

10.7 Fire Risk and Protection Study Plan

The Fire Risk and Protection Study Plan will assess fire risks and firefighting resources directly associated with the Project. The primary purpose of this study is to identify fire prevention and pre-suppression actions that could reduce fire risk directly associated with the Project, and actions that could protect the Project from fire ignition caused by other sources. A second purpose of this study is to determine the dispersed recreational facilities that are related to Project operations and maintenance that are found to need some level of assessment and treatment. The study geographical scope will include areas identified through TWG analysis of other study and research efforts.

10.7.1 Pertinent Issue Questions

15. “Is there a need for fuels management to protect Project facilities?”
20. “Does the project affect fuels management and if so, how?”
21. “What are the infrastructure needs (if any) for fighting fires associated with Project-related operations?”
25. “What are the public safety needs of induced recreation on fire (risks, issues, and mitigation)?”
27. “Does the Project increase fire risk? What are the potential mitigation or prevention measures to reduce fire risk?”

10.7.2 Background

Fire protection is a public services issue under the California Environmental Quality Act (CEQA) if new or physically altered governmental infrastructure for fire services is needed as a result of meeting service demands for a proposed project. Participants in the Alternative Licensing Process (ALP) for the UARP have identified several issues related to fire risk and fire prevention for the Project.

The Upper American River Project consists of a series of reservoirs, dams, powerhouses, switchyards, transmission lines, developed recreation facilities and associated dispersed recreation sites (refer to Initial Information Package for more descriptive information) that will be assessed in terms of fire hazard risk to and from adjacent lands. In addition to the current safety procedures associated with Project operation and maintenance, additional protection and prevention measures may be determined necessary to reduce potential fire risks directly associated with Project facilities and operations.

10.7.3 Study Objectives

1. Identify the potential need for fuels management associated with fire protection of Project facilities. This objective will address Issue Questions 15.
2. Identify existing fire fighting infrastructure and fire prevention measures associated with the Project. This objective will address Issue Questions 21 and 25.
3. Identify any potential fire risk associated with Project facilities (e.g., build up of fuels, recreation use, operations), and identify potential mitigation and/or fire prevention measures to reduce fire risk. This objective will address Issue Questions 20, 25 and 27.

4. Evaluate the adequacy of SMUD fire safety procedures for the UARP, and identify modifications to procedures associated with fire risk at different facilities. This objective will address Issue Question 27.
5. Identify through USFS records locations of dispersed recreation sites, fuel loading, historic hazard and fire risk areas in these areas; provide economic data that provides insight to funding availability; extrapolate fire risks associated with dispersed recreation for the next 30 – 50 years. This objective will also address Issue Question 25.

10.7.4 Study Area

The study area includes all structures and facilities (dams, powerhouses, switchyards, other ancillary facilities) within the FERC Project boundary. Outside the ENF, the study area is defined as the FERC Project Boundary. The USFS and SMUD agreed to consider fire risk and prevention aspects relative to Project-induced dispersed recreation as determined by the Land Use and Recreation TWG. Recreational use survey(s) may be used to provide information relative to fire risk within the study area.

10.7.5 Information Needed From Other Studies

Information needed from other relicensing studies include: 1) Vegetation Mapping and Riparian Vegetation Study plans; 2) the Recreational Use study, 3) Land Use study; and 4) the various study plans prepared for listed (and other species of concern) plants and animals.

10.7.6 Study Methods

The study methods will address the Study Objectives 1, 2, 3 and 4 and Issue Questions 15, 20, 21, 25, and 27. The first step for this task will be a review SMUD's existing fire management policies and procedures (e.g., within the Safety Management Plan) for Project facilities, including the transmission line rights-of-way or easements. Fire safety procedures at each Project facility (such as powerhouses and switchyards) will be evaluated by a fire safety expert. This will include review of fire safety equipment kept onsite and fire prevention/fighting training provided to project operators. Vegetation cutback procedures around project facilities will be reviewed by a registered/professional forester with expertise in fuels management.

Secondly, USFS, CDF fire and SMUD operations staff for the UARP will be interviewed and information collected on historical fire incidents at or near SMUD facilities (e.g., location, duration, cause) during the license period, and identify Project-related fire fighting infrastructure and capabilities, including personnel and equipment available to fight fires and provide emergency services during a fire.

Finally, USFS will gather existing historical data to prepare an analysis (in conjunction with SMUD) relative to fire risk and protection within the forest relative to developed and dispersed campsites, economic data (funding sources, ongoing costs of prevention and suppression programs), fuel loading (modeled and actual), public access, access to water for fire suppression, response time to the Crystal Basin, historic data (hazard/fuel maps, fire maps) and locations of developed, concentrated dispersed and "shotgun" dispersed recreation, as well as a treatment management plan for the next 30 – 50 years.

Following collection of the information described above, a project engineer and registered/professional forester with fuels management expertise will conduct a field assessment of fire risk at all project facilities, including the Project transmission line corridor, powerhouses, switchyards, and appurtenant

facilities and the applicable recreation sites associated with the Project. At each facility site the potential for the facility (e.g., switchyard) to start a fire will be evaluated. The evaluation will be based on the potential source(s) of fire (e.g., transformer explosion) and the proximity of fuel within the vicinity of the fire source. Areas identified in the field as having a high or moderate fire risk will be mapped on a USGS quadrangle (7.5 or 15 minute) or aerial photograph. Areas of low fire risk will not be mapped, but notes will be made as to the area of low risk and the criteria behind such a rating. From the field assessment of fire risk, the forester will develop prescriptions (in conjunction with USFS) for future management of areas within the Project vicinity that support a moderate or high fire risk. Available fire history from the CDF and USFS will also be examined.

10.7.7 Analysis

Qualitative and quantitative information for identifying potential impacts of Project operations and facilities, including dispersed recreational use, will be integrated and analyzed. If needed, protection, mitigation, and/or enhancement (PM&E) measures for significant impacts will be developed.

10.7.8 Study Output

A presentation on the study will be made to the Land Use TWG in 2003. The ultimate study output will be a written report that includes the issues addressed, study objectives, study area, including sampling locations, methods, analysis, results, discussion and conclusions. 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. The report will include maps depicting high and moderate fire risk areas in the Project vicinity. The presentation will also identify potential modifications to SMUD's fire prevention and protection procedures.

10.7.9 Preliminary Estimated Cost

[A preliminary estimated study cost will be prepared after the Socioeconomics TWG approves of the plan and prior to presenting the plan to the UARP Plenary Group for consideration.]

10.7.10 TWG Endorsement

The Land Use Technical Work Group approved this study plan on May 22, 2003. Those who said they could "live with" the study plan (as amended) were USFS, SMUD and Friends of El Dorado County. There was no one in attendance that said they could not "live with" the study plan. The Plenary Group approved the study plan at the June 4, 2003 meeting. The following participants approved the study plan: SWRCB, SMUD, USFS, NPS, Calif. DF&G, FOR, PG&E, City of Sacramento, PCWA, Camp Lotus, EDCWA, and other participants. No one present at the meeting said they could not "live with" the study plan