

11.16 Iowa Hill Socioeconomic Study Plan

The Socioeconomic Study for the proposed Iowa Hill Pumped Storage Development (Iowa Hill project or project) will consist of collecting labor and construction estimates (provided by SMUD) and other project-related data from existing sources.

The Study will identify the socioeconomic benefits, costs and other socioeconomic impacts of the Project to the region and to public services from the construction and operation of the Iowa Hill project. The Study will address those benefits and costs that are directly and indirectly affected by the project.

11.16.1 Pertinent Issue Questions

1. What would be the short-term effects on local services and infrastructure (e.g., police, fire, health, schools, housing) from the construction workforce?
2. What would be the long-term effects on local services and infrastructure (e.g., police, fire, health, schools, housing) from project operations?
3. What would be the growth-inducing impact of the project?
4. What are the overall benefits of the Iowa Hill pumped storage project?
5. Would construction traffic have any short-term impacts to Apple Hill tourism (e.g., traffic congestion from workers traveling to and from work sites and haul trucks transporting rock from the main access tunnel at Slab Creek Reservoir to the upper reservoir site)?
6. Would construction and operation activities have any short-term impacts to the “lifestyle” of the community of Camino?
7. What is the economic value of the long-term loss of harvestable timber at Iowa Hill?
8. In the event of a catastrophic failure, what would be the potential socioeconomic impacts of that failure?
9. Would construction and/or operations of the Iowa Hill Development affect whitewater boating downstream of Chili Bar Dam?
10. Would construction and/or operations of the Iowa Hill Development affect flat-water recreation on Slab Creek Reservoir? And if so, would there be any socioeconomic impacts (e.g., to the holder of the Special Use Permit for commercial flat-water boating on Slab Creek Reservoir recently issued by the Eldorado National Forest)?
11. Would construction and/or operations of the Iowa Hill Development affect flat-water recreation on Chili Bar Reservoir? And if so, would there be any socioeconomic impacts?
12. Would construction and/or operations of the Iowa Hill Development affect EDCWA/EID’s ability to implement the 1957 (as modified) facilities use agreement with SMUD?
13. Would construction and/or operation affect public access for recreation?

The water balance model would assess how operations of Iowa Hill would affect recreational resources (in the 20-mile reach downstream of Chili Bar Dam, Chili Bar Reservoir, the 8-mile Slab Creek bypass reach, the upper reservoirs and on Slab Creek Reservoir) via likely water management and cycling scenarios, compared to existing UARP operations. In addition, the water balance model would assess whether operations of Iowa Hill would affect or hinder EDCWA/EID’s ability to implement the 1957 facilities use agreement with SMUD.

11.16.3 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.

As part of the UARP 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.

11.16.4 Study Objectives

The objectives of the Socioeconomic Impact Study are:

- Identify the socioeconomic costs and benefits of the Iowa Hill pumped storage project on El Dorado and Sacramento Counties.
- Identify the overall benefits (to the extent known at this time, i.e., pre-filing and pre-PM&Es) of the proposed Iowa Hill pumped storage project.
- Identify the impacts construction traffic would have on Apple Hill tourism, including impacts from workers traveling to and from work sites and haul trucks transporting rock from the main access tunnel at Slab Creek Reservoir to the upper reservoir site.
- Identify the impacts construction and operational activities would have on the “lifestyle” of the community of Camino.
- Quantify the economic value of harvestable timber lost due to the change in land use at the Iowa Hill Development.
- Review the results of the water balance model runs for Issue Questions Nos. 9 through 13, and identify any associated socioeconomic impacts.

Once this study is complete, SMUD will consult with the relicensing participants and representatives of Apple Hill tourism industry concerning the effects construction traffic would have on the community and Apple Hill tourism. Measures necessary to mitigate or minimize the effects will be included in SMUD’s application for new license. Before construction, SMUD would develop a **Traffic and Transportation Plan** that describes the level of planned road use and identifies measures to control impacts to social and environmental resources.

11.16.5 Study Area

Region of Influence – El Dorado County. The Region of Influence (ROI) from the project construction and operation is El Dorado County. The construction and operational impacts would primarily effect El Dorado County. The study area for project benefits includes Sacramento County.

11.16.6 Study Methods

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

- Population and housing in El Dorado County.
- Employment by industry and employment by occupation in El Dorado County to determine sufficiency of local workforce.
- Local government revenues and expenditures over the past 3 years.
- Current use levels of public services, e.g., enrollment in schools, hospital use and available hospital resources in project vicinity, number of calls to police and fire stations.

Information to be provided by SMUD includes:

- Location of the project components.
- Duration of construction phase of the project.
- Expenditures on materials and supplies during construction.
- Estimate of the local portion (within El Dorado County) of expenditures on materials and supplies during construction.
- Number of construction workers including estimated split between local and non-local. Local is assumed to be those residing within El Dorado County. Construction workforce should include any subcontractor workforce so the total workforce reflects workforce required by project.

- Construction personnel by month (if possible) or the peak construction workforce as well as when that peak occurs.
- Construction personnel by discipline (or craft).
- Total construction wages (including benefits) or the average construction pay (including benefits).
- Number of workers required for operation and maintenance (O&M) of the pumped-storage project in excess of the operational workforce currently used to maintain the UARP facilities. Total operational wages (including benefits).
- Expenditures on materials, supplies and service during operation including the estimated split between local and non-local.
- If using trucks, then estimate of number and size of trucks, and number of trips per day/week to and from work site. Also provide the travel route of the trucks.
- Number of acres of timber harvested.
- List of benefits to Sacramento County from the Iowa Hill pumped storage project.
- Results of water balance model runs sufficient to address Issue Questions 9 through 13.

11.16.7 Study Analysis

The primary focus of this effort is to provide an economic impact analysis of the costs and benefits derived from the construction and operation of SMUD's Iowa Hill pump-storage project. The analysis will focus on quantifying the direct, indirect and induced regional economic impacts arising from the construction and operation of the project in terms of income and employment, as well as economic value to SMUD ratepayers. This would involve in part, the use of Input/Output (I/O) economic modeling. The IMPLAN I/O model will be used for this purpose. Additional analysis will be performed as necessary. During the course of the study, SMUD will meet with the Socioeconomic TWG to review the study approach to confirm the appropriateness of study outputs.

In addition, the analysis will also identify the overall benefits (i.e., consistent with the benefits and economic information requirements of Exhibits D and H of the relicensing regulations) of the proposed Iowa Hill pumped storage project as well as the construction and/or operation traffic impacts on: (1) Apple Hill tourism; (2) recreation resources on Slab Creek and Chili Bar Reservoirs; and (3) the "lifestyle" of the community of Camino. The analysis will also quantify the economic value of harvestable timber lost due to the change in land use at the Iowa Hill Development. Finally, the results of the applicable water balance model runs will be used to determine if there are any impacts to the socioeconomic resources in the area as a result of operations or from a catastrophic failure event.

11.16.8 Affected Environment

Data collected will be presented as a baseline for comparison. This baseline will include a description of population growth and projected growth within the ROI from 1990 through 2015. Existing housing stock for El Dorado County will also be presented. Employment and the general economy will be reviewed to determine the industry sectors that have experience growth or reductions in jobs. This section will also examine the fiscal resources of the County over the past 3-year period, current and projected school enrollment figures, and existing levels of law enforcement, fire protection, emergency response, and hospitals.

11.16.9 Environmental Consequences

The potential impacts of the Iowa Hill project would then be assessed. Included are potential impacts from the construction workforce on the County's population, housing supply, and local economy. The IMPLAN model will be used to determine the indirect and induced economic impacts from construction. The short-term fiscal impacts to El Dorado County from the project's construction will be estimated along with potential short-term impacts to the County on education, public services and public facilities. Potential long-term impacts from the increased operational workforce will also be analyzed to determine their impacts on education, public services and public facilities. The IMPLAN model will be used to determine indirect and induced economic impacts from the increased operational workforce.

The expected overall benefits of the Iowa Hill project will be presented in a manner consistent with the benefits and economic data requirements of Exhibits D and H of the relicensing regulations. The potential impacts of construction and operation traffic on tourism in the Apple Hill area and upon the lifestyle of the community of Camino will be presented. Potential socioeconomic impacts from the construction and operational activities on recreation resources will also be presented.

11.16.10 Study Output

The study output will be a technical report with tables and text describing the existing environment and displaying the economic and socioeconomic impact results of the project pertaining to fiscal resources, education, public services and public facilities. 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.

11.16.11 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. On April 7, 2004, the Plenary Group agreed that if the Socioeconomic TWG Subcommittee can resolve the issues of concern, the study plan can be deemed approved by the Plenary Group. The Socioeconomic TWG Subcommittee resolved the issues of concern and approved the draft study plan on May 10, 2004. The participants at the meeting, in person or via conference call, who said they could "live with" this study plan were U.S. Forest Service, El Dorado County Water Agency, City of Sacramento and SMUD.