

11.15 Iowa Hill Auditory Study Plan

The Auditory Study for the proposed Iowa Hill Pumped Storage Development (Iowa Hill project or project) will consist of monitoring background noise levels at the project site, the nearest residential receptors, and the nearest recreational areas to determine if the project construction and operation will have adverse effects on the use of those properties or upon wildlife. Once background noise levels are obtained, the project construction and operational noise levels will be modeled and noise contours developed to determine changes in background noise levels at recreation and residential areas. A literature search will be performed to determine potential impacts project noise may have on wildlife.

11.15.1 Pertinent Issue Questions

- What are the auditory effects of Project construction and operation on the surrounding residential and public access areas, and wildlife?

11.15.2 Background

SMUD's existing Upper American River Project (UARP) is located in the rugged Sierra Nevada Mountains between the southern shores of Lake Tahoe and Sacramento. A majority of the UARP facilities are located within the Eldorado National Forest and the 85,000-acre Crystal Basin Recreation Area. The three UARP storage reservoirs – Ice House, Union Valley and Loon Lake, and their associated recreation facilities – provide significant recreational opportunities. As part of the relicensing process, SMUD seeks to add the Iowa Hill project to enhance its hydropower assets in the Upper American River. The pumped storage project would allow water to be pumped up to a holding pond on Iowa Hill when electricity is plentiful (generally during the night) and release it during peak electricity demand to generate peaking power. The pumped storage project would be located in El Dorado County, near the communities of Camino, Pollock Pines and Swansboro and the city of Placerville, placing it in an area where there is a small number of privately-owned residential properties could be affected by a change in noise levels.

11.15.3 Study Objectives

The objectives of the Auditory Study are:

- Perform ambient noise surveys to establish a baseline for comparison.
- Identify the auditory effects of Project construction and operation on the surrounding residential and public access areas.
- Provide figures showing the noise contours.

11.15.4 Study Area

The study area for the auditory analysis is defined as all recreation areas and privately-owned lands located within a 1-mile radius around the construction areas and operation sites.

11.15.5 Study Methods

Information for this study will be obtained through data provided by ambient noise monitoring, data provided by SMUD, and existing secondary sources. Information to be obtained includes:

- Locations of privately-owned parcels and recreation areas within 1 mile of project facilities.
- Data on number, types and duration and location of equipment used to construct the project, and on equipment used in its operation. Also, typical time of use data will be needed.
- Noise level data on similar pump-storage projects, or major noise-producing equipment used by the project.

- A search of the California Natural Diversity Data Base (CNDDDB) to determine what sensitive wildlife species may inhabit the area.
- Record search of studies on noise impacts on wildlife, focusing on species identified by the CNDDDB.

11.15.6 Study Analysis

The goal of this analysis is two fold: 1) to assess the extent to which noise generated by the project's short-term construction and long-term operation will impact residential uses and recreation facilities; and 2) to determine if project noise levels will have significant adverse impacts on sensitive wildlife species.

11.15.7 Affected Environment

The characterization of the affected environment will include a map indicating the locations of recreational areas, residentially-zoned parcels and existing residences that lie within a 1-mile radius of proposed project features. In addition, federal and state threatened and endangered wildlife species, and species of special concern that could inhabit the area will be identified. No biological field studies will be performed.

11.15.8 Environmental Consequences

The map of the affected area will be overlaid with noise contours from the noise modeling to identify the properties from which project features will have a noise impact and the level of that impact. A separate map will be made for construction noise and for operational noise. In addition, information learned from the record search will be used to determine qualitatively the potential impacts the project noise may have on wildlife species.

11.15.9 Study Output

The study output will be a technical report with maps, “before” and “after” noise contours, tables and text. The report will describe the existing environment, display the changes in noise levels that would be brought about by the project to recreational and residential areas, identify the available research literature on potential biological impacts and summarize its findings, and apply the insights gained from review of this literature to provide a qualitative assessment of the extent to which the project is likely to affect sensitive wildlife species. The technical report will be distributed to the Socioeconomic TWG for review and approval. The report will be prepared in a format so that it can easily be incorporated into the Licensee’s draft environmental assessment that will be submitted to FERC with the Licensee’s application for a new license.

11.15.10 TWG and Plenary Group Endorsement

The Socioeconomic TWG approved the issue questions and the study objectives for this study plan on February 27, 2004. The Plenary Group approved the issue questions and study objectives for this study plan on March 3, 2004.

The Socioeconomic TWG approved the draft study plan on March 29, 2004. The participants at the meeting who said they could “live with” the plan were U.S. Forest Service, El Dorado County Water Agency, City of Sacramento and SMUD. None of the participants at the meeting said they could not “live with” this study plan.