COVER SHEET

FEDERAL ENERGY REGULATORY COMMISSION

DRAFT ENVIRONMENTAL IMPACT STATEMENT
FOR THE BIG CREEK ALP PROJECTS
Docket Nos. P-67, 2175, 2085, and 120

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EXECUTIVE SUMMARY

On November 29, 2005, Southern California Edison (SCE) filed a license application for the Mammoth Pool Project (SCE, 2005) with the Federal Energy Regulatory Commission (FERC or the Commission). On February 23, 2007, SCE filed license applications for Big Creek Nos. 2A, 8, and Eastwood; Big Creek Nos. 1 and 2; and Big Creek No. 3 (SCE, 2007a).

The Big Creek Project Nos. 2A, 8, and Eastwood (FERC No. 67) is located in Fresno County, California. The project affects 2,388.80 acres of federal lands administered by the Sierra National Forest. The Big Creek Nos. 1 and 2 Hydroelectric Project (FERC No. 2175) also is located in Fresno County, California, within the Sierra National Forest. The project affects 2,017.78 acres of federal land administered by the Sierra National Forest. The Mammoth Pool Hydroelectric Project (FERC No. 2085) is located in both Fresno and Madera counties, California, and affects 2,029.68 acres of federal land administered by the Sierra National Forest. The Big Creek No. 3 Hydroelectric Project (FERC No. 120) also is located in both Fresno and Madera counties, California, and occupies 433.52 acres of federal land administered by the Sierra National Forest.

SCE is using the alternative licensing process (ALP) for these four projects together and as such filed a comprehensive Settlement Agreement (SCE, 2007b). The four Big Creek ALP Projects considered in this draft environmental impact statement (EIS) are part of the Big Creek System. The Big Creek System is an integrated operation of nine major powerhouses, six major reservoirs, numerous small diversions, various conveyance facilities, access roads, electrical transmission lines, and appurtenant facilities. The Big Creek System is authorized under seven Commission licenses with coordinated operations to maximize the value of hydropower produced from the available water supply. The Big Creek ALP Projects and their relationship to the other three projects in the system are described in detail in sections 2.1.1 and 2.1.2. This draft EIS evaluates the potential natural resource benefits, environmental effects, and economic costs associated with relicensing the Big Creek ALP Projects.

Proposed Action

SCE proposes no capacity changes at any of the Big Creek ALP Projects, but proposes a comprehensive set of measures covering the full range of resources in the Upper San Joaquin River Basin as specified in a comprehensive Settlement Agreement filed with the Commission in February 2007. Modifications to project operations include provision or modification of minimum instream flow (MIF) releases from several dams and diversions, provision of channel and riparian maintenance flows from some diversions, provision of pre-spill whitewater flow releases from some diversions, and elimination of some flow diversions through diversion decommissioning. In addition, SCE proposes to implement plans and monitoring to manage large woody debris,

sediment, bald eagles, valley elderberry beetles and its habitat, vegetation and noxious weeds, cultural resources, visual resources, transportation, and recreation. The Recreation Management Plan includes provisions to conduct major facility rehabilitations, construct new recreational facilities, provide information to the public regarding project-related recreation, conduct fish stocking, monitor recreational use, and consult with the Forest Service. SCE also proposes to monitor temperatures, fish populations, and riparian habitat, and implement measures that would protect special status bats, mule deer, and other special status species, and measures that would reduce bear/human interactions. These measures are described in more detail in section 2.2.4.

Alternatives Considered

This draft EIS analyzes the effects of continued operation of the Big Creek ALP Projects and recommends conditions for a new license for each project. In addition to SCE's proposal, we consider two alternatives: (1) SCE's proposal with staff modifications (staff alternative); and (2) no action, which would represent continued operation with no changes.

Under the staff alternative, the Big Creek ALP Projects would include SCE's proposal, including the Settlement Agreement except for provisions to manage reservoir water surface elevations for recreational purposes at the Big Creek Nos. 1 and 2 and Mammoth Pool projects and funding rehabilitation of five campgrounds that are outside the existing project boundaries. Additional measures that we recommend for inclusion in any licenses that may be issued for the Big Creek ALP Projects are: (1) qualitatively assess gravel embeddedness in association with pool depth assessments following flushing flow releases from Dams 4, 5, and 6 (providing an additional assessment of potential habitat degradation beyond pool depth monitoring); (2) include the gravel augmentation feasibility assessment specified in section B.1.2.2 of the Settlement Agreement (measures not to be included in a new license) as a condition of a new license because this feasibility assessment pertains to Mammoth Pool dam spillway functions and the maintenance of a project access road; (3) specify in SCE's Avian Protection Plan that as follow-up to any documented bald eagle mortality at project transmission lines, the most recent APLIC guidelines would be used to assess appropriate corrective actions (the most recent guidance was issued in 2006 and it is likely to be updated during the life of the project); (4) include a Fire Management Plan in the land resource plans that are approved by the Forest Service (this is a 4(e) condition); (5) include a Sign Plan in the land resource plans that are approved by the Forest Service (this is a 4(e) condition); and (6) include a Spill Prevention and Countermeasure Plan in the land resource plans that are approved by the Forest Service (this is a 4(e) condition). We include all but two of the measures specified by the Forest Service as 4(e) conditions: (1) manage reservoir surface elevations at Huntington Lake and Mammoth Pool in accordance with unspecified criteria during the summer recreational season; and (2) fund rehabilitation for five campgrounds located outside the project boundaries of three of the four Big Creek ALP Projects. We include all section 10(j) measures specified by Interior in the staff

alternative. No other fish and wildlife agency filed 10(j) recommendations for the Big Creek ALP Projects.

Public Involvement and Areas of Concern

SCE conducted the National Environmental Policy Act scoping process as part of the ALP. SCE held a publicly noticed meeting with interested stakeholders and issued the Initial Information Package for the Big Creek ALP Projects in May 2000. The purpose of this meeting was to outline the ALP goals and objectives; identify process protocols; provide an overview of the Big Creek ALP Projects and associated resources; identify early stakeholder resource interests and issues; and identify opportunities for the public to participate and provide comment. In May 2000, the Plenary was established, which consists of representatives of the state and federal resource agencies, Native American tribes, local and regional authorities, non-governmental organizations, and members of the public. SCE held an additional publicly noticed meeting and a site tour of the Big Creek ALP Projects with interested stakeholders in June 2000. In addition, on July 24, 25, and 26, 2007, Commission and SCE staff held a publicly noticed site visit to the Big Creek ALP Projects. The site visit was open to the public and resource agencies.

SCE and the parties to the Settlement Agreement held more than 300 meetings during the last 5 years for the Big Creek ALP Projects. The Big Creek ALP involved the design and implementation of 67 studies designed to identify effects associated with the Big Creek ALP Projects. Reports were prepared based upon these studies and used to identify potential project effects and serve as the basis for a Settlement Agreement (SCE, 2007b). SCE filed the Settlement Agreement on February 23, 2007, concurrently with the applications for three of the Big Creek ALP Projects (the Mammoth Pool license application was filed on November 29, 2005). The Settlement Agreement was signed by 23 representatives of federal and state agencies, and non-governmental organizations.

The primary issues associated with the relicensing of the four Big Creek ALP Projects include establishment of appropriate flow regimes in project-affected stream reaches, protection of wildlife resources, provision of recreational opportunities, and protection of cultural resources.

Project Effects

Aquatic Resources—Under SCE's proposal: (1) MIFs in Project-affected reaches would be enhanced for trout and other aquatic biota; (2) channel and riparian maintenance flows would be released at the Big Creek Nos. 2A, 8, and Eastwood Project, enhancing riparian habitat; (3) the March 1 preliminary water year forecast would be used to determine which category of instream flows would be implemented on April 1, with an option to adjust flows based on the April 1 and May 1 water year forecast updates, if those updates are revised; (4) streamflow measurement capabilities would be enhanced; (5) fish populations would be monitored to assess population trends under the new project operating regimes; (6) provisions to pass sediment downstream of project

dams would be implemented, which should enhance habitat diversity and increase spawning gravel; (7) monitoring of pool depths following sediment pass-through events would detect habitat degradation; (8) project diversions would be decommissioned, and the affected stream reaches returned to essentially natural flow conditions; (9) water temperature would be monitored at selected bypassed reaches and reservoirs to ensure that Basin Plan objectives are met; and (10) large woody debris would be passed downstream of the Bear Creek diversion (Big Creek Nos. 2A, 8, and Eastwood Project) thus enhancing downstream aquatic habitat and increasing fisheries productivity.

With our modifications to SCE's proposal: (1) gravel embeddedness would be qualitatively monitored following flushing flow releases from Dams 4, 5, and 6, thus providing an additional assessment of potential habitat degradation beyond pool depth monitoring; and (2) the gravel augmentation feasibility assessment specified in the Settlement Agreement would be a condition of a new license.

Terrestrial Resources—Under the proposed action, SCE would implement: (1) wildlife habitat enhancements; (2) the Bald Eagle Management Plan; (3) the Vegetation and Integrated Pest Management Plan that would, among other things, control the spread of noxious vegetation; (4) proposed license articles that would protect mule deer, special-status species, and bats; and (5) environmental programs for environmental training, avian protection, noxious weeds, environmental compliance, the Endangered Species Alert Program, and the Northern Hydro Special-Status Species Information Program. In addition, under the staff alternative, the Bald Eagle Management Plan would be clarified to ensure that corrective actions following any raptor mortalities at project transmission lines would use current APLIC guidelines for protecting against avian collisions.

Threatened and Endangered Species—Under the proposed action, SCE would implement the valley elderberry longhorn beetle (VELB) Management Plan, including the protection of elderberry shrubs, which would reduce the loss of potential VELB habitat and any VELB inhabiting these shrubs. Vegetation maintenance in areas surrounding potential VELB habitat also would reduce the chance of a brush fire causing widespread loss of habitat.

Recreation—Under SCE's proposal, SCE would be responsible for implementing the following measures at some or all of the Big Creek ALP Projects: (1) operation and maintenance of recreational facilities; (2) rehabilitation of existing recreational facilities; (3) management of reservoir levels to facilitate recreational use while achieving project purposes; (4) fund fish stocking with a 50 percent cost share; and (5) dissemination to the public flow information for whitewater boating. In addition, SCE would (1) construct new recreational facilities at the Big Creek Nos. 2A, 8, and Eastwood Project, including an accessible fishing platform at Jackass Meadows and an accessible boat loading platform at Florence Lake; (2) construct new recreational facilities at the Big Creek Nos. 1 and 2 Project, including a day-use area at Dam 3 and an accessible fishing platform; and (3) provide pre-spill whitewater boating releases at the Mammoth Pool Project, to the extent possible.

With our modifications to SCE's proposal, the Florence Lake day-use area would remain within the project boundary. The existing project boundary would be revised to include all project recreational facilities that are partially outside the existing project boundary. The cost for the rehabilitation of the five Forest Service-managed campgrounds located in the Sierra National Forest that are outside of the project boundary would not be included in the staff alternative. SCE would be responsible for stocking fish, not funding fish stocking, and file a report with the Commission summarizing the fish stocking efforts. In addition, SCE would provide reservoir elevation, boat ramp accessibility information, and parking and campsite capacity as a component of the Form 80 Recreation Report. We do not recommend SCE's reservoir management measures at Huntington Lake and Mammoth Pool Reservoir because SCE proposes no specific elevation ranges associated with the reservoir level operations, and as such, the Commission would have no basis to determine whether SCE is in compliance with a reservoir surface water management regime.

Cultural Resources—Under SCE's proposal, cultural resources would be protected under provisions specified in a finalized HPMP, and SCE would implement environmental programs for cultural resources awareness.

Land Use and Aesthetics Resources—SCE proposes to remove lands from the project boundaries. SCE also proposes to add land to the project boundaries that would include project-related features. The Forest Service concurs with the proposed project boundary changes. In addition, SCE would implement the Transportation Management Plan at the Big Creek ALP Projects, which defines maintenance, monitoring, and rehabilitation responsibilities for project-related roads; interpretive signs would be installed at the Big Creek Nos. 2A, 8, and Eastwood, Big Creek Nos. 1 and 2, and Mammoth Pool projects; and the Visual Resources Plan would be implemented at the Big Creek Nos. 1 and 2 and Mammoth Pool projects, which would target painting project features to be more consistent with applicable Visual Quality Objectives.

With our modifications to SCE's proposal, Project-related signage would be consistent with Forest Service standards through the development of a Sign Plan; Fire Management responsibilities would be clearly defined in a Fire Management Plan; and a Spill Prevention and Countermeasure Plan, which is required by law to be in place where threshold amounts of hazardous materials are stored, would be available for Forest Service review.

Under the no-action alternative, environmental conditions would remain the same, and there would not be any enhancement of environmental resources.

Conclusions

Based on our analysis, we recommend licensing the four Big Creek ALP Projects as proposed by SCE with additional measures (staff alternative). The recommended staff modifications include measures provided by federal land use and resource agencies with an interest in the resources that may be affected by continued operation of the four

projects, as well as our independent analysis. Our additional measures are summarized in the previous section.

In section 4.3 of this draft EIS, we estimate the annual net benefits of operating and maintaining the Big Creek ALP Projects under the three alternatives identified above. Our analysis shows that the annual net benefit for the staff alternative for the Big Creek Nos. 2A, 8, and Eastwood Project would be $47,085,830 The annual net benefit for the staff alternative for the Big Creek Nos. 1 and 2 Project, Mammoth Pool Project, and Big Creek No. 3 Project would be $30,999,550, $34,136,090 $43,041,610, respectively.

We recommend the Commission issue new licenses for the Big Creek ALP Projects because (1) the four projects would provide a dependable source of electrical energy for the region (3,177,093 megawatt-hours annually); (2) the projects would continue to save the equivalent amount of fossil-fueled generation and capacity, thereby continuing to help conserve non-renewable energy resources and reduce atmospheric pollution; and (3) the recommended environmental measures proposed by SCE, as modified by staff, would adequately protect and enhance environmental resources affected by the projects.