Plan required in Condition No. 40.

No Name Creek Below No Name Creek Diversion Dam	
Month	
	ALL
OCT	1 or NF
NOV	1 or NF
DEC	1 or NF
JAN	1 or NF
FEB	1 or NF
MAR	1 or NF
APR	1 or NF
MAY	1 or NF
JUNE	1 or NF
JULY	1 or NF
AUG	1 or NF
SEPT	1 or NF

Alder Creek

The licensee shall maintain the minimum streamflow or natural flow, whichever is less, as specified in the following schedule. There is currently no compliance gage for this site. This site must be addressed in the Streamflow and Reservoir Storage Gaging Plan required in Condition No. 40.

Alder Creek Below Alder Creek Diversion Dam						
Month	Minimum Streamflow by Water Year (cfs)					
	CD	DRY	BN	AN	WET
OCT	25 or NF	25 or NF	25 or NF	25 or NF	25 or NF
NOV	5 or NF	5 or NF	5 or NF	5 or NF	5 or NF
DEC	5 or NF	5 or NF	5 or NF	10 or NF	10 or NF
JAN	5 or NF	5 or NF	10 or NF	10 or NF	10 or NF
FEB	5 or NF	5 or NF	10 or NF	10 or NF	10 or NF
MAR	25 or NF	25 or NF	45 or NF	45 or NF	45 or NF
APR	25 or NF	35 or NF	65 or NF	90 or NF	90 or NF
MAY	25 or NF	30 or NF	55 or NF	75 or NF	75 or NF
JUNE	25 or NF	25 or NF	25 or NF	25 or NF	25 or NF
JULY	25 or NF	25 or NF	25 or NF	25 or NF	25 or NF
AUG	25 or NF	25 or NF	25 or NF	25 or NF	25 or NF
SEPT	25 or NF	25 or NF	25 or NF	25 or NF	25 or NF

Mill Creek

The licensee shall maintain the minimum streamflow or natural flow, whichever is less, as specified in the following schedule. There is currently no compliance gage for this site. This site must be addressed in the Streamflow and Reservoir Storage Gaging Plan required in Condition No. 40.

Mill Creek Below Mill Creek Diversion Dam	
Month	
	ALL
OCT	1 or NF
NOV	2 or NF
DEC	3 or NF
JAN	4 or NF
FEB	6 or NF
MAR	7 or NF
APR	6 or NF
MAY	4 or NF
JUNE	2 or NF
JULY	1 or NF
AUG	1 or NF
SEPT	1 or NF

Bull Creek

The licensee shall maintain the minimum streamflow or natural flow, whichever is less, as specified in the following schedule. There is currently no compliance gage for this site. This site must be addressed in the Streamflow and Reservoir Storage Gaging Plan required in Condition No. 40.

Bull Creek Below Bull Creek Diversion Dam	
Month	
	ALL
OCT	1 or NF
NOV	1 or NF
DEC	1 or NF
JAN	1 or NF
FEB	1 or NF
MAR	1 or NF
APR	1 or NF
MAY	1 or NF
JUNE	1 or NF
JULY	1 or NF
AUG	1 or NF
SEPT	1 or NF

Ogilby Creek

The licensee shall maintain the minimum streamflow or natural flow, whichever is less, as specified in the following schedule. There is currently no compliance gage for this site. This site must be addressed in the Streamflow and Reservoir Storage Gaging Plan

required in Condition No. 40.

Ogilby Creek Below Ogilby Creek Diversion Dam			
	Month		
			ALL
	OCT		1 or NF
	NOV		1 or NF
	DEC		1 or NF
	JAN		1 or NF
	FEB		2 or NF
	MAR		2 or NF
	APR		2 or NF
	MAY		2 or NF
	JUNE		1 or NF
	JULY		1 or NF
	AUG		1 or NF
	SEPT		1 or NF

Esmeralda Creek

The licensee shall maintain the minimum streamflow or natural flow, whichever is less, as specified in the following schedule. There is currently no compliance gage for this site. This site must be addressed in the Streamflow and Reservoir Storage Gaging Plan required in Condition No. 40.

Esmeralda Creek Below Esmeralda Diversion Dam			
	Month		
			ALL
	OCT		1 or NF
	NOV		1 or NF
	DEC		1 or NF
	JAN		1 or NF
	FEB		1 or NF
	MAR		2 or NF
	APR		2 or NF
	MAY		2 or NF
	JUNE		1 or NF
	JULY		1 or NF
	AUG		1 or NF
	SEPT		1 or NF

Condition No. 32 – Ramping Rates

The licensee shall, beginning as early as reasonably practicable within 3 months after

license issuance, use the following ramping rates for licensee-controlled streamflow releases at Echo Lakes and Lake Aloha:

Change in Water Level of Stream (feet/hour)	Flow Range (cfs)
0.5	1-75
1.0	75-175
1.5	above 175

The licensee shall, beginning as early as reasonably practicable within 3 months after license issuance, use the following ramping rates for licensee-controlled streamflow releases at Caples Lake and Silver Lake:

Change in Water Level of Stream (feet/hour)	Flow Range (cfs)
1.0	1-75
0.5	75-175
0.55	above 175

Where facility modification is required to provide the specified ramping rates, 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 rates within the capabilities of the existing facilities.

The licensee shall make available to the FS*, ERC, and SWRCB* the streamflow records related to ramping upon request.

The licensee shall be excused from complying with the ramping rate requirements in the event of law enforcement or search and rescue activities, Division of Safety of Dams compliance requirements, equipment malfunction or failure that is directly related to providing the specified ramping rates, or a large storm event that is beyond its ability to control. The licensee shall provide notice to the FS*, ERC, and SWRCB* within 10 days after such an event occurs and shall provide a report documenting the reason that ramping rates were not followed within 1 month after such an event occurs.

Condition No. 33 – Operation and Maintenance of Lake Aloha

1. Prevention of Spills and Removal of Trout if Spill Occurs

The licensee shall operate Lake Aloha to attempt to prevent water in the reservoir from spilling over Auxiliary Dams 1-7 during spring runoff and while the reservoir is filling, recognizing that Auxiliary Dam 6 is designed to function as Lake Aloha's spillway. If spill occurs over these dams and into the pools below, the licensee shall manually remove trout from the pools. Within 14 days of spill occurring, the licensee shall submit a plan for removing fish from these pools and ponds to FS *and CDFG* and, after approval of the plan by the FS *and CDFG*, shall initiate the removal within 30 days after the spill occurs. The FS *and CDFG* will make a good faith effort to assist the licensee in implementing the removal program. The licensee shall annually, by July 30, produce a monitoring report documenting whether spill occurred over the Auxiliary Dams and whether trout were found and removed. If no fish are located after 5 years of surveys after spills, the licensee shall consult with the FS *and CDFG* to determine whether further surveys are necessary. In accordance with Condition No. 3, the FS reserves the authority, within 5 years after license issuance, to modify this condition if monitoring indicates that spill cannot be prevented and trout are entering the pools below the Auxiliary Dams.

2. Trout Survey and Removal

Within 1 year of license issuance, the licensee shall survey the pools and ponds below Auxiliary Dams 1-7 on Lake Aloha to determine if trout are present in the pools and ponds. If trout are present, the licensee shall submit a plan for removal of the trout to the FS *and CDFG* within 30 days of locating the trout. Upon approval of the plan by the FS *and CDFG*, the licensee shall implement the removal program. The FS *and CDFG* will make a good faith effort to assist the licensee in implementing the removal program.

3. Authorized Flights into Desolation Wilderness for Maintenance

The licensee is authorized to make one flight per year into Desolation Wilderness to maintain Project facilities at Lake Aloha. Flights necessary to perform major maintenance work at Lake Aloha must be approved by the FS on a case-by-case basis.

Condition No. 34 –Caples Lake Releases and Flow Limitations

1. Pulse Flows

The licensee shall, within 3 months after license issuance but not prior to the implementation of the new minimum streamflows, provide annual pulse flow events in the natural Caples Creek channel below Caples Lake Dam specified in the following pulse flow schedule by water year type. Pulse flows shall be timed to correspond to the annual spring peak runoff based on the licensee's best estimate of maximum flow in any particular year. All specified pulse flows are in

cubic feet per second (cfs).

The licensee shall be excused from complying with the pulse flow requirements in the event of law enforcement or search and rescue activities, Division of Safety of Dams compliance requirements, equipment malfunction or failure that is directly related to providing the specified pulse flows, or a large storm event that is beyond its ability to control. If a pulse flow is so modified, the licensee shall provide notice to the FS*, ERC, and SWRCB* as soon as possible but no later than 10 days after such incident. The pulse flows specified may also be temporarily modified for short periods in non-emergency situations upon approval of the FS *and SWRCB*.

	Pulse Flow by Water Year (cfs)					
Reach	**CD**	**Dry**	**BN**	**AN**	**Wet**	**Duration and Timing**
Caples Creek Channel	0	150	210	300	345	5-day continuous pulse timed
Below Caples Lake						to correspond to annual spring
Dam						peak runoff

Where facility modification is required to provide the specified pulse flows, the licensee shall make 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 pulse flows within the capabilities of the existing facilities.

2. Fall Release Flows

September, October, and November release flows in the Caples Creek channel shall not be greater than 150 cfs. If a large storm event occurs during this period and the licensee cannot meet the fall release flows, the licensee shall provide notice to the FS*, ERC, and SWRCB* within 10 days after such an event occurs and shall provide a report documenting the reason that fall release flows were not followed within 1 month after such an event occurs.

3. Caples Spillway Channel Flows

The licensee shall not release more than 60 cfs into the existing Caples Lake Spillway channel.

The licensee shall be excused from complying with the spillway channel flows in the event of law enforcement or search and rescue activities, Division of Safety of Dams compliance requirements, equipment malfunction or failure that is directly

related to providing the specified ramping rates, or a large storm event that is beyond its ability to control. If a spillway channel flow is so modified, the licensee shall provide notice to the FS*, ERC, and SWRCB* as soon as possible but no later than 10 days after such incident. The spillway channel flows specified may also be temporarily modified for short periods in non-emergency situations upon approval of the FS.

Condition No. 35 - Oyster Creek Stabilization
Within 2 years of license issuance, the licensee shall survey the channel and develop a plan that is approved by FS for stabilization of the Oyster Creek channel. The licensee shall be responsible for those portions of the plan that the FS, in cooperation with the licensee, determines to be Project-related within 5 years of license issuance. The licensee may pursue a Coordinated Resource Management Program with other landowners in the area.

Condition No. 36 - Esmeralda Creek Restoration
Within 2 years of license issuance, the licensee shall survey the portion of the channel located on National Forest System lands and shall develop a plan that is approved by FS for restoration of the Esmeralda Creek channel. The licensee shall implement the plan within 5 years of license issuance.

Condition No. 37 – Monitoring Program
The licensee shall implement the following Monitoring Program after license issuance and through the term of the new license and any annual licenses, in coordination with the FS, ERC, and SWRCB. Within the scope of the specified monitoring program, the FS, ERC, and SWRCB may select an equal number of alternative years to ensure that surveys occur during a range of water year types. Final study plans shall be approved by the FS, ERC, and SWRCB. The FS, ERC, and SWRCB have the flexibility to alter the monitoring program methodologies and frequencies of data collection if it is determined that: (a) there is a more appropriate or preferable methodology to use than that described in the monitoring plan or (b) monitoring may be reduced or terminated because the relevant ecological resource objective has been met or no change in resource response is expected.

The licensee shall file with FERC by June 30 of each year an annual report fully describing the monitoring efforts of the previous calendar year. The FS*, ERC, and SWRCB* shall have at least 30 days to review the report prior to filing with FERC. The licensee shall provide copies of the annual report to the FS*, ERC, and SWRCB*.

The following guidelines shall be used in implementing the monitoring program: (a) monitoring and studies shall be relevant to the Project, (b) monitoring and studies shall be

conducted such that they provide useful information for management decisions or establishing compliance with license conditions, and (c) monitoring and studies shall be as cost-effective as possible. Funding for performing the monitoring, as well as specified contingency funding, shall be provided by the licensee.

For purposes of the ecological resources adaptive management program, each year is defined on a calendar year basis (i.e., January through December). This monitoring program covers monitoring to be conducted during all years until a new license is issued. Most monitoring described below is estimated to end after 30 years; however, if a new license is not issued within 30 years, the FS *and/or SWRCB, in consultation with the ERC,* reserve the right to extend the monitoring period as necessary.

1. Fish Populations

Method: Electrofishing and/or snorkeling (as conducted in 1998-2002 by the licensee) during late summer/fall at six stations for rainbow trout:

- SFAR below Carpenter Creek
- Lower Alder Creek
- Lower Pyramid Creek
- Lower Echo Creek
- Silver Fork American River at Forgotten Flat
- Caples Creek below Kirkwood Creek

Existing data on hardhead, a native species, are not sufficient to derive biomass indices for determining habitat quality; therefore, continued *ERC- and* FS-directed monitoring would provide these data so that the FS, *ERC, and SWRCB* may develop indices in the near future. An additional site shall be located upstream of the Akin Powerhouse and downstream of the confluence with Silver Creek in the section where hardhead were identified. This site may require a combination of snorkeling and electrofishing. If the hardhead data are collected in the UARP relicensing, they can be used to satisfy this requirement after FS*, ERC, and SWRCB* review and approval.

Frequency: Rainbow trout: Years 5, 6, 10, 11, 15, 16, 20, 21, 25, 26, 30, 31. Hardhead: At least 3 years of monitoring would be needed in the hardhead reaches as determined in Payne (1998). Thereafter, monitoring would continue at 5-year intervals if the FS*, ERC, and SWRCB* determine it is necessary.

Rationale: Sampling for 2 years in the beginning of each 5-year period provides a mean of 2 years for comparison to the ecological resource objective, reducing electroshocking effects to individuals, with sufficient response time to the new

streamflow regimes.

7. ***Macroinvertebrates***

Method: California Rapid Bioassessment Protocol methodology described in the Draft Benthic Macroinvertebrate Sampling Program (EID 2002) at the following sites:

- Echo Creek (EID site EC-B1)
- Pyramid Creek (EID site PY-B1)
- Caples Creek (EID site CA-B1)
- Silver Fork American River (EID site SV-B2)
- SFAR (EID site SO-B1)
- Carpenter Creek (EID sites CR-B1 and 2)
- No Name Creek (EID sites NN-B1 and 2)
- Alder Creek (EID sites AR-B1 and 2)
- Mill Creek (EID sites ML-B1 and 2)
- Bull Creek (EID sites BU-B1 and 2)
- Ogilby Creek (EID sites OG-B1 and 2)
- Esmeralda Creek (EID sites (ES-B1 and 2)

Reference streams that were sampled as part of the macroinvertebrate monitoring program during the relicensing shall be incorporated into the monitoring program. The FS*, ERC, and SWRCB* shall make their best efforts to ensure comparability of these reference sites to Project-affected sites but shall as expeditiously as possible identify more suitable sites. Reference sites may be substituted upon approval by the FS*, ERC, and SWRCB*. The upstream sample site locations on the feeder tributaries to the El Dorado Canal will serve as the reference sites for those locations.

- Strawberry Creek (EID site SB-B1)
- Sherman Canyon Creek (EID site SH-B1)
- Woods Creek (EID site WC-B1)

Frequency: Years 5, 6, 10, 11, 15, 16, 20, 21, 25, 26, 30, 31.

Rationale: Same as for the Fish Populations monitoring element.

4. ***Amphibians (Habitat Evaluation & Determination of Species Presence/Distribution)***

Foothill Yellow-legged Frog

Method: Conduct protocol surveys for sensitive species using the procedures of Pacific Gas and Electric Company (2002) in a sub-sample of appropriate habitat types to document species presence and distribution. Identify amphibian breeding and larval periods in Project-affected reaches by periodically surveying reaches of known presence during spring/summer.

The first year of surveys would be to determine the timing and success of the following life stages of existing known populations: egg laying, tadpole rearing, metamorphosis, and size/condition of metamorphs in late September to estimate probability of overwintering success. For subsequent years, the FS*, ERC, and SWRCB* may approve a subset of survey sites or a less intensive program, based on review of the first year's data. In the future, FS*, ERC, and SWRCB* may request additional breeding site habitat data to assess the cause of unexpected or chronic reproductive failures that may be related to Project operations. If the FYLF data are collected in the UARP relicensing, they can be used to satisfy this requirement after FS*, ERC, and SWRCB* approval.

Foothill yellow-legged frog Monitoring Sites:

- SFAR at Akin Powerhouse (EID site 105R)
- SFAR (EID site 110R)
- Silver Creek (EID site 115T)
- SFAR (EID site 120R)
- Soldier Creek (EID site 125T)
- Ogilby Creek (EID site 210DT)
- SFAR at Maple Grove (EID site 220R)
- SFAR from Alder Creek upstream to Kyburz Diversion Dam (sites to be determined)

Besides the above known site presence monitoring, surveys related to flow fluctuations shall also be conducted June through September at any time the SFAR flow is 100 cfs or less and the reach between Kyburz Diversion Dam and Silver Creek changes 50 cfs or more in 1 day. Once the FS*, ERC, and SWRCB* determine that a certain level of flow change or fluctuation can occur without effects to egg mass or tadpole displacement, then only flow changes in greater magnitude than that already monitored would need to be checked. Thus, the monitoring program shall address water velocities and discharge. To the maximum extent possible, the licensee shall provide advance notification to the

FS*, ERC, and SWRCB* of any known type of Project-related flow fluctuation between June and September. The licensee shall attempt to monitor emergency Project-related flow changes prior to (if possible) and after any flow change that meets the criteria described above. Conclusions from such monitoring shall be reported to the FS*, ERC, and SWRCB* within 5 days. These elements of the monitoring program shall be consistent with Condition No. 32.

The licensee, based on the first 3 years of monitoring results, may be required to modify Project operations to address Project-related flow fluctuations in the SFAR immediately below the Kyburz Diversion Dam if the FS*, ERC, and SWRCB* determine that such fluctuations adversely affect amphibian egg masses and tadpoles.

Frequency: For flow fluctuations in the SFAR downstream of Kyburz Diversion Dam and above Silver Creek, between June and September in the first 3 years after license issuance using the methods described above. This applies to both known site presence and flow change monitoring. After the third year, the need for continued monitoring after flow changes would be reassessed by the FS*, ERC, and SWRCB*.

For known site presence monitoring at the sites listed above: years 5, 10, 15, 20, 25, 30.

Rationale: Determination of presence and distribution of sensitive amphibian species and identification of breeding and larval periods are important in evaluating potential impacts resulting from streamflow modifications (particularly short-term fluctuations). Foothill yellow-legged frog monitoring would determine if any threshold is reached from project flow changes or fluctuations where this species is being affected in any life stage. Monitoring at the end of each 5-year period provides an index of changes in amphibian populations, following sufficient response time to streamflow modifications.

Mountain Yellow-legged Frog

Method: Protocol surveys for sensitive species using the procedures of CDFG (2001) in a subsample of appropriate habitat types to document species presence and distribution. Surveys would focus on presence of the larval stage at sites by periodically surveying reaches of known presence during spring/summer. If CDFG collects data associated with Lake Aloha and associated waters, that information can be used to satisfy this requirement after FS*, ERC, and SWRCB* review and approval.

Mountain yellow-legged frog Monitoring Sites:

- Echo Lake – Camp Harvey Tributary and associated ponds (EID site 440 T/L)
- Silver Lake (EID site 750LB)
- Camp Silverado (EID site 753IT)
- Caples Lake
- Lake Aloha and associated downstream ponds and habitats

Frequency: For the sites listed above, years 5, 10, 15, 20, 25, 30. For Lake Aloha ponds, year 1 and after any spill.

Rationale: Determination of presence and distribution of sensitive amphibian species are important in evaluating long-term population trends. Monitoring at the end of each 5-year period provides an index of changes in amphibian populations.

Monitoring to ensure trout are not currently in the ponds below Lake Aloha from water flowing over saddle dams 6 and 7 in the past and preventing water from overtopping those saddle dams in the future would help in the recovery of the mountain yellow-legged frog from Project effects.

6. ***Riparian Vegetation Species Composition***

Method: Collection of pertinent data along fourteen existing transects at eight study sites in representative habitat types. Methods in accordance with those used in Composition of Riparian Herb Communities on Streams with Regulated and Unregulated Streamflow, Eldorado National Forest, California (Harris and Lindquist 2000a). The study sites and transect locations are listed in this study.

Frequency: Every 5 years.

Rationale: Collection of transect data provides for more detailed evaluation of riparian condition and response to changes in streamflow regime. Monitoring at the end of each 5-year period provides an index of changes in riparian conditions over that period of modified streamflow (it should be noted that, depending on the water year cycle that occurs, 5 years may be a relatively short response time for riparian vegetation).

7. ***Riparian Vegetation Recruitment***

Method: Method is described in Riparian Vegetation Establishment and Survival on Caples Creek and Kirkwood Creek, Summer, 2000 (Harris and Lindquist 2000b). Data would be collected at 24 sites on two study reaches as described in

Harris and Lindquist 2000b.

Frequency: Every 5 years.

Rationale: The riparian recruitment study provides for evaluation of riparian condition and response to changes in the streamflow regime in the Caples Creek area. Monitoring at the end of each 5-year period provides an index of changes in riparian recruitment conditions over that period of modified streamflow (it should be noted that, depending on the water year cycle that occurs, 5 years may be a relatively short response time for riparian vegetation).

8. ***Geomorphology (Sensitive Site Investigation & Mitigation Plan Development)***
Method: A detailed investigation of fluvial geomorphic properties of the following reaches will be carried out:

- Caples Creek below the confluence of the Caples Lake Spillway channel to the Jake Schneider Meadow
- Caples Lake Spillway Channel
- Oyster Creek from Silver Lake to below the confluence with the tributary stream that would come from Highway 88

In Caples Creek, the site investigation will include, at the minimum, bedload transport, thalweg longitudinal profile, bank erosion pins, and analysis of plain form (bar and flood plain feature) strata. Consideration and development of mitigation measures (other than streamflow releases) to correct channel stability problems. The details of this investigation shall be consistent with Condition No. 38.

Frequency: Years 1 and 2.

Rationale: The fluvial geomorphology study (implemented from 1998-2002) results indicated a problem with channel stability in the Caples Dam spillway channel and Oyster Creek channel, with an apparent imbalance in bedload and streamflow in these reaches, and a potential impact on fluvial processes downstream. There is a need to further investigate these sites to determine the most effective method of stabilization. Channel sites with identified problems may benefit from the implementation of channel stabilization techniques.

9. ***Geomorphology (Continuing Evaluation of Representative Channel Areas)***
Method: Establishment and monitoring of permanent cross-section transects, longitudinal profiles, and channel properties in representative channel areas.

Measurement of cross-section profile and substrate composition at each transect. The following sites would be evaluated:

- Lower Echo Creek
- SFAR below the diversion dam
- Silver Fork at Forgotten Flat
- Caples Creek all 3 reaches + spillway channel
- Oyster Creek below Highway 88

Frequency: Years 5, 10, 15, 20, 25, 30.

Rationale: Monitoring of permanent cross-sections, in combination with channel properties, provides the basis for evaluating changes in channel condition. Sampling as part of the relicensing process has provided baseline data prior to streamflow modification and/or measurable response to streamflow modification. Monitoring at the end of each 5-year period provides an index of changes in channel condition relative to changes in streamflow regime.

6. *Water Temperature*

Water temperature shall be monitored at existing or selected gaging sites or stream segments affected by Project operations.

Method: Continuous recorders shall be used. Temperature profiles may be added if the FS*, ERC, and SWRCB* determine that reservoir temperatures are a controllable factor and a temperature problem is identified:

- Echo Lake
- Lake Aloha
- Caples Lake
- Silver Lake

Stream temperature monitoring will be conducted at existing or selected stream gaging sites or specific stream segments. Monitoring sites shall be determined in consultation with FS*, CDFG, and SWRCB*. Approval of final monitoring sites shall be by the FS *and SWRCB*. All water temperature monitoring shall be consistent with the Water Temperature Monitoring Plan in Condition No. 42.

Frequency: For streams, all years after license issuance until a subsequent license is issued or until it can been demonstrated by the licensee that operation of the Project reasonably protects the "cold freshwater" beneficial use as determined by

the *SWRCB,* FS*, and ERC*. For reservoirs, only if a determination as described above is made by *SWRCB,* FS*, and ERC*.

Rationale: Temperature monitoring is needed during summer on an annual basis to determine if the coldwater ecological resource objective is being met in designated Project reaches. Temperature monitoring is needed during spring to evaluate breeding conditions for amphibians. Temperature monitoring in the primary storage reservoirs is needed to understand the extent of coldwater availability. Some temperature stations may be deleted after FS*, ERC, and SWRCB* find sufficient temperature data have been collected and find no temperature issue exists for the relevant area.

5. ***General Water Quality***

Method: Monitoring of selected water quality parameters (total suspended sediments, turbidity, temperature, dissolved oxygen, pH, alkalinity, hardness, nitrate, copper, total coliform, and fecal coliform) using standard methods. Samples will be collected and analyzed 8 times per year during the first 3 monitoring years (March, May, June, July, August, September, first storm of winter season, and December except fecal coliform which will be collected May through September and requires repetitive sampling over a 30-day period) and quarterly during the other monitoring years (March, June, September, and December) at the following stations:

- Echo Creek below Echo Lake Dam
- Pyramid Creek below Lake Aloha Dam
- Caples Creek below Caples Lake Dam
- Silver Fork American River below Silver Lake Dam
- SFAR upstream of Kyburz Diversion Dam
- SFAR downstream of Kyburz Diversion Dam
- Carpenter Creek above Carpenter Creek Diversion Dam
- Carpenter Creek below Carpenter Creek Diversion Dam
- No Name Creek above No Name Creek Diversion Dam
- No Name Creek below No Name Creek Diversion Dam
- Alder Creek above of Alder Creek Diversion Dam
- Alder Creek below of Alder Creek Diversion Dam
- Mill Creek above Mill Creek Diversion Dam
- Mill Creek below Mill Creek Diversion Dam
- Bull Creek above Bull Creek Diversion Dam
- Bull Creek below Bull Creek Diversion Dam
- Ogilby Creek above Ogilby Creek Diversion Dam

- Ogilby Creek below Ogilby Creek Diversion Dam
- Esmeralda Creek above Esmeralda Creek Diversion Dam
- Esmeralda Creek below Esmeralda Creek Diversion Dam

Frequency: Years 1, 3, and 5 with subsequent year sampling frequency to be determined by the *SWRCB,* FS*, and ERC*.

Rationale: Monitoring in the first, third, and fifth years provides for the evaluation of changes in water quality with changes in the streamflow regime. Some water quality parameters and/or stations may be deleted after sufficient data are collected to indicate lack of a water quality issue.

21. ***Trout Monitoring at Lake Aloha***
Monitoring associated with Lake Aloha is described in Condition No. 33.

22. ***South Fork American River Flow Fluctuations Monitoring***
Monitoring associated with SFAR flow fluctuations is described in Condition No. 38.

23. ***El Dorado Canal Monitoring for Wildlife***
Monitoring associated with El Dorado Canal wildlife crossing structures, canal fencing, and wildlife mortality is described in Condition No. 43.

24. ***Heritage Resource Monitoring***
Monitoring associated with heritage resources is described in the Heritage Resource Management Plan.

25. ***Recreation Survey***
Monitoring associated with the recreation survey is described in Condition No. 47.

26. ***Review of Recreation Developments***
Monitoring associated with the review of recreation developments is described in Condition No. 49.

27. ***Target Lake Levels Evaluation***
Monitoring associated with lake levels is described in Condition No. 52.

Condition No. 38 – Ecological Resources Adaptive Management Program

The licensee shall, beginning as early as reasonably practicable within 3 months after license issuance, implement an ecological resources adaptive management program as described below. The program generally consists of: (a) implementation of a monitoring program and (b) specific adaptive management measures that shall be implemented if the monitoring program and other scientific information indicate that the applicable ecological resource objectives identified in Appendix B, Section 1, of the El Dorado Relicensing Settlement Agreement will likely not be met without adjustment of the initial streamflows and other initial conditions.

The ecological resources adaptive management program provides for an initial set of minimum streamflows and pulse flows to be implemented, followed by modified streamflow regimes. Monitoring shall be conducted to determine if the applicable ecological resource objectives are achievable and being met. Analysis of the monitoring results from a specified period shall be used to determine any needed changes in streamflow, or implementation of other adaptive management measures. Adaptive management decisions shall be based on monitoring results and other scientific information and a determination that the applicable ecological resource objectives identified in Appendix B, Section 1, of the El Dorado Relicensing Settlement Agreement are not being met and will likely not be met without application of the adaptive management measures.

For purposes of the ecological resources adaptive management program, each year is defined on a calendar year basis (i.e., January through December). Year 1 is defined as the first year during which all initial streamflows required by the license are implemented by May 1.

1. Monitoring Program

The licensee shall, within 3 months of license issuance, implement the monitoring program described in Condition No. 37.

2. Minimum Streamflows From Project Reservoirs Not Diverted into El Dorado Canal

The licensee shall not divert into the El Dorado Canal applicable minimum streamflow releases as specified in the tables in Condition No. 31 for the months listed below from Lake Aloha Dam, Caples Lake Dam, and Silver Lake Dam. These streamflows shall be combined with the minimum streamflows required at Kyburz Diversion Dam. The months in which this requirement would apply are listed in the table below. The licensee shall not divert these streamflows provided the FS*, in consultation with the ERC and SWRCB,* makes an affirmative determination, based on the first 5 years of monitoring results, that applicable

ecological resource objectives are not being met with the initial flow regime described in Condition No. 31.

Minimum Streamflows Adaptive Management	
Water Year	Applicable Months
Wet	September, October
AN	September, October
BN	August, September, October
Dry	July, August, September, October
CD	August, September, October, November

3. Caples Dam Spillway Maximum Flows

The FS may adjust the Caples Dam Spillway channel maximum flow of 60 cfs if results of the geomorphology monitoring elements described in Condition No. 37, subsections 6 and 7, indicate that these flows are resulting in damage to the Caples Creek Spillway Channel or it is determined, after channel stabilization and monitoring, that the channel can withstand higher flows without experiencing detrimental effects. The FS shall make the final determination as to whether the allowable spill flow shall be adjusted.

4. *Caples Creek Pulse Flows*

The licensee shall, after 5 years of implementation of the new license, and based on monitoring results from the Geomorphology monitoring elements described in Condition No. 37, subsections 6 and 7, increase pulse flows up to a maximum of 600 cfs, based on water year type, or change the duration of the existing pulse flow to a maximum of 10 days in Caples Creek if initial pulse flows are not effectively mitigating sediment/bedload transport or other fluvial processes problem caused by the Project. If monitoring indicates that the pulse flows are resulting in damage to the Caples Creek channel or if monitoring indicates that reduced pulse flows are effective in meeting the fluvial geomorphology objective described in Appendix B, Section 1, of the El Dorado Relicensing Settlement Agreement, the FS may decrease the magnitude of the pulse flows. The FS shall, *after consultation with the ERC and SWRCB,* make the final determination as to whether the pulse flow shall be increased, decreased, or whether the duration shall be lengthened.

Based on the following two studies, streamflows beyond the capability of the existing outlet works (350 cfs) may be conveyed to Caples Creek through the Caples Spillway Channel if the channel can be reconfigured to adequately handle these flows and meet resource objectives.

a. Feasibility Study: Within 2 years of license issuance, the licensee shall complete a Feasibility Study to determine whether the Caples Spillway Facility can be designed to convey adaptive management pulse flows that cannot be released through the existing outlet works into the Caples Creek natural channel in a manner that addresses resource concerns. The existing outlet works is capable of releasing up to 350 cfs. The spillway channel stabilization would need to be designed to convey the additional 250 cfs into Caples Creek. The licensee will ensure that appropriate staff from FS *and SWRCB and members of the ERC* are consulted during the development of the feasibility study, specifically to describe the problems with the existing spillway channel that need to be addressed in the study. The study will also include a cost estimate for this work and a cost estimate for redesigning the outlet works such that up to 600 cfs could be released directly into the Caples Creek natural channel. The study shall be approved by the FS*, SWRCB, and ERC*.

b. Caples Spillway Channel Stabilization Plan: Within 2 years of license issuance, the licensee shall develop a stabilization plan for the Caples Spillway Channel. The licensee will consult with appropriate staff from FS *and SWRCB and members of the ERC* in the development of the stabilization plan. The licensee shall implement the plan once it is approved by the FS*, SWRCB, and CDFG* and shall involve them in implementing the plan if they desire.

5. ***South Fork American River Flow Fluctuations***

In accordance with Condition No. 4, the FS and SWRCB reserve the authority, based on the first 3 years of monitoring results, to require modifications to Project operations to address Project-related flow fluctuations in the SFAR reach between the Kyburz Diversion Dam and Silver Creek that are determined to adversely affect amphibian egg masses and tadpoles. Monitoring shall be conducted June through September at any time the SFAR flow is 100 cfs or less and the diversion into the El Dorado Canal causes the flow in the SFAR below Kyburz Diversion Dam to change 50 cfs or more in 1 day. Any such change of 50 cfs or more during June through September shall be reported to the FS and ERC within 10 days.

6. ***Ecological Resources Committee***

The licensee shall, within 3 months of license issuance, in coordination with the Parties, establish an ERC for the purpose of assisting the licensee in the design of monitoring plans, review and evaluation of data, and preparation of adaptive

management measures for implementation by the licensee as provided in the Settlement. The licensee shall provide to FS, ERC, SWRCB, and FERC by June 30 of each year an annual report of the activities of the ERC. The licensee shall provide Notice to FERC within 30 days (but prior to implementing the change) of any decisions by the FS, ERC, or SWRCB that result in changes to Project operations.

Condition No. 39 - Mitigation for Entrainment

Within 6 months of license issuance, the licensee shall develop a plan for screening Carpenter and Alder Creeks for all life stages of trout. The plan shall be approved by the FS *and CDFG after consultation with the SWRCB and ERC* prior to the licensee's implementing the plan.

Condition No. 40 – Streamflow and Reservoir Storage Gaging Plan

The licensee shall, within 1 year after license issuance, develop and file for FERC approval a Streamflow and Reservoir Storage Gaging Plan (gaging plan) that meets United States Geological Survey (USGS) standards. The licensee shall provide copies of the gaging plan and USGS review results to the FS*, ERC, SWRCB, and FERC. The plan shall be approved by the SWRCB prior to filing with FERC.* The licensee shall implement the plan upon approval.

At a minimum, the plan shall address compliance gaging at the following locations:

Echo Creek below Echo Lakes Dam
Pyramid Creek below Lake Aloha Dam
Caples Creek below Caples Lake Dam
Silver Fork American River below Silver Lake Dam
Silver Fork American River below Oyster Creek
SFAR below Kyburz Diversion Dam
Carpenter Creek below Carpenter Creek Diversion Dam
No Name Creek below No Name Creek Diversion Dam
Alder Creek below Alder Creek Diversion
Mill Creek below Mill Creek Diversion Dam
Bull Creek below Bull Creek Diversion Dam
Ogilby Creek below Ogilby Diversion Dam
Esmeralda Creek below Esmeralda Creek Diversion Dam

The licensee shall perform an investigation to determine whether telemetry equipment can be installed at Lake Aloha to monitor conditions and/or control operations. If the licensee*, SWRCB,* and FS concur that such equipment is economically and technologically feasible and can be installed consistent with law, regulations, and policies

applicable to Desolation Wilderness, the licensee shall seek necessary approvals for such installation.

Condition No. 41 – Preferred Canal Drainage Structure and Release Point Plan
The licensee shall, within 1 year after license issuance, file with FERC a plan approved by the FS *and SWRCB after consultation with the ERC,* to designate preferred canal drainage structures and release points to be used in the event of an emergency and for maintenance, that will minimize adverse impacts to water quality. The licensee shall implement the plan upon approval.

Condition No. 42 – Water Temperature
The licensee shall, within 1 year after license issuance, develop and file with FERC a Water Temperature Monitoring Plan *that has been approved by the Chief of the Division of Water Rights for the SWRCB*. The licensee shall consult with the *ERC and* FS in development of the plan. The licensee shall implement the plan upon approval.

Condition No. 43 - Wildlife and Sensitive Plant Protection Measures

1. To protect wildlife from the hazards of open canals and other Project facilities, the licensee for the term of a new license for the Project shall maintain and operate in working condition all devices and measures for wildlife along the El Dorado Canal that are deemed necessary by the FS *and CDFG*.

    a. Ensure that all canal crossings and canal fencing on National Forest System lands and licensee adjoining property are maintained in functioning condition. The fencing, canal crossings, and approaches shall be inspected at least twice per year, in the spring and fall prior to deer migration. Fencing repairs or replacement necessary to prevent wildlife from entering the canal will be made and canal crossings will be maintained in a manner that will continually allow their use by wildlife. The licensee shall report the results of inspections and maintenance at the annual review meeting described in Condition No. 45.

    b. Within 6 months of license issuance, the licensee shall reconstruct those portions of the canal fence and crossing structures that do not meet the height and width specifications provided by CDFG, or shall develop a schedule for completing such work that is agreed upon by the FS *and CDFG*. In consultation with the FS *and CDFG*, the licensee shall construct fencing for an effective distance upcanal and downcanal from the existing crossing structures that remain unfenced.

    c. The licensee shall maintain weekly records of terrestrial wildlife occurrence

and mortality in the El Dorado Canal at each of the five Ditch Camps along the canal. The licensee shall provide the FS *and ERC* by April 1 of each year an annual report describing the date, location, and species information (deer or other wildlife) found in the El Dorado Canal. In consultation with the agencies listed in Condition No. 45, the FS *and ERC* shall review these data and determine the amount, kind, and location of any additional future fencing at the annual meeting described in Condition No. 45. Within 3 years of license issuance, the agencies listed in Condition No. 45 will determine the need to fence the remaining unfenced portions of the canal. The licensee will construct the required fencing within 2 years of this determination, in accordance with CDFG fence specifications.

2. Before commencing any new construction or maintenance (including but not limited to proposed recreation developments) authorized by the license on National Forest System lands that may affect a FS sensitive species or its habitat, the licensee shall ensure that a biological evaluation (including necessary surveys) is completed that evaluates the potential impacts of the action on the species or its habitat and follows the recommendations in the biological evaluation determined necessary by the FS. The operations and maintenance plan referenced in Condition No. 45 will assist the FS in determining whether a biological evaluation is necessary for any annual maintenance. The biological evaluation must be approved by the FS. In consultation with FERC, the FS may require mitigation measures for the protection of sensitive species. *Before commencing any activities to construct (including but not limited to proposed recreation developments), operate, or maintain the Project that may affect a species proposed for listing or listed under the federal Endangered Species Act, or that may affect that species' critical habitat, the licensee shall ensure that a Biological Assessment that evaluates the potential impacts of the action on the species or its critical habitat is prepared and reviewed by the FS prior to the licensee submitting the Biological Assessment to the relevant Service agency (United States Fish and Wildlife Service or National Marine Fisheries Service) for consultation or conference in accordance with the Endangered Species Act.*

3. If occurrences of FS sensitive species are detected prior to or during ongoing construction, operation, or maintenance of the Project or during Project operations, the licensee shall immediately notify the FS. If the FS determines that the Project-related activities are adversely affecting the sensitive species, the licensee shall, in consultation with the FS, develop and implement appropriate protection measures.

Condition No. 44 – Noxious Weeds

The licensee has developed a Noxious Weed Plan for the prevention and control of Project-related noxious weeds. Within 6 months of license issuance, the plan must be approved by the FS and filed with FERC. The licensee shall implement the plan upon approval.

The licensee shall use certified weed-free straw for all construction or restoration needs. If certified weed-free straw is not available, rice straw may be substituted. The licensee shall comply with the Eldorado National Forest and Lake Tahoe Basin Management Unit prescriptions for seed, mulch, and fertilizer for restoration or erosion control purposes.

Condition No. 45 - Annual Review of Ecological Conditions
Each calendar year, by April 1, the licensee shall schedule and facilitate a meeting with the FS*, CDFG, and SWRCB* to review and discuss the results of implementing these conditions, as well as to discuss other issues related to preserving and protecting ecological values affected by the Project. The licensee shall make available to the FS *and SWRCB* 2 weeks prior to the meeting, an operations and maintenance plan for the year in which the meeting occurs. The meeting may also include the United States Fish and Wildlife Service. This meeting may be combined with the Consultation meeting required in Condition No. 4, if feasible.

B. Recreation Resource Management

Condition No. 46 – Implementation Plan
A recreation implementation plan shall be developed by the licensee in coordination with the FS within 6 months of license issuance. The implementation plan shall include a construction schedule for the recreation facilities specified in Condition No. 50, as well as other details related to recreation resources, including but not limited to signing and sign placement, public information dissemination, a schedule for design of facilities to be reconstructed, and consideration of measures to improve efficiencies (such as in areas with joint operation or operation of adjacent facilities). The implementation plan shall be maintained and updated in conjunction with the review of recreation developments required in Condition No. 49.

Condition No. 47 - Recreation Survey
The licensee shall conduct a Recreational Survey and prepare a Report on Recreational Resources that is approved by the FS every 6 years from the date of license issuance. The Recreational Survey shall include, but not be limited to, changes in kinds of use and use patterns, levels of use, user survey as to preferences in recreation activities, kinds and sizes of recreation vehicles, preference for day use versus overnight use, carrying capacity information sufficient to indicate changes in capacity, and recreation user trends within the Project area. The Report on Recreational Resources shall comply with FERC's

regulations at 18 CFR section 4.51(f) (1996), or as amended, and shall be provided to FS for review and comment prior to being filed with FERC. Within 1 year of submission of the Report on Recreation Resources, the FS, ERC, and other interested parties will meet to discuss the results of the Report and make recommendations to address the findings. In accordance with Condition No. 4, the FS reserves the authority to require changes in the Project and its operation to accomplish protection and utilization of National Forest resources identified as a result of these surveys.

The licensee will not be required to construct additional recreational improvements as the remedy for a FS determination that carrying capacity is being exceeded anywhere in the Project area. The licensee may be required to address resource impacts from Project-related recreation.

Condition No. 48 – Forest Service Liaison
The FS and the licensee shall each provide an individual for liaison whenever planning or construction of recreation facilities, other major Project improvements, and maintenance activities are taking place within the National Forest. The licensee agrees to cooperate with the FS through this individual in contract review and work inspection.
Condition No. 49 - Review of Recreation Developments
The FS and the licensee shall meet at least every 6 years to review all recreation facilities and areas associated with the Project and to agree upon necessary maintenance, rehabilitation, construction, and reconstruction work needed and its timing, as described in Conditions No. 49 and 50. The criteria for project selection will be dependent on the amount and type of use, current recreation facility policy, condition of facilities, impacts to surrounding areas, and other factors. Following the review, the licensee shall develop a 6-year schedule for maintenance, rehabilitation, and reconstruction, which shall be approved by the FS prior to being filed with FERC.

The following recreation facilities, which are associated with the Project, shall remain inside the Project boundary: Silver Lake East Campground, Caples Lake Campground, Caples Lake Dam Parking Area, Caples Lake Boat Ramp and Picnic Facility (when constructed), Echo Lakes Trailhead and Upper Parking Facility, and Pacific Crest Trail Crossing of the Echo Lake Conduit. If these facilities are not currently within the license boundary, the boundary shall be adjusted to include them.

Condition No. 49 - Review of Recreation Developments
The FS and the licensee shall meet at least every 6 years to review all recreation facilities and areas associated with the Project and to agree upon necessary maintenance, rehabilitation, construction, and reconstruction work needed and its timing, as described in Conditions No. 49 and 50. The criteria for project selection will be dependent on the amount and type of use, current recreation facility policy, condition of facilities, impacts

to surrounding areas, and other factors. Following the review, the licensee shall develop a 6-year schedule for maintenance, rehabilitation, and reconstruction, which shall be approved by the FS prior to being filed with FERC.

The following recreation facilities, which are associated with the Project, shall remain inside the Project boundary: Silver Lake East Campground, Caples Lake Campground, Caples Lake Dam Parking Area, Caples Lake Boat Ramp and Picnic Facility (when constructed), Echo Lakes Trailhead and Upper Parking Facility, and Pacific Crest Trail Crossing of the Echo Lake Conduit. If these facilities are not currently within the license boundary, the boundary shall be adjusted to include them.

Condition No. 50 – Specific Recreation Conditions
The construction of the following recreation facilities is to be completed by the licensee at the recreation sites listed below. The construction schedule will be approved by the FS. The FS will be responsible for survey, design, contract preparation, and contract administration of the facilities; the licensee will be responsible for funding these items.

1. ***<u>Silver Lake East Campground</u>***

Within 5 years of license issuance, the licensee shall reconstruct the paved surfaces, toilets, and water system at the 62-unit Silver Lake Campground, including upgrade of this facility to meet the current FS design standards and the USDA Forest Service Region 5 accessibility standards requirements of the Americans with Disabilities Act (ADA). The following describes the specific elements of this condition.

a. Replace all toilets with accessible toilets relocated to reduce the distance from camp units to the toilets and to avoid the steeper road grades. Construct paved parking turnouts in front of each toilet with a paved access route to the toilet.

b. Replace and relocate adjacent to the roadway all faucet units with accessible ones. Construct a paved area at all the faucet units to the most current accessibility standards.

c. Widen spurs for units 2, 3, 4, 8, 9, 11, 13, 14, 19, 20, 29, 44, 46, 47, 48, 49, 50, 51, 52, and 53 to meet most current accessibility standards. Re-construct and pave all spurs.

d. Prepare existing campground roads for resurfacing by patching, scarifying, or other methods, as determined by the FS. Place asphalt overlay on campground road.

e. Replace all waterlines, including the distribution lines within the campground and the collection lines from the source to the facility.

6. ***Caples Lake Campground***

Within 10 years of license issuance, the licensee shall reconstruct the paved surfaces, toilets, and water system at the 36-unit Caples Lake Campground, including upgrade of this facility to meet the most current FS design standards and the USDA Forest Service Region 5 access standards and the Americans with Disabilities Act. The following describes the specific elements of this condition.

a. Replace existing toilets with 4 single-unit accessible vault toilets. Relocate the new toilets to provide for easier access and less distance from the camp units. Also construct a paved parking turnout in front of each toilet for servicing and for parking access.

b. Replace and relocate all the faucet units adjacent to the roadway. Provide a level and paved pad in front and on the sides of the faucet unit.

c. For all pathways between camp units and spurs/roadway, remove ground protrusions, re-grade and widen the pathways, and compact the native surface where feasible and deemed appropriate by the FS. Meet most current grade and cross-slope accessibility standards for access to units 2, 3, 4, 5, 7, 11, 23, 24, 33, 34, and 35.

d. Widen spurs where feasible to meet most current accessibility standards. Re-construct and pave all spurs.

e. Prepare existing campground roads for resurfacing by patching, scarifying, or other methods, as determined by the FS. Place asphalt overlay on campground road.

f. Remove obstacles and protrusions, and level and compact the native surface at each camp unit. Enlarge the camp units to a minimum of 900 square feet where feasible and when deemed appropriate by the FS. Grades of all the camp units shall be re-constructed to the most current accessibility standards including clear space around facilities.

g. Replace all waterlines, including the distribution lines within the campground and the collection lines from the source to the facility.

1. ***Caples Lake Dam Parking***

Within 5 years, the Caples Lake Dam Parking area shall be reconstructed and

upgraded to meet the current FS design standards and the USDA Forest Service Region 5 access standards and the Americans with Disabilities Act. The licensee shall be responsible for one-half of the cost of reconstruction. The following describes the specific elements of this condition.

a. Replace the toilet seats with 18-inch high seats. Install approved accessible signing on the exterior of the toilet.

b. Replace one garbage container with one that is bear proof and accessible.

c. Construct a van-accessible parking space near the toilet, with required markings and signage.

4. ***Caples Lake Boat Launching Facility***

Within 7 years of license issuance, the licensee shall construct a new boat launching ramp, associated parking lot, toilet facilities, access road, and picnic area at Caples Lake on land designated by the FS, located on the northeast end of the lake. The licensee shall be responsible for the construction of the ingress and egress from State Highway 88. The FS shall be responsible for the access road from Highway 88 to the facility. The FS shall make a good faith effort to assist the licensee in obtaining funding from other sources, including but not limited to California Department of Boating and Waterways, if the licensee decides to seek such funding. The licensee shall be responsible for the full cost of constructing this facility in the event that the FS is unable to obtain funding prior to 7 years after license issuance. Construction of this facility will be delayed until 10 years after license issuance if the licensee is responsible for the full cost of construction. In the event that the facility site is totally, or a majority of the site is, on National Forest System lands, the FS shall be responsible for surveying, planning, and designing the boat launch ramp and associated picnic area and parking lot. In this event, the licensee shall be responsible for funding the survey, planning, design and construction of the facilities. The boat launching ramp, associated parking lot, toilet facilities, access road, and picnic area shall be owned by the FS but operated and maintained by the licensee. The licensee shall be responsible for funding the rehabilitation of paved surfaces at the facilities as further described in Condition No. 51. In the event that the facility site is situated totally, or a majority of the site is, on lands owned by the licensee, the licensee shall be responsible for survey, planning, a design approved by the FS, and construction of the facilities, following FS approval of the design.

5. ***Information Kiosk on Highway 88***

Within 5 years of license issuance, the licensee shall construct an information kiosk to FS specifications, at a location agreed to by the FS. After construction,

the licensee shall maintain the kiosk structure to meet FS Region 5 standards as set forth in Condition No. 51.

6. Martin Meadow Overflow Camping Area

Within 5 years of license issuance, the licensee shall make the following improvement at the Martin Meadows Overflow Camping Area to address recreation impacts: Install barrier rocks to restrict uncontrolled vehicle travel. The FS will make available the barrier rocks from a site identified by the FS.

7. Echo Lakes Upper Parking Facility

Within 10 years of licensee issuance, the licensee shall provide one-half of the cost of the following elements for the Echo Lakes Upper Parking Facility, unless the licensee is unable to acquire a grant to build the Caples Lake Boat Launching Facility, as described in Condition No. 50, Number 4, above, in which case the licensee is not responsible for one-half the cost of the following elements:

a. Prepare existing parking facility for resurfacing by patching, scarifying, or other methods, as determined by the FS.

b. Place asphalt overlay on parking area.

8. Pacific Crest National Scenic Trail Crossing

Within 5 years, the licensee shall construct a crossing for the Pacific Crest National Scenic Trail across the Echo Conduit, to meet current FS design standards, at a location agreed to by the FS.

Condition No. 51 - Operation and Maintenance of Recreation Facilities

1. Caples Lake Dam Parking

The licensee shall be responsible for one-half of the following annual maintenance items:

a. Routine cleaning, repair, and maintenance of all constructed features within the developed site.

b. Toilet pumping.

c. Trash removal/litter pick-up within the site.

d. Maintenance of signboards and the information on those signboards to FS standards.

e. Vegetation management.

1. ***Caples Lake Boat Launching Facility***

At such time as facilities are constructed at this site, the licensee shall be responsible for operating and maintaining the boat launching ramp, associated parking lot, and other public facilities constructed at this site. The licensee shall also be responsible for maintenance of signboards. The FS shall be responsible for maintaining the information on those signboards to FS standards, in the event that this facility is totally, or a majority of the facility is on, National Forest System lands. Fees may be charged at the site, after consultation with the FS, provided the collection of fees is permissible under the terms of other funding sources.

6. ***Echo Lakes Trailhead***

The licensee shall be responsible for the following annual maintenance items, unless the licensee is unable to acquire a grant to build the Caples Lake Boat Launching Facility, as described in Condition No. 50, Number 4, above, in which case the licensee is no longer responsible for these maintenance items. The licensee shall be responsible for the cost of these items while a grant is pursued but shall be responsible no longer than 7 years unless a grant is acquired.

a. Toilet pumping.

b. Trash removal/litter pick-up within the site.

4. ***Information Kiosk on Highway 88***

The licensee shall maintain the kiosk structure, to meet FS Region 5 standards.

5. ***Special Use Administration Funding***

The licensee shall annually pay, by October 1, the amount of $4,800 (year 2002 cost basis) to provide for performing monitoring and permit compliance assurance for the campground concessionaire special use permits at Caples Lake Campground and Silver Lake East Campground. The costs shall be escalated based on the U.S. Gross Domestic Product – Implicit Price Deflator (GDP-IDP).

6. ***Heavy Maintenance***

a. The licensee will be responsible for the cost of the necessary maintenance, rehabilitation, and reconstruction, including the costs of design and administration, as determined through the Review of Recreation Developments (as described in Condition No. 49) for the following tasks or improvements at the following Project recreation facilities: Silver Lake

East Campground and Caples Lake Campground: Licensee is responsible for roads, spurs, and other paved surfaces unless the licensee is unable to acquire a grant to build the Caples Lake Boat Launching Facility, as described in Condition No. 50, Number 4, above, in which case the licensee is not responsible for replacing the paved surfaces after the initial reconstruction described in Condition No. 50, Numbers 1 and 2.

b. Caples Lake Boat Launching Facility: Licensee is responsible for all heavy maintenance. The FS will make a good faith effort to assist the licensee in obtaining funding from other sources including, but not limited to, California Department of Boating and Waterways, if the licensee decides to seek such funding.

c. Caples Lake Dam Trailhead: Licensee is responsible for 50 percent of the cost of heavy maintenance.

d. Pyramid Creek Trailhead: Licensee is responsible for 18 percent of the cost of heavy maintenance.

e. Highway 88 Information Kiosk: Licensee is responsible for heavy maintenance of the kiosk structure.

Heavy maintenance and rehabilitation for items b through d are defined as work that is necessary to keep existing facilities in serviceable condition to meet FS standards and includes components of recreation facilities such as water systems, traffic control barriers, roads, spurs, and associated drainage structures, grills and firerings, picnic tables, toilets, and signboards. The FS shall use FS standards for the frequency of heavy maintenance as a guideline, but not a prescription, for licensee's performance of its heavy maintenance responsibilities. As determined through the Review of Recreation Developments (as described in Condition No. 49), heavy maintenance projects may be deferred that would otherwise be timely under FS frequency standards, if the FS determines that actual conditions indicate that the project is not yet necessary.

7. ***Dispersed Area Patrol Funding on Lands Affected by the Project***

The licensee shall annually pay, by October 1, $25,000 (year 2002 cost basis). The cost shall be escalated based on the U.S. Gross Domestic Product – Implicit Price Deflator (GDP-IDP). These funds are to provide for patrol and operation of non-concessionaire developed and dispersed recreation facilities, as well as trails and other locations utilized by visitors to the Project, within and adjacent to the Project boundary. Work to be completed within these areas is separated into four units, each having different types and levels of associated work: Upcountry Highway 88 Unit, Silver Fork Unit, Pyramid Creek Unit, and Lake Aloha/Echo

Lakes Unit. The licensee shall annually provide a boat and operator at least twice each season (time to be determined by mutual agreement between the licensee and the FS) on Caples Lake and Silver Lake to share with the FS in policing the shoreline along Silver Lake and Caples Lake, and to clean up litter.

8. Licensee Recreation Sites

Within 10 years of license issuance, the licensee shall bring the Ferguson Point, Sandy Cove, Woods Creek Fishing Access, and Silver Lake West recreation facilities or equivalent locations into compliance with accessibility standards for the Americans with Disabilities Act. These facilities, along with the Silver Lake Boat Ramp, shall continue to be operated and maintained by the licensee throughout the term of the license.

Condition No. 52 – Target Lake Levels and Minimum Pool

1. Echo Lakes

The licensee shall operate Echo Lakes such that the channel between the Upper and Lower Echo Lakes is navigable by motorized watercraft, between July 1 and Labor Day of each year, while still complying with minimum streamflow or other conditions and requirements. If the licensee anticipates that the reservoir will not meet this target level for reasons other than non-discretionary releases by the licensee, FS*, ERC, SWRCB, and FERC* shall be notified in writing, within 10 days of this determination, and provided an explanation of why the target reservoir level will not be attained.

2. Caples Lake

The licensee shall operate Caples Lake as follows:

Caples Lake							
			End of Month Lake Levels by Water Year				
	Month		In Acre-Feet				
			CD	DRY	BN	AN	WET
	JUNE		18704	18704	22338	22338	22338
	JULY		18413	18646	22089	22338	22338
	AUGUST		14376	14376	18006	18006	18006
	SEPT		14376	14376	18006	18006	18006

The lake levels described above are target values. If the licensee cannot achieve the target level for any month from June through September, the licensee shall not make, or shall cease making as soon as it is able to determine this, discretionary releases from Caples Lake in that month.

Using the forecasting method described in Condition No. 31, subsection Water Year Types, the licensee shall annually, by March 15, provide a preliminary evaluation of the water year type and consult with the FS*, ERC, and SWRCB* to

determine the anticipated June through September lake levels for the year based on that water year type and the table above. As described in Condition No. 31, subsection Water Year Types, the licensee shall, between May 1 and May 5 of each year, make the final water year type determination, and shall, within 10 days, so inform the FS*, ERC, and SWRCB*. The final water year type selected for operations during the year will be subject to approval by FS *and SWRCB*.

The licensee shall report to the FS*, ERC, and SWRCB* any changes in its operations or factors beyond its control that render it unable to meet the target lake levels. The licensee shall make this report within 5 days of discovering its inability to meet a target. The licensee shall also, within 30 days, inform FERC. *Members of the ERC or* the FS may request a meeting of the ERC to review proposed or implemented operational changes, or other factors, that make it impossible to meet a June through September lake level target.

During the fall and early winter of each year, the licensee shall attempt to operate Caples Lake so that target lake levels are likely to be met in the following summer. Such operation may include, but is not limited to, maintaining adequate storage in Caples Lake in early winter (model results to date indicate that necessary storage may be as high as 13,000 acre-feet on November 30). The licensee shall maintain a target minimum pool in Caples Lake of 10,000 acre-feet. If the licensee anticipates reducing the level of Caples Lake below the 10,000 acre-foot target level, such as during a water year when spill is a concern, the licensee shall notify the FS*, ERC, and SWRCB* within 5 days and shall provide them a detailed explanation as to why the target lake level is anticipated to be reduced.

As described in Condition No. 31, subsection Water Year Types, the licensee shall, within 1 year of license issuance, develop a forecasting method and associated operating plan that will be used to re-assess the water year type and to adjust minimum streamflows at Caples Lake Dam and Kyburz Diversion Dam during the months of January and February, in order to address lake levels at Caples Lake. The forecasting method shall be used to evaluate the water year type designations governing operations for January and February. The method and plan shall be approved by the FS*, ERC, and SWRCB* prior to filing the method and plan with FERC. Once approved by FERC, the licensee shall operate Caples Lake Dam and Kyburz Diversion Dam for the months of January and February, beginning on the 5th day of each of these months, based on the approved forecasting method and operating plan. The licensee shall provide notice to the FS*, ERC, and SWRCB* of the water year type designation governing operations for January and for February within 5 days of making each determination. After

February, the forecasting method shall be consistent with the method described in Condition No. 31, subsection Water Year Types (using Bulletin 120 or duly approved alternate forecasting tool).

3. ***Silver Lake***

Notwithstanding any other provision of this section, the licensee shall not release prior to Labor Day of each year water from Silver Lake for consumptive use, power production, rediversion, maintenance, or other purposes, excluding any non-discretionary releases required by FERC or the State Division of Safety of Dams.

Between Labor Day and September 15, the licensee shall not make discretionary releases from Silver Lake unless a Stage 1, 2, or 3 Emergency Notice is issued during this time period by the Independent System Operator (ISO) or a similar equivalent alert is issued by the ISO or its institutional successor. In cases where such an Emergency Notice is issued in this time period, the licensee shall, once the Project is no longer subject to Emergency status and the Forebay has been replenished to pre-Notice levels, discontinue discretionary releases until after September 15. Releases from Silver Lake in situations where a Stage 1, 2, or 3 Emergency Notice is issued between Labor Day and September 15 shall not draw Silver Lake down to a stage lower than 12.0 feet as measured on the gage at the outlet works on September 15.

After September 15 of each year, discretionary releases from Silver Lake may be made, with the limitation that stage height on September 30 shall be no less than 12.0 feet as measured on the gage at the outlet works. If Silver Lake reaches a stage height of 12.0 feet prior to September 30 because of pre-September 15 discretionary releases under the preceding paragraph, the licensee shall make no further discretionary releases in September.

The annual, as opposed to emergency, maintenance period for the El Dorado Canal and Akin Powerhouse shall be scheduled by the licensee to begin no later than October 3rd of each year. From the time maintenance begins until the time that maintenance that requires the non-operation of the El Dorado Canal and/or Akin Powerhouse is completed, release from Silver Lake shall meet the minimum flow requirements in the Silver Fork American River, and, where applicable, may also be used to meet that portion of the minimum flow at Kyburz Diversion Dam not being met from other sources. Further, release from Silver Lake may also be increased after October 15 in cases where this is necessary to reach the 12.0-foot stage by October 25.

Silver Lake stage shall be no less than 7.4 as of November 1 of each year.

If the licensee is unable to operate the El Dorado Canal at any time between September 15 and September 30 of any year, the licensee shall make no discretionary releases from Silver Lake during canal downtime between September 15 and September 30 of that year.

In years where the licensee is able to operate the El Dorado Canal, but is unable to operate the Akin Powerhouse at any time between September 15 and September 30, the licensee shall limit discretionary releases from Silver Lake during that powerhouse downtime between September 15 and September 30 according to the following system of priorities:

Water required to meet consumptive needs at Forebay, plus the required minimum flow at Kyburz Diversion Dam, shall first be drawn from accretion between the high lakes and Kyburz Diversion Dam, shall second be drawn from the required minimum flow from Caples Lake Dam, Lake Aloha Dam, and Silver Lake Dam and from leakage from Silver Lake, and shall third be drawn from the maximum available release from Echo Lakes. Any additional water required to meet consumptive needs at Forebay plus required minimum flow past Kyburz Diversion Dam may be met using discretionary releases from Silver Lake, without, however, dropping the level of Silver Lake below the 12.0 stage at the end of September.

Notwithstanding any or all of the above, the licensee shall meet the minimum streamflow release requirement from Silver Lake Dam.

The licensee shall attempt to inform the FS*, ERC, and SWRCB* of the estimated duration of the annual maintenance period by the date described in Condition No. 45 for completion of the operations and maintenance plan but shall notify those Parties no later than July 1. The licensee shall post and update this information on its website.

4. ***Lake Aloha***

The licensee shall operate Lake Aloha in such a manner as to comply with the End-of-Month Lake Level Operational Requirements established in California State Water Resources Control Board Decision 1635 as modified by Order WR 2001-22. If the licensee anticipates that the reservoir will not meet this target level, FS, ERC, SWRCB, and FERC shall be notified in writing, within 10 days of this determination, and provided an explanation of why the target reservoir level will not be attained.

5. ***Target Lake Level Monitoring and Adjustment***

Within 5 years of license issuance, and every 5 years thereafter, the licensee shall prepare a report describing whether the target lake levels have been achieved, and if not, the reasons and time periods when the target lake levels were not achieved. The licensee shall provide a copy of the report to the FS, ERC, SWRCB, and FERC.

Condition No. 53 – Public Information Services

1. ***Streamflow and Lake Level Information***

The licensee shall make recreation streamflow and lake level information available to the public via toll-free telephone and internet. The licensee shall, within 1 year of license issuance, submit a plan to FERC that addresses, at a minimum, information on lake levels, real-time streamflows, simple staff gages, forecasting, and operations projections. The plan shall be *reviewed by the ERC and* approved by the FS *and SWRCB* prior to filing with FERC. Following approval, the minimum streamflow schedules from Condition No. 31 and current water year type information shall be published on the licensee's website.

At a minimum, the licensee shall provide hourly averages of streamflows for gages on the SFAR below Kyburz Diversion Dam and Silver Fork American River, and shall, within 4 hours, post the information on the licensee's website for the current and prior 7 days for the entire year. All streamflow values shall be in cfs rounded to the nearest whole number, and plots or tables showing these data will be labeled as follows: "These provisional data have not been reviewed or edited and may be subject to significant change."

2. ***Recreation Information***

The licensee shall provide public information relating to recreation opportunities, restrictions, and responsibilities associated with Project-related recreation facilities at a level approved by the FS. The licensee has the option to fund the FS for this work.

3. ***Project Recreation Brochure/Map***

Within 5 years of issuance of the license, the licensee shall develop and print a brochure and map that describe the recreation opportunities, recreation facilities, rules, and responsibilities for the area of the Project, including the lakes and streams. The brochure will be provided to the FS for review and approval prior to completion. The licensee shall make the brochure/map available to the public free of charge. The brochure/map shall be made available continuously throughout the remaining license period and shall be updated as conditions change.

4. ***Winter Safety Signs***

The licensee shall annually install prominent signs at Caples Lake, Silver Lake, and Echo Lakes during the winter season that warn visitors of unstable snow and ice conditions. The licensee shall remove these signs annually after the winter season. Signs shall be installed in accordance with Condition No. 24.

C. Visual Resource Management

Condition No. 54 – Visual Resource Protection

During planning and prior to any new construction or maintenance of facilities that have the potential to affect visual resources of National Forest System lands (including, but not limited to, the recreation related construction), the licensee shall file with FERC a plan approved by the FS for the protection and rehabilitation of National Forest System visual resources affected by the Project. At a minimum, the plan shall address clearings, spoil piles, and Project facilities like diversion structures, penstocks, pipes, ditches, powerhouses, other buildings, transmission lines, corridors, and access roads. The plan shall address facility configurations, alignments, building materials, colors, landscaping, and screening. The plan shall provide a proposed mitigation and implementation schedule to bring the Project facilities affecting visual resources on National Forest System lands into compliance with visual resource standards and guidelines in the Eldorado National Forest Land and Resource Management Plan and the Lake Tahoe Basin Management Unit Land and Resource Management Plan. The licensee shall implement the plan upon approval by the FS.

Mitigation measures identified for either the visual resource plan for new construction or the measures identified for existing facilities shall include, but are not limited to: (1) surface treatments with FS-approved colors and natural appearing materials that will be in harmony with the surrounding landscape, (2) use of non-specular conductors for the transmission lines, (3) use of native plant species to screen facilities from view, (4) reshaping and revegetating disturbed areas to blend with surrounding visual characteristics, and, (5) locating transmission facilities to minimize visual impacts.

The licensee shall implement the following measures at existing facilities within 2 years of license issuance:

1. ***Lower Echo Lake Spillway:*** Paint the metal components of the walkway across the spillway a non-reflective black color. Perform a visual inspection every 2 years and touch-up or re-paint as necessary to maintain the facility in good condition.

2. ***Caples Lake Auxiliary Dam:*** Paint the metal components of the stairway to the dam and walkway across the dam a non-reflective black color. Perform a visual inspection every 2 years and touch-up or re-paint as necessary to maintain the

facility in good condition.

3. ***Silver Lake Dam***: Paint the metal components of the stairway, ramps, and handrail associated with the west side dam that are visible from the new bridge a non-reflective black color. Perform a visual inspection every 2 years and touch-up or re-paint as necessary to maintain the facility in good condition.

D. *Heritage Resource Management*

Condition No. 55 - Heritage Resources

Within 6 months after license issuance, the licensee shall complete a Heritage Properties Management Plan (HPMP) for FS approval. The HPMP will be incorporated into the Programmatic Agreement (PA) by reference. The HPMP will take into account Project effects on prehistoric and historic resources, Native American traditional cultural values, direct and indirect effects to heritage resources within the area of potential effect, ethnographic studies, historic archaeological studies, and Project-related recreation impacts to archaeological properties affecting National Forest System lands. The HPMP shall also provide measures to mitigate the identified impacts, a monitoring program, and management protocols for the ongoing protection of archaeological properties. The plan shall be filed with FERC. The licensee shall implement the plan upon approval.

Condition No. 56 - Heritage Resource Discovery

If, prior to or during ground disturbance 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 property, the licensee shall immediately cease work in the area so affected. The licensee shall then notify the FS and shall not resume work on ground disturbing activities until it receives written approval from the FS.

If it deems it necessary, the FS 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 FS.

E. Transportation and Facilities Management

Condition No. 57 - Transportation System Management Plan

Within 1 year of license issuance, the licensee shall file with FERC a Transportation System Management Plan that is approved by the FS for roads on or affecting National Forest System lands. The plan shall establish the level of licensee responsibility for Project-related roads. The licensee shall have primary responsibility for non-system roads and for maintenance level 1 and 2 roads. There shall be shared levels of

responsibility for maintenance level 3, 4, and 5 roads. The FS shall make available to the licensee all information it has about these roads. The licensee shall implement the plan upon approval. At a minimum the Plan shall:

1. Include a map showing all roads, both FS system roads (classified), and FS non-system (unclassified) roads associated with the Project.

2. Identify the project related uses of all roads described above, including an estimate of the amount of use by season of the year.

3. Identify the condition of the roads described above that are determined to be the primary responsibility of the licensee, including any construction or maintenance needs. Information shall include length and width of road, location and size of culverts, grade, slope position, hydrologic connectivity, surfacing, and jurisdiction sufficient for the FS to complete the roads use permit Exhibit A and to complete any required Roads Analysis.

4. Include a map of all roads described above that are determined to be the responsibility of the licensee. Include both safety and destination/distance information signs at major road intersections and features. An inventory of all signs, together with photographs of each sign, shall be included. Mapping shall be completed using global positioning system (GPS) instrumentation and made available as a digital format layer. Signs shall conform to FS Manual direction.

5. Include a map of all drainage crossings of bridges and culverts for all roads described above that are determined to be the responsibility of the licensee. Provide hydraulic calculations verifying that all intermittent and perennial stream crossings shall pass a 100-year storm event and associated bedload and debris, and allow fish passage through all culverts identified as fish habitat areas. The licensee shall develop a plan for FS approval to upgrade those culverts not meeting this standard. Priority for upgrading will be based on the potential impact to the ecological value of the riparian resources effected.

6. Address measures to control erosion related to Project facilities on or affecting National Forest System lands, including dams, roads, penstocks, powerlines, transformer sites, reservoirs, and reaches. Consider stream sedimentation, dust, and soil movement induced by Project roads and road maintenance activities, preventing loss of roads through ongoing hillside erosion, sediment management of roads within 150 feet of any river, and diversion prevention dips in specified areas to minimize damage from culvert failure.

7. Identify helispots routinely used to access Project facilities on National Forest System lands, including any staging areas and access roads. Include notification standards for FS (Camino dispatch), including radio frequencies and N (tail) numbers.

Once the plan is completed, adjustments to the Project boundary may need to be made to include some of the roads.

Every 5 years, the licensee shall prepare a 5-year plan to identify the maintenance and reconstruction needs for roads associated with the Project. The licensee shall file the plan with FERC after approval by the FS. All road maintenance and construction shall meet FS specifications and best management practices.

The licensee shall construct, operate, and maintain Project facilities, including roads, parking and storage lots, reservoir shorelines, bridges, and culverts to maintain natural fluvial and colluvial sediment transport to the Project reaches, as far as feasible.

All road maintenance and construction shall meet FS specifications and best management practices.

Within 5 years of license issuance, the licensee shall replace the gate at Caples Lake Second Dam.

Condition No. 58 - Trails System Management Plan

Within 1 year of license issuance, the licensee shall file with FERC a Trails System Management Plan that is approved by the FS for the trails that are needed for Project operations and are located on or affect National Forest System lands. The licensee shall implement the plan upon approval. At a minimum the Plan shall:

1. Include a map showing the location of all trails, both FS system (classified) trails and FS non-system (unclassified) trails associated with the Project.

2. Map trail locations using a global positioning system (GPS), software, pre-and post-processing standards, collection standards and data dictionary approved by the FS, to ensure that data collected meets national standards.

3. Identify the season(s) of use and the amount of use by the licensee for each trail annually.

4. Identify the condition of the trails described above, including any construction or maintenance needs.

Once the plan is completed, adjustments to the Project boundary may need to be made to include some of the trails.

Every 5 years, the licensee shall prepare a 5-year plan identifying maintenance and reconstruction needs for trails required for Project operations. The licensee shall file the plan with FERC after approval by the FS. All trail maintenance and construction shall meet FS specifications and best management practices.

Condition No. 59 - Facility Management Plan

Within 1 year of license issuance, the licensee shall file with FERC a Facility Management Plan that is approved by the FS. The licensee shall implement the plan upon approval. At a minimum, the Plan shall:

1. Include a map showing all Project facilities, including structures on or affecting National Forest System lands (and associated water and septic systems, and other utilities); above and below ground storage tanks; etc.

2. Identify the type and season of use of each structure.

3. Identify the condition of each structure, and planned maintenance or removal.

Once the plan is completed, adjustments to the Project boundary may need to be made to include some of the facilities.

Every 5 years, the licensee shall prepare a 5-year plan that will identify the maintenance, reconstruction, and removal needs for Project facilities. The licensee shall file the plan with FERC after approval by the FS.

F. Land Management

Condition No. 60 – Future Commercial Development at Caples Lake, Silver Lake, and Echo Lakes

Prior to the licensee approving, developing, or providing for additional commercial services or exclusive uses at Silver Lake, Caples Lake, or Echo Lakes, beyond those that exist as of the date of issuance of this license, the licensee shall complete an analysis that displays the effects of the proposed development on adjacent National Forest System lands.

Condition No. 61 – Land Adjustment Proposal

The licensee shall, within 2 years of license issuance, develop a Land Adjustment Proposal that addresses possible land exchanges or other management actions that would result in more efficient land management by concerned parties. This proposal shall include consideration of land exchanges between the FS and the licensee at Silver Lake East and West Campgrounds, Oyster Creek Rest Stop, and in the Sly Park/Pollock Pines area and shall require consultation with the involved parties and filing of the proposal with FERC.

G. Special-Use Authorizations

Condition No. 62 - Updating Obsolete Forest Service Special-Use Authorizations

The licensee shall, within 3 months of license issuance, consult with the FS to bring existing special-use authorizations for Project-related occupancy and use of National Forest System lands up to current standards through the issuance of new permits or the reissuance of obsolete authorizations. The licensee shall obtain the executed authorizations, to be filed with FERC, before beginning ground-disturbing actions related to these permitted activities on National Forest System lands, or within 1 year of license issuance.

The licensee shall prepare for FS review an operation and maintenance plan for Project facilities covered by the special-use authorization. This plan shall be updated annually, and reviewed at a meeting with the FS, on or about April 1 each year.

The licensee may commence ground-disturbing activities authorized by the license and special-use authorization no sooner than 60 days following the date the licensee files the FS special-use authorizations with FERC, unless FERC prescribes a different commencement schedule.

In the event there is a conflict between any provisions of the Project License and FS special-use authorization, the special-use authorization shall prevail to the extent that the FS, in consultation with FERC, deems necessary to protect and utilize National Forest System resources.

H. Specific Project Conditions

Condition No. 63 – Alder Creek Spoils Disposal Site

Within 1 year of license issuance, the licensee shall also develop a plan for restoration of the spoils disposal site that is approved by the FS prior to filing the plan with FERC. The plan shall be implemented once it is approved. The FERC license boundary shall be adjusted to include the Alder Creek spoils site.

Condition No. 64 – Restoration of El Dorado Canal Bench
The licensee has developed a plan for restoration for the portion of the El Dorado Canal that is being bypassed by the Mill to Bull Tunnel. The plan has been approved by the FS. Once it is approved by FERC, the licensee shall implement the plan. The licensee shall complete the restoration of this portion of the El Dorado Canal by October 15 of the year following restoration of flow through the new tunnel.

The long-term goal is to restore the bench back to the original pre-canal condition. It is recognized that it will take longer to accomplish this along some segments due to slope stability problems or loss of soil from past ditch failures and landsliding. Providing for full ecological restoration includes (1) assisting in the re-establishment of the pre-existing plant community; (2) accelerating successional development towards a later seral stage, and (3) protecting and enhancing wildlife habitat.

For 5 years after completion of the canal restoration, the licensee shall monitor annually and after major storms (50-year event or landslide–producing) all landslide features and associated restorative measures. If the FS determines that additional monitoring is necessary, the licensee shall monitor annually and after major storms for up to 5 additional years. The licensee shall annually submit a written report to the FS annually regarding the stability of the bench and the effectiveness of the restoration measures.

The canal restoration area shall remain within the FERC license boundary until such time as these requirements have been met.

Condition No. 65 – Tunnel Groundwater
Within 3 months of license issuance, the licensee shall file with FERC a plan for minimizing groundwater seepage into and out of Mill to Bull Tunnels. The plan shall be approved by the FS prior to filing with FERC. The licensee shall implement the plan upon approval. The plan shall include the following:

1. A method for measurement of groundwater seepage after tunnel construction.

2. Identification of all visible seepage sources and corrective measures to address the seepage. The licensee shall implement the corrective measures upon approval of the measures by the FS.

3. An annual inspection that includes:

a. Monitoring of the seepage sources identified in number 1, above, to ensure the corrective measures are effective. If the corrective measures are not effective, additional corrective measures will be identified and implemented upon approval by the FS.

b. Monitoring to identify new seepage sources and implementation of corrective measures to address new sources after FS approval of the corrective measures.

c. Monitoring of the springs and creeks for a minimum of 5 years after the license is issued. This period may be extended if sufficient water year types have not occurred within the first 5 years to adequately analyze effects on springs and creeks.

d. A report that documents the results of the monitoring required in the annual inspections. The licensee shall also notify the FS of the date of the inspection in the even the FS wishes to participate.

The FS reserves the right to require additional corrective measures if the FS determines, based on the monitoring results, that additional corrective measures are necessary to reduce groundwater seepage.

Project No. 184-065

APPENDIX B

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the Matter of Water Quality Certification For
EL DORADO IRRIGATION DISTRICT
EL DORADO HYDROELECTRIC PROJECT

FEDERAL ENERGY REGULATORY COMMISSION PROJECT NO. 184

SOURCES: South Fork of the American River and Tributaries

COUNTY: El Dorado County, and parts of Alpine and Amador Counties

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WATER QUALITY CERTIFICATION FOR FEDERAL PERMIT OR LICENSE

BY THE EXECUTIVE DIRECTOR:

The **EL DORADO IRRIGATION DISTRICT** (EID) has applied to the Federal Energy Regulatory Commission (Commission) for a new license for the El Dorado Hydroelectric Project (Project 184).

IN LIGHT OF THE FOREGOING, THE STATE WATER BOARD CERTIFIES THAT THE EL DORADO HYDROELECTRIC PROJECT (184) AS PROPOSED BY EID will comply with sections 301, 302, 303, 306 and 307 of the Clean Water Act (33 U.S.C. §§ 1311, 1312, 1313, 1316, & 1317), and with applicable provisions of state law, provided that EID complies with the following terms and conditions during the operation of the El Dorado Hydroelectric Project.

Project Specific Terms and Conditions:

1. ***Minimum Instream flow Requirements***
   EID shall, beginning as early as reasonably practicable and no later than 3 months

after license issuance, maintain minimum streamflows in Echo Creek below Echo Dam; Pyramid Creek below Lake Aloha; Caples Creek below Caples Dam; Silver Fork American River below Silver Lake Dam; South Fork American River (SFAR) below Kyburz Diversion; and Carpenter, No Name, Alder, Mill, Bull, Ogilby, and Esmeralda Creeks below their diversions at the El Dorado Canal, as specified in the following minimum streamflow schedules. All specified streamflows shall be measured as instantaneous flow in cubic feet per second (cfs). The schedules specify minimum streamflows, by month and water year type, for each of the specified stream reaches. Minimum streamflows for February through May shall begin on or before the 5th day of each month. In all other months, minimum streamflows shall begin by the 1st of the month.

The minimum instream flow schedules are separated into five water year types: Wet, Above Normal (AN), Below Normal (BN), Dry, and Critically Dry (CD). EID shall determine water year type based on the forecast of unimpaired inflow to Folsom Reservoir for the period of April through July, as set forth in Bulletin 120 (Water Conditions in California as published by the California Department of Water Resources) until an alternative forecasting tool is approved by the FS, ERC, Chief of the Division of Water Rights, and the Commission.

The Water Year Types are as follows:

Wet = greater than 125 percent of average[53]
AN = less than 125 percent but greater than or equal to 100 percent of average
BN = less than 100 percent but greater than or equal to 75 percent of average
Dry = less than 75 percent but greater than or equal to 50 percent of average
CD = less than 50 percent of average

Each February through May, EID shall operate for that month, beginning on or before the 5th day of these four months (February through May), after forecasting information is available, using a water year type designation for that month based on the Bulletin 120 forecast or the alternative forecasting tool that has been approved by, the Chief of the Division of Water Rights, following consultation with the FS, ERC. The May forecast shall be used to establish the final water year

[53] The water year type is based on the forecast of the average unimpaired inflow to Folsom Reservoir for the period of April through July based on the historical record, as set forth in Bulletin 120 (Water Conditions in California as published by the California Department of Water Resources).

type for the remaining months of the year until the next February, when forecasting shall begin again. EID shall provide notice to the FS, ERC, the Chief of the Division of Water Rights and the Commission of the final water year type determination within 10 days of making the determination.

An exception to the operating rules in the previous paragraph shall be that a separate forecasting method for January and February, as described below shall be established within one year of license issuance. This forecasting method, once approved by the Chief of the Division of Water Rights, in consultation with FS and the ERC, shall govern the January and February operation of Caples Lake and the Kyburz Diversion Dam.

EID shall, within one year of license issuance, develop a forecasting method and associated operating plan that will be used to re-assess the water year type and to adjust minimum streamflows at Caples Lake Dam and Kyburz Diversion Dam during the months of January and February, in order to address lake levels at Caples Lake. The forecasting method shall be used to evaluate the water year type designations governing operations for January and February. The method and plan shall be approved by the Chief of the Division of Water Rights in consultation with the FS and the ERC prior to filing the method and plan with the Commission. Once approved by FERC, the licensee shall operate Caples Lake Dam and Kyburz Diversion Dam for the months of January and February, beginning on the 5th day of each of these months, based on the approved forecasting method and operating plan. The EID shall provide notice to the FS, ERC, and Chief of the Division of Water Rights of the water year type designation governing operations for January and for February within five days of making each determination. After February, the forecasting method shall be consistent with the method described in Water Year Types described above (using Bulletin 120 or duly approved alternate forecasting tool).

The minimum streamflows specified in the schedules may be temporarily modified if required by public safety, equipment malfunction or operating emergencies reasonably beyond the control of EID. If the streamflow is so modified, EID shall provide notice to the Chief of the Division of Water Rights, FS and the ERC, and as soon as possible, but no later than 10 days after such incident. The minimum streamflows specified below may also be temporarily modified for short periods in non-emergency situations five days after approval by the Chief of the Division of Water Rights in consultation with the FS and the ERC.

Where facility modification is required to maintain the specified minimum streamflows, EID shall complete such modification as soon as reasonably

practicable and no later than three years after license issuance. Prior to such required facility modification, EID shall make a good faith effort to provide the specified minimum streamflows within the capabilities of the existing facilities.

In order for EID to adjust operations to meet the required minimum streamflows, EID shall have a three-year period after the license is issued or three years after completion of necessary facility modifications, whichever is later, in which daily mean streamflows may vary up to 10 percent below the amounts specified in the minimum streamflow schedules, provided that the average monthly streamflow in any given month equals or exceeds the required minimum amount for the month. After the applicable period, EID shall meet the minimum streamflow requirements specified in the minimum streamflow schedules.

Minimum Instream Flow Schedules
EID shall maintain in Echo Creek below Echo Lakes Dam the minimum streamflows specified in the following schedule, or the measured natural flow (NF), whichever is less. Compliance with this requirement shall be measured at the gaging station located downstream of the Echo Lake Dam (USGS Gage No. 10336608, EID Gage No. A-3).

Echo Creek Below Echo Lakes Dam
Minimum Streamflow Release in cubic feet per second (cfs)or Natural Flow if less

Month	CD	Dry	BN	AN	Wet
OCT	6 or NF	6 or NF	6 or NF	6 or NF	6 or NF
NOV	6 or NF	6 or NF	6 or NF	6 or NF	6 or NF
DEC	6 or NF	6 or NF	6 or NF	6 or NF	6 or NF
JAN	6 or NF	6 or NF	6 or NF	6 or NF	6 or NF
FEB	6 or NF	6 or NF	6 or NF	10 or NF	10 or NF
MAR	6 or NF	6 or NF	6 or NF	15 or NF	15 or NF
APR	6 or NF	10 or NF	15 or NF	25 or NF	25 or NF
MAY	6 or NF	15 or NF	30 or NF	45 or NF	45 or NF
JUNE	6 or NF	15 or NF	30 or NF	40 or NF	40 or NF
JULY	6 or NF	10 or NF	15 or NF	20 or NF	20 or NF

AUG	6 or NF	6 or NF	6 or NF	6 or NF	6 or NF
SEPT	6 or NF	6 or NF	6 or NF	6 or NF	6 or NF

Pyramid Creek Below Lake Aloha Dam

EID shall maintain in Pyramid Creek below Lake Aloha Dam the minimum streamflows specified in the following schedule, or the natural flow, whichever is less. Compliance with this requirement shall be measured at the gaging station located near Highway 50 at Twin Bridges (USGS Gage No. 11435100, EID Gage No. A-40).

Minimum Streamflow Release in cfs or Natural Flow if less

Month	CD	Dry	BN	AN	Wet
OCT	1 or NF	1 or NF	2 or NF	3 or NF	3 or NF
NOV	1 or NF	3 or NF	4 or NF	5 or NF	5 or NF
DEC	2 or NF	3 or NF	5 or NF	6 or NF	6 or NF
JAN	2 or NF	3 or NF	5 of NR	6 or NF	6 or NF
FEB	2 or NF	4 or NF	6 or NF	8 or NF	8 or NF
MAR	2 or NF	5 or NF	7 or NF	10 or NF	10 or NF
APR	3 or NF	5 or NF	8 or NF	11 or NF	11 or NF
MAY	5 or NF	10 or NF	15 or NF	20 or NF	20 or NF
JUNE	5 or NF	10 or NF	14 or NF	19 or NF	19 or NF
JULY	2 or NF	4 or NF	6 or NF	8 or NF	8 or NF
AUG	1 or NF	2 or NF	3 or NF	4 or NF	4 or NF
SEPT	1 or NF	1 or NF	2 or NF	2 or NF	2 or NF

Caples Creek Below Caples Lake Dam

EID shall maintain in Caples Creek below Caples Lake Dam the minimum streamflows specified in the following schedule, or the natural flow, whichever is less, unless the natural flow is less than five cfs, in which case EID shall maintain a minimum streamflow of five cfs. Compliance with this requirement shall be measured at the

gaging station located downstream of the Caples Lake Dam (USGS Gage No. 11434500, EID Gage No. A-6).

Minimum Streamflow Release in cfs or Natural Flow if less, provided that flow is at least 5 cfs

Month	CD	Dry	BN	AN	Wet
OCT	5	5	5	5	5
NOV	5	6 or NF or 5	8 or NF or 5	10 or NF or 5	10 or NF or 5
DEC	5	7 or NF or 5	10 or NF or 5	10 or NF or 5	10 or NF or 5
JAN	5	7 or NF or 5	10 of NR or 5	15 or NF or 5	15 or NF or 5
FEB	5	7 or NF or 5	10 or NF or 5	15 or NF or 5	15 or NF or 5
MAR	5	10 or NF or 5	15 or NF or 5	20 or NF or 5	20 or NF or 5
APR	10	12 or NF or 5	18 or NF or 5	25 or NF or 5	25 or NF or 5
MAY	14	27 or NF or 5	40 or NF or 5	55 or NF or 5	55 or NF or 5
JUNE	14	28 or NF or 5	42 or NF or 5	55 or NF or 5	55 or NF or 5
JULY	12	25 or NF or 5	35 or NF or 5	50 or NF or 5	50 or NF or 5
AUG	5	5	6 or NF or 5	8 or NF or 5	8 or NF or 5
SEPT	5	5	5	5	5

Silver Fork American River Below Silver Lake Dam

EID shall maintain in the Silver Fork American River below Silver Lake Dam the minimum streamflows specified in the following schedule, or the natural flow, whichever is less. Compliance with this requirement shall be measured at the gaging station located downstream of the Silver Lake Dam (USGS Gage No. 11436000, EID Gage No. A-8).

Minimum Streamflow Release in cfs or Natural Flow if less.

Months	For All Water Year Types
OCT	4 or NF
NOV	4 or NF
DEC	4 or NF
JAN	4 or NF
FEB	4 or NF

MAR	4 or NF
APR	4 or NF
MAY	4 or NF
JUNE	4 or NF
JULY	4 or NF
AUG	4 or NF
SEPT	4 or NF

Silver Fork American River Below Oyster Creek

EID shall maintain in the Silver Fork American River below Oyster Creek the minimum streamflows specified in the following schedule, or the natural flow, whichever is less. Natural flow in the Silver Fork American River below Oyster Creek includes natural inflow into Silver Lake plus the natural leakage and accretion flow of water out of Silver Lake directly into Oyster Creek. EID shall, within one year after development and approval of the Streamflow and Reservoir Storage Gaging Plan (gaging plan) as described in Condition 9, implement the gaging of the Silver Fork American River below Oyster Creek.

Minimum Streamflow Release in cfs or Natural Flow if less

Month	CD	Dry	BN	AN	Wet
OCT	8 or NF	8 or NF	8 or NF	8 or NF	8 or NF
NOV	8 or NF	8 or NF	10 or NF	16 or NF	16 or NF
DEC	8 or NF	8 or NF	10 or NF	16 or NF	16 or NF
JAN	8 or NF	8 or NF	12 or NF	16 or NF	16 or NF
FEB	8 or NF	10 or NF	17 or NF	23 or NF	23 or NF
MAR	8 or NF	15 or NF	26 or NF	35 or NF	35 or NF
APR	8 or NF	18 or NF	50 or NF	50 or NF	50 or NF
MAY	10 or NF	20 or NF	90 or NF	100 or NF	100 or NF
JUNE	8 or NF	10 or NF	60 or NF	60 or NF	60 or NF
JULY	8 or NF	8 or NF	18 or NF	20 or NF	25 or NF
AUG	8 or NF	8 or NF	8 or NF	8 or NF	8 or NF
SEPT	8 or NF	8 or NF	8 or NF	8 or NF	8 or NF

South Fork American River Below the Kyburz Diversion
EID shall maintain in the South Fork American River below the Kyburz Diversion Dam the minimum streamflows specified in the following schedule, or the natural flow, whichever is less. Compliance with this requirement shall be measured at the gaging station located downstream of the Kyburz Diversion Dam (USGS Gage No. 11439500, EID Gage No. A-12).

Minimum Streamflow Release in cfs or Natural Flow if less

Month	CD	Dry	BN	AN	Wet
OCT	15 or NF	15 or NF	40 or NF	50 or NF	50 or NF
NOV	15 or NF	18 or NF	40 or NF	50 or NF	50 or NF
DEC	15 or NF	25 or NF	40 or NF	50 or NF	50 or NF
JAN	15 or NF	25 or NF	40 or NF	50 or NF	50 or NF
FEB	20 or NF	30 or NF	40 or NF	50 or NF	75 or NF
MAR	30 or NF	60 or NF	110 or NF	110 or NF	110 or NF
APR	60 or NF	120 or NF	180 or NF	180 or NF	180 or NF
MAY	60 or NF	120 or NF	180 or NF	240 or NF	240 or NF
JUNE	60 or NF	120 or NF	180 or NF	240 or NF	240 or NF
JULY	40 or NF	85 or NF	125 or NF	160 or NF	160 or NF
AUG	18 or NF	18 or NF	65 or NF	65 or NF	65 or NF
SEPT	15 or NF	15 or NF	50 or NF	50 or NF	50 or NF

Carpenter Creek Below the Carpenter Creek Diversion Dam
EID shall maintain in Carpenter Creek below the Carpenter Creek Diversion Dam the minimum streamflows specified in the following schedule, or the natural flow, whichever is less. EID shall, within one year after development and approval of the Streamflow and Reservoir Storage Gaging Plan (gaging plan) as described in Condition 9, implement the gaging of Carpenter Creek below the Carpenter Creek Diversion Dam.

Minimum Streamflow Release in cfs or Natural Flow if less

Months	For All Water Year Types
OCT	1 or NF

NOV	1 or NF
DEC	2 or NF
JAN	2 or NF
FEB	3 or NF
MAR	4 or NF
APR	5 or NF
MAY	4 or NF
JUNE	2 or NF
JULY	1 or NF
AUG	1 or NF
SEPT	1 or NF

No Name Creek
EID shall maintain in No Name Creek below the No Name Creek Diversion Dam the minimum streamflows specified in the following schedule, or the natural flow, whichever is less. EID shall, within one year after development and approval of the Streamflow and Reservoir Storage Gaging Plan (gaging plan) as described in Condition 9, implement the gaging of No Name Creek.

Minimum Streamflow Release in cfs or Natural Flow if less

Months	For All Water Year Types
OCT	1 or NF
NOV	1 or NF
DEC	1 or NF
JAN	1 or NF
FEB	1 or NF
MAR	1 or NF
APR	1 or NF
MAY	1 or NF
JUNE	1 or NF
JULY	1 or NF
AUG	1 or NF
SEPT	1 or NF

Alder Creek
EID shall maintain in Alder Creek below the Alder Creek Diversion Dam the minimum streamflows specified in the following schedule, or the natural flow, whichever is less. EID shall, within one year after development and approval of the Streamflow and Reservoir Storage Gaging Plan (gaging plan) as described in Condition 9, implement the gaging of Alder Creek.

Minimum Streamflow Release in cfs or Natural Flow if less

Month	CD	Dry	BN	AN	Wet
OCT	25 or NF	25 or NF	25 or NF	25 or NF	25 or NF
NOV	5 or NF	5 or NF	5 or NF	5 or NF	5 or NF
DEC	5 or NF	5 or NF	5 or NF	10 or NF	10 or NF
JAN	5 or NF	5 or NF	10 or NF	10 or NF	10 or NF
FEB	5 or NF	5 or NF	10 or NF	10 or NF	10 or NF
MAR	25 or NF	25 or NF	45 or NF	45 or NF	45 or NF
APR	25 or NF	35 or NF	65 or NF	90 or NF	90 or NF
MAY	25 or NF	30 or NF	55 or NF	75 or NF	75 or NF
JUNE	25 or NF	25 or NF	25 or NF	25 or NF	25 or NF
JULY	25 or NF	25 or NF	25 or NF	25 or NF	25 or NF
AUG	25 or NF	25 or NF	25 or NF	25 or NF	25 or NF
SEPT	25 or NF	25 or NF	25 or NF	25 or NF	25 or NF

Mill Creek Below Mill Creek Diversion Dam

EID shall maintain in Mill Creek below the Mill Creek Diversion Dam the minimum streamflows specified in the following schedule, or the natural flow, whichever is less. EID shall, within one year after development and approval of the Streamflow and Reservoir Storage Gaging Plan (gaging plan) as described in Condition 9, implement the gaging of Mill Creek below Mill Creek Diversion Dam.

Minimum Streamflow Release in cfs or Natural Flow if less

Months	For All Water Year Types
OCT	1 or NF
NOV	2 or NF
DEC	3 or NF
JAN	4 or NF
FEB	6 or NF
MAR	7 or NF
APR	6 or NF

MAY	4 or NF
JUNE	2 or NF
JULY	1 or NF
AUG	1 or NF
SEPT	1 or NF

Bull Creek Below Bull Creek Diversion Dam
EID shall maintain in Bull Creek below the Bull Creek Diversion Dam the minimum streamflows specified in the following schedule, or the natural flow, whichever is less. EID shall, within one year after development and approval of the Streamflow and Reservoir Storage Gaging Plan (gaging plan) as described in Condition 9, implement the gaging of Bull Creek below Bull Creek Diversion Dam.

Minimum Streamflow Release in cfs or Natural Flow if less

Months	For All Water Year Types
OCT	1 or NF
NOV	1 or NF
DEC	1 or NF
JAN	1 or NF
FEB	1 or NF
MAR	1 or NF
APR	1 or NF
MAY	1 or NF
JUNE	1 or NF
JULY	1 or NF
AUG	1 or NF
SEPT	1 or NF

Ogilby Creek Below Ogilby Creek Diversion Dam
EID shall maintain in Ogilby Creek below the Ogilby Creek Diversion Dam the minimum streamflows specified in the following schedule, or the natural flow, whichever is less. EID shall, within one year after development and approval of the Streamflow and Reservoir Storage Gaging Plan (gaging plan) as described in Condition 9, implement the gaging of Ogilby Creek below Ogilby Creek Diversion Dam.

Minimum Streamflow Release in cfs or Natural Flow if less

Months	For All Water Year Types
OCT	1 or NF
NOV	1 or NF

DEC	1 or NF
JAN	1 or NF
FEB	2 or NF
MAR	2 or NF
APR	2 or NF
MAY	2 or NF
JUNE	1 or NF
JULY	1 or NF
AUG	1 or NF
SEPT	1 or NF

Esmeralda Creek Below Esmeralda Diversion Dam

EID shall maintain in Esmeralda Creek below the Esmeralda Creek Diversion Dam the minimum streamflows specified in the following schedule, or the natural flow, whichever is less. EID shall, within one year after development and approval of the Streamflow and Reservoir Storage Gaging Plan (gaging plan) as described in Condition 9, implement the gaging of Esmeralda Creek below Esmeralda Diversion Dam.

Minimum Streamflow Release in cfs or Natural Flow if less

Months	For All Water Year Types
OCT	1 or NF
NOV	1 or NF
DEC	1 or NF
JAN	1 or NF
FEB	1 or NF
MAR	2 or NF
APR	2 or NF
MAY	2 or NF
JUNE	1 or NF
JULY	1 or NF
AUG	1 or NF
SEPT	1 or NF

2. Ramping Rates

EID shall, beginning as early as reasonably practicable and no later than three months after license issuance, comply with the following ramping rates for streamflow releases that EID controls at Echo Lakes and Lake Aloha:

Change in Water Level of Stream (feet/hour)	Flow Range (cfs)
0.5	1-75.0
1.0	75.1-175
1.5	above 175.1

EID shall, beginning as early as reasonably practicable and no later than three months after license issuance, comply with the following ramping rates for streamflow releases that EID controls at Caples Lake and Silver Lake:

Change in Water Level of Stream (feet/hour)	Flow Range (cfs)
1.0	1-75.0
0.5	75.1-175
0.55	above 175.1

Where facility modification is required to provide the specified ramping rates, EID shall complete such modifications as soon as reasonably practicable and no later than three years after license issuance. Prior to such required facility modifications, the licensee shall make a good faith effort to provide the specified ramping rates within the capabilities of the existing facilities. EID shall provide streamflow records related to ramping to the Chief of the Division of Water Rights, FS and the ERC, upon request.

The EID shall be excused from complying with the ramping rate requirements in the event of law enforcement or search and rescue activities, Division of Safety of Dams compliance requirements, equipment malfunction or failure that is directly related to providing the specified ramping rates, or a large storm event that is beyond its ability to control. EID shall provide notice to the Chief of the Division of Water Rights, FS and the ERC within 10 days after such an event occurs and shall provide a report documenting the reason that ramping rates were not followed within one month after such an event occurs.

3. ***Minimum Instream Flows From Project Reservoirs Not Diverted into El Dorado Canal if Ecological Resource Objectives are Not Met After Five Years.***
The EID shall not divert into the El Dorado Canal the prescribed minimum instream flow releases as specified for Lake Aloha Dam, Caples Lake Dam, and Silver Lake Dam in the tables in Condition No. 1, if the FS, and the State Water Board in consultation with the ERC makes an affirmative determination, based on

the first five years of monitoring results, that applicable ecological resource objectives (Appendix B of the Settlement Agreement[54]) are not being met with the initial flow regime described in Condition No. 1. The required minimum instream flow releases from Lake Aloha, Caples Lake and Silver Lake Dams shall be combined with the minimum in stream flows required at Kyburz Diversion Dam. The months in which this requirement would apply are listed in the table below.

Minimum Streamflows Adaptive Management	
Water Year	Applicable Months
Wet	September, October
AN	September, October
BN	August, September, October
Dry	July, August, September, October
CD	August, September, October, November

4. ***Operation and Maintenance of Lake Aloha***

Prevention of Spills and Removal of Trout if Spill Occurs

EID shall attempt to operate Lake Aloha to prevent water in the reservoir from spilling over Auxiliary Dams 1-7 during spring runoff and while the reservoir is filling.

If spill occurs over these dams and into the pools below, EID shall manually remove trout from the pools. Within 14 days of spill occurring, EID shall submit a plan for removing fish from these pools and ponds to the FS and CDFG and, after approval of the plan by the FS and CDFG, shall initiate the removal within 30 days after the spill occurs. By July 30 of each year, EID shall produce a monitoring report documenting whether spill occurred over the Auxiliary Dams and whether trout were found and removed. EID shall provide the monitoring report to the FS, CDFG, the ERC and the Chief of the Division of Water Rights. If no fish are located after five years of surveys after spills, the EID shall consult with the FS and CDFG to determine whether further surveys are necessary. EID shall continue to produce the annual monitoring report until the FS and CDFG determine that further surveys are no longer required.

[54] Appendix B of the Settlement Agreement contains measures agreed to among the parties but not to be included in New Project License, Section 4(e) Conditions, or Other Mandatory License Conditions.

Trout Survey and Removal
Within one year of license issuance, EID shall survey the pools and ponds below Auxiliary Dams 1-7 on Lake Aloha to determine if trout are present in the pools and ponds. If trout are present, EID shall submit a plan for removal of the trout to the FS and CDFG within 30 days of locating the trout. Upon approval of the plan by the FS and CDFG, EID shall implement the removal program.

5. *Caples Lake Releases and Flow Limitations*

Pulse Flows
The EID shall, within the first complete water year after license issuance but not prior to the implementation of the new minimum streamflows, provide annual pulse flow events in the natural Caples Creek channel below Caples Lake Dam as specified in the following pulse flow schedule by water year type. Pulse flows shall be timed to correspond to the annual spring peak runoff based on EID's best estimate of maximum flow in any particular year. All specified pulse flows are in cubic feet per second (cfs).

EID shall be excused from complying with the pulse flow requirements in the event of law enforcement or search and rescue activities, Division of Safety of Dams compliance requirements, equipment malfunction or failure that is directly related to providing the specified pulse flows, or a large storm event that is beyond its ability to control. If a pulse flow is so modified, EID shall notify the FS, ERC, and the Chief of the Division of Water Rights as soon as possible but no later than 10 days after such incident. The pulse flows specified may also be temporarily modified for short periods in non-emergency situations upon approval of the FS and the Chief of the Division of Water Rights.

	Pulse Flow by Water Year (cfs)					
Reach	**CD**	**Dry**	**BN**	**AN**	**Wet**	**Duration and Timing**
Caples Creek Channel	0	150	210	300	345	5-day continuous pulse timed
Below Caples Lake						to correspond to annual spring
Dam						peak runoff

Where facility modification is required to provide the specified pulse flows, EID shall make such modifications as soon as reasonably practicable and no later than three years after license issuance. Prior to such required facility modifications, EID shall make a good faith effort to provide the specified pulse flows within the capabilities of the existing facilities.

EID shall, after five years of implementation of the new license, and based on monitoring results from the geomorphology monitoring elements described in Condition No. 13, increase pulse flows up to a maximum of 600 cfs, based on water year type, or change the duration of the existing pulse flow to a maximum of 10 days in Caples Creek if initial pulse flows are not effectively mitigating sediment/bedload transport or other fluvial processes problems caused by the Project. If monitoring indicates that the pulse flows are resulting in damage to the Caples Creek channel or if monitoring indicates that reduced pulse flows are effective in meeting the fluvial geomorphology objective described in Appendix B, Section 1, of the El Dorado Relicensing Settlement Agreement, the FS and State Water Board may decrease the magnitude of the pulse flows. The FS and the Chief of the Division of Water rights shall, after consultation with the ERC, make the final determination as to whether the pulse flow shall be increased, decreased, or whether the duration shall be lengthened.

Caples Spillway Channel Flows

EID shall not release more than 60 cfs into the existing Caples Lake Spillway channel. EID shall be excused from complying with this requirement in the event of law enforcement or search and rescue activities, Division of Safety of Dams compliance requirements, equipment malfunction or failure that is directly related to compliance with this requirement, or a large storm event that is beyond its ability to control. If EID releases more than 60 cfs into the spillway channel, EID shall notify the FS, ERC, and the Chief of the Division of Water Rights as soon as possible but no later than 10 days after such incident. The specified spillway channel flows may also be temporarily modified for short periods in non-emergency situations upon approval of the Chief of the Division of Water Rights.

Caples Dam Spillway Maximum Flows

The FS may adjust the Caples Dam Spillway channel maximum flow of 60 cfs if results of the geomorphology monitoring elements described in Condition No. 13 indicate that these flows are resulting in damage to the Caples Creek Spillway Channel or it is determined that the channel can be reconfigured to adequately handle higher flows and meet resource objectives. The Chief of the Division of Water Rights shall make the final determination as to whether the allowable spill flow shall be adjusted.

The determination whether streamflows in the Caples Spillway Channel may be increased shall be based on the following studies: the geomorphology study of sensitive sites at Caples Creek and Oyster Creek (as found in Condition 13); and the following condition:

Within two years of license issuance, EID shall complete a feasibility study to determine whether the Caples Spillway Facility can be designed to convey adaptive management pulse flows that cannot be released through the existing outlet works into the Caples Creek natural channel in a manner that addresses resource concerns. The spillway channel stabilization would need to be designed to convey the additional 250 cfs into Caples Creek. EID shall consult with appropriate staff from FS, the State Water Board, and members of the ERC during the development of the feasibility study, specifically to describe the problems with the existing spillway channel that need to be addressed in the study. The study must also include a cost estimate for this work and a cost estimate for redesigning the outlet works such that up to 600 cfs can be released directly into the Caples Creek natural channel. The Chief of the Division of Water Rights in consultation with the FS and ERC must approve the study.

Fall Release Flows

September, October, and November release flows in the Caples Creek channel shall not be greater than 150 cfs. If a large storm event occurs during this period and EID cannot maintain these flows, EID shall notify the FS, ERC, and the Chief of the Division of Water Rights within 10 days after such an event occurs and shall provide a report within one month after such an event occurs documenting the reason that fall release flows were not maintained.

6. ***Oyster Creek Stabilization***

Within two years of license issuance, EID shall survey the Oyster Creek channel and develop a plan that is approved by the Chief of the Division of Water Rights in consultation with the FS for stabilization of the channel. Within five years of license issuance, EID shall implement those portions of the plan that the FS, in cooperation with EID, determines to be Project-related. EID may pursue a Coordinated Resource Management Program with other landowners in the area.

7. ***Esmeralda Creek Restoration***

Within two years of license issuance, EID shall survey the portion of the channel located on National Forest System lands and the portion of the channel that is not on pubic lands but is affected by the Project and shall develop a plan that is approved by FS and the Chief of the Division of Water Rights for the restoration of the Esmeralda Creek channel. EID shall submit the plan to the Chief of the Division of Water Rights for review and comment. EID shall implement the plan within five years of license issuance.

8. ***Target Lake Levels and Minimum Pool***

Echo Lakes

EID shall operate Echo Lakes such that the channel between the Upper and Lower Echo Lakes is navigable by motorized watercraft, between July 1 and Labor Day of each year, while still complying with minimum streamflow or other conditions and requirements. If EID anticipates that the reservoir will not meet this target level for reasons other than non-discretionary releases, EID shall notify FS, ERC, the Chief of the Division of Water Rights, and the Commission in writing within 10 days of this determination, and provide an explanation of why the target reservoir level will not be attained.

Caples Lake

The licensee shall operate Caples Lake as follows:

Caples Lake							
			End of Month Lake Levels by Water Year				
	Month		In Acre-Feet				
			CD	DRY	BN	AN	WET
	JUNE		18704	18704	22338	22338	22338
	JULY		18413	18646	22089	22338	22338
	AUGUST		14376	14376	18006	18006	18006
	SEPT		14376	14376	18006	18006	18006

The lake levels described above are target values. If EID cannot achieve the target level for any month from June through September, EID shall not make, or shall cease making as soon as it is able to make its determination, discretionary releases from Caples Lake in that month.

Using the forecasting method described in Condition No. 1, subsection Water Year Types, EID shall annually, by March 15, provide a preliminary evaluation of the water year type and consult with the FS, ERC, and SWRCB to determine the anticipated June through September lake levels for the year based on that water year type and the table above. As described in Condition No. 1, subsection Water Year Types, EID shall, between May 1 and May 5 of each year, make the final water year type determination, and shall, within 10 days, so inform the FS, ERC, and Chief of the Division of Water Rights. The final water year type selected for operations during the year will be subject to approval the Chief of the Division of Water Rights in consultation with the FS.

EID shall report to the FS, ERC, and Chief of the Division of Water Rights any changes in its operations or factors beyond its control that render it unable to meet the target lake levels. EID shall make this report within five days of discovering its inability to meet a target. EID shall also, within 30 days, inform the Commission. Members of the ERC or the FS may request a meeting of the ERC to review proposed or implemented operational changes, or other factors, that

make it impossible to meet a June through September lake level target.

During the fall and early winter of each year, EID shall attempt to operate Caples Lake so that target lake levels are likely to be met in the following summer. Such operation may include, but is not limited to, maintaining adequate storage in Caples Lake in early winter (model results to date indicate that necessary storage may be as high as 13,000 acre-feet on November 30). EID shall maintain a target minimum pool in Caples Lake of 10,000 acre-feet. If EID anticipates reducing the level of Caples Lake below the 10,000 acre-foot target level, such as during a water year when spill is a concern, EID shall notify the FS, ERC, and the Chief of the Division of Water Rights within five days and shall provide them a detailed explanation as to why the target lake level is anticipated to be reduced.

As described in Condition No. 1, subsection Water Year Types, EID shall, within two years of license issuance, develop a forecasting method and associated operating plan that will be used to re-assess the water year type and to adjust minimum streamflows at Caples Lake Dam and Kyburz Diversion Dam during the months of January and February, in order to address lake levels at Caples Lake. The forecasting method shall be used to evaluate the water year type designations governing operations for January and February. The method and plan shall be approved by the Chief of the Division of Water Rights in consultation with the FS and the ERC prior to filing the method and plan with the Commission. Once approved by the Commission, EID shall operate Caples Lake Dam and Kyburz Diversion Dam for the months of January and February, beginning on the 5th day of each of these months, based on the approved forecasting method and operating plan. EID shall provide notice to the FS, ERC, and the Chief of the Division of Water Rights of the water year type designation governing operations for January and for February within five days of making each determination. After February, the forecasting method shall be consistent with the method described in Condition No. 1, subsection Water Year Types (using Bulletin 120 or duly approved alternate forecasting tool).

Silver Lake

Notwithstanding any other provision of this section, prior to Labor Day of each year, EID shall not release water from Silver Lake for consumptive use, power production, rediversion, maintenance, or other purposes, excluding the minimum streamflow release requirement from Silver Lake Dam and any other non-discretionary releases required by the Commission or the State Division of Safety of Dams.

Between Labor Day and September 15, EID shall not make discretionary releases

from Silver Lake unless a Stage 1, 2, or 3 Emergency Notice is issued during this time period by the Independent System Operator (ISO) or a similar equivalent alert is issued by the ISO or its institutional successor. In cases where such an Emergency Notice is issued in this time period, EID shall, once the Project is no longer subject to Emergency status and the Forebay has been replenished to pre-Notice levels, discontinue discretionary releases until after September 15. In situations where a Stage 1, 2, or 3 Emergency Notice is issued between Labor Day and September 15, EID shall not draw Silver Lake down to a stage lower than 12.0 feet as measured on the gage at the outlet works on September 15.

After September 15 of each year, EID may make discretionary releases from Silver Lake, with the limitation that stage height on September 30 shall be no less than 12.0 feet as measured on the gage at the outlet works. If Silver Lake reaches a stage height of 12.0 feet prior to September 30 because of pre-September 15 discretionary releases under the preceding paragraph, EID shall make no further discretionary releases in September.

EID shall schedule the annual, as opposed to emergency, maintenance period for the El Dorado Canal and Akin Powerhouse to begin no later than October 3rd of each year. From the time maintenance begins until the time that the non-operation maintenance of the El Dorado Canal and/or Akin Powerhouse is completed, release from Silver Lake shall meet the minimum flow requirements in the Silver Fork American River, and, where applicable, may also be used to meet that portion of the minimum flow at Kyburz Diversion Dam not being met from other sources. Further, release from Silver Lake may also be increased after October 15 if necessary to reach the 12.0-foot stage by October 25.

Silver Lake stage shall be no less than 7.4-foot stage as of November 1 of each year.

If EID is unable to operate the El Dorado Canal at any time between September 15 and September 30 of any year, EID shall make no discretionary releases from Silver Lake during canal downtime between September 15 and September 30 of that year.

In years where EID is able to operate the El Dorado Canal, but is unable to operate the Akin Powerhouse at any time between September 15 and September 30, EID shall limit discretionary releases from Silver Lake during that powerhouse downtime between September 15 and September 30 according to the following system of priorities:

EID shall draw water required to meet consumptive needs at the EID Forebay, plus the required minimum flow at Kyburz Diversion Dam, first from accretion between the high lakes and Kyburz Diversion Dam, second from the required minimum flow from Caples Lake Dam, Lake Aloha Dam, and Silver Lake Dam and from leakage from Silver Lake, and third from the maximum available release from Echo Lakes. EID may obtain any additional water required to meet consumptive needs at the Forebay plus required minimum flow past Kyburz Diversion Dam by making discretionary releases from Silver Lake, provided that the level of Silver Lake does not drop below the 12.0-foot stage at the end of September.

If possible, EID shall include the estimated duration of the annual maintenance period in the operations and maintenance plan described in Condition No. 18. At the latest, EID shall notify the FS, ERC, and Chief of the Division of Water Rights of the estimated duration of the maintenance period no later than July 1. EID shall post and update this information on its website.

Lake Aloha
EID shall operate Lake Aloha in such a manner as to comply with the End-of-Month Lake Level Operational Requirements established in State Water Board Decision 1635 as modified by Order WR 2001-22. If EID anticipates that the reservoir will not meet this target level, EID shall notify the FS, ERC, Commission and the Chief of the Division of Water Rights in writing, within 10 days of this determination, and provide an explanation of why the target reservoir level will not be attained.

Target Lake Level Monitoring and Adjustment
Within five years of license issuance, and every five years thereafter, EID shall prepare a report describing whether the target lake levels have been achieved, and if not, the reasons and time periods when the target lake levels were not achieved. EID shall provide a copy of the report to the FS, ERC, the Commission and the Chief of the Division of Water Rights.

9. Streamflow and Reservoir Storage Gaging Plan

EID shall, within one year after license issuance, develop and file a Streamflow and Reservoir Storage Gaging Plan (gaging plan) that meets United States Geological Survey (USGS) standards with the State Water Board for approval. The plan shall include locations and methods for determining natural flow identified in Condition 1. The plan shall be approved by the Chief of the Division of Water Rights prior to filing with the Commission for its approval. EID shall provide copies of the approved gaging plan and USGS review results to the FS,

State Water Board and the ERC. EID shall implement the plan within two years upon approval.

At a minimum, the plan shall address compliance gaging at the following locations:

- Echo Creek below Echo Lakes Dam
- Pyramid Creek below Lake Aloha Dam
- Caples Creek below Caples Lake Dam
- Silver Fork American River below Silver Lake Dam
- Silver Fork American River below Oyster Creek
- SFAR below Kyburz Diversion Dam
- Carpenter Creek below Carpenter Creek Diversion Dam
- No Name Creek below No Name Creek Diversion Dam
- Alder Creek below Alder Creek Diversion
- Mill Creek below Mill Creek Diversion Dam
- Bull Creek below Bull Creek Diversion Dam
- Ogilby Creek below Ogilby Diversion Dam
- Esmeralda Creek below Esmeralda Creek Diversion Dam

EID shall perform an investigation to determine whether telemetry equipment can be installed at Lake Aloha to monitor conditions and control operations. If the State Water Board and FS concur in consultation with EID that such equipment is economically and technologically feasible and can be installed consistent with law, regulations, and policies applicable to Desolation Wilderness, EID shall seek necessary approvals for such installation and install the equipment upon approval.

10. Preferred Canal Drainage Structure and Release Point Plan

EID shall, within one year after license issuance, file with the Commission a plan approved by the Chief of the Division of Water Rights after consultation with the FS and ERC, to designate preferred canal drainage structures and release points to be used in the event of an emergency and for maintenance, that will minimize adverse impacts to water quality. EID shall implement the plan upon approval.

11. Erosion Control Plan For New Construction and Measures For Project Maintenance and Operations

During planning and prior to any new ground-disturbing construction or non-routine maintenance not addressed in an existing plan that may affect National Forest System lands (including but not limited to any recreation-related construction) or could result in discharges to waters of the state, EID shall file

with the Commission, a plan approved by the Chief of the Division of Water Rights in consultation with the FS for the control of 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.

12. ***Fish Screens for Alder Creek and Carpenter Creek***

Within one year of license issuance, EID shall develop a plan for screening Carpenter and Alder Creeks for all life stages of trout. The plan shall be approved by the FS and CDFG after consultation with the State Water Board and ERC prior to EID implementing the plan. The screening of Carpenter and Alder Creeks shall be implemented as soon as practicable after approval by the FS and CDFG.

13. ***Ecological Resources Monitoring Programs***

EID shall implement the following Ecological Resource Monitoring Programs after license issuance and through the term of the new license and any annual licenses, in coordination with the FS, ERC, CDFG and the Chief of the Division of Water Rights. Within the scope of a specified monitoring program, the FS, ERC, CDFG and Chief of the Division of Water Rights may select an equal number of alternative years to ensure that surveys occur during a range of water year types. Final study plans shall be approved by the Chief of the Division of Water Rights in consultation with the FS, ERC, and CDFG. The FS, ERC, CDFG and Chief of the Division of Water Rights shall maintain the flexibility to alter the monitoring program methodologies and frequency of data collection if they determine that: (a) there is a more appropriate or preferable methodology to use than that described in the monitoring plan or (b) monitoring may be reduced or terminated because the relevant ecological resource objective has been met or no change in resource response is expected.

EID shall file with the Commission by June 30 of each year an annual report fully describing the monitoring efforts of the previous calendar year. EID shall provide copies of the annual report to the FS, ERC, CDFG and the State Water Board. The FS, ERC, CDFG and the State Water Board shall have at least 30 days to review and comment on the report prior to filing with the Commission.

The following guidelines shall be used in implementing the monitoring program: (a) monitoring and studies shall be relevant to Project 184, (b) monitoring and

studies shall be conducted such that they provide useful information for management decisions or establishing compliance with license conditions, and (c) monitoring and studies shall be as cost-effective as possible. EID shall provide funding for performing the monitoring, as well as specified contingency funding.

Most monitoring described below is estimated to end after 30 years; however, if a new subsequent license is not issued within 30 years, the FS, CDFG and/or the Chief of the Division of Water Rights, in consultation with the ERC, reserve the right to extend the monitoring period as necessary.

a. Fish Populations

Method: Electrofishing and/or snorkeling (as conducted in 1998-2002 by EID) during late summer/fall at six stations for rainbow trout:

- SFAR below Carpenter Creek
- Lower Alder Creek
- Lower Pyramid Creek
- Lower Echo Creek
- Silver Fork American River at Forgotten Flat
- Caples Creek below Kirkwood Creek

Existing data on hardhead, a native species, are not sufficient to derive biomass indices for determining habitat quality. Continued directed monitoring will provide these data so that the ERC, FS, CDFG and the State Water Board may develop indices in the near future. An additional monitoring site shall be located upstream of the Akin Powerhouse and downstream of the confluence with Silver Creek in the section where hardhead presence was identified. This site may require a combination of snorkeling and electrofishing. If the hardhead data are collected in the Upper American River Project (UARP) relicensing, they can be used to satisfy this requirement after review and approval by the Chief of the Division of Water Rights in consultation with the FS, ERC, and CDFG.

Frequency: Rainbow trout: Years 5, 6, 10, 11, 15, 16, 20, 21, 25, 26, 30, 31. Hardhead: At least three years of monitoring would be needed in the hardhead reaches as determined in Payne (1998). Thereafter, monitoring shall continue at five-year intervals if the Chief of the Division of Water Rights in consultation with the FS, ERC, CDFG determine it is necessary.

b. Macroinvertebrate Monitoring

Method: California Rapid Bioassessment Protocol methodology described in the Draft Benthic Macroinvertebrate Sampling Program (EID 2002) at the following

sampling sites:

- Echo Creek (EID site EC-B1)
- Pyramid Creek (EID site PY-B1)
- Caples Creek (EID site CA-B1)
- Silver Fork American River (EID site SV-B2)
- SFAR (EID site SO-B1)
- Carpenter Creek (EID sites CR-B1 and 2)
- No Name Creek (EID sites NN-B1 and 2)
- Alder Creek (EID sites AR-B1 and 2)
- Mill Creek (EID sites ML-B1 and 2)
- Bull Creek (EID sites BU-B1 and 2)
- Ogilby Creek (EID sites OG-B1 and 2)
- Esmeralda Creek (EID sites (ES-B1 and 2)

Reference streams that were sampled as part of the macroinvertebrate monitoring program during the relicensing shall be incorporated into the monitoring program. Reference sites may be substituted upon approval by the Chief of the Division of Water Rights in consultation with the FS, ERC, and CDFG. The upstream sample site locations on the feeder tributaries to the El Dorado Canal will serve as the reference sites for those locations.

- Strawberry Creek (EID site SB-B1)
- Sherman Canyon Creek (EID site SH-B1)
- Woods Creek (EID site WC-B1)

Frequency: Years 5, 6, 10, 11, 15, 16, 20, 21, 25, 26, 30, 31.

c. Foothill Yellow-legged Frog (FYLF) Surveys

Method: The surveys shall begin in the first calendar year after license issuance. EID shall conduct three years of protocol surveys for sensitive species using the procedures of Pacific Gas and Electric Company (2002) methodology in a sub-sample of appropriate habitat types to document species presence and distribution. EID shall identify amphibian breeding and larval periods in Project 184-affected reaches by periodically surveying reaches of known presence during spring/summer.

The purpose of the first year of surveys is to determine the timing and success of

the following life stages of existing known populations: egg laying, tadpole rearing, metamorphosis, and size/condition of metamorphs in late September to estimate probability of overwintering success. For subsequent years, the FS, ERC, CDFG and the Chief of the Division of Water Rights may approve a subset of survey sites or a less intensive program, based on review of the first year's data. In the future, FS, ERC, CDFG and the Chief of the Division of Water Rights may request additional breeding site habitat data to assess the cause of unexpected or chronic reproductive failures that may be related to Project operations. If the FYLF data are collected in the UARP relicensing, they can be used to satisfy this requirement after FS, ERC, CDFG and Chief of the Division of Water Rights approval.

Foothill yellow-legged frog Monitoring Sites:

- SFAR at Akin Powerhouse (EID site 105R)
- SFAR (EID site 110R)
- Silver Creek (EID site 115T)
- SFAR (EID site 120R)
- Soldier Creek (EID site 125T)
- Ogilby Creek (EID site 210DT)
- SFAR at Maple Grove (EID site 220R)
- SFAR from Alder Creek upstream to Kyburz Diversion Dam (sites to be determined)

Besides the above known site presence monitoring, the monitoring program shall address water velocities and discharge. EID also shall conduct surveys related to flow fluctuations June through September at any time the SFAR flow is 100 cfs or less and the reach between Kyburz Diversion Dam and Silver Creek changes 50 cfs or more in one day. Once the Chief of the Division of Water Rights in consultation with the FS, ERC, and CDFG determine that a certain level of flow change or fluctuation can occur without effects to egg mass or tadpole displacement, then only flow changes in greater magnitude than that already monitored would need to be checked. To the maximum extent possible, EID shall provide advance notification to the Chief of the Division of Water Rights, FS, ERC, and CDFG of any known type of Project-related flow fluctuation between June and September. EID shall attempt to monitor emergency Project-related flow changes prior to (if possible) and after any flow change that meets the criteria described above. Conclusions from such monitoring shall be reported to the Chief of the Division of Water Rights, FS, ERC, and CDFG within five days. These elements of the monitoring program shall be consistent with Condition No. 2 (Ramping Rates).

EID, based on the first three years of monitoring results, may be required to modify Project operations to address Project-related flow fluctuations in the SFAR immediately below the Kyburz Diversion Dam if the Chief of the Division of Water Rights in consultation with the FS*,* ERC and CDFG determine that such fluctuations adversely affect amphibian egg masses and tadpoles. After the third year, the Chief of the Division of Water Rights in consultation with the FS, ERC and CDFG, and will reassess the need for continued monitoring after flow changes.

Frequency for known site presence monitoring at the sites listed above if not modified by the Chief of the Division Water Rights in consultation with the FS, ERC, CDFG shall be: years 1, 2, 3, 5, 10, 15, 20, 25, 30.

d. Mountain Yellow-legged Frog Survey

Method: The survey shall begin in the first calendar year after license issuance. Protocol surveys for sensitive species using the procedures of CDFG (2001) in a subsample of appropriate habitat types to document species presence and distribution. Surveys would focus on presence of the larval stage at sites by periodically surveying reaches of known presence during spring/summer. If CDFG collects data associated with Lake Aloha and associated waters, that information can be used to satisfy this requirement after FS*, ERC,* and State Water Board review and approval.

Mountain yellow-legged frog Monitoring Sites:

- Echo Lake – Camp Harvey Tributary and associated ponds (EID site 440 T/L)
- Silver Lake (EID site 750LB)
- Camp Silverado (EID site 753IT)
- Caples Lake
- Lake Aloha and associated downstream ponds and habitats

Frequency: For the sites listed above, years 1, 5, 10, 15, 20, 25, 30. For Lake Aloha ponds, year one and after any spill.

e. Riparian Vegetation Species Composition Surveys

Method: Collection of pertinent data along fourteen existing transects at eight study sites in representative habitat types. Methods in accordance with those used in Composition of Riparian Herb Communities on Streams with Regulated and Unregulated Streamflow, Eldorado National Forest, California (Harris and

Lindquist 2000a). The study sites and transect locations are listed in this study.

Frequency: Every five years.

f. Riparian Vegetation Recruitment Survey

Method: Method is described in *Riparian Vegetation Establishment and Survival on Caples Creek and Kirkwood Creek, Summer, 2000* (Harris and Lindquist 2000b). Data shall be collected at 24 sites on two study reaches as described in Harris and Lindquist 2000b.

Frequency: Every five years.

g. Geomorphology (Sensitive Site Investigation & Mitigation Plan Development)

Method: A detailed investigation of fluvial geomorphic properties of the following reaches shall be carried out:

- Caples Creek below the confluence of the Caples Lake Spillway channel to the Jake Schneider Meadow
- Caples Lake Spillway Channel
- Oyster Creek from Silver Lake to below the confluence with the Silver Fork.

In Caples Creek, the site investigation shall include, at the minimum, bedload transport, thalweg longitudinal profile, bank erosion pins, and analysis of plain form (bar and flood plain feature) strata. EID shall consider and develop mitigation measures (other than streamflow releases) to correct channel stability problems.

EID shall provide annual site investigation reports to the FS, ERC, the Chief of the Division of Water Rights and CDFG and shall include any recommended measures proposed by EID to correct channel stability problems.

Frequency: Years 1 and 2.

h. Geomorphology (Continuing Evaluation of Representative Channel Areas)

Method: Establishment and monitoring of permanent cross-section transects, longitudinal profiles, and channel properties in representative channel areas. Measurement of cross-section profile and substrate composition at each transect. The following sites shall be evaluated:

- Lower Echo Creek

- SFAR below the diversion dam
- Silver Fork at Forgotten Flat
- Caples Creek all three reaches + spillway channel
- Oyster Creek below Highway 88

Frequency: Years 5, 10, 15, 20, 25, 30

EID shall provide annual monitoring reports to the FS, ERC, the Chief of the Division of Water Rights and CDFG and shall include any recommended changes in the monitoring proposed by EID.

14. Water Temperature Monitoring Plan

EID shall, within one year after license issuance, develop and file with Chief of the Division of Water Rights for approval a Water Temperature Monitoring Plan. EID shall consult with the ERC, CDFG, and the FS in development of the plan. Once the plan is approved by the Chief of the Division of Water Rights and the FS, EID shall file the plan with the Commission for its approval. Once the plan is approved by the Commission, EID shall implement the monitoring plan within one year.

EID shall conduct stream temperature monitoring at existing or selected stream gaging sites or specific stream segments. The Chief of the Division of Water Rights and the FS shall determine the monitoring sites in consultation with the ERC and CDFG. EID shall use continuous and in some cases redundant recorders. Reservoir temperature profiles may be added if the Chief of the Division of Water Rights in consultation with the FS, ERC, and CDFG determine that reservoir temperatures are a controllable factor and a temperature problem is identified.

Frequency: For streams, all years after license issuance until a subsequent license is issued or until EID demonstrates and the Chief of the Division of Water Rights determines, in consultation with the FS, CDFG, and the ERC that operation of the Project 184 reasonably protects the cold freshwater beneficial use. For reservoirs, only if the Chief of the Division of Water Rights determines, in consultation with the FS, CDFG and the ERC, that monitoring may be necessary to ensure protection of beneficial uses. Some temperature stations may be deleted if FS and the Chief of the Division of Water Rights find sufficient temperature data have been collected and no temperature issue exists for the relevant stream reach.

EID shall provide annual temperature monitoring report by June 30th to the FS, ERC, the Chief of the Division of Water Rights and CDFG and shall include any

recommended changes in the temperature monitoring proposed by EID.

15. Water Quality Monitoring Plan

Method: EID shall develop a water quality monitoring plan subject to approval by the Chief of the Division of Water Rights to monitor selected water quality parameters such as total suspended solids, turbidity, dissolved oxygen, pH, alkalinity, nitrate, total coliform, fecal coliform, and copper using standard methods. Except for fecal coliform and total coliform, which shall be collected May through September the first year and require repetitive sampling (over a 30-day period), samples shall be collected and analyzed eight times per year during the calendar years 1, 3, and 5 following license issuance (March, May, June, July, August, September, first storm of winter season, and December) and quarterly during the other monitoring years (March, June, September, and December) at the following stations:

- Echo Creek below Echo Lake Dam
- Pyramid Creek below Lake Aloha Dam
- Caples Creek below Caples Lake Dam
- Silver Fork American River below Silver Lake Dam
- SFAR upstream of Kyburz Diversion Dam
- SFAR downstream of Kyburz Diversion Dam
- Carpenter Creek above Carpenter Creek Diversion Dam
- Carpenter Creek below Carpenter Creek Diversion Dam
- No Name Creek above No Name Creek Diversion Dam
- No Name Creek below No Name Creek Diversion Dam
- Alder Creek above Alder Creek Diversion Dam
- Alder Creek below Alder Creek Diversion Dam
- Mill Creek above Mill Creek Diversion Dam
- Mill Creek below Mill Creek Diversion Dam
- Bull Creek above Bull Creek Diversion Dam
- Bull Creek below Bull Creek Diversion Dam
- Ogilby Creek above Ogilby Creek Diversion Dam
- Ogilby Creek below Ogilby Creek Diversion Dam
- Esmeralda Creek above Esmeralda Creek Diversion Dam
- Esmeralda Creek below Esmeralda Creek Diversion Dam

Frequency: Years 1, 3, and 5 with subsequent year sampling frequency to be determined by the Chief of the Division of Water Rights in consultation with the FS and the ERC. Monitoring in the first, third, and fifth years provides for the evaluation of changes in water quality with changes in the streamflow regime.

Some water quality parameters and/or stations may be deleted after sufficient data are collected to indicate lack of a water quality issue. The State Water Board reserves the right to require additional years of water quality monitoring should the monitoring reports identify any non-compliance with Basin Plan objectives.

EID shall provide annual water quality monitoring reports by June 30th to the FS, ERC, Regional Water Quality Control Board, Chief of the Division of Water Rights and CDFG and shall include any recommended changes in the monitoring proposed by EID.

16. Hazardous Substances Plan

Within one year of license issuance, EID shall file with the Commission a plan approved by the FS and the Chief of the Division of Water Rights for oil and hazardous substances storage and spill prevention and cleanup. In addition, during planning and prior to any new construction or maintenance not addressed in an existing plan, EID shall notify the FS, and the FS shall make a determination whether a plan approved by the FS for oil and hazardous substances storage and spill prevention and cleanup is needed. Any such plan shall be filed with the Commission.

At a minimum, the plan must require EID 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 FS 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 FS, State Water Board and Regional Water Quality Control Board immediately of the nature, time, date, location, and action taken for any spill affecting National Forest System lands, any waterbody or adjoining property.

17. Modified Term 91

EID shall not redivert under Permit No. 21112 water that was diverted to storage for purposes of hydroelectric power generation when satisfaction of inbasin entitlements required release of supplemental Project water by the Central Valley Project or the State Water Project.

a. Inbasin entitlements are defined as all rights to divert water from streams tributary to the Sacramento-San Joaquin Delta or the Delta for use within the respective basins of origin or the Legal Delta, unavoidable natural requirements for riparian habitat and conveyance losses, and flows required by the Board for maintenance of water quality and fish and wildlife. Export diversions and Project

carriage water are specifically excluded from the definition of inbasin entitlements.

b. Supplemental Project water is defined as that water imported to the basin by the Projects plus water released from Project storage that is in excess of export diversions, Project carriage water, and Project inbasin deliveries.

The State Water Board may modify, rescind or replace this condition, on its own motion or in response to a petition by EID, as appropriate in response to the outcome in *El Dorado Irrigation District v. State Water Resources Control Board* (C046211, app. pending). If that case determines that Term 91 or a modified Term 91 cannot be used as a basis for assigning to EID its share of responsibility for meeting Delta water quality objectives, the State Water Board's actions under this paragraph may include development of an alternative condition assigning responsibility in a manner not in violation of the court's ruling.

18. Annual Review of Streamflow and Ecological Conditions

By April 30 of each calendar year, EID shall schedule and facilitate a meeting with the ERC, FS, CDFG, and State Water Board to review and discuss the results of implementing the conditions of this certification, as well as to discuss other issues related to preserving and protecting ecological values affected by the Project. EID shall provide an operations and maintenance plan for the year in which the meeting occurs to the ERC, FS, CDFG and State Water Board two weeks prior to the meeting, The meeting may also include the United States Fish and Wildlife Service. This meeting may be combined with the annual consultation meeting required by the FS in its 4e Conditions.

19. Streamflow and Lake Level Information

EID shall make available to the public via toll-free telephone and internet information regarding lake levels and streamflows suitable for on-water recreation. EID shall, within one year of license issuance, submit a plan to the Commission that addresses, at a minimum, information on lake levels, real-time streamflows, simple staff gages, forecasting, and operations projections. The plan shall be reviewed by the ERC and approved by the Chief of the Division of Water Rights in consultation with the FS prior to filing with the Commission. Following approval, EID shall publish the minimum streamflow schedules from Condition No. 1 and current water year type information on EID's website.

At a minimum, EID shall provide hourly averages of streamflows for gages on the

South Fork American River below Kyburz Diversion Dam and the Silver Fork American River, and shall, within four hours, post the information on EID's website for the current day and the prior seven days. All streamflow values shall be in cfs rounded to the nearest whole number, and plots or tables showing these data shall be labeled as follows: "These provisional data have not been reviewed or edited and may be subject to significant change."

20. If EID determines that any activities involving the construction or maintenance of recreational facilities, roads, canals or other project related facilities may result in the discharge of waste, including but not limited to any discharge of pollutants, or upon request of the Executive Officer of the California Regional Water Quality Control Board, Central Valley Region, EID shall file a report of waste discharge or an application for a National Pollutant Discharge Elimination System permit, as appropriate, for that construction or maintenance activity. EID shall comply with any requirements of the Porter-Cologne Water Quality Control Act with respect to that construction or maintenance activity, including any waste discharge requirements or other order or prohibition issued by the Regional Water Quality Control Board or the State Water Resources Control Board with respect to any discharge or threatened discharge of waste from that construction or maintenance activity.

General Terms and Conditions:
In order to protect the beneficial uses designated in the Basin Plan, operation or maintenance of Project 184 shall not add the following substances to surface waters:

- Taste or odor-producing substances to impart undesirable tastes to domestic and municipal water supplies or odors to fish flesh or other edible products of aquatic origin or to cause nuisance or adversely affect beneficial uses;

- Perceptible floating material including, but not limited to, solids, liquids, foams or scums which could result in degradation of water quality;

- Suspended or settleable material in concentrations that cause a nuisance or adversely affect beneficial uses;

- Oil, greases, waxes or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water;

- Toxic pollutants present in the water column, sediments, or biota in concentrations that adversely affect beneficial uses; that produce detrimental

response in human, plant, animal, or aquatic life; or that bioaccumulate in aquatic resources at levels which are harmful to human health; and,

- Coliform organisms attributable to human wastes.

2. This certification applies only to EID's application for a new license for Project 184 described above. It is not intended and shall not be construed to apply to issuance of any other Commission license or license amendment.

3. Prior to implementing any change to Project 184 that would have a significant or material effect on the findings, conclusions, or conditions of this certification, EID must obtain the written approval of the Chief of the Division of Water Rights.
4. 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).

5. Any proposals for project maintenance or repair work involving the river, including desilting of the dam impoundment, impoundment drawdowns to facilitate repair or maintenance work, and tailrace dredging, shall be filed with the Chief of the Division of Water Rights for prior review and approval.

6. In the event of any violation or threatened violation of the conditions of this certification, the violation or threatened violation shall be subject to any remedies, penalties, process or sanctions as provided for under state law. For 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.

7. In response to a suspected violation of any condition of this certification, the State Water Board may require EID to furnish, under penalty of perjury, any technical or monitoring reports that 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.

8. 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.

9. Notwithstanding any more specific conditions in this certification, Project 184 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.

10. The State Water Board reserves authority to modify or revoke this certification if monitoring results indicate that continued operation of Project 184 would violate water quality objectives or impair the beneficial uses of the South Fork American River and project affected tributaries.

11. 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.

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

13. The State Water Board may add to or modify the conditions of this certification as appropriate to coordinate the operations of Project 184 with (1) water quality objectives adopted to protect the beneficial uses of the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Estuary) or (2) water right decisions or orders implementing the objectives. The State Water Board will make such additions or modifications to this certification only when reasonably necessary to achieve the water quality objectives or protect the beneficial uses of water in the Bay-Delta Estuary.

14. This certification does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California or the federal Endangered Species Act. If a "take" will result from any act authorized under this certification, EID shall obtain authorization for the take prior to commencing construction. EID shall be responsible for meeting all requirements of the applicable Endangered Species Act for the project authorized under this certification.

15. The authorization to operate the project pursuant to this certification is conditioned upon payment of all applicable fees for review and processing the application for water quality certification and administering the State's water quality certification

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

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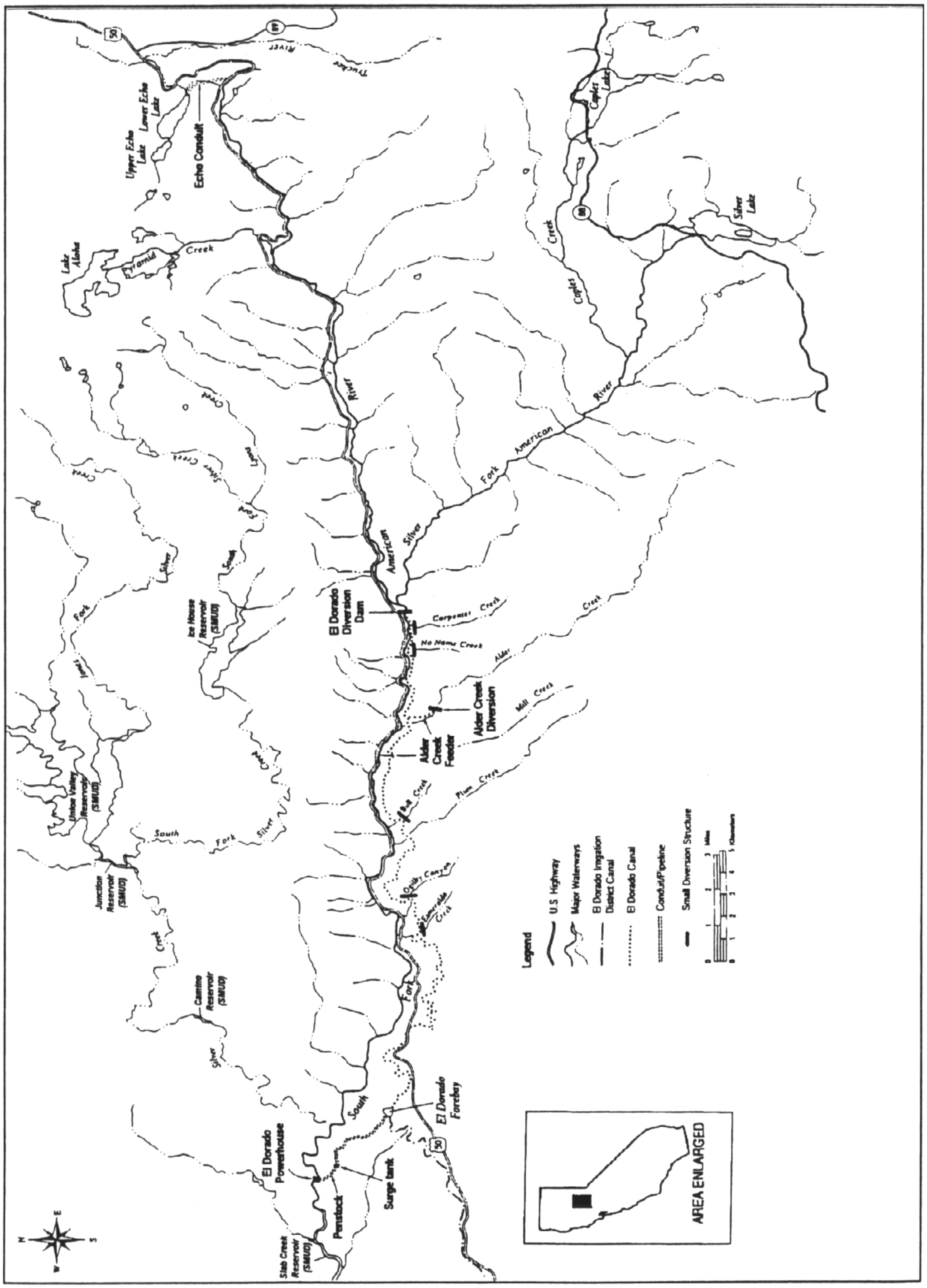
Celeste Cantu
Executive Director

Date: April 4, 2006


Upper Echo Lake
Lower Echo Lake
Echo Conduit
Truckee River
Lake Aloha
Pyramid Creek
Caples Lake
Caples Creek
Silver Lake
River
American
Fork
Silver
El Dorado Diversion Dam
Carpenter Creek
No Name Creek
Alder Creek
Alder Creek Diversion
Alder Creek Feeder
Mill Creek
Plum Creek
Bull Creek
Ice House Reservoir (SMUD)
Union Valley Reservoir (SMUD)
Junction Reservoir (SMUD)
Camino Reservoir (SMUD)
South Fork Silver Creek
South Fork
El Dorado Forebay
El Dorado Powerhouse
Surge tank
Penstock
Slab Creek Reservoir (SMUD)
50
89
88
Legend
U.S. Highway
Major Waterways
El Dorado Irrigation District Canal
El Dorado Canal
Conduit/Pipeline
Small Diversion Structure
Miles
Kilometers
AREA ENLARGED