

11.4 Iowa Hill Special Status Plants Study Plan

11.4.1 Pertinent Issue Questions

This study addresses the following terrestrial resource question for the proposed Iowa Hill Pumped Storage Development Project, as identified by the Upper American River Project (UARP) Relicensing Terrestrial Resources Technical Working Group (TWG) and as adapted from previously approved UARP studies:

- What is the distribution of special status plants in the proposed project area and to what extent would they be affected by Project construction, operation, and maintenance?

11.4.2 Background

A number of special status plants may have the potential to occur in the proposed Iowa Hill project area. For the purpose of this study, special status plant species are defined as those plant species that are: 1) listed, proposed or under review as rare, threatened or endangered under the Federal Endangered Species Act (ESA) or California ESA; 2) considered rare or endangered by the California Native Plant Society (CNPS); or 3) designated as sensitive species or species of concern by the U.S. Department of Agriculture, Forest Service (USFS). Mapping and description of any such populations will support analyses of how to protect these populations from any adverse impacts from Project construction, operation, and maintenance activities.

11.4.3 Study Objectives

The objectives of the Special Status Plants Study are to: 1) determine to what extent the proposed Project would affect special status plants and 2) describe how identified Project-related impacts can be mitigated through the protection and restoration of special status plant species habitat within environmental, economic, and engineering constraints.

11.4.4 Study Area and Sampling Locations

The study area will include the preliminary project boundary as described in Figures 2 and 14 of the Iowa Hill IIP (SMUD 2003), including the area surrounding the proposed reservoir (Figure 2 in IIP), intake structure, and the preferred alternative transmission line route proposed by the Licensee (Figure 14 in IIP).

11.4.5 Information Needed From Other Studies

This study will be supported by information generated from the Iowa Hill Vegetation Mapping Study. Information from previous special status plant surveys conducted in the project vicinity for the overall Upper American River Project will supplement the results of this effort.

11.4.6 Study Methods and Schedule

The project area will be surveyed in the 2004 flowering season beginning in April or May 2004. Survey protocol will follow CNPS "Guidelines for Assessing Effects of Proposed Developments on Rare Plants and Plant Communities." The guidelines require that botanical surveys that are conducted to determine the environmental effects of a proposed development project should be directed to all rare, threatened, and endangered plants and rare plant communities and will be floristic in nature; that they be conducted during the time of year when these species are identifiable (usually during the flowering stage of the species); that the field searches be conducted in a manner that will locate any rare or endangered species that may be present; and that the field investigator be familiar with the flora of the region (CNPS 2001). For the species within the Iowa Hill study area, the flowering period for all of the plants that could potentially occur within the study area is primarily from May to June, depending on annual variations in climate.

11.4.7 Analysis

The locations of all special status plant species observed will be recorded and plotted on Geographic Information System (GIS) maps. Photographs showing diagnostic floral characteristics, growth forms, and habitat characteristics will be taken of any special status plant species observed within the Study Area. Voucher specimens for verification will be collected in accordance with applicable government agency collecting regulations.

11.4.8 Study Output

Study results will be presented to the Terrestrial Resources Technical Working Group (TWG) in early summer 2004. Ultimately, the results of the study will be incorporated into Exhibit E of the Licensee's application to FERC for a new license for the UARP. The output will likely include the issues addressed, objectives, study area, methods, results, analysis, discussion, conclusions and, where appropriate, a discussion of a range of options to protect and/or enhance sensitive plant communities including the feasibility of each. The Exhibit E will also likely include: 1) narrative descriptions of special status plant species occurrence, current status and threats, phenology, and habitat requirements; and 2) GIS-generated maps that identify the location of the special status plants within the study area.

11.4.9 TWG and Plenary Group Endorsement

This study plan was approved on January 21, 2004 at the TWG by SMUD and the USFS. There was no one in attendance of the meeting who said they could not "live with" the study plan as written. The Plenary Group approved this plan on February 4, 2004. The participants at the meeting who said they could "live with" the plan were Taxpayers Association of El Dorado County, Friends of El Dorado County, USFS, American River Recreation Association & Camp Lotus, El Dorado County Water Agency, Pacific Gas & Electric Company, SMUD, El Dorado County, El Dorado Irrigation District, NPS, SWRCB, USBLM, City of Sacramento, CDFG, and FOR. None of the participants at the meeting said they could not "live with" this study plan.

11.4.10 Literature Cited

CNPS (California Native Plant Society). 2001. California Native Plant Society's inventory of rare and endangered plants of California. California Native Plant Society, Special Publication #1, Sixth Edition.

SMUD (Sacramento Municipal Utility District). 2003. Iowa Hill Pumped Storage Development Project Initial Information Package, revision 1. Sacramento, CA.