

8.1 Recreation Carrying Capacity Study Plan

8.1.1 Pertinent Issue Questions

The Recreation Carrying Capacity Study addresses the following recreational resource question:

9. What is the recreation carrying capacity for the Project with respect to the recreational experience and the ecological system?

8.1.2 Background

Carrying capacity can be defined as the amount and type of use that an area can sustain over a given period given goals to maintain the physical environment and experience of the visitor. The Recreation Carrying Capacity Study will evaluate the ability of the Project (recreation facilities and project features) to accommodate existing and future recreation uses, and assess whether these uses are suitable given the potential effects on social and environmental resources. The study will be focused on Project recreation facilities, Project reservoirs and identified dispersed sites and river access points (see 7.1.4) and will consider both the social and physical aspects of carrying capacity. The social aspect of carrying capacity will be evaluated in terms of the visitor responses to interview questions regarding social impacts, such as crowding, relative to the corresponding estimated use levels. The analysis will also draw upon established Recreation Opportunity Spectrum classifications to characterize the expected visitor experience. The physical aspect of carrying capacity will be discussed in terms of physical limitations such as boat density and environmental impacts that may be identified that can be attributed to recreation use. It will also discuss the role and authority of land management agencies to effect changes in land management. It does not address carrying capacity as it relates to whitewater resources (reference Whitewater Boating Feasibility Study).

8.1.3 Study Objectives

The objectives of this study include:

- Identifying the capability of land managing agencies to set capacities and manage the use and quality of recreation experiences
- Identifying the social capacity of the Project (lands, water and recreation facilities)
- Identifying the environmental capacity of the Project (lands, water and recreation facilities)

8.1.4 Study Area and Sampling Locations

The study area for the carrying capacity will be the area within the Project boundary and other sites (e.g., dispersed sites and river access points) beyond the Project boundary as defined in the Recreation Supply Study. Generally, all identified sites within one-quarter of a mile of Project reservoirs (including locations or river access points in the High Country, Crystal Basin and Canyonlands), as well as other sites beyond the one-quarter mile zone identified in consultation with the ENF and other interested participants, and agreed to by SMUD, will be included in the study area. The study area encompasses the area of concern including the lake surface, shoreline and other locations where recreation related to the Project activities commonly occur.

8.1.5 Information Needed From Other Studies

Information needed from the Visitor Use and Impact Study includes: 1) locations of resource damage related to recreation use, 2) interview responses regarding conflicting uses, 3) interview responses regarding sense of crowding, 4) recreation use levels at Project recreation facilities and 5) boating use levels on Project reservoirs. The locations (if any) where impaired water quality is determined to be related to recreation use is needed from the Water Quality Study. Data for evaluating the capacity (surface area) of the Project reservoirs at different lake levels is needed from the Water Balance Study.

8.1.6 Study Methods And Schedule

The methods used to complete this study will draw, in part, on the information and data gathered in other studies. The methodology and timeframe to collect this information and data are outlined in the respective studies identified in 7.1.5. The analysis of the information and data to complete this study will begin in 2003. Methods will also include a literature and/or website review to obtain recent and applicable standards to evaluate carrying capacity, a review of CDBAW boating safety standards and determining applicable ENF standards and guidelines for the study area from the ENF LRMP and Sierra Nevada Forest Plan Amendment.

8.1.7 Analysis

This study will compile information collected from various studies and analyze it relative to standards in literature, websites, agency policy, applicable ENF standards and guidelines and ROS classification. The analysis will identify circumstances that may exist where the existing or future recreational use is not consistent with protecting environmental resources or the expected quality of the recreational experience of visitors. The analysis will identify how and where activities are competing for the same space and time. It will include a range of possible management and/or facility options.

8.1.8 Study Output

The study output will be a narrative report that also includes tabular data displaying and correlating the interview data (conflicting uses and sense of crowding) and use levels. Maps showing the locations of any resource damage related to recreation use, photographs of recreation use (boating, overnight and day use) may also be included. The narrative report will discuss the existing types and levels of use relative to published or applicable standards and identify conflicting uses and will include the issue questions addressed, objectives, study area, methods, results, analysis, discussion and conclusions. The report will be prepared in a format that allows the information to be inserted directly into the Licensee-prepared Draft Environmental Assessment that will be submitted to the FERC with the Licensee's application for a new license.

8.1.9 Preliminary Estimated Study Cost

A cost estimate for this study plan will be prepared after the Plenary Group approves the plan.

8.1.10 Recreation and Aesthetics TWG Endorsement

This study plan was approved on March 5, 2002 by the following entities of the TWG: ENF, SWRCB, American River Recreation Association/Camp Lotus, NPS, BLM, El Dorado County Parks Dept., California Outdoors and SMUD. This study plan will be sent out to other members of the Recreation and Aesthetics TWG for their consideration. On May 1, 2002 the following participants gave Plenary Group approval to the plan: USFS, BLM, USFWS, Taxpayers of El Dorado County, Friends of El Dorado County, Camp Lotus, El Dorado County Water Agency, El Dorado County, Placer County Water Agency, California Department of Fish and Game, California State Water Resources Control Board, Pacific Gas and Electric and Friends of the River. None of the participants at the meeting said they could not "live with" this study plan.

8.1.11 Literature Cited

None.