In Reply Refer To: HLC0607-029

June 20, 2007

Honorable Magalie Roman Salas
Office of the Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

Subject: Compliance Submittal, Appendix A Condition 37 Monitoring Program Annual Report
Project No. 184-CA, El Dorado Hydroelectric Project

Dear Secretary Salas:

The Federal Regulatory Energy Commission (FERC) Order Issuing New License dated October 18, 2006, included the Project 184 Forest Service (FS) 4(e) Conditions as Appendix A. Condition 37 Monitoring Program, of the Settlement Agreement states: “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.”

El Dorado Irrigation District (EID) has prepared an Annual Report covering monitoring completed ahead of license issuance, in years 2004-2006. The first draft was distributed to the Ecological Resources Committee (ERC), FS, and State Water Resources Control Board (SWRCB) on April 9, 2007, additionally the report was reviewed at the April 12, 2007 ERC meeting. Comments received were incorporated into the report which was approved at the May 25, 2007, ERC, meeting.

EID respectfully submits the Annual Report in compliance with Appendix A Condition 37.

Should you have any questions, please contact me at (530) 642-4126.

Sincerely,

Steve Setoodeh, Ph.D., P.E.
Department Head of Facilities Management

SS/CJ:nm

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El Dorado Project, FERC No. 184
Ecological Resources Committee
Annual Report
2004-2006

EL DORADO IRRIGATION DISTRICT
2890 Mosquito Road
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May 2007

Version 2.0
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1.0 Introduction

The Federal Regulatory Energy Commission (FERC) Order Issuing New License dated October 18, 2006, included the Project 184 Relicensing Settlement Agreement as Appendix A. Appendix A Condition 37 Monitoring Program states:

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.

This annual report is being submitted to FERC by El Dorado Irrigation District (Licensee), after a 30 day review by the Ecological Resources Committee (ERC), the USDA Forest Service (FS), and the State Water Resources Control Board (SWRCB), in accordance with the FERC Project 184 Hydroelectric License.

2.0 Ecological Resources Committee Meetings Major Objectives (Feb. 2004–Nov. 2006)

February 17, 2004
The first ERC meeting, held on February 17, 2004, was primarily devoted to discussion of updates related to meeting the objectives of the Settlement. Updates discussed included Project 184 operations, resource management and evaluations, and major facility repairs and improvements required to meet Settlement objectives. Other items discussed were the settlement agreement between EID and the League to Save Sierra Lakes, et al., the disposition of tunnel spoils at Mill Bull Tunnel, development of an implementation plan and schedule, and the interim organization for implementing the Settlement Agreement and associated FERC licensing requirements.

April 27, 2004
The April 27, 2004, meeting of the ERC primarily focused on follow up on outstanding items from the February 17, 2004, ERC meeting and updates to meeting the objectives of the Settlement. Updates in the areas of project operations, resource management and evaluations, and major facility repairs and improvements to meet Settlement objectives were all discussed.

June 22, 2004
The June 22, 2004, ERC meeting focused on comparing the old FERC license with the new license (expected to be issued in fall 2004), specifically regarding storage levels and minimum-flow requirements reporting; the new Alder Reservoir proposal; updates on EID projects; and discussing drought preparedness. Efforts on the aquatic monitoring work plan were also discussed.
August 24, 2004
A number of items were discussed at the August 24, 2004, meeting of the ERC. These included a brief update on Project 184 and brief discussions of the Alder Reservoir Feasibility Study, Lake Aloha Trout Removal, the settlement agreement between EID and the League to Save Sierra Lakes, the Fisheries Enhancement Fund, relicensing study plan approval, and the Spillway 20 Mitigation Review. It was also decided that ERC meetings be changed from bi-monthly to quarterly (in February, May, August, and October) and three new members were approved to join: the East Silver Lake Improvement Association, the Kirkwood Meadows Public Utilities District, and the League to Save Sierra Lakes.

October 26, 2004
The primary focus of the October 26, 2004, ERC meeting was to discuss the February 2005 2-day ERC meeting which focused on license conditions. Other items discussed include the Alder Reservoir Feasibility Study; the Fish Enhancement Fund; implementation of License projects; an update on Project 184 operations; and updates on projects, plans and studies required by the License.

February 16, 2005
The February 16, 2005, ERC meeting focused on the development of study plans. Workshops were held on the Water Quality/Temperature Monitoring Plans, the Recreation Implementation Plan, the Heritage Resources Plan, the Noxious Weed/Pesticide Use Plans, and Minimum Streamflows/Gaging. Other topics discussed were the Alder Reservoir Feasibility Study, the Fish Enhancement Fund, operating protocols for the ERC meetings, stream flow and water storage, 2004 wildlife occurrences and mortality, and operations, enhancements, projects and studies to meet the License objectives. An update was also presented by the South Fork American River (SFAR) Watershed Coordinator on the development of a Regional Watershed coordination Team for the Upper American River basin.

May 24, 2005
The May 24, 2005, ERC meeting focused on license implementation and meeting the conditions of the license. This included discussing the pending license update and the schedule for completing plans, projects, surveys and studies to meet the objectives of the license and the settlement. Other items of discussion included updates on stream flow and water storage, capital improvement projects, and recreation.

August 23, 2005
The objective of the August 23, 2005, ERC meeting was to discuss license implementation. The meeting included license implementation progress reporting. In particular, the ERC addressed the status of license conditions required to be accomplished within one year of issuance. Other items of discussion included the water year report, the fish enhancement fund update, the 2005 amphibian monitoring plan, and capital improvement projects.

October 25, 2005
The ERC meeting held on October 25, 2005, continued to address compliance with implementing the license conditions. Topics included the amphibian monitoring plan, an
update on the pending license, and progress reports on license requirement implementation. The water year report and an update on capital improvement projects were also given. A draft ERC plan approval protocol was presented.

November 30, 2006
The November 30, 2006, meeting of the ERC focused on the issuance of the new license and license requirements implementation plan review. The ERC discussed the license requirements due with 10 years of issuance by due date (i.e., 3 months, 6 months, annually, one year, two years, four years, five years, six years and seven years). The ERC also discussed approval protocols for study plans and the schedule for 2007 ERC meetings.

3.0 Monitoring Program Study Plans

Condition 37 (Monitoring Program) of Appendix A to the License includes individual study plans for monitoring of the following subjects:

- Fish Populations
- Macroinvertebrates
- Amphibians (Habitat Evaluation & Determination of Species Presence/Distribution)
- Riparian Vegetation Species Composition
- Riparian Vegetation Recruitment
- Geomorphology (Sensitive Site Investigation & Mitigation Plan Development)
- Geomorphology (Continuing Evaluation of Representative Channel Areas)
- Water Temperature
- General Water Quality
- Trout Monitoring at Lake Aloha
- South Fork American River Flow Fluctuations Monitoring
- El Dorado Canal Monitoring for Wildlife
- Heritage Resource Monitoring
- Recreation Survey
- Review of Recreation Developments
- Target Lake Levels Evaluation

Beginning in February 2005, the ERC and the FS worked together to begin development of scientifically-sound study plans for each of these study subjects. Study plan preparation continued consistent with the objectives of the Monitoring Program (Settlement, Appendix A, Section 7). The plans are the basis for all studies and other activities being conducted under the Monitoring Program.
4.0 Monitoring Program Study Results for 2004, 2005, and 2007 Monitoring Plans

4.1 Fish Populations

4.1.1 Hardhead Surveys (2004-2005)

Hardhead Monitoring – 2004

Overview:
- The Licensee conducted hardhead surveys and habitat measurements in the SFAR near Akin Powerhouse in October, 2004. Surveys included a combination of electrofishing and snorkeling.
  - Electrofishing in the riffle-run habitat in the SFAR at Akin Powerhouse
  - Snorkeling in the first three pools in the SFAR upstream of Akin Powerhouse

Findings:
- Hardhead were the most abundant fish captured in the riffle-run habitat during the electrofishing.
- Other species captured included rainbow trout, brown trout, Sacramento sucker, riffle sculpin, speckled dace, and Sacramento pikeminnow.
- Hardhead were observed in the first two pools upstream of Akin Powerhouse.
- No hardhead were observed in the third pool upstream of Akin Powerhouse.
- All hardhead observed were juvenile fish; no adult hardhead were observed.

Hardhead Monitoring – 2005

- The Licensee conducted hardhead surveys and habitat measurements in the SFAR near Akin Powerhouse in October, 2005. Surveys included a combination of electrofishing and snorkeling.
  - Electrofishing in the riffle-run habitat in the SFAR at Akin Powerhouse
  - Snorkeling in five of the first six pools in the SFAR upstream of Akin Powerhouse

Findings:
- Hardhead were the most abundant fish captured in the riffle-run habitat during the electrofishing.
• Other species captured included rainbow trout, brown trout, Sacramento sucker, riffle sculpin, speckled dace, and Sacramento pikeminnow.

• Hardhead were observed in the five pools surveyed.

• Pool 5 was not surveyed because it did not have suitable habitat for hardhead.

• All hardhead observed were juvenile fish; no adult hardhead were observed.

• The distribution of hardhead upstream of the Akin Powerhouse may be a function of spring runoff—the adult fish getting further upstream during their spawning migrations in wet years.

**Study Activities Planned for 2007:**

• Conduct third year of hardhead baseline surveys in the SFAR at the sites surveyed in 2005.

• Attempt to identify upstream migration barrier.

• Collect scales from juvenile hardhead to assess the potential for multiple spawning periods.

4.2 **Macroinvertebrates**

No studies are required until Year 5 of the license. Therefore, no actions were taken under this condition.

4.3 **Amphibians**

4.3.1 **Foothill Yellow-legged Frog Monitoring (2004-2005)**

**Foothill Yellow-legged Frog Monitoring – 2004**

Overview:

• The Licensee conducted habitat assessments and visual encounter surveys at eleven survey sites on the SFAR and three associated tributary sites as follows:
  
  o SFAR at Akin Powerhouse (four subsites: two upstream and two downstream of powerhouse) – Site 105R
  o SFAR downstream of Silver Creek confluence (two subsites) – Site 110R
  o SFAR approximately 1 km upstream of Silver Creek confluence (three subsites) – Site 120R
  o SFAR at Ogilby Creek confluence – Site 207R
  o SFAR upstream of Ogilby Creek – Site 213R
○ SFAR near Maple Grove campground (three subsites) – Site 220R
○ SFAR upstream of Bull Creek confluence – Site 235R
○ SFAR immediately downstream of Alder Creek confluence – Site 246R
○ SFAR immediately upstream of Fry Creek confluence – Site 251R
○ SFAR immediately downstream of Carpenter Creek confluence – Site 266R
○ SFAR immediately upstream of Carpenter Creek confluence – Site 271R

○ Silver Creek - 0.8 km from confluence with SFAR – Site 115T
○ Soldier Creek - 0.8 km from confluence with SFAR – Site 125T
○ Ogilby Creek - 1.7 km from confluence with SFAR (upper section of tributary above the El Dorado Canal) – Site 210DT

- Surveys included two eggmass/larvae surveys, one tadpole/metamorph survey, and one late metamorph/juvenile survey at all of the breeding sites (six sites along the mainstem SFAR and one site on Silver Creek). One fall survey was conducted at all of the non-breeding sites.

Findings:

- Foothill yellow-legged frogs (FYLF) were observed at six sites on the SFAR: Akin Powerhouse, downstream and upstream of Silver Creek confluence, upstream and at the confluence of Ogilby Creek, and Maple Grove Campground sites. FYLF were also observed at Soldier Creek and Silver Creek. No FYLF were observed from Alder Creek upstream to the Kyburz Diversion Dam (sites specified for monitoring in the license and Settlement).

**Foothill Yellow-legged Frog Monitoring – 2005**

- The Licensee conducted habitat assessments and visual encounter surveys at six survey sites on the SFAR and three associated tributary sites. Sites chosen for monitoring in 2005 included sites identified with FYLF presence in 2002 and resurveyed during 2004, with the addition of one site (124R) that was recommended following the 2004 surveys. Survey sites included:

  ○ SFAR at Akin Powerhouse – Site 105R
  ○ SFAR downstream of Silver Creek – Site 110R
  ○ SFAR upstream of Silver Creek – Site 120R
  ○ SFAR at Soldier Creek Confluence – Site 124R
  ○ SFAR upstream of Ogilby Creek – Site 213R
  ○ SFAR near Maple Grove campground – Site 220R
- Silver Creek – Site 115T
- Soldier Creek – Site 125T
- Ogilby Creek – Site 210DT

- Surveys included two eggmass/larvae surveys, one tadpole/metamorph survey, and one late metamorph/juvenile survey at all of the breeding sites (six sites along the mainstem SFAR and one site on Silver Creek). One fall survey was conducted at all of the non-breeding sites.

Findings:

- Adult frogs or egg masses were observed at all SFAR sites. Eight incidental observations were recorded between survey sites.

- Tadpole groups and juvenile recruitment was observed only at Site 115T, Silver Creek and at Site 120R, upstream of Silver Creek.

- Access to some of the survey sites was extremely challenging. Site 115T (Silver Creek near the confluence with SFAR), Site 120R, Site 124R, and 125T each require long steep approaches to access.

Study Activities Planned for 2007:

- Continue FYLF surveys at the following sites:
  - Site 105R
  - Site 106R
  - Site 110R
  - Site 115T
  - Site 120R
  - Site 124R
  - Site 125T
  - Site 210DT
  - Site 213R
  - Site 220R

- Conduct FYLF surveys at the following additional sites:
  - Site 207R – SFAR at Ogilby Creek
  - Site 246R – SFAR immediately downstream of Alder Creek confluence
- Conduct all surveys using a team of two surveyors.
- During egg mass and tadpole surveys use one snorkeling surveyor when feasible.
- Survey tributaries 1000 feet from the confluence of the SFAR, if suitable habitat is present.

4.3.2 Mountain Yellow-legged Frog Monitoring (2004)

Overview:

- The Licensee conducted habitat assessments and visual encounter surveys at six primary mountain yellow-legged frog (MYLF) survey sites that were identified during initial special-status amphibian surveys in 2002. Sites surveyed in 2004 include:
  
  o Camp Harvey Tributary, Cagwin Lake and associated ponds (six subsites: Camp Harvey tributary, Cagwin Lake and four ponds immediately west of Upper Echo Lake) – Site 440IT/L
  o Upper and Lower Echo Lakes – Site 455LP
  o Lake Aloha – Site 550LP
  o Silver Lake – Site 750LP
  o Camp Silverado Tributary – Silver Lake – Site 753IT
  o Caples Lake – Site 895LP

- A single, focused survey was conducted at each site between July 28 and August 14, 2004. Sites were searched for tadpoles, metamorphs, juveniles and adult frogs.

Findings:

- MYLF were observed at three of the six monitoring sites: Lake Aloha (Site 550LP), Camp Silverado Tributary (Site 753IT), and Site 440IT/L (Subsite C) above Echo Lakes. Breeding was confirmed by the presence of tadpoles and metamorphs at 550LP and at Site 440IT/L (Subsite C).

- In the 2004 report, eight sites were recommended for future MYLF monitoring including those surveyed in 2004, and two additional sites where MYLF were documented in 2002:
  
  o Tributary to Silver Lake – Site 752IT
  o Emigrant Creek – Site 897IT

The next monitoring studies will be conducted at Lake Aloha (550LP) in 2007. All other sites will be monitored during Year 5 (2011) of the license.
4.4 Riparian Vegetation Species Composition

Monitoring studies are required at the end of every five year period following issuance of the license. Therefore, no actions were taken under this condition.

4.5 Riparian Vegetation Recruitment

Monitoring studies are required at the end of every five year period following issuance of the license. Therefore, no actions were taken under this condition.

4.6 Geomorphology (Sensitive Site Investigation & Mitigation Plan Development)

Monitoring studies are required in Years 1 and 2 of the license. Therefore, no actions were taken under this condition, but monitoring studies are planned for 2007 and 2008.

4.7 Geomorphology (Continuing Evaluation of Representative Channel Areas)

No studies are required until Year 5 of the license. Therefore, no actions were taken under this condition.

4.8 Water Temperature

Monitoring is required 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. A draft monitoring plan is currently being reviewed by the required Resource Agencies. Water temperature monitoring begins in 2008 under the proposed plan.

4.9 General Water Quality

Monitoring is required in Years 1, 3, and 5 with subsequent year sampling frequency to be determined by the SWRCB, FS, and ERC. A draft monitoring plan is currently being reviewed by the required Resource Agencies. Water quality monitoring is scheduled for 2008, 2010, and 2012 under the proposed plan.

4.10 Trout Monitoring at Lake Aloha

Lake Aloha Fish Removal – 2004

Overview

- The Licensee conducted a fish removal effort in the temporary ponds below Lake Aloha Auxiliary Dams 1-7.
Four ponds held enough water to potentially have fish, and therefore, the effort was focused on these four ponds.

Methods included a 150 X 4 foot experimental gill net and a beach seine.

Fish removal efforts were undertaken from August 30-September 1 and from September 27-30.

Findings:

- Two brook trout were captured below Dam 7 on September 2. No other fish were observed.

- No MYLF were documented.
- Lake Aloha spilled in 2006, so the fish removal needs to be repeated in Year 1.

Study Activities Planned for 2007:

- Implement the fish removal in the temporary ponds below Lake Aloha in 2007.
  - Methods will include a variety of tools including: gillnets, seines, and electrofishing.

### 4.11 South Fork American River Flow Fluctuations Monitoring

In 2004, EID began the summer operating under the new license flow regime in anticipation of receiving the new license. After the June ERC meeting, when it was determined that the new license would not be issued in 2004, EID reduced the streamflows back to the flow regime specified under the existing license. In conjunction with the streamflow reduction, EID consultants performed an evaluation of the potential impact on FYLF egg masses and tadpoles at sites 213R and 220R. Based on the results of the evaluation, the ERC approved the flow reduction to the conditions specified in the existing license.

### 4.12 El Dorado Canal Monitoring for Wildlife

Six deer were found dead in the canal system in 2004. Five of these deer may have entered the canal system through gaps in the fences or through open gates.
  - EID initiated extensive repairs to the fencing along the canal in 2004, and has installed signs asking the public to close the gates to keep wildlife out.

Six deer were found dead in the canal system in 2005. Three of these mortalities resulted from open gates or vandalism to the fences. One deer was able to get past the fence during deep snows. EID was unable to determine the entry point for two of the deer.

Four deer were found dead in the canal system in 2006. Three of these could have entered the canal system through gaps in the fences, which have all been fixed. There was no indication how the fourth deer got into the Forebay Reservoir.
EID will continue to monitor, evaluate, and improve project operations to eliminate wildlife mortalities along the Project 184 Canal System.

4.13 Heritage Resource Monitoring

The Heritage Properties Management Plan is due within six months of license issuance. Therefore, no actions were taken under this condition.

4.14 Recreation Survey

No studies are required until every sixth year of the license. Therefore, no actions were taken under this condition.

4.15 Review of Recreation Developments

No studies are required until every sixth year of the license. Therefore, no actions were taken under this condition.

4.16 Target Lake Levels Evaluation

No reports are required until every fifth year of the license. Therefore, no actions were taken under this condition.