

**UNFFR HYDROELECTRIC PROJECT
FERC NO. 2105**

REPORT E5: RECREATION RESOURCES

Final

October 2002

REPORT E5

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Acronyms and Definitions

Access Board	US Architectural and Transportation Barriers Compliance Board
ADA	Americans with Disabilities Act
ADAAG	Americans with Disabilities Act's Guidelines for Buildings and Facilities
asl	above sea level
ATV	all-terrain vehicle
AW	American Whitewater
BAOT	boats-at-one-time
BIC	boat-in campsite
BLM	United States Bureau of Land Management
BLS	United States Bureau of Labor Statistics
BOR	United States Bureau of Outdoor Recreation
Cal Boating	California Department of Boating and Waterways
Cal Trout	California Trout, Inc.
Caltrans	California Department of Transportation
CDF	California Department of Forestry
CFR	Code of Federal Regulations
cfs	cubic feet per second
CIP	Capital Improvement Program
CNDDB	California Natural Diversity Database
Committee	Outdoor Developed Areas Regulatory Committee

CPI	consumer price index
CR	county road
CSU	California State University
CVM	contingent valuation method
DFG	California Department of Fish and Game
DPR	California Department of Parks and Recreation
DUA	day use area
DWR	California Department of Water Resources
FERC	Federal Energy Regulatory Commission
Forest Service	United States Department of Agriculture Forest Service
fpm	feet per mile
GIS	geographic information system
hp	horsepower
HPM	Hedonic Property Method
I	Interstate
I&E	Interpretation and Education
LAC	limits of acceptable change
LART	Lake Almanor Recreation Trail
Licensee	Pacific Gas and Electric Company
LOSRA	Lake Oroville State Recreation Area
Meaningful Measures	Forest Service Recreation Facilities Maintenance Program
MFFR	Middle Fork of the Feather River
mph	miles per hour

msl	mean sea level
NFFR	North Fork of the Feather River
NMMA	National Marine Manufacturers Association
NPS	National Park Service
NRPA	National Recreation and Parks Association
NRRS	National Recreation Reservation System
NSDO	Nevada State Demographer's Office
NWA	National Wildlife Area
NWSC	National Water Safety Congress
O&M	operation and maintenance
ORV	off-road vehicle
OWA	Oroville Wildlife Area
Pacific Region	collectively, the States of California, Oregon, Washington, Alaska, and Hawaii
PAOT	people-at-one-time
PCT	Pacific Crest Trail
PFD	personal floatation device
PMEs	protection, mitigation and enhancement measures
Project	UNFFR Hydroelectric Project (FERC Project No. 2105)
Prospectus	Prospectus for Concessionaire Operation of Recreation Sites
PSEA	PG&E Service Employees Association
PWC	personal watercraft
RD	recreation day

Reclamation	United States Department of the Interior Bureau of Reclamation
ROS	Recreation Opportunity Spectrum
ROW	right-of-way
RRMP	Recreation Resource Management Plan
RV	Recreational Vehicle
RVDs	recreation visitor days
SCORP	Statewide Comprehensive Outdoor Recreation Plan
SCS	United States Soil Conservation Service
SOBA	States Organization for Boating Access
SR	state route
TAF	thousand acre-feet
TCM	travel cost method
TES	threatened and endangered species
UNFFR	Upper North Fork of the Feather River
URDC	Urban Research Development Corporation
US	United States
USFWS	United States Department of the Interior Fish and Wildlife Service
VAOT	vehicles-at-one-time
WRC	United States Water Resources Council
WSR	Wild and Scenic River
WTP	willingness to pay

18 CFR § 4.51 (f) (5) Report on recreational resources. *The report must discuss existing and proposed recreational facilities and opportunities at the project. The report must be prepared in consultation with local, state, and regional recreation agencies and planning commissions, the National Park Service, and any other state or Federal agency with managerial authority over any part of project lands. Consultation must be documented by appending to the report a letter from each agency consulted indicating the nature, extent, and results of the consultation. The report must contain:*

- (i) A description of any existing recreational facilities at the project, indicating whether the facilities are available for public use;*
- (ii) An estimate of existing and potential recreational use of the project area, in daytime and overnight visits;*
- (iii) A description of any measures or facilities recommended by the agencies consulted for the purpose of creating, preserving, or enhancing recreational opportunities at the project and in its vicinity (including opportunities for the handicapped), and for the purpose of ensuring the safety of the public in its use of project lands and waters;*
- (iv) A statement of the existing measures or facilities to be continued or maintained and the new measures or facilities proposed by the applicant for the purpose of creating, preserving, or enhancing recreational opportunities at the project and in its vicinity, and for the purpose of ensuring the safety of the public in its use of project lands and waters, including an explanation of why the applicant has rejected any measures or facilities recommended by an agency and described under paragraph (f)(5)(iii) of this section; and*
- (v) The following materials and information regarding the measures and facilities identified under paragraphs (f)(5) (i) and (iv) of this section:*
 - (A) Identification of the entities responsible for implementing, constructing, operating, or maintaining any existing or proposed measures or facilities;*
 - (B) A schedule showing the intervals following issuance of a license at which implementation of the measures or construction of the facilities would be commenced and completed;*
 - (C) An estimate of the costs of construction, operation, and maintenance of any proposed facilities, including a statement of the sources and extent of financing;*
 - (D) A map or drawing that conforms to the size, scale, and legibility requirements of § 4.39 showing by the use of shading, cross-hatching, or other symbols the identity and location of any facilities, and indicating whether each facility is existing or proposed (the maps or drawings in this exhibit may be consolidated); and*
- (vi) A description of any areas within or in the vicinity of the proposed project boundary that are included in or have been designated for study for inclusion in, the National Wild and Scenic Rivers System, or that have been designated as wilderness area, recommended for such designation, or designated as a wilderness study area under the wilderness Act.*

E5.0 INTRODUCTION

Upper North Fork Feather River (UNFFR) Hydroelectric Project (Project) area recreation resources and visitor use levels were studied to identify the existing and future recreational needs of the Project area and to address the concerns of resource agencies. The recreation studies included existing recreational opportunity and facility assessments and existing and potential recreation use studies. The results of these assessments and studies were used to prepare this exhibit.

This Report E5: Recreation Resources exhibit has been prepared in consultation with the National Park Service (NPS), United States Forest Service (Forest Service), California Department of Fish and Game (DFG), California Department of Parks and Recreation (DPR), California State Water Resources Control Board (SWRCB), Plumas County, and other interest groups and members of the public. Consultation included providing these agencies or organizations with an opportunity to review and comment on two rounds of draft recreation study plans, the results from recreation studies as they became available, and three draft sections of the Draft Recreation Resource Management Plan (RRMP).

Existing recreational opportunities and facilities assessments are detailed in Section E5.1—Existing Recreational Opportunities and Facilities, and include the following:

- Regional Recreation Assessment;
- Recreation Facility Condition and Site Inventory;

- **Recreation Dispersed Sites and User Impacts Analysis; and**
- **Americans with Disabilities Act (ADA) Accessibility Study.**

Existing and potential recreation use studies are detailed in Section E5.2—Existing and Potential Recreation Use and Needs Analysis, and include the following:

- **Questionnaire Survey;**
- **Existing Recreation Use Study;**
- **Reservoir Boating Study;**
- **Projected Recreation Use Analysis;**
- **Recreation Carrying Capacity Analysis;**
- **Shoreline Day Use Public Access Analysis;**
- **Recreation Suitability Analysis;**
- **Whitewater Boating Study; and**
- **Recreation Needs Analysis Synthesis.**

These studies form the foundation of the information used by Pacific Gas and Electric Company (Licensee) to prepare Report E5: Recreation Resources. Between the draft and final license application in 2002, the Licensee prepared a draft Recreation Resource Management Plan (RRMP). This draft plan was prepared in consultation with agencies and other stakeholders in 2002, and focused on the Licensee's role in providing for and managing Project recreation resources over the term of the new license.

In addition to the recreation study results presented in Sections E5.1 and E5.2, Section E9—Agency Consultation presents written input received by the Licensee on the draft license application and potential measures to be considered in the Draft RRMP or other resource measures. These written comments along with public input received during many Recreation, Land Use, and Aesthetics (RLA) Work Group meetings were considered by the Licensee as the various plans and proposals were developed.

The Licensee's proposed recreation protection, mitigation and enhancement measures (PMEs) are presented in Section E5.4—Recreation Proposals. These proposals form the Licensee's proposal for Project recreation resources for the term of the new license. These proposals have been incorporated into the Draft RRMP and are presented in the final license application.

Section E5.5—Responsible Parties, Schedules, and Costs provides specific details on the Licensee's proposed PMEs for the term of the new license. These details provide the agencies and other stakeholders with specific information needed to make informed decisions and comments regarding the Licensee's proposals presented in the final license application.

Section E5.6—National Wilderness Areas, Wild and Scenic Rivers and Trails presents FERC-required information on these national recreation resources. The relationships of these resources to the Project is discussed, if any.

Finally, Section E5.8—References lists the documents, studies and other materials that are cited in the preceding sections.

These studies were prepared in 2000 to 2002 for the Licensee by EDAW, Inc., Confluence Research and Consulting, and Resource Decisions.

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E5.1 EXISTING RECREATIONAL OPPORTUNITIES AND FACILITIES

This section presents a broad overview of the existing recreation resources found in the Upper North Fork Feather River (UNFFR) Hydroelectric Project (Project) area and the surrounding region. These resources are further detailed in four recreation studies that follow, including:

- Regional Recreation Assessment;
- Recreation Facility Condition and Site Inventory;
- Recreation Dispersed Sites and User Impacts Analysis; and
- Americans with Disabilities Act (ADA) Accessibility Study.

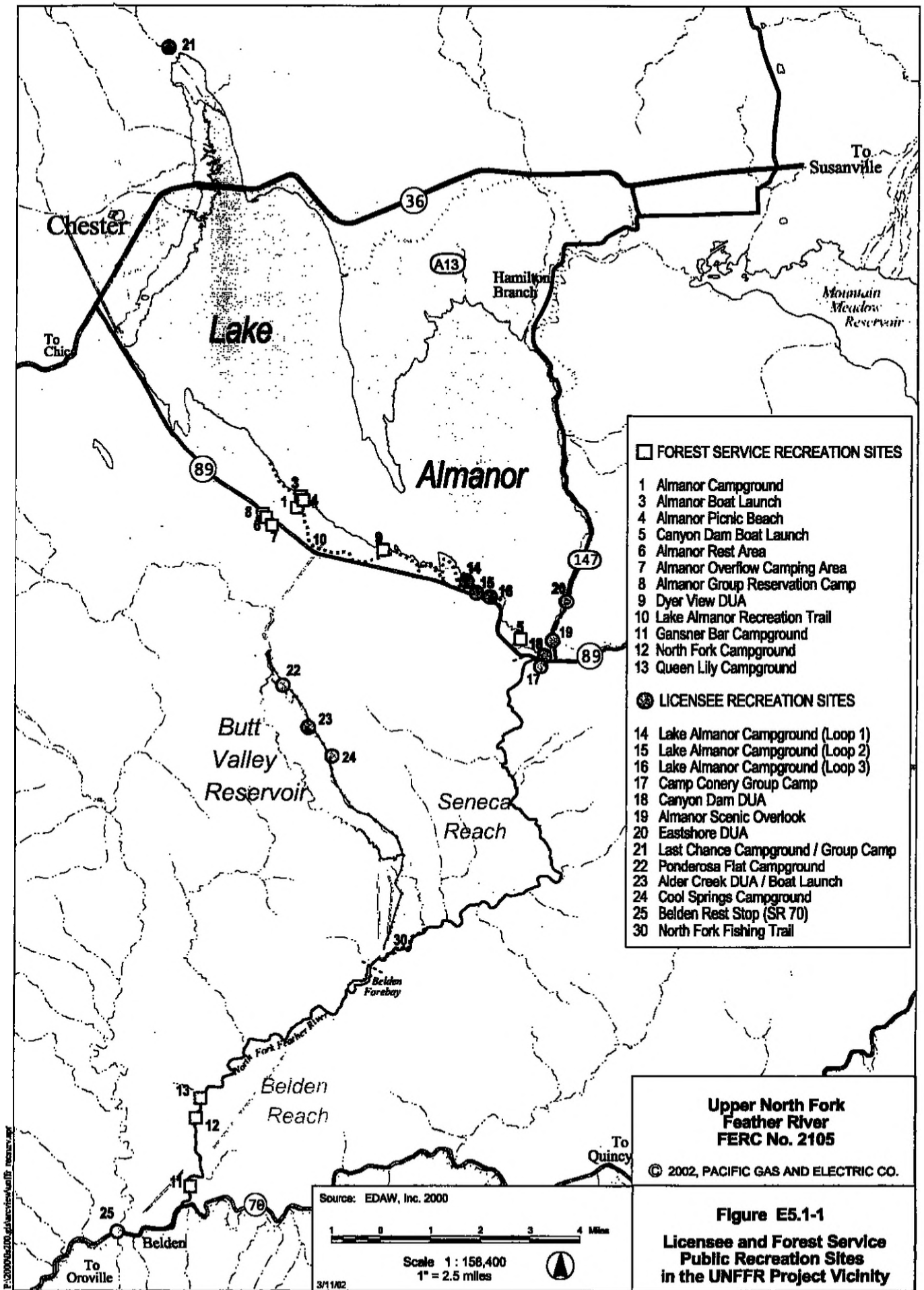
The Project is located in northeastern California (northwestern Plumas County), in a sparsely populated area comprised of forest and river canyon and valley landscapes. The community of Chester is located adjacent to the northwest end of Lake Almanor. Quincy, the Plumas County seat, is located 35 miles southeast of the Project area. The primary land uses in the Project area are forest products, tourism, residential, and hydroelectric development. Major land owners in the Project area include Pacific Gas and Electric Company (Licensee), the United States Forest Service (Forest Service) (Plumas and Lassen National Forests), and large private landowners (timber companies and residential communities).

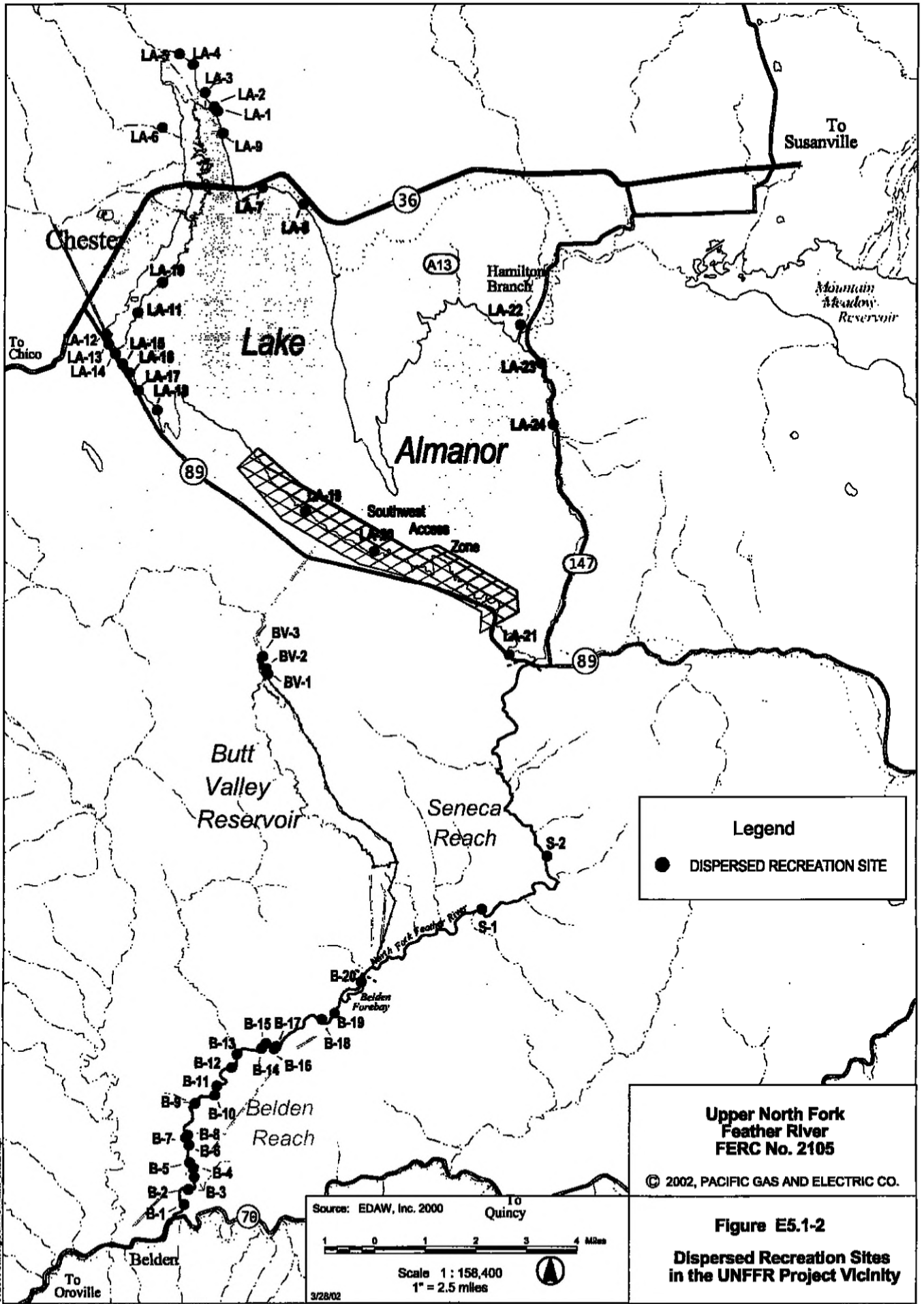
The Project study area includes Lake Almanor and Butt Valley Reservoir. Additionally, there are two reaches of the UNFFR within the Project study area.

The upper Seneca Reach begins below Canyon Dam on Lake Almanor and runs south, approximately 12 miles, to just above Belden Forebay, at Caribou Powerhouse 1. The lower Belden Reach begins at Belden Forebay and runs southwest, approximately 11 miles, where it meets the east branch of the North Fork of the Feather River (NFFR), at State Route (SR) 70 near the Town of Belden.

The Project area includes two groups of recreation sites and use areas for relicensing planning purposes (referred to as Level 1 and Level 2 sites). Level 1 developed recreation sites and use areas include Licensee- and Forest Service-developed public recreation sites (see Figure E5.1-1—Licensee and Forest Service Public Recreation Sites in the UNFFR Project Vicinity, at the end of this section). Licensee recreation facilities are considered to be public resources, similar to Forest Service facilities.

Level 2 recreation sites include a mix of public, Licensee, and other private undeveloped, dispersed lakeside (Lake Almanor and Butt Valley Reservoir) and riverside (Belden and Seneca Reaches) day use and overnight sites (see Figure E5.1-2—Dispersed Recreation Sites in the UNFFR Project Vicinity). Included is an area referred to as the Southwest Shoreline Access Zone on Lake Almanor, where many visitors access the shoreline by foot or vehicle at several locations, generally between the two Forest Service boat launches. These Level 2 dispersed, undeveloped sites are documented in this report, but to a lesser extent than the much larger Level 1 public recreation facilities.





In addition, the Project vicinity includes many Level 2 private resorts, many of which include facilities available for public use for a fee, such as boat launches and marinas, watercraft rentals, recreational vehicle (RV) campsites, and stores/food service. These private recreation facilities are located on Lake Almanor and the lower Belden Reach (see Figure E5.1-3—Private Recreation Facilities in the UNFFR Project Vicinity). These private facilities, primarily RV resort-style developments, play a very important role in meeting the overall recreation needs in the Project vicinity and help fulfill a market niche. Because the Licensee has minimal or no authority over these private recreation providers and they are not public facilities, they are considered in this report, but to a lesser extent than Licensee and Forest Service public facilities.

Finally, it is important to place the UNFFR recreation resources in proper context within the region. Figure E5.1-4—Regional Recreation Resources shows recreation facilities and resources in the area beyond the UNFFR Project vicinity. Northeastern California, with its significant watersheds, holds some of the most attractive, unspoiled, and popular outdoor recreation resources in the state.

Four recreation studies were conducted to document existing recreational opportunities and facilities within the Project area, vicinity, and region. Section E5.1.1—Regional Recreation Assessment presents an analysis of the water-based recreation opportunities that are found in the region surrounding the Project. Twelve recreation areas are discussed and represent alternatives for visitors who may come to the Project area to recreate. The similarities and differences compared to the Project area are noted.

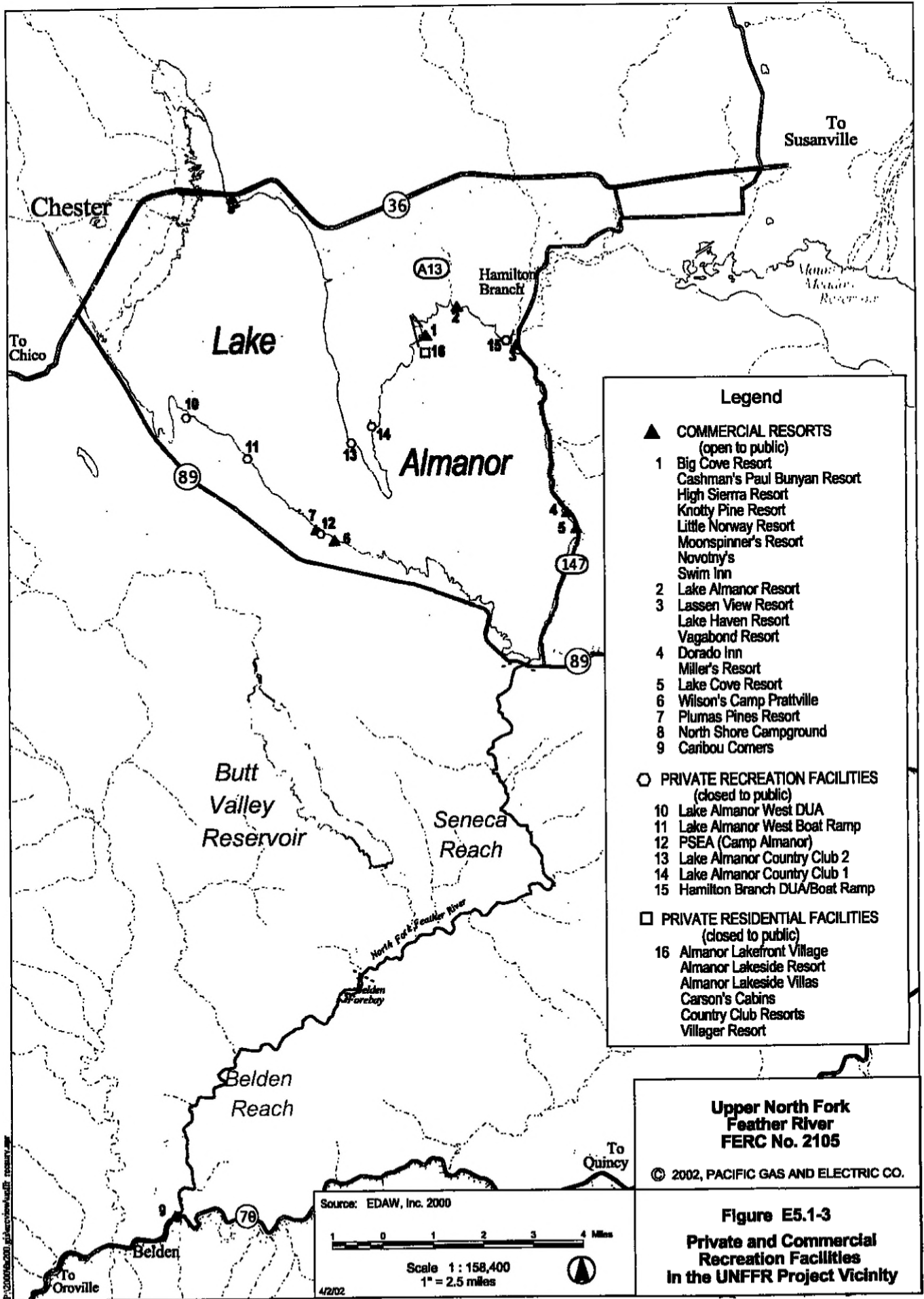
The Project area is unique within the region due to the size of its waterbodies, its mix of public and private recreation facilities and visitors' experiences, and its two river reaches.

The next study inventories Project area and surrounding vicinity recreation facilities and their conditions. Section E5.1.2—Recreation Facility and Condition Inventory presents the findings of detailed counts of the numbers and types of facilities available to Project area visitors, as well as a qualitative assessment of facility conditions.

Section E5.1.3—Recreation and Public Use Impact Assessment analyzes the impacts of dispersed recreation use on Project reservoir shorelines and along the Project river reaches. Approximately 50 dispersed undeveloped sites were inventoried and documented, plus the Southwest Access Zone at Lake Almanor, which is used to access the shoreline by vehicle and foot. Issues associated with this dispersed use are discussed.

Finally, accessibility to Project area recreation resources for the physically disabled is presented in Section E5.1.4—ADA Accessibility Study. This analysis is focused on compliance with the Americans with Disabilities Act (ADA) and provides a series of new guidelines being developed by the Access Board as draft proposed amendments to the ADA Guidelines for Buildings and Facilities (ADAAG).

Executive Summaries are presented below for the four studies in Section E5.1 and are presented below.



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REGIONAL RECREATION ASSESSMENT (E5.1.1)

The Regional Recreation Assessment discusses the role of the Project in its regional context from a recreation supply and demand perspective. By doing so, future decisions may be made in the Project area with the knowledge of the importance of the role the Project plays within the region and vice versa.

Objectives of the Study

This study evaluated the overall supply of recreation resources at both the Project and regional levels, thus helping to identify the role of Project recreation facilities and opportunities in the region. Additionally, this study examined current and future demand trends for popular recreational activities to help assess whether the current supply of facilities will likely meet future demands.

The results of this study address recreation opportunities and demand under the following topics:

Project Area Recreation Resources

Recreation resources located within the Project area include Lake Almanor, which is the second largest reservoir in the state of California, Butt Valley Reservoir, Belden Forebay, and the two Bypass Reaches (Seneca Reach and Belden Reach).

Regional Recreation Resources

Similar regional recreation resources as those provided in the Project area are described in the study and include the following: the area along State Route (SR) 89 between Caribou and Lake Almanor, UNFFR between the Project area and Lake Oroville, Lake Oroville State Recreation Area (LOSRA), Oroville area resources, Mountain Meadows Reservoir, Bucks Lake Recreation Area, Lake Davis Recreation Area, Little Grass Valley Recreation Area, Eagle Lake, Honey Lake, Whiskeytown-Shasta-Trinity National Recreation Area (NRA), and Lake Tahoe. Adjacent to the Project are three national forests (Lassen, Plumas, and Shasta-Trinity) and one national park (Lassen Volcanic) providing recreational opportunities on federally managed land.

Role of Project Area Recreation Resources in Region

For purposes of this study, the Project's recreation facilities and opportunities are divided into two recreation types: river-based and reservoir-based recreation. Belden and Seneca Reaches are the two river-based recreation areas and are characterized as primarily steep, forested river canyons. These types of settings provide wild, remote experiences that may not be available on many of the rivers discussed in this comparison.

Under the reservoir-based recreation segment of the study, Lake Almanor is compared to other similar areas based on the number of various developed facilities. Butt Valley Reservoir and Belden Forebay are also Project reservoirs. However, their size and use levels are much smaller and they offer uniquely different experiences compared to Lake Almanor. Besides being one of the largest lakes in the state, other attributes of Lake

Almanor include its moderate and varied level of development, its good highway access, its mix of both public facilities and private RV resort facilities, its mix of shoreline development and underdeveloped open space, and the opportunity for a relatively quiet and remote experience, supplemented by nearby Butt Valley Reservoir.

Indicators of Regional Recreation Demand

As expected, visitors go to Lake Almanor and Butt Valley Reservoir to enjoy distinct activities at other locations, compared to the Project area as a whole. Visitors to Lake Almanor and Butt Valley Reservoir participate in a wide array of activities, many of which are facility-dependent such as picnicking and camping. Meanwhile, visitors to Belden and Seneca Reaches participate in fewer activities, with shoreline fishing the most common activity by a large margin. Other activities at Belden and Seneca Reaches that respondents participated in more often than at Lake Almanor and Butt Valley Reservoir were hiking and RV camping.

Synthesis of Recreation Supply and Demand

Data from DPR and other regional and national demand projections (Cordell 1999) indicate that demand will continue to increase for all of the popular activities in the study area, with the exception of hunting. Activities that are popular in the study area and are expected to have high levels of demand include sunbathing, relaxing/sunning, swimming, wildlife observation, picnicking, camping (developed), and hiking. Growth projections in many of these activities indicate that the current supply of recreational facilities in the region will need to be increased to meet future demand, during the term of the new

license, particularly for the above activities. Facilities that will be in the greatest demand include shoreline day use facilities (picnic areas, swimming beaches), wildlife observation and viewing areas, campgrounds (developed and primitive), and trails. Similarly, the demand for fishing in the Project area will likely continue and will likewise increase demand for additional access points including parking areas, and access trails.

As a result of these increases, the following facilities will be in the greatest demand in the future:

- Day use facilities (picnic areas, swimming beaches);
- Wildlife observation areas;
- Campgrounds (developed and primitive); and
- Trails.

Evaluation of Latent Demand for Recreation

Due to the many developed and undeveloped recreational resources in the Project area, there appears to be little latent demand for recreation facilities and activities. Visitors to Belden and Seneca Reaches seem to prefer the unique, primitive angling experiences available there, while visitors to Butt Valley Reservoir, and especially Lake Almanor, seem to enjoy the fact that the areas feature developed facilities but do not experience high levels of use. These experiences could be jeopardized if additional, or inappropriate, recreation facilities were provided in the area.

RECREATION FACILITY AND CONDITION INVENTORY ASSESSMENT (E5.1.2)

Outdoor recreation supply or inventory is generally defined as the lands, waters, and facilities available to the public for outdoor leisure activities. The recreation facility and condition inventory focuses on two main elements: identification of existing public recreation opportunities and facilities, and the physical condition of those facilities and lands. The general condition of public recreation sites and facilities is presented, particularly with regard to maintenance and repair issues and general impacts on natural resources. This information was used, along with other studies, to determine if these resources should be managed differently, improved, or expanded based on current and anticipated future need.

The focus of this analysis was on developed public recreation sites in the immediate vicinity of Lake Almanor, Butt Valley Reservoir, Belden Forebay, and the Belden and Seneca Reaches (Bypass Reaches). This analysis also includes a review of dispersed recreation sites immediately surrounding these areas, as well as privately owned and operated recreation facilities at Lake Almanor.

The methods used in this Recreation Facility and Condition Inventory involved a review of published information, consultation with agencies and landowners, and site-specific field investigations. Existing conditions were systematically identified and documented through field notes. This information was summarized tabularly and described in the text. In addition, public developed recreation sites and facilities were photographed, and site maps were prepared (Appendices E5-A and E5-B).

The major findings of the Recreation Facility and Condition Inventory are detailed below.

General Overview

- Recreation facilities and use areas in the study area are owned and operated by several different entities including:
 - ◆ Pacific Gas & Electric Company (Licensee)
 - ◆ United States Forest Service, Lassen National Forest (Forest Service)
 - ◆ United States Forest Service, Plumas National Forest (Forest Service)
 - ◆ Private entities

- There are 24 public developed recreation facilities in the Project area: 12 campgrounds, 7 day use areas, 3 boat launches, and 2 recreation trails.

- In total, approximately 50 dispersed recreation sites were identified in the Project area. These sites were identified through an inventory of all publicly accessible shoreline areas in the area. Twenty-two sites were documented at Lake Almanor, 20 sites in the Belden Reach, 3 sites at Butt Valley Reservoir, and 2 sites in the Seneca Reach. In addition, multiple sites were also identified in the Southwest Shoreline Access zone at Lake Almanor.

- There are 22 privately owned and operated recreation facilities at Lake Almanor. These facilities are operating either on privately owned land adjacent to Licensee-owned land or on Licensee-owned land where written agreements are in place for utilizing the adjacent land.

- Private recreation facility experiences at Lake Almanor are generally more developed. These include boating opportunities associated with marinas, gas docks, and boat rentals; and overnight accommodations associated with resorts, cabins, motels, and condos. These types of opportunities are generally not provided by the Forest Service or Licensee in the Project area.

Public Recreation Sites and Facilities at Lake Almanor

- The following facilities are present at Lake Almanor:
 - ◆ Six campgrounds with 245 developed campsites (64 percent of total Project study area developed campsites).
 - ◆ Twenty-three group campsites, 30 plus overflow campsites, and 40 primitive campsites.
 - ◆ Six day use areas with 61 picnic sites (84 percent of total Project area picnic sites).
 - ◆ Two boat launches.
- Most of the facilities at Lake Almanor are in good condition and require only maintenance; however, some repair is needed, primarily to picnic tables, toilets, water faucets, and boat ramps.
- There are 22 approximately dispersed undeveloped recreation sites on the reservoir (47 percent of total Project area dispersed recreation sites). Fourteen of the 22 lakeshore sites (64 percent) provide vehicle access to the shoreline. Overnight camping occurs at some of these sites. Specifically, overnight use was documented at 12 dispersed sites (55 percent). The remainder of the

dispersed sites shows signs of day use only. Additional sites are located in the Southwest Shoreline Access Zone of Lake Almanor.

Public Recreation Sites and Facilities at Butt Valley Reservoir

- The following facilities are present at Butt Valley Reservoir:
 - ◆ One day use area/boat launch with 3 picnic sites (4 percent of total Project area picnic sites) and one boat ramp.
 - ◆ Two campgrounds with 91 developed campsites (24 percent of total campsites).
 - ◆ Twenty overflow campsites.
- Most of the facilities at Butt Valley Reservoir are in good condition. Most facilities require only maintenance; however, some minor repair is needed, primarily to access roads, cooking grills, and water faucets.
- There are three dispersed undeveloped recreation sites on the reservoir (6 percent of total dispersed recreation sites).

Public Recreation Sites and Facilities at the Seneca Bypass Reach

- The only developed facility at the Seneca Bypass Reach is the 1.5-mile anglers' trail at the Caribou 1 Powerhouse.
- There are a few dispersed undeveloped recreation sites in the Seneca Bypass Reach. These sites are primarily used for dispersed overnight camping.

Public Recreation Sites and Facilities at the Belden Bypass Reach

- The following facilities are present at the Belden Bypass Reach:
 - ◆ One day use area with 4 picnic sites (5 percent of total picnic sites).
 - ◆ Three campgrounds with 46 developed campsites (12 percent of total developed campsites).
- Most facilities at the Belden Bypass Reach are in good condition, with only minor maintenance needed at each of the campgrounds. However, some recreation elements at Belden Rest Stop along State Route (SR) 70 are in need of maintenance or repair.
- There are 20 dispersed undeveloped recreation sites in the Belden Bypass Reach (49 percent of the total dispersed recreation sites). These sites are used primarily for dispersed overnight camping. Many of the sites may function as informal overflow areas for the developed campgrounds provided by the Forest Service.
- In addition to the developed recreation facilities provided by the Licensee and the Forest Service and the dispersed recreation sites, there is also an informal parking area at the Belden Forebay that provides fishing and hiking access to the forebay.

Other Recreation Resources

- FERC requires that licensees provide information on National Recreation Trails and Federal Wild and Scenic Rivers. In the Project area, these resources include:

- ◆ National Recreation Trails: The Pacific Crest National Scenic Trail (PCT) is one of eight National Scenic Trails, spanning 2,650 miles from Mexico to Canada through three western states. The PCT generally runs in a north-south direction west of the Project area, crossing Highway 36 approximately 6 miles west of Lake Almanor. The PCT does run through one of the developed recreation sites in the Project area, Belden Rest Area, along SR 70. This highway rest area may serve as a trailhead for the PCT.

Federal Wild and Scenic Rivers: The Middle Fork Feather River was designated as part of the original National Wild and Scenic Rivers System in 1968. The Middle Fork Feather River, administered by the Forest Service, runs from its headwaters near Beckwourth, California to Lake Oroville. The river runs generally in an east-west direction approximately 25 miles from the south end of Lake Almanor. The designated reach totals 78 miles, including 33 miles of wild river area, 10 miles of scenic river area, and 35 miles of recreational river area. This river reach has no relationship to the Project.

RECREATION AND PUBLIC USE IMPACT ASSESSMENT (E5.1.3)

The purpose of the Recreation and Public Use Impact Assessment is to compile and analyze field data collected in the Project area related to ecological impacts at developed recreation sites and dispersed recreation sites. This analysis does not address detailed water quality or erosion conditions of the shorelines that were studied in separate relicensing studies.

In addition to developing an assessment of current conditions as a result of recreation and public open space use, the results of this study also provide a baseline of information for future long-term monitoring of public recreational impacts. The major findings of the Recreation and Public Use Impact Assessment are summarized below.

Observed Impacts at Public Developed Recreation Sites and Use Areas

There are 24 developed recreation sites in the Project area (Lake Almanor Campground – Loops 1, 2, and 3 are considered one site for this study). Sixteen of the sites are on or adjacent to Lake Almanor, three sites are on or adjacent to Butt Valley Reservoir, and five (Does this include the Belden Forebay site?) sites are located in the Belden Reach. There are no developed recreation sites in the Seneca Reach. The following is a summary of observed recreation and public use impacts at these sites:

- Almost two-thirds (63 percent) of the developed sites have areas of erosion; however, these impacts are generally minimal.
- Over half (54 percent) of the developed sites have areas of bare ground; however, these areas are small and are generally confined to the ground near fire rings and picnic tables.
- Over half (54 percent) of the developed sites are in areas where the surrounding forest has been generally cleared of downed wood for use in campfires.
- Less than one-quarter (21 percent) of the sites are located in or adjacent to riparian areas; however, impacts on these sensitive areas as a result of visitor use appear to be minor.

- A small number (8 percent) of the sites are located in or adjacent to wetland areas; however, impacts on these sensitive areas as a result of visitor use appear to be minor.
- Less than 20 percent of the sites have observed impacts related to vegetation damage, litter, sanitation, or vandalism.

Future management actions that may be considered as a result of these observed impacts may include the following topics:

- Visitor education about the impacts of visitor pedestrian use near water bodies (erosion and water quality concerns).
- Visitor education about the impacts of gathering firewood near recreation sites.
- Continued provision of firewood in developed campgrounds.
- Hardening of heavily used recreation sites to reduce erosion and vegetation damage.
- Monitoring of future site conditions using the current data set as a baseline.

Observed Impacts at Public Dispersed Recreation Sites

A total of 47 dispersed recreation sites were identified in the Project area. These sites were identified through a systematic inventory of all publicly accessible shoreline areas in the area. Private sites are not included in this analysis. Twenty-two sites were documented at Lake Almanor, 20 sites in the Belden Reach, three sites at Butt Valley

Reservoir, and two to four sites in the Seneca Reach. Some characteristics of these sites include the following:

- Almost two-thirds (64 percent) of the undeveloped sites have evidence of campfires and are utilized for overnight use.
- Almost two-thirds (64 percent) of the undeveloped sites adjacent to Lake Almanor currently provide for vehicle access to the shoreline or exposed low-pool areas of the reservoir.
- Over one-third (34 percent) of the undeveloped sites have evidence of off-highway vehicle (OHV) use, primarily in the low-pool areas of Lake Almanor.
- Over half (57 percent) of the undeveloped sites are located in or adjacent to riparian areas, mostly in the Belden Reach.
- Over one-fifth (21 percent) of the undeveloped sites are located in or adjacent to wetland areas.
- Overall use levels, based on observed amount of use impact area, at the undeveloped sites vary widely:
 - ◆ Over one-fifth (21 percent) of the undeveloped sites have high levels of use.
 - ◆ Almost half (47 percent) of the undeveloped sites have moderate levels of use.
 - ◆ Almost two-thirds (32 percent) of the undeveloped sites have low levels of use.

The following is a summary of observed public use impacts at these undeveloped sites:

- Over one-third (34 percent) of the undeveloped sites have areas of erosion; however, these impacts are generally minimal.
- Almost one-third (30 percent) of the undeveloped sites have evidence of vegetation damage, primarily to trees near the sites.
- Over one-quarter (26 percent) of the undeveloped sites have areas of bare ground; however, these areas are not extensive and are generally confined to the ground near fire rings.
- One-quarter (25 percent) of the undeveloped sites are in areas where the surrounding forest has been generally cleared of downed wood for use in campfires.
- A small number (11 percent) of the undeveloped sites have high amounts of litter.
- Less than 4 percent of the sites have impacts related to litter, sanitation, vandalism, or the illegal dumping of household debris.

Future management actions that may be considered as a result of these observed impacts may include the following topics:

- Visitor education about the impacts of visitor pedestrian use near water bodies (erosion and water quality concerns).
- Visitor education about the impacts of gathering firewood near recreation sites.
- Visitor education about regulations that prohibit campfires in some areas.

- Visitor education and increased enforcement of OHV regulations.
- Hardening of heavily used sites to reduce erosion and vegetation damage.
- Monitoring of future site conditions using the current data set as a baseline.

ADA ACCESSIBILITY ASSESSMENT (E5.1.4)

The purpose of the Americans with Disabilities Act (ADA) Accessibility Study is to assess the present adequacies and future accessibility needs for persons with disabilities who use public recreation facilities and use areas associated with the Project and may participate in the primary recreation activities (i.e., camping, fishing, and boating) occurring in the Project area. The Americans with Disabilities Act Guidelines for Buildings and Facilities (ADAAG) is the current guidance for accessibility. These guidelines are currently being expanded to address a range of recreation facilities and activities, referred to as the draft proposed ADAAG guidelines (Appendix E5-I) (Access Board 1991 and 1999). The ADA-related assessment is not intended to provide the Licensee and others with a comprehensive set of measurements and design recommendations for every structure that would be used for facility modifications. Rather, this study is programmatic, and the level of analysis provided is appropriate for identifying overall program improvements, options, and needs related to ADA compliance as required by the FERC. It should be noted that the proposed ADAAG guidelines apply only to new facilities or altered portions of facilities. The proposed ADAAG guidelines do not apply to existing facilities until they are modified or require major rehabilitation. However, the Licensee intends to implement ADA-related enhancements sooner than ADAAG requires.

Summary of Accessibility by Activity Type

Opportunities for persons with disabilities to participate in recreation activities in the Project area are currently available, to a certain extent, at camping, picnicking, trail use, and fishing facilities. No accessible facilities for boating or swimming/shoreline access are currently available. An accessible fishing access trail was constructed in 2001 at the Canyon Dam Boat Launch/Day Use Area (DUA) by the Forest Service. In addition, much of the paved Lake Almanor Recreation Trail is accessible.

The draft proposed ADAAG guidelines include specifications for the minimum number of accessible campsites required within a campground and the minimum number of accessible picnic tables required in day use areas. The table below summarizes these campsites and picnic sites in the Project area. Currently, only two facilities—Lake Almanor Campground Loop 1 and Ponderosa Flat Campground—meet the minimum requirements set forth in the draft proposed ADAAG guidelines. Many of the recreation elements in each of the designated accessible campsites, however, are non-accessible and would need to be modified to meet draft proposed ADAAG guidelines.

Camping

Overall, there are moderate opportunities for persons with disabilities to participate in camping in the Project area. Lake Almanor Campground (Loops 1, 2, and 3) provides some accessible campsites; however, this facility is the only one that provides public accessible campsites at Lake Almanor. There are also some accessible campsites at Butt Valley Reservoir at both Ponderosa Flat Campground and Cool Springs Campground.

Summary of Existing and Required Accessible Campsites and Picnic Sites based on draft ADAAG guidelines.

	Total Number of Campsites	Total Number of Existing Accessible Campsites	Minimum Number of Accessible Campsites Required ¹	Total Number of Picnic Tables	Total Number of Existing Accessible Picnic Tables	Minimum Number of Accessible Picnic Tables Required ¹
Forest Service Facilities						
Almanor Campground (North)	49	0	3	N/A	N/A	N/A
Almanor Campground (South)	53	0	4	N/A	N/A	N/A
Almanor Boat Launch	N/A	N/A	N/A	N/A	N/A	N/A
Almanor Beach	N/A	N/A	N/A	6	1	3
Canyon Dam Boat Launch/DUA	N/A	N/A	N/A	5	0	3
Almanor Rest Area (SR 89)	N/A	N/A	N/A	7	0	4
Almanor Overflow Camping Area	N/A	N/A	N/A	N/A	N/A	N/A
Almanor Group Reservation Camp	10	0	2	N/A	N/A	N/A
Dyer View Day Use Area	N/A	N/A	N/A	N/A	N/A	N/A
Lake Almanor Recreation Trail	N/A	N/A	N/A	N/A	N/A	N/A
Gansner Bar Campground	14	1	2	3	0	2
North Fork Campground	20	1	2	N/A	N/A	N/A
Queen Lily Campground	12	0	2	N/A	N/A	N/A
Licensee Facilities						
Lake Almanor Campground Loop 1	66	4	4	N/A	N/A	N/A
Lake Almanor Campground Loop 2	28	2	3	N/A	N/A	N/A
Lake Almanor Campground Loop 3	37	2	3	N/A	N/A	N/A
Camp Conery Group Camp	5	0	1	14	0	7
Canyon Dam Day Use Area	N/A	N/A	N/A	19	2	8
Almanor Scenic Overlook	N/A	N/A	N/A	N/A	N/A	N/A
Eastshore DUA	N/A	N/A	N/A	9	0	5
Last Chance Campground/Group Camp	26	0	3	N/A	N/A	N/A
Ponderosa Flat Campground	61	4	4	N/A	N/A	N/A
Alder Creek DUA/Boat Launch	N/A	N/A	N/A	3	0	2
Cool Springs Campground	30	2	3	N/A	N/A	N/A
Belden Rest Stop (SR 70)	N/A	N/A	N/A	4	0	2

N/A = not applicable

(1) = Draft Proposed ADAAG Guidelines (see Appendix E5-F)

Provided by EDAW, Inc.

The Licensee has done the most to accommodate persons with disabilities in the Project area by providing 14 campsites within its campgrounds. The Forest Service has provided 2 accessible campsites within its campgrounds and has plans to make future ADA-related improvements in their planned 2006 Capital Improvement Program (CIP).

Picnicking

Overall, there are limited opportunities for persons with disabilities to picnic in the Project area. The Licensee and Forest Service provide three accessible picnic sites in total. An accessible picnic site includes an accessible access route to an accessible picnic table, an accessible trash receptacle, and an accessible water faucet. Only two recreation facilities in the Project area provide accessible picnic sites: Almanor Beach and Canyon Dam Day Use Area. Other day use facilities in the Project area, such as Almanor Rest Stop, Alder Creek DUA/Boat Launch, and Belden Rest Stop, do not provide accessible picnic tables. However, future accessibility improvements may be relatively easy to implement because all but one of the day use areas provide accessible toilet or restroom facilities.

Boating

There are no accessible boating facilities at Lake Almanor or Butt Valley Reservoir. At least one accessible boating facility should be provided at Butt Valley Reservoir and, due to its size, more than one accessible boating facility is recommended at Lake Almanor. Both Almanor Boat Launch and Canyon Dam Boat Launch/DUA are suitable locations for accessible boating facilities. The boat ramp and associated dock could be redesigned

to facilitate easier access and accessibility concerns. The dock would need to be widened and other features such as railings and tie-downs would need to be installed to adhere to the draft proposed ADAAG guidelines. Also, to be accessible, there would need to be a new gangway or other ramp from the parking lot to the dock. Alternatively, a new loading platform in the parking area could provide direct access from vehicles to boats for loading and unloading. The Forest Service is in the process of making such improvements at its boat launches using Cal Boating grant funds.

Fishing

Currently, there is only one accessible fishing access site on Lake Almanor or Butt Valley Reservoir. Built by the Forest Service, the accessible fishing access site is located near the Canyon Dam Boat Launch/DUA. At least one accessible fishing site should be provided at Butt Valley Reservoir and, due to its size, more than one accessible fishing site is recommended at Lake Almanor. An additional accessible fishing site could be provided at one of the old breakwaters near Almanor Beach. At Butt Valley Reservoir, an accessible fishing site could be provided at Ponderosa Flat Campground near the overflow camping area.

Swimming/Shoreline Access

There are no accessible shoreline access/swimming areas on Lake Almanor or Butt Valley Reservoir. At least one accessible shoreline access/swimming area should be provided at Butt Valley Reservoir and, due to its size, more than one accessible shoreline access/swimming area is recommended at Lake Almanor. An accessible shoreline

access/swimming area could be provided at Lake Almanor Campground – Loop 3 overflow area. At Butt Valley Reservoir, an accessible shoreline access/swimming area could be provided at Ponderosa Flat Campground.

Summary of Accessibility by Provider

Both the Forest Service and the Licensee have made some efforts in providing opportunities for persons with disabilities to participate in the primary recreation activities in the Project area. Each provider, however, emphasizes different recreation activities. A summary of the area and extent of accessibility provided by the Forest Service and the Licensee is provided below. In general, there is an uneven distribution of all Forest Service and Licensee public recreation facilities in the Project area, especially around Lake Almanor. This is, however, an overall recreation planning issue and not limited to ADA accessibility.

Forest Service Recreation Sites

The Forest Service has done some limited accessibility renovations of its recreation facilities and is focusing on providing new accessible angler access to the shoreline. However, the Forest Service has not upgraded its campsites to be accessible. Only two accessible campsites are provided at Forest Service campgrounds. Gansner Bar Campground and North Fork Campground each provides one accessible campsite. No accessible campsites are provided at Forest Service campgrounds at Lake Almanor. Only four of the Forest Service campgrounds provide accessible toilet or restroom facilities. There are also very limited day use and picnicking facilities. The Forest Service provides

only one accessible picnic table in the Project area. The Forest Service operates both the boat launches at Lake Almanor, neither of which is accessible. At least one accessible boating facility should be provided at Lake Almanor. Due to its size, however, more than one boating facility is recommended. Both Almanor Boat Launch and Canyon Dam Boat Launch/DUA are potentially suitable locations for accessible boating facilities. ADA-accessible improvements are planned at these two boat launches soon. The Forest Service provides the Lake Almanor Recreation Trail, which is generally accessible in most areas, and is currently being extended to Canyon Dam Boat Launch/DUA. Both the existing trail and the extension should meet draft proposed ADAAG guidelines. The Forest Service constructed an accessible fishing access site at Canyon Dam Boat Launch/DUA in 2001. Overall, the Forest Service has focused its efforts on the accessibility to recreation trails but has not provided other accessible recreation facilities in the Project area. Future facility improvements and renovations should include providing additional campsites, picnic sites, and other facilities to meet draft proposed ADAAG guidelines when adopted. The Forest Service is planning a 2006 Capital Improvement Program project that should include ADA-related improvements at its campground facilities in the Prattville area.

Licensee Recreation Sites

In past years, the Licensee has reviewed all its recreation facilities at the Project for ADA compliance. This review focused on developed facilities addressed in the existing ADAAG or PLAE (1993). As a result of this review, some recreation facilities at the Project have been renovated for accessibility in the past few years. The Licensee has

renovated its restrooms at each of its recreation facilities and has made at least 5 percent of its campsites accessible. A majority of Licensee campgrounds provide designated accessible campsites. Only Last Chance Campground/Group Camp has no accessible campsites. Some of the elements in each of these designated accessible sites, however, are non-accessible and should be retrofitted to meet draft proposed ADAAG guidelines (see Appendix E5-F) when adopted. Overall, the Licensee has done a good job at providing accessible campsites, but should retrofit existing elements within designated accessible campsites and add additional accessible campsites to meet draft proposed ADAAG guidelines. The Licensee does not provide many accessible picnic sites. Only Canyon Dam Day Use Area provides an accessible picnic area. Future facility improvements and renovations should include providing additional accessible picnic sites and other facilities to meet draft proposed ADAAG guidelines when adopted.

E5.1.1 Regional Recreation Assessment

E5.1.1.1 Introduction

This section presents the results of the Regional Recreation Assessment study, one of several recreation studies that were conducted by the Licensee for relicensing. This study discusses the role of the Project in its regional context from a recreation supply and demand perspective. By doing so, future decisions may be made in the Project area with the knowledge of the importance of the role the Project plays within the region and vice versa.

E5.1.1.1.1 Objectives of the Study

This study evaluated the overall supply of recreation resources at both the Project and regional levels, thus helping to identify the role of Project recreation facilities and opportunities in the region. Additionally, this study examined current and future demand trends for popular recreational activities to help assess whether the current supply of facilities will likely meet future demands.

Several goals (listed below) were identified for this study, all of which focused on the supply of and demand for recreational facilities and opportunities in the region.

- Identify regional recreation resources that offer opportunities similar to those found in the Project area.
- Assess current use levels at, and estimated demand for, regional recreation resources.
- Assess the role of Project recreation resources in the region.

- Identify regional trends in recreation demand for various activities.
- Assess the impact of regional demand on Project area planning efforts and potential future developments in the Project area.
- Evaluate current recreational supply in the region as it relates to current and future demand (i.e., is supply meeting demand?).
- Evaluate latent demand, or users' desire to participate in an activity that may not be available in the Project area, but perhaps could be provided for in the future.
- Focus on the Project's most popular recreational activities including water-based (boating, fishing, waterskiing, and personal watercraft (PWC) use and land-based (camping, hiking, and picnicking) activities.

E5.1.1.1.2 Components of the Study

There are four components to this study:

- Study Area—description of the areas studied;
- Methods—description of how data was acquired;
- Results and Discussion—study findings, their context and scope; and
- Conclusions—Study summary and recommendations.

E5.1.1.2 Study Area

The study area for the Regional Recreation Assessment consists of two separate areas: the Project area and the regional study area (see Figure E5.1-4—Regional Recreation Resources).

The Project area includes water and land within the Federal Energy Regulatory Commission (FERC) Project boundary and recreation resources within and adjacent to the Project boundary (Project area). The Project area encompasses approximately 13 river miles of the Upper North Fork of the Feather River (UNFFR), including the Belden and Seneca Reaches. Belden Forebay, Butt Valley Reservoir, and Lake Almanor represent other major components within the Project area.

E5.1.1.3 Methods

Methods for the Regional Recreation Assessment focused on two primary tasks: (1) assessing the regional supply of recreation resources, and (2) assessing the regional demand for recreational activities and experiences. In a recent Pacific Gas and Electric Company (Licensee) survey of visitors to the area (see Section E5.2.1), respondents were asked to indicate other similar areas where they pursue their primary recreational activity, aside from the Project area (Licensee 2000a). These answers provided a list of regional recreation resources. Recreation supply for the Project area was determined based on existing studies conducted by the Licensee. Recreation supply for the larger study area was determined by obtaining information from various sources including recreation facility managers, recent publications, and the internet.

Regional demand data for various recreational activities were obtained through several sources.

Information was obtained from the *California Outdoor Recreation Plan 1993: An Event of the California Outdoor Recreation Planning Program* (California Department of Parks and Recreation (DPR) 1994) and other related documents to determine predicted changes in demand for various outdoor recreational activities. This information was combined with national and regional demand forecasts from a recent research publication (Cordell 1999). Projected changes in regional population, as well as changes in those areas that tend to drive recreation in the region (e.g., the City of Sacramento, the San Francisco Bay Area), were also factored into the analysis to gauge the impact of population levels on participation in recreational activities. Information from visitor use surveys was also used (Licensee 2001a).

E5.1.1.4 Results and Discussion

This section presents the results of the Regional Recreation Assessment and discusses the following topics:

- Project area recreation resources;
- Regional recreation resources;
- Role of Project area recreation resources in region;
- Indicators of regional recreation demand;
- Synthesis of recreation supply and demand; and
- Evaluation of latent demand for recreation.

E5.1.1.4.1 Project Area Recreation Resources

The Project area is located on the UNFFR in the mountains of northern California, in Plumas County near the towns of Chester and Prattville on Lake Almanor, to the Town of Belden at the far southern end of the Project area (see Figure E5.1-4—Regional Recreation Resources). The Project lies within portions of the Plumas and Lassen National Forests. The Bucks Lake Wilderness Area is adjacent to the Belden Powerhouse at the southern end of the Project. The Licensee's land use in the Project area consists primarily of activities and structures associated with hydroelectric generation. Other uses in the Project area historically have included timber, rangeland, mineral, and water resource development. Currently, the dominant land uses in Plumas National Forest are forestry, recreation, open space, and transportation. Retail, agricultural, and mining land uses also occur in the region. The Project area is characterized by two different landforms: gentle rolling slopes in the upper valleys where the reservoirs are located, and steep river canyons along the two bypass reaches. Areas within the Project area to be described are listed below.

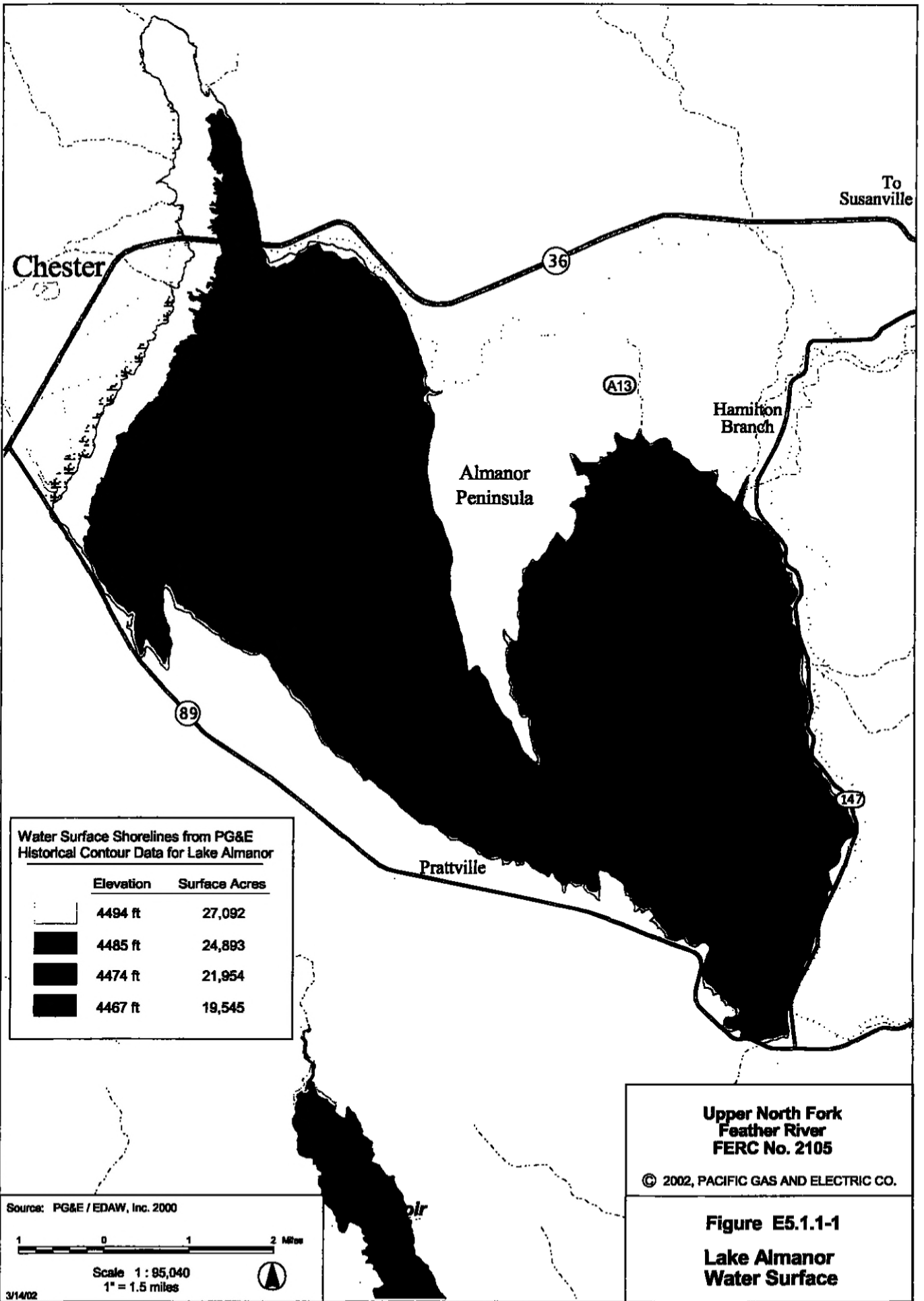
- Belden Forebay
- Lake Almanor
- Butt Valley Reservoir
- Project River Bypass Reaches
 - ◆ *Seneca Reach*
 - ◆ *Belden Reach*

E5.1.1.4.1.1 Belden Forebay

Belden Forebay (capacity 2,477 acre-feet) lies directly below the Caribou Powerhouses (1 and 2), and above Belden Forebay Dam at the Oak Flat Powerhouse on the North Fork of the Feather River (NFFR). Water enters the reservoir from the Seneca Reach of the river that bypasses the powerhouses, as well as from the outflow from the powerhouses. People fish from the shore along Caribou Road between the dam and powerhouse property (fenced-off area) (Steinsträ 2000). There is also fishing access to the upper river via a metal-grate walkway at Caribou Powerhouse 1. The other side of Belden Forebay is inaccessible for fishing; it consists of steep, rock walls and slopes.

E5.1.1.4.1.2 Lake Almanor

Lake Almanor is located in the northeast corner of the Project area at approximately 4,500 feet above sea level (asl). The reservoir offers 28,664 surface water acres and 1,142,964 acre-feet of storage capacity (Licensee 1987). Lake Almanor has a relatively wide basin, over 4 miles wide in some areas. Like many other large reservoirs, the Lake Almanor pool level drops during the summer and fall months. Figure E5.1.1-1—Lake Almanor Water Surface, geographically shows four pool levels of interest, including: (1) 4,494 feet—California Division of Safety Dams maximum allowable full pool level; (2) 4,485 feet—Plumas County's desired minimum pool elevation during the Memorial Day to Labor Day Weekend recreation season; (3) 4,474 feet—Licensee's existing targeted minimum elevation prior to September 15; and (4) 4,466.7 feet—elevation above which Licensee targets to maintain the reservoir year round. These four levels show where the reservoir becomes shallower or dryer as the summer months progress.



There are approximately 64 miles of shoreline for recreation (Steinstra 2000). There are nearly 800 campsites at both publicly- and privately-owned campgrounds on the reservoir. The Licensee and the United States Forest Service (Forest Service) have provided a number of family and large group camping areas including:

- Lake Almanor Campground (Loops 1, 2, and 3) (Licensee);
- Camp Conery Group Camp (Licensee);
- Last Chance Campground and Group Camp (Licensee); and
- Almanor Campground (Forest Service).

The Licensee and Forest Service have provided a number of day use and picnicking facilities at Lake Almanor including:

- Canyon Dam Day Use Area (DUA) (Licensee);
- Almanor Scenic Overlook (Licensee);
- Eastshore Picnic Area (Licensee);
- Almanor Boat Launch (Forest Service);
- Canyon Dam Boat Launch/Day Use Area (Forest Service);
- Almanor Rest Area on state route (SR) 89 (Forest Service); and
- Dyer View DUA (Forest Service).

There are a number of commercial and private resorts around Lake Almanor. Most of them provide rooms; some have recreational vehicle (RV) spaces or cabins. Many of them have boat launches and some also have boat and PWC rentals. The commercial and private resorts at Lake Almanor include:

- Almanor Lakefront Village;
- Almanor Lakeside Resort;
- Almanor Lakeside Villas;
- Big Cove Resort;
- Country Club Resorts;
- Dorado Inn;
- High Sierra Resort;
- Knotty Pine Resort;
- Lake Almanor Lakeside Lodge;
- Lake Almanor Resort;
- Lake Cove Resort;
- Lake Haven Resort;
- Lassen View Resort;
- Little Norway Resort;
- Miller's Resort;
- Moonspinners Resort;
- North Shore Campground¹;
- Novotny's;
- Plumas Pines Resort;

¹ The North Shore Campground is listed as a private report, although it is under lease from the Licensee and lies within the Project boundary.

- Vagabond Resort;
- Villager Resort; and
- Wilson's Camp Prattville.

Other private residential recreation facilities at Lake Almanor West Community Club, Lake Almanor Country Club on the peninsula, and Hamilton Branch Homeowners Association's private shoreline recreation facilities and boat launches for their members' use only.

E5.1.1.4.1.3 Butt Valley Reservoir

Butt Valley Reservoir is located approximately 3 miles south of Lake Almanor at an elevation of 4,142 feet (Licensee datum). At maximum pool level, the reservoir has 1,600 surface water acres and 49,897 acre-feet of storage capacity (Licensee 1987). Opportunities for recreation at Butt Valley Reservoir include camping, fishing, hiking, boating, wildlife observation, and swimming. Recreation facilities developed by the Licensee at the reservoir are comprised of two campgrounds on the eastside:

- Ponderosa Flat Campground; and
- Cool Springs Campground.

Cool Springs Campground is a fee campground containing 25 camp units and 5 walk-in units. It is located 2.5 miles south of Ponderosa Flat Campground on the east shore of Butt Valley Reservoir. Located on the north end of Butt Valley Reservoir, Ponderosa Flat Campground is also a fee campground and contains 63 camp units.

Powerboats are allowed on the reservoir; however, a Plumas County ordinance limits boat speeds to a maximum of 25 miles per hour (mph) (Plumas County Visitors Bureau 1998).

The Licensee provides one boat launch and day use picnic areas at Butt Valley Reservoir called Alder Creek DUA/Boat Launch. This facility is located between the two Licensee campgrounds.

E5.1.1.4.1.4 Project Area River Reaches

There are two river reaches in the Project area. The upper reach is commonly known as Seneca Reach. It begins below Lake Almanor's Canyon Dam and runs south approximately 11 miles to Caribou Powerhouse 1 above Belden Forebay. The lower, or second reach, is commonly known as Belden Reach. It begins at Belden Forebay and runs southwesterly approximately 9 miles to the confluence with the east branch of the NFFR at SR 70.

Seneca Reach

Seneca Reach provides dispersed recreational opportunities such as hiking and fishing, and there is also mining along this reach. This portion of the UNFFR has restricted access because of the steep, rugged terrain and private in-holdings. There is a county road (CR) that begins at SR 89 near the Canyon Dam and leads to the small community of Seneca. There are no services in Seneca. This CR runs parallel to the UNFFR, but is usually well away and above the river in the canyon. Although the river can occasionally

be seen from points along the road, access is generally difficult and by foot only. The road is only close to the river as it crosses the bridge in Seneca.

There are also spur roads that approach the river in the middle and lower parts of the reach; these are private mining access roads (or roads that cross private property) and it is unclear whether many recreationists use them. There is a Forest Service-maintained angler trail (North Fork Fishing Trail) that travels upstream from the Caribou Powerhouses at the downstream end of the reach. This trail appears to be well-used and well-maintained for the first 3 miles or so, and includes two trail footbridges across the river (see Figure E5.1-2—Dispersed Recreation Sites in the UNFFR Project Vicinity).

Belden Reach

The UNFFR parallels Caribou Road all the way up to the Caribou Powerhouse where the Belden Forebay is found. The physical setting is a rocky river with berry thickets, willow trees and alder trees along the shore, with steep, forested hills of mainly conifers rising from the narrow river corridor. Caribou Road leaves SR 70 approximately 1.5 miles northeast of the small town of Belden. There are three developed campgrounds along Caribou Road: Gansner Bar, North Fork, and Queen Lily. All of these campgrounds are managed by the Forest Service—Plumas National Forest. They are run by a concessionaire called Northwest Park Management. Gansner Bar is located 0.5 mile up Caribou Road from SR 70 at 2,300 feet in elevation. The campground has 14 camp units, piped-in water, sanitation facilities, trailer spaces, and provides access to the river

directly adjacent to the campground. North Fork Campground is located 2 miles up Caribou Road from SR 70 at 2,600 feet in elevation.

The campground has 12 camp units, piped-in water, sanitation facilities, trailer spaces, and provides river access directly adjacent to the campground. Queen Lily Campground is located 2.5 miles up Caribou Road from SR 70 at 2,600 feet in elevation. The site has 12 camp units, piped-in water, sanitation facilities, trailer spaces, and provides river access directly adjacent to the campground (Forest Service 2001a). Fishing and swimming are popular sports along the river from Belden Forebay down to SR 70 (Steinstra 2000).

The privately-run Caribou Campground is located near the Town of Tobin, approximately 9 miles north of the Project area along SR 70. This campground contains 20 parking spaces for RVs, one rental cabin, one rental trailer, an informal tent area by the river, laundry facilities, restrooms with showers, a small store, and a cafe (Caribou RV Resort 1999).

E5.1.1.4.2 Regional Recreation Resources

This section details the regional recreation resources that offer opportunities similar to those available in the Project area. Several river-oriented recreational opportunities exist in the Project vicinity. The nearby Feather River Canyon south of the Project offers outstanding hunting and fishing opportunities, but fishing along the shoreline of the river is constrained by rocky terrain that makes walking difficult.

Rainbow trout fishing in the lower canyon is the primary attraction for people interested in fishing in the Feather River Canyon.

Intermittent opportunities for whitewater boating also exist in the region, dependent on rainfall. Dam releases for in-stream river recreation have recently been increased in the Rock Creek-Cresta section of the North Fork of the Feather River. Driving tours of historical and scenic interest are included as tourist attractions, particularly related to the area's distinctive mining and train history in the Feather River Canyon. Hunters also travel to the area seeking hunting opportunities for mule deer, bear, ducks, geese, quail, pigeon, and grouse.

The Feather River Canyon also offers two recreational gold panning sites where visitors can experience panning for gold. Outstanding opportunities for bird watching and wildflower viewing also exist in the canyon.

The focus of this section is primarily on those areas indicated by visitors to the Project area as locations they have visited, which provide facilities and experiences similar to those found in the Project area (Licensee 2001a). For example, the UNFFR above SR 70, or reservoir-related activities similar to those available at Belden Forebay, Butt Valley Reservoir, and Lake Almanor. These similar regional recreation resources are described below, and include the following:

- SR 89 Between Caribou and Lake Almanor;
- UNFFR Between the Project area and Lake Oroville;

- Lake Oroville State Recreation Area (LOSRA);
- Oroville area resources;
- Mountain Meadows Reservoir;
- Bucks Lake Recreation Area;
- Lake Davis Recreation Area;
- Little Grass Valley Recreation Area;
- Eagle Lake;
- Honey Lake;
- Whiskeytown-Shasta-Trinity National Recreation Area (NRA); and
- Lake Tahoe.

E5.1.1.4.2.1 SR 89 Corridor Between SR 70 and Lake Almanor

The following section describes recreational opportunities along SR 89 between SR 70 and the Project area at Lake Almanor. Recreational opportunities are available in four towns along this route: Crescent Mills, Greenville, Taylorsville, and Canyon Dam. The commercial sites described below are included.

Crescent Mills

- Mount Huff Golf Course and RV on SR 89 in Crescent Mills offers six RV sites and has full hookups. Flush toilets are available.

Greenville

- Oak Grove Motor Lodge on SR 89 near Greenville offers eight rental cabins. There are no other facilities associated with this site.
- The Spring Meadow Resort Motel on SR 89 near Greenville offers six rental cottages. There are no other facilities associated with this site.
- Round Valley Lake Resort, located 3 miles from Greenville, offers 50 RV sites. There are tent sites and facilities for horses. Facilities include flush toilets, showers, boat rental shop, and a small store. There are two car-top boat launches.
- Greenville Community Campground on SR 89 offers 14 RV sites. Other facilities include tent sites and vault toilets.

Taylorville

- Taylorville Community Campground on SR 89 offers 24 RV sites. Other facilities include tents areas, flush toilets, and showers.

Canyon Dam

- Canyon Dam RV Park and Country on SR 89 offers 20 RV sites with full hookups. Showers and laundry facilities are available. There are five one- to two-bedroom cabins for rent. There is also a market on site.
- Forest Park RV Spaces on SR 89 offers 55 RV sites, all with full hookups, plus tent sites available. Some RV and tent sites can accommodate groups as well.

- Whispering Pines Trailer Park on SR 89 offers six rental RV sites. This facility also has permanent residents.

E5.1.1.4.2.2 NFFR Corridor Between the Project Area and Lake Oroville

Primary recreational activities in the Feather River Canyon include sightseeing, fishing, and passive recreation along the river. The canyon offers year-round fishing opportunities for rainbow trout and small mouth bass. Future opportunities may exist for whitewater boating, depending on the timing and release of acceptable flow rates. Additionally, the Feather River Canyon offers two recreational gold panning sites where visitors can experience panning for gold. There are seasonal opportunities for bird watching and wildflower viewing. In terms of recreation developments in this area there are two private campgrounds, two private resorts, a DUA administered by the Licensee, and several dispersed recreation sites associated with the Poe Hydropower Project.

The intersection of Caribou Road and SR 70 is located at the southwest end of the Project area (see Figure E5.1-4). This intersection is also where the East Branch of the NFFR meets the NFFR. At this intersection, the private Caribou Corners RV Campground offers five tent sites, 20 RV sites with full hookups, one rental cabin, and one rental trailer. The area has restrooms and showers, laundry facilities, a small store, and a café (Caribou RV Resort 1999). The site is open all year.

As one proceeds down SR 70 corridor along the NFFR from the Project area to Lake Oroville, several small towns, powerhouses, and roadside pull-outs are passed. The first

town one would pass is the Town of Belden, known for its colorful history and fishing areas along the river. The Town of Belden is approximately 2 miles southwest of the Project area, along SR 70 and adjacent to the NFFR. Belden Town Resort and Lodge offers 48 sites for tents or RVs with full hookups.

There are also several rental cabins, a small store, a restaurant with a full bar, picnic tables, parking, flush toilets, showers, and a laundry facility. The facility is open all year. In addition to serving the visitors of the camping areas, Belden often serves kayakers who utilize nearby put-in and take-out points. A trailhead for the Pacific Crest Trail (PCT) located on the neighboring property also attracts recreating visitors to Belden Resort (Belden Town Resort 2000).

Next, one would encounter Belden Rest Stop, which is operated by the Licensee and is located adjacent to the downstream Belden Powerhouse on the north side of SR 70 in the Feather River Canyon. This site has several functions including being a roadside rest, trailhead, and interpretive site. Recreational elements at Belden Rest Stop include a picnic area, a small, open pavilion with informational signs, two vault toilets, and a paved parking lot. There are three recreation trails that may be accessed from this site: Yellow Creek Trail, Indian Springs Trail, and the PCT. There are also two historical features at this site: Eby Stamp Mill and Yellow Creek Bridge. Interpretive information on the history of the mill and mining activities in the area is provided. Some of the facilities at Belden Rest Stop are in good condition, while others need maintenance.

This facility effectively serves as a trailhead for the three trails listed above; however, the Licensee does not maintain any portions of the trails or any associated recreational elements, such as signs. It is assumed that while the parking area, picnic tables, and toilets are likely utilized by trail users, the majority of use at this facility is related to state highway travelers and is maintained by the Licensee.

Heading downstream, one would next pass the Rock Creek Reservoir (capacity 400 acre-feet) and then the Town of Tobin. Historic Tobin Resort is approximately 7 miles southwest of the Project area at the confluence of Jackass Creek and the NFFR. The resort has recently reopened after being closed for 2 years. Tobin offers an array of facilities, including a restaurant, general store, tavern, post office, eight cabins, picnic tables, a hiking trailhead to Bucks Creek, potable water, and parking. The resort anticipated adding campsites and phasing in RV camping during the 2001 and 2002 recreation seasons (Tobin Resort 1999).

After Tobin, a traveler would reach the Town of Storrie just before the Rock Creek Powerhouse (fed underground via a pipeline from the Rock Creek Reservoir) at the upper end of Cresta Reservoir. Storrie Retreat is a private facility offering four sites for tents and RVs with full hookups. The facility is open all year. After passing into Butte County from Plumas County, one would see the Cresta Powerhouse at the tip of the Poe Reservoir. Next would be the Town of Pulga, just before the Poe Powerhouse, which is fed underground from the Cresta Reservoir.

Just below Pulga is Jarbo Gap, approximately 20 miles southwest of the Project area. Jarbo Gap is an informal, private 40-acre camping area along SR 70. Jarbo Gap contains 30 vehicle parking spaces, four truck parking spaces, a restaurant, an unmaintained trail within the property, an informal tent camping area, and portable toilets.

The owners are planning to expand the current facilities to include more formalized camping, two rental trailers with water/power hookups, approximately 10 trailer spaces with water hookups, an open tent camping area to accommodate 1,500 people, and picnic areas (Jarbo Gap 2000).

Further downstream is the Poe Hydroelectric Project operated by the Licensee. Within the Poe Project area, one would pass several dispersed recreation areas including Sandy Beach, Bardee's Bar, Poe Beach, and the Poe Powerhouse Beach. Recreational facilities located here include Shady Rest, a highway rest stop developed by the Licensee in 1962. Shady Rest is located on the north side of SR 70 between the Cresta Powerhouse and Cresta Reservoir.

Shady Rest is available for public use and includes six picnic units, a toilet, an information kiosk, and parking for 15 vehicles. Shady Rest was rehabilitated in 1984 to provide improved access for people with disabilities. The river can also be accessed from this location. A 1997 flood heavily damaged Shady Rest. At that time, the facility was completely inundated by NFFR flood waters, and the flood washed away portions of the

rest area that were closest to the main river channel. Some work has been completed by the Licensee to repair the damage.

Also associated with the Poe Project are intermittent opportunities for whitewater boating and kayaking on the NFFR between Rock Creek Dam and Poe Dam. Flows suitable for whitewater boating activities occur during spring and early summer.

When flowing, the Rock Creek Run is an 8 mile Class III-IV run with portage around one Class V rapid. The put-in for this run is located at Rock Creek Dam and the take-out is at Rock Creek Powerhouse. The Cresta Run is a 6.5 mile run with Class III to Class V water. The put-in is located at Cresta Dam and the take-out is at Poe Dam. Both put-in areas are accessible via SR 70.

E5.1.1.4.2.3 Lake Oroville State Recreation Area

Located approximately 24 miles southwest of the Project area is Lake Oroville (see Figure E5.1-4). This 15,810-acre reservoir on the Feather River is a very popular recreation destination, which offers a wide array of reservoir-related activities. LOSRA is a multi-facility recreational complex that includes developed and dispersed recreation sites. The primary activities are boating and fishing. There are two marinas, three boat launches, and five car-top boat launches. There is a visitor center on Kelly Ridge on the south side of Lake Oroville. There are day use facilities at the North and South Forebays, and the Afterbay. On the northeast side (accessible via Larkin Road) of the Oroville Wildlife Area (OWA) there are restrooms and camping pads. There is a 35-mile multi-

use hiking trail that encircles the Afterbays, Forebay, and the low flow channel of the Feather River.

Visitor use at Lake Oroville is considered high, and many of the facilities are full on weekends during the summer (Steinstra 2000). Popular activities include motorized boating, houseboating, camping, picnicking, hiking, swimming, and fishing.

Most of the public recreation facilities on the reservoir are within LOSRA, which is administered by DPR. There are three developed campgrounds that are accessible by road, along with seven primitive boat-in campsites (BICs) scattered along the shoreline.

There are 10 floating campsites on Lake Oroville. Between all of the developed, primitive boat-in, group, and floating campsites there are 343 overnight units. There are three public boat launches—Loafer Creek, the Spillway, and Enterprise. There are also two private boat launches located at concessionaire-operated marinas—Bidwell Canyon and Lime Saddle.

In addition to the facilities at Lake Oroville, there are many other recreation developments at LOSRA, such as Thermalito Afterbay, North and South Thermalito Forebays, and other areas. There are several minor boat launches throughout the Afterbay and Forebays, as well as other recreational developments such as day use picnic areas and swimming beaches. The OWA is administered by the California Department of

Fish and Game (DFG), also has minor boat launches and other semi-developed facilities and a camping area.

E5.1.1.4.2.4 Lake Oroville Area East Resources

The lands on the eastern side of Lake Oroville are managed primarily by Plumas National Forest.

Encompassing parts of the Project area to the south (Butt Valley Reservoir, the southern portion of Lake Almanor, and the two Project river reaches) the forest covers over 1 million acres of forested mountains with hundreds of lakes and thousands of miles of streams. The area is typically used for hiking, fishing, hunting, camping, mountain biking, rafting, snow sports, sightseeing, and wildlife viewing.

The Plumas National Forest operates two semi-primitive public campgrounds in the area east of Lake Oroville. At 1,600 feet in elevation, Milsap Bar has 20 camping units and vault toilets, no trailer space, no piped-in water and no RV dump station. At 4,000 feet in elevation, Rogers Cow Camp is located just off Oroville–Quincy Highway between Lake Oroville and Bucks Lake. It has five camping units, trailer spaces, vault toilets, no piped-in water and no RV dump station (see Figure E5.1-4).

Several private recreation areas in the area east of Lake Oroville includes the Gridley Inn and RV Park, Quali Trails Village Mobile and RV Park, and Pine Ridge Park. The Gridley Inn and RV Park offers 65-foot, pull-through spaces with full hookups as well as

motel rooms. The site has showers, a swimming pool/spa, and laundry facilities. There are several restaurants and markets nearby. Quail Trails Village Mobile and RV Park in Paradise offers five tent sites and 22 acres for RVs with a 40-foot length limit. The RV sites are shaded, pull-through sites. Flush toilets and laundry are available. The mobile park is open all year. Pine Ridge Park in Paradise offers 9 acres with 45 RV sites (some are pull-through sites). The pull-through sites are full hookup sites. There are also flush toilets and laundry facilities available.

E5.1.1.4.2.5 Mountain Meadows Reservoir

Mountain Meadows Reservoir is an undeveloped recreation area. It is not featured in recreation resource literature pertinent to northern California. The Lassen County website mentions the reservoir as a location for bass fishing (Lassen County undated a).

Located in Lassen County, at 1,537 feet asl, Mountain Meadows Reservoir is operated by the Licensee. It is the uppermost hydroelectric facility on the Licensee's NFFR hydroelectric operations. Mountain Meadows Reservoir and Lake Almanor are connected via the Hamilton Branch that feeds the Hamilton Branch Powerhouse, just above Lake Almanor. The reservoir has a capacity of 23,942 acre-feet (Licensee 1987). Mountain Meadows Reservoir is shallow and creates over 5,000 acres of wetland marsh. The Licensee allows public use of the area for duck hunting, bird watching, fishing, ice-skating, and general outdoor relaxation. Hunters and anglers access the area via Forest Service-maintained and private roads. On the west shore of the reservoir, there is a minimally developed car-top boat launch.

E5.1.1.4.2.6 Bucks Lake Recreation Area

The primary recreational activities at Bucks Lake Recreation Area are hiking, swimming, camping, and fishing. The area is known for its excellent fishing opportunities. There are 139 public campsites and a private campground on the west shore of Haskins Inlet. There are Forest Service facilities at or near Bucks Lake which include: Lower Bucks Lake, Grizzly Creek, Sundew, Mill Creek, and Hutchkins. Haskins Valley Campground is a Licensee-administered site, and according to Stienstra (1998), is the most popular one in the Bucks Lake area.

The Bucks Lake Recreation Area, located approximately 2 miles south of the Project area but over a ridgeline, includes Grizzly Forebay, Three Lakes, Lower Bucks Lake, and Bucks Lake. Together these waterbodies total approximately 2,084 water surface acres and approximately 20 miles of shoreline for public recreation access. The Licensee owns about half of the shoreline and half is managed by the Forest Service—Plumas National Forest. Bucks Lake (approximately 1,800 surface acres) is the main public destination, as it offers the most camping and day use opportunities. Combined, the four reservoirs hold approximately 113,166 acre-feet of water.

The Bucks Lake Recreation Area provides recreational opportunities ranging from primitive camping to resort areas providing rental cabins and restaurant services. The resorts at Bucks Lake include Lakeshore Resort, which offers 11 cabins, several RV spaces, a restaurant/store, and a marina and boat launch. Bucks Lake Lodge and Marina offers 11 cabins, a restaurant/store, several RV spaces, and a marina and boat launch.

Haskins Valley Inn offers six rooms and is universally accessible. Timberline Inn offers 12 rooms and is universally accessible.

There is one private campground at Bucks Lake, formerly a 4H Camp, on the west shore of Haskins Inlet. Developments at this camp include several tent and RV campsites, swim beach, and cabins. This facility has recently changed ownership.

Other facilities at Bucks Lake include areas for group and family camping, picnicking, boating, waterskiing, fishing, and swimming.

The Bucks Lake Recreation Area provides a total of 139 public campsites (136 individual sites and three group sites) (Forest Service 2001a).

E5.1.1.4.2.7 Lake Davis Recreation Area

Davis Lake is a preeminent mountain lake trout fishery because of its rich aquatic food chain. There are four Forest Service campsites with 173 units at this area, and three private campsites with nearly 100 RV camp units.

Located in the Plumas National Forest, Lake Davis is 5,775 feet asl. The natural lake covers 4,000 acres and has 32 miles of shoreline. The area offers boating, camping, and swimming. During winter, ice fishing, snowmobiling, and cross-country skiing are favored activities. The Forest Service—Plumas National Forest manages the area and the four campgrounds. Grasshopper Flat has 70 camp units with piped-in water, trailer spaces, and flush toilets.

Grizzly Campground has 55 camp units with piped-in water, trailer spaces, and flush toilets. Lightning Tree has 17 family camp units and 21 multi-family camp units, portable toilets, and no piped-in water. Crocker Primitive Campground offers 10 sites, trailer space, vault toilets, with no piped-in water. There are three boat ramps (two paved and one primitive). There are also private cabins for rent (Forest Service 2001a).

Privately-owned campgrounds in the area include the following sites:

- Grizzly Country Store and RV at Lake Davis offers 34 sites for RVs and tents, and facilities include boat launches;
- Sleepy Hollow Park in Portola offers 45 sites for RVs, all with full hookups;
- Trails West Trailer Park in Portola offers 20 RV sites with full hookups and showers; and
- Lake Davis Resort offers four rental cabins.

E5.1.1.4.2.8 Little Grass Valley Recreation Area

This recreation area includes Little Grass Valley Reservoir, a scenic mountain lake. Primary recreational uses are fishing, boating, and camping. Little Grass Valley Reservoir offers anglers decent catch rates for rainbow trout and kokanee salmon. There are more than 200 camp units in seven campgrounds, all managed by Plumas National Forest. There are also four private recreational facilities, three of which feature RV camping.

Located in the Plumas National Forest, the reservoir is 5,000 feet asl and covers 16,000 surface acres. Fishing, camping, swimming, boating, waterskiing, windsurfing, PWC use, hunting, and hiking activities occur here during warm weather. Winter affords snowmobiling, and cross-country skiing opportunities. There are three paved boat launches (Steinstra 2000). There are seven campgrounds managed by the Forest Service—Plumas National Forest. Combined, there are 213 camp units including 26 family units. Six of the campgrounds have piped-in water.

All of the camps have sanitary facilities. Five of the campgrounds have trailer spaces (Forest Service 2001a). Private recreational facilities in the area include:

- LaPorte Cabin Rentals offers three cabins and a large bunkhouse for rent (there are no other facilities associated with this site);
- Gold Country RV on Main Street in La Porte offers four RV sites. There is also a hotel associated with this site called Gold Country Bed and Breakfast. Aside from the hotel, there are no other facilities associated with this site;
- American House offers five RV sites, a vault toilet, and has no piped-in water; and
- Cleghorn Bar offers four RV sites, a vault toilet, and has no piped-in water.

E5.1.1.4.2.9 Eagle Lake

Located 16 miles north of Susanville in the Lassen National Forest and managed by the Forest Service, Eagle Lake is 5,100 feet asl, covers 27,000 surface acres, and has 100

miles of shoreline (Steinstra 2000). It is the second-largest natural lake wholly located within California.

Primary recreational activities at Eagle Lake include fishing, camping, and boating. It is one of the largest lakes in California, and has several excellent campgrounds, and is renowned for trophy trout fishing, especially late in the season. One drawback to using the lake for fishing and boating are that boating conditions for small craft can be unsafe during afternoons due to high winds.

Popular activities at the lake include camping, fishing, swimming, picnicking, and boating. There are three paved boat launches, a swimming beach, and a marina. The full-service marina offers fishing boat rentals, a grocery store, laundry facilities, and showers. There are nine family campsites and two group sites. Within the family and group sites are approximately 400 individual camp units and 175 group camp units. Seven of the camps have piped-in water, three camps have hand-pump water available, and two camps have no water (Forest Service undated a). There is a 5 mile trail at the south shore used by bicyclists, hikers, and walkers.

There are several private RV and tent campgrounds in the area; these are listed below.

- Eagle Lake RV Park offers 63 RV sites with full hookups. Other facilities include three rental cabins and six RVs, showers, laundry, RV dump station, a market, a boat launch and rental. There are some RV and tent sites for groups and some are universally accessible. Fuel services are available.

- Mariner's Resort offers 68 RV sites (65 with full hookups) and seven rental cabins. Other facilities include tent sites with group areas. Some of the RV and tent sites are universally accessible. A market, restaurant, boat rental, boat launch, and fuel services are available.
- Mountain View RV Resort offers 52 RV sites with full hookups and has tent sites available. Some of the tent sites accommodate groups and are universally accessible. Fuel services are available.
- Susanville Inn and Trailer Park offers RV spaces with full hookups and some RV rentals. Restaurants and shops are nearby. There are no other facilities associated with this site.

E5.1.1.4.2.10 Honey Lake

Honey Lake lies in the southeast corner of Lassen County, approximately 10 miles west of the state boundary at an elevation of 3,950 feet asl (Lassen County undated b). Honey Lake is used primarily for wildlife-related recreation, waterfowl hunting and bird watching. It is located between Susanville and Reno, so it is easily accessible to residents of these communities. Relative to other recreation resources within the area, it has relatively low capacity for overnight use (50 camping units). There is a military depot on the east side of the lake.

The site is approximately 35 miles northwest of Reno, NV. Honey Lake is an alkali lake set in open topography with little vegetation. It has been described as "moon-like" (Steinstra 1998). There is a California Department of Water Resources (DWR) camping

facility, set at 4,300 feet asl covering 27 acres, most of it overlooking Honey Lake. The camp has 50 units for tents or RVs, most with full or partial hookups, restrooms, showers, laundry facilities, and a grocery store.

E5.1.1.4.2.11 Whiskeytown-Shasta-Trinity NRA

Whiskeytown-Shasta-Trinity National Recreation Area (NRA) is located northeast and northwest of Redding, CA and includes three lakes and parts of the surrounding national forests. Whiskeytown Lake is managed by the National Park Service (NPS). Shasta Lake and Trinity Lake are managed by the Forest Service. Combined, these three areas make up the NRA. The storage and delivery of water in the lakes is operated by the United States Bureau of Reclamation (Reclamation). The most prominent landmark within the NRA is Shasta Bally (elevation 6,209 feet), a mountain top. The summit may be reached on foot and by 4-wheel drive vehicle but is closed in the winter.

The recreation area is a high use recreation complex comprised of four reservoirs. Primary activities are swimming, sailing, waterskiing, scuba diving, and fishing. There also are numerous opportunities for wildlife observation. Recreation facilities and dispersed areas for the Shasta and Trinity areas are summarized below.

Shasta Area

- 24 campgrounds
- Seven boat ramps
- 11 marinas

- Three watchable wildlife areas
- 12 trails
- Three DUAs

Trinity Area

- 19 campgrounds
- Seven boat ramps
- Five marinas
- Five watchable wildlife areas
- Three DUAs

Whiskeytown Area

- Two campgrounds (developed)
- Multiple dispersed camping areas
- Three DUAs
- One historic area
- One visitor center

Whiskeytown Lake

Whiskeytown Lake is set in mountainous back country and its large, man-made reservoir facilitates offer many warm-weather recreation opportunities. Whiskeytown Lake has 36 miles of shoreline and covers 3,200 surface acres. There are activities such as hiking and boating as well as historical tours of buildings erected during the California Gold Rush of

1849. The lake is excellent for most water-related activities, including swimming, scuba diving, waterskiing, boating and fishing. Picnicking, hiking, hunting, interpretive programs and horseback riding are also popular within the Whiskeytown Unit. There is a visitor center, two marinas, and three boat launches.

There are several types of camping available including one family camp, one group camp, one primitive tent camp, and one RV camp. There is also a group picnic area (Steinstra 2000).

Trinity Lake

Set at the eastern base of the Trinity Alps, Trinity Lake's elevation is 2,300 feet asl. It is the third largest reservoir in the state after Shasta Lake (largest) and Lake Oroville (second-largest). The reservoir has 16,535 surface acres. The area is known for water- and land-based recreational opportunities such as boating and camping. There are five full-service marinas, six boat launches, and three BICs. The reservoir offers several types of camping (boat-in, group, family) with over 450 campsites, dozens of picnic sites, and several private resorts (DWR 2001).

Shasta Lake

Shasta Lake is a 29,500-acre reservoir and is one of the most popular water-based recreation areas in California. It is the largest reservoir in the state of California. It is also one of the most popular areas for houseboating in the western US. Located entirely

within the Whiskeytown-Shasta-Trinity NRA, most of the recreation facilities are operated by the Forest Service, with the exception of several private marina facilities.

There are over 300 developed campsites at the reservoir in addition to many other primitive BICs along the shoreline.

Popular activities include motorized and non-motorized boating (notably houseboating), swimming, fishing, camping, picnicking, and hiking. Overall, visitor use at Shasta Lake is considered high, particularly on summer weekends (Steinstra 2000).

There are several private campgrounds in Whiskeytown-Shasta-Trinity NRA. The facilities are too numerous to list. Collectively, the area offers approximately 600 RV sites, most with full hookups. There are approximately 160 tent sites, plus spillover areas. Most of the campgrounds offer a restaurant or café, store, showers, flush toilets, and other front country amenities. The private commercial campgrounds in the area include:

- Alamo RV Park—Cottonwood;
- Antlers RV Park—Shasta Lake;
- Bear Mountain RV Park—Redding;
- Fawndale Lodge and RV Resort—Redding;
- Fawndale Oaks RV Park—Redding;
- Hat Creek Hereford Ranch and RV Park—Hat Creek;
- Holiday Harbor RV Park—Shasta Lake;

- JGW RV Park—Anderson;
- Lakeshore Inn and RV—Lakehead;
- Lakeshore Villa RV Park—Lakehead;
- Oak Bottom Campground—Whiskeytown;
- Rancheria RV Park, Inc.—Hat Creek;
- Redding RV Park—Redding;
- Salt Creek RV Park—Lakehead;
- Shasta Lake RV Resort—Shasta Lake; and
- Shasta Recreation Co.—Lakehead.

E5.1.1.4.2.12 Federally-Managed Lands

Adjacent to the Project area is federally-managed land providing recreational opportunities. There are three national forests (Lassen, Plumas, and Shasta-Trinity, which is somewhat removed from the Project area) and one national park (Lassen Volcanic). Descriptions of these federal management areas are provided below.

Lassen National Forest

Lassen National Forest both surrounds and contains the Project. Surrounding Licensee lands bordering Lake Almanor to the north, Lassen National Forest offers a variety of recreational opportunities, including camping, hiking, bicycling, fishing, boating, wildlife viewing, and off-highway vehicle (OHV) driving. There are three Ranger Districts within the national forest: Eagle Lake and Hat Creek (outside the Project area), and Lake Almanor (within the Project area) (Forest Service 2001a). Combined, these Ranger

Districts offer more than 1,000 family camp units and more than 180 group camping units. In 1990, there were 1.2 million recreation visitor days (RVDs) (measured) at Lassen National Forest (Forest Service 1992). This number of visitors has increased in the last 12 years.

Plumas National Forest

Plumas National Forest both surrounds and contains the Project. Encompassing parts of the Project area to the south (Butt Reservoir, southern portion of Lake Almanor, and the two Project river reaches), Plumas National Forest covers over 1 million acres of forested mountains with hundreds of lakes and thousands of miles of streams. Camping facilities include family car camp units, RV hookups, and remote dispersed campsites. All of the camping facilities are located on National Forest System lands. Most developed facilities include piped-in water, flush or vault toilets, stoves or fire circles, tables with benches, and parking spaces. The area is typically used for hiking, fishing, hunting, camping, mountain biking, rafting, snow sports, scenic drives, and wildlife viewing (Forest Service undated b). In 1988, use levels in Plumas National Forest were estimated to reach approximately 2.2 million RVDs annually by 1990 (Forest Service 1988). Use levels have since increased in the last 12 years.

Lassen Volcanic National Park

Located on the southwestern edge of Lassen National Forest, Lassen Volcanic National Park is approximately 7 miles northwest of the Project area and it offers unique access to an "active" volcano. All four types of the world's volcanoes may be found within Lassen

Volcanic National Park. Various recreational activities occur in Lassen Volcanic National Park, including camping, hiking, sightseeing, and museum visiting. Lassen Volcanic National Park covers 106,000 acres of forested foothills and volcanic relics. Snow arrives early and stays late, which accounts for Lassen Volcanic National Park being operational just 3 months of the year. Lassen Volcanic National Park is one of the least-crowded of all national parks in the United States (Forest Service 2002).

Shasta-Trinity National Forest

Shasta-Trinity National Forest lies within three northern California counties (Shasta, Siskiyou, and Trinity) and is north of the Project area. Shasta-Trinity National Forest has three major lakes (described in Section E5.1.1.4.2.11), scenic byways, wilderness areas, major rivers and numerous resources and recreational opportunities. Additionally, the focal point of the area's topography is Mt. Shasta, considered an active volcano. Located near the southern extent of the Cascade Mountain Range in north-central California, Mt. Shasta rises to an impressive 14,162 feet and dominates the view in the region. Diverse features include expansive lava flows, seven active glaciers, subalpine meadows with a variety of plants, and dense forest below the 8,000-foot tree line. The mountain is a popular destination for climbers and is of historical and contemporary importance to Native Americans (Forest Service undated c). Recreational opportunities within Shasta-Trinity National Forest are vast; there are 78 family campgrounds, seven group camps, four major picnic sites, OHV areas, beaches for swimming, and other facilities. Hikers can explore a labyrinth of trails that meander through the forest—more than 1,400 miles

of trails carve their way through Shasta-Trinity National Forest (Forest Service undated c).

E5.1.1.4.2.13 Lake Tahoe

Situated on the California–Nevada border, Lake Tahoe (123,519 acres) is an internationally known vacation, resort/gambling, and recreation destination. Located over 80 miles southeast of the Project area, this natural lake has more recreation facilities and surface acres of water than all of the areas included in this analysis combined.

Aside from a popular destination for boaters, Lake Tahoe is a year-round vacation destination and is home to many permanent residents. With over 2,000 campsites and 30 DUAs, it is a popular destination for visitors interested in land-based recreation activities as well. Popular activities include motorized and non-motorized boating (including sailing), swimming, fishing, camping, picnicking, hiking, and skiing. Overall use of the area can be extremely high in the summer, although the immense size of the lake spreads boaters out and provides a lower-density experience than is available at many other areas in the region (Lake Tahoe Visitor’s Guide 2002).

E5.1.1.4.3 Regional Recreation Resources for Reservoir-Related Activities

Many of the visitors to the UNFFR area participate in various reservoir-related activities. These activities include motorized and non-motorized boating, waterskiing, swimming, camping, picnicking, and hiking. In a recent survey of visitors, respondents were asked to cite similar areas where they pursue their primary recreational activity, aside from the

Project area. These responses represent a list of regional recreation resources that are visited for reservoir-related opportunities.

E5.1.1.4.4 Role of Project Area Recreation Resources in the Region

The Project area represents an important regional resource in terms of recreation facilities and opportunities. For purposes of this study, the Project's recreation facilities and opportunities are divided into two recreation types: river-based and reservoir-based recreation.

E5.1.1.4.4.1 River-Based Recreation

Table E5.1.1-1 summarizes the comparison between the Project area and other similar river-based recreational areas in Northern California based on several river-related factors. As described above, Belden and Seneca Reaches are primarily steep, forested river canyons. These types of settings provide wild, remote experiences that may not be available on many of the rivers discussed in this comparison. Areas that may provide similar types of settings include the McCloud River, the Pit River, and two forks of the Feather River. Other areas such as Hat Creek and Fall River are not located in steep canyons, while the Lower Sacramento River, the Lower Feather River, and the Stanislaus River are primarily located in broad valleys where the river reaches are much wider and less forested. Visitors to the Project area were asked about possible substitute rivers (see Section E5.2.1—Questionnaire Survey). One reason that visitors indicated that the rivers included in this analysis were substitute sites was that they all provide for quality fishing opportunities, despite differences in their characteristics and flows.

Overall, the Belden and Seneca Reaches are very different from each other. As Table E5.1.1-1 displays, Seneca Reach has far fewer dispersed campsites and less fishing opportunities due to poor access and steep terrain. Belden Reach has many more developed facilities and dispersed shoreline sites compared to Seneca Reach, but along a few of their lengths, the two Project river reaches are more similar.

**Table E5.1.1-1
Comparison of Project Area River Reaches Recreation Attributes to Other Sample Rivers in Northern California**

River or Creek	Similar Physical Settings Available	Similar Fishing Waters Available	Similar Access Available	Similar Types of Developed Facilities Available	Similar Types of Dispersed Camping Available	Similar Levels of Fishing Activity
Seneca Reach of UNFFR	Steep River Canyon	River/Riparian	Limited Road/None	None	Very Little	Limited
Belden Reach of UNFFR	Steep River Canyon	River/Riparian	Limited Road	Yes	Lots	Lots
McCloud River	Yes	Yes	Yes	Yes	Yes	Yes
Hat Creek	No	Yes	No	No	No	No
Fall River	No	Yes	No	Yes	No	No
Burney Creek	No	Yes	No	No	No	Yes
Upper Sacramento River	No	Yes	Yes	Yes	No	Yes
Lower Sacramento River	No	Yes	No	No	No	Yes
Pit River	Yes	Yes	Yes	Yes	Yes	Yes
Trinity River	No	Yes	No	No	Yes	Yes
Middle Fork Feather River	Yes	Yes	Yes	Yes	Yes	No
South Fork Feather River	Yes	Yes	No	No	Yes	Yes
Lower Feather River	No	Yes	No	No	No	Yes
Stanislaus River	No	Yes	No	Yes	No	Yes

Source: EDAW, Inc. 2001

While other river reaches have some of the characteristics of the Project area, relatively few have the unique combination of a steep, forested river canyon with reasonable road access and opportunities for dispersed shoreline camping and fishing. Seneca Reach allows for a more primitive fishing experience compared to Belden Reach, with many

opportunities for solitude. Comparisons with other rivers in the region are discussed below.

The upper Seneca Reach is characterized by limited access due to steep terrain that precludes wood building in most areas.

A portion of this reach runs through public land.² In this comparison, none of the other rivers analyzed included the same responses in all of the six river attributes. However, the South Fork Feather River comes closest to matching Seneca Reach. The remaining rivers included in this analysis flow through less public land but have many more access points.

The lower Belden Reach is characterized by having good, but limited vehicular access, lots of shoreline dispersed use, and good fishing access. Three rivers offer similar attributes to Belden Reach, including portions of the Pit River, McCloud River, and Middle Fork Feather River.

There are relatively few developed recreation facilities in proximity to Belden and Seneca Reaches, with the exception of three Forest Service campgrounds on the edge of Belden Reach. Seven (or half) of the river reaches discussed in this analysis have relatively few developed recreation facilities and therefore are considered similar to the Project area. Areas such as Hat Creek and Trinity River have many more developed facilities and thus are quite different from the parts of Belden Reach.

One of the unique characteristics of Belden Reach is its comparatively ample opportunity for dispersed use along the Project river reach, an activity not always available at other areas. The primary reason for this is that the majority of Belden Reach is within Plumas National Forest where there is limited but good road access and developed sites.

Other river reaches that flow through public lands also have similar, but fewer, opportunities for dispersed day use and camping. These include portions of the McCloud River, the Pit River, the Trinity River, and the Middle and South Forks of the Feather River.

The level of fishing use on Belden Reach is considered to be moderate. Fishing on Seneca Reach is considered low due to poor access, except at the far southern end. While the area is popular with anglers, use is not severely limited by primitive access on Belden Reach. All but three of the river reaches addressed by this analysis have similar (moderate) levels of use. Areas that have use levels different from Belden Reach include Hat Creek, the Fall River, and the Middle Fork of the Feather River. These three reaches have use levels that are higher than Belden Reach.

Visitors were asked about their favorite places in Northern California to recreate. Table E5.1.1-2 lists respondents' top two places they consider their favorites. As expected, replies for visitors were different depending on which resource area they recently visited within the Project Area.

**Table E5.1.1-2
Favorite Recreation Areas of Project Area Survey Respondents.¹**

Project Resource Survey Area	Favorite Recreation Area	Second Favorite Recreation Area
Project Reaches	Belden Reach (35%)	Plumas National Forest (6%)
Lake Almanor	Lake Almanor (65%)	Lake Tahoe (8.4%)
Butt Valley Reservoir	Butt Valley Reservoir (75%)	Lake Almanor (5.3%)

¹ Response percentages are based on all surveys for that Project resource area.

Source: Licensee 2001a

E5.1.1.4.4.2 Reservoir-Based Recreation

Table E5.1.1-3 compares Lake Almanor to other similar areas based on the number of various developed facilities. Butt Valley Reservoir and Belden Forebay are also Project reservoirs. However, their size and use levels are much smaller and they offer uniquely different experiences compared to Lake Almanor.

For the purposes of this comparison, visitors to Lake Almanor were asked to provide potential substitute reservoir or lake destinations (see Section E5.2.1—Questionnaire Survey). The majority of the lakes and reservoirs in Table E5.1.1-3 were indicated by visitors as possible substitutes. However, two were added to complete a balanced regional comparison (Little Grass Valley Reservoir and Honey Lake). These locations can be divided into three categories: lakes and reservoirs that are smaller than Lake Almanor, lakes and reservoirs of comparable size, and lakes and reservoirs that are larger than Lake Almanor. In general, substitute waterbodies that are smaller in size tend to have fewer developed recreation facilities, while the larger ones tend to have many more developed facilities.

Lake Almanor is one of the four largest lakes/reservoirs in the region, excluding Lake Tahoe, which is much larger and is an international destination. Honey Lake does not really compare as a recreation attraction. As a result, Eagle Lake and Shasta Lake are similarly sized waterbodies used for outdoor recreation purposes, with the latter being slightly larger and the closest in opportunities and physical features to Lake Almanor.

**Table E5.1.1-3
Comparison of Lake Almanor's Size and Recreation Facilities to
Other Lakes or Reservoirs in Northern California**

Lake or Reservoir	Surface Water (acres)	Number of Developed Campsites (percent of total)**	Number of Developed Boat Launches (percent of total)	Number of Developed Picnic Areas (percent of total)	Similar Types of Recreation Activities	Estimated Use Level
Lake Almanor	28,664	275* (5)	2 (06)	4 (17)	Yes	High
Eagle Lake	27,000	575 (11)	3 (10)	2 (08)	Yes	Moderate
Shasta Lake	29,500	320 (6)	7 (39)	3 (09)	Yes	High
Areas Smaller than Lake Almanor						
Lake Davis	4,000	173 (3)	3 (10)	1 (04)	Yes	Low
Bucks Lake	1,800	139 (3)	4 (13)	1 (04)	Yes	Moderate
Trinity Lake	16,535	450 (9)	3 (10)	4 (17)	Yes	High
Little Grass Valley Reservoir	16,000	213 (4)	3 (10)	2 (08)	Yes	Moderate
Iron Canyon Reservoir	500	40 (1)	1 (03)	0 (0)	Yes	Low
Lake McCloud	700	0 (0)	1 (03)	0 (03)	No	Low
Lake Britton	1,264	155 (3)	2 (06)	3 (13)	Yes	Moderate
Baum Lake	90	0 (0)	0 (0)	0 (0)	No	Moderate
Big Lake	150	0 (0)	1 (03)	1 (04)	No	Low
Fall River Lake	225	0 (0)	1 (03)	1 (04)	Yes	Moderate
Lake Oroville	15,810	287 (6)	6 (19)	3 (13)	Yes	High
Lake Siskiyou	435	350 (7)	1 (03)	2 (08)	Yes	High
Subtotal	N/A	2,977	31 (100)	24 (100)	N/A	N/A
Areas Larger than Lake Almanor						
Honey Lake	41,000	50 (1)	0 (0)	1 (03)	No	Low
Lake Tahoe	123,519	2,113 (41)	11 (61)	30 (88)	Yes	High
Subtotal	N/A	2,163	18 (100)	34 (100)	N/A	N/A
Total	N/A	5,140 (100)	49 (100)	58 (100)	N/A	N/A

Source: EDAW, Inc. 2001

* 245+30 (overflow) = 275

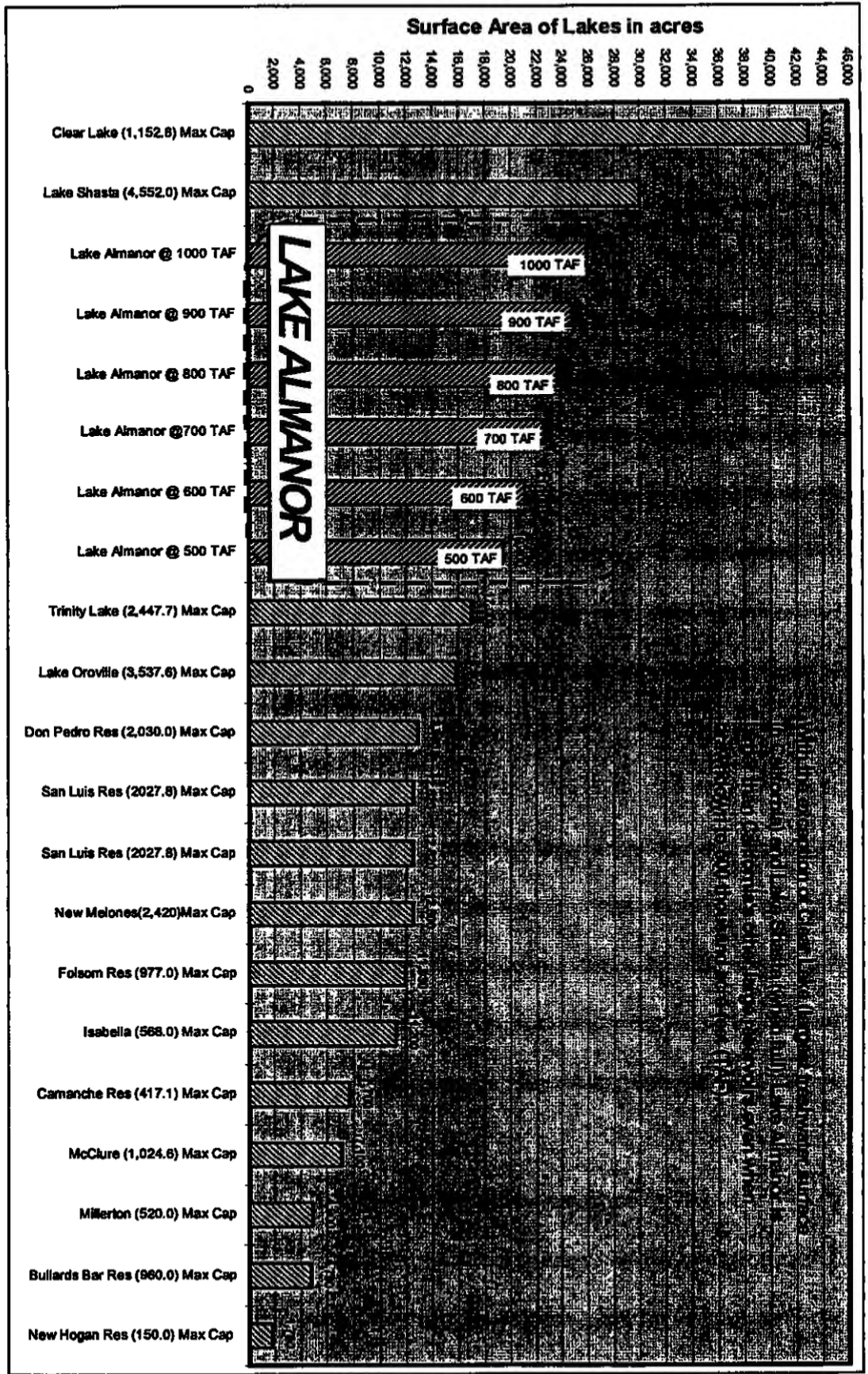
** Based on public sites: if Lake Almanor private sites were included, 600 would be available and Shasta Lake would have 750 sites.

Besides being one of the largest lakes/reservoirs in the state, other attributes of Lake Almanor include its moderate and varied level of development, its good highway access, its mix of both public facilities and private RV resort facilities, its mix of shoreline development and underdeveloped open space, and the opportunity for a relatively quiet and remote experience, supplemented by nearby Butt Valley Reservoir.

In an even broader comparison of Lake Almanor, Figure E5.1.1-2—Surface Area of California Reservoirs Compared with Lake Almanor at Various Stages of Drawdown, compares Lake Almanor at six drawdown levels with other lakes in the state. Except for Clear Lake and Shasta Lake, Lake Almanor is larger than 13 other lakes (80 percent), even at the low pool level.

A primary distinction between the lakes and reservoirs included in Table E5.1.1-3 (several were identified by visitors as substitute recreation areas) is the amount of surface water available for recreation. Nine of the areas analyzed are less than half the size of the 27,092 surface-acre Lake Almanor.

Three lakes or reservoirs are approximately half the size of Lake Almanor. Two reservoirs are approximately the same size as Lake Almanor (Eagle Lake is a bit smaller and Shasta Lake is a bit larger). Two reservoirs are considerably larger than Lake Almanor (Honey Lake and Lake Tahoe). It should be noted that Honey Lake offers far fewer recreational opportunities and is an extremely shallow alkaline reservoir with many different attributes than Lake Almanor. Also, it should be noted that Lake Tahoe is 67



Source: Licensee 2002
Figure ES.1.1-2
Surface Area of California Reservoirs Compared with Lake Almanor at Various Stages of Drawdown

percent as large as all the other waterbodies combined. Therefore, while its level of use, like Lake Almanor is high, it offers many more recreational opportunities than the Project area does, including Nevada gaming and being an international destination.

These attributes highlight the unique role of Lake Almanor and the surrounding Project area with respect to providing recreational opportunities; it provides many or all of the types of activities and facilities of the larger lakes and reservoirs, while also providing opportunities for primitive recreation experiences at the same time. This unique balance of large and small reservoir attributes sets Lake Almanor apart from the others considered in this analysis.

Ten of the smaller lakes and reservoirs provide developed camping opportunities and four do not. Thus, among smaller lakes and reservoirs, Lake Shasta and Lake Almanor provide a significant number of developed campsites; these lakes have a comparable number of developed campsites, although Lake Shasta has about 150 more. Eagle Lake and Trinity Lake also provide a significant number of developed campsites—about 575 and 450, respectively. Two of the larger lakes and reservoirs provide fewer opportunities for developed camping than Lake Almanor, particularly Honey Lake and Shasta Lake.

Among smaller lakes and reservoirs, seven have two or fewer developed boat launches. Six of the smaller lakes and reservoirs have three or more developed boat launches. The Project area is unique among these as it has two public (free) boat launches and is a relatively-speaking, large reservoir, yet boat launch-related conflicts, such as wait times,

were rarely mentioned by questionnaire respondents. Two of the larger lakes provide more developed boat launches than Lake Almanor.

With four developed picnic areas, Lake Almanor has more picnic facilities than all of the smaller lakes and reservoirs, with the exception of Trinity Lake, which also has four areas. The larger lakes and reservoirs in this analysis lack a significant number of developed picnic areas, with the exception of Lake Tahoe, which has 30 areas.

Lake Almanor is a popular area for various recreation activities including motorized boating, waterskiing, PWC use, camping, hiking, fishing, sunbathing, beach use, and cycling. Ten of the smaller lakes and reservoirs provide opportunities for similar types of land- and water-based activities. The remaining three smaller areas are too small, shallow, or stumpy for any substantial boating-related activities. Two of the larger lakes provide opportunities for the same types of activities that are popular at Lake Almanor. Honey Lake, with more surface acres, but an alkaline environment hosts less use and does not support similar recreational opportunities.

Compared to the other waterbodies, use levels at Lake Almanor are considered generally moderate during the entire recreation season. Like most waterbodies, use levels peak during summer holidays. This assessment takes into consideration the amount of water-based recreation, general utilization patterns associated with land-based facilities, and professional judgment. Several of the smaller lakes and reservoirs have use levels that are lower than Lake Almanor, primarily due to the lack of developed facilities at these

locations. Baum Lake has moderate use levels due primarily to fishing, while Fall River Lake has moderate use levels due to several different activities.

Use at Lake Siskiyou, which is smaller and has approximately half the developed facilities as Lake Almanor, is also high due to the presence of a large private resort on the shoreline that is in proximity to Interstate 5 (I-5).

Use levels at Shasta Lake and Lake Tahoe are considered high due to the vast array of developed commercial and residential facilities that are provided in these areas and the amount of surface water available to boaters. Honey Lake, while larger, hosts low use due to the low amount of developed facilities and alkaline water conditions.

The two reservoirs that are comparable mid-size resources are Shasta Lake and Eagle Lake. Shasta Lake is set at approximately 1,100 feet in elevation. It is more easily accessible to visitors traveling from Redding, Red Bluff, and the Sacramento areas, since some of its access points are along I-5. Portions of the area are open year-round, and it supports more warm water types of recreation than Eagle Lake or Lake Almanor. It has more marinas than Lake Almanor or Eagle Lake and provides houseboating opportunities. Shasta Lake is also part of a larger recreation complex (the Whiskeytown-Shasta-Trinity NRA), so that there are more day use sites, camping areas, and points of interest that are immediately adjacent to the lake, compared to Lake Almanor or Eagle Lake.

Eagle Lake is a natural, high-mountain lake. It is a renowned trophy trout fishery, and is readily accessible to residents of Susanville and Reno. It has some historic resources and watchable wildlife areas, but the level of development is less than what can be found at Lake Almanor or Shasta Lake.

In summary, Lake Almanor and its surrounding areas of Butt Valley Reservoir and Belden and Seneca Reaches, is an important and unique recreational resource in the region. It provides a relatively unique mix of recreational experiences that balance the values of smaller, less developed recreation areas with larger, more developed recreation areas in the region.

E5.1.1.4.5 Indicators of Regional Recreation Demand

This section presents information related to current and future demand for recreation activities occurring in the Project area. The information includes:

- Existing demand in the Project area for relevant activities;
- Existing statewide demand for recreational activities occurring in the Project area;
- Existing statewide demand for recreational activity settings in the Project area; and
- Estimates of future demand and trends for recreation activities occurring in the Project area.

E5.1.1.4.5.1 Existing Demand in the Project Area for Recreation Activities

Recent Licensee visitor surveys measured current demand in two ways (Licensee 2001a). Visitors were asked to identify all the activities they were participating in, as well as the primary activity they were engaged in, while on their trip. Information on the most common activities among Project area visitors is shown in Table E5.1.1-4. Assessment of the most common activities in an area indicates overall participation in various activities and is a good indicator of overall demand. While visitors may have a specific reason for visiting an area, they are likely to engage in many different activities while in the Project Area.

As expected, visitors go to Lake Almanor and Butt Valley Reservoir to enjoy distinct activities at other locations, compared to the Project area as a whole. Visitors to Lake Almanor and Butt Valley Reservoir participate in a wide array of activities, many of which are facility-dependent such as picnicking and camping. Meanwhile, visitors to Belden and Seneca Reaches participate in fewer activities, with shoreline fishing the most common activity by a large margin. Other activities at Belden and Seneca Reaches that respondents participated in more often than at Lake Almanor and Butt Lake were hiking and RV camping.

Swimming, ranked #1, was cited by 77 percent of all respondents as an activity in which they participated. The majority of this use occurs at Lake Almanor and Butt Valley Reservoir.

**Table E5.1.1-4
Most Common Activities Indicated by Visitors Surveyed in the Project Area¹**

Activity	Percent Responding ²			
	Overall Project Area	Lake Almanor	Butt Valley Reservoir	Belden and Seneca Reaches
Swimming	(1) 77	(1) 79	(1) 82	(3) 62
Fishing	(2) 75	(2) 70	(2) 81	(1) 82
Hiking	(3) 68	(3) 68	64	(2) 74
Tent Camping	61	58	(3) 74	52
Sightseeing	63	67	60	58
Wildlife Viewing	56	51	63	61
Sunbathing	55	54	63	40
RV Camping	48	49	46	52
Picnicking	45	48	40	42
Bicycling on Roads/Bike Paths	45	50	40	36
Motorboating	42	53	42	5
Waterskiing	26	41	10	5
Canoeing	18	15	31	6
Mountain Biking on Trails	17	20	16	12
Hunting	14	15	18	5
Golf	14	22	7	1
OHV Use	12	13	12	8
PWC Use	11	19	3	0
Sailing	10	10	16	1
Kayaking	8	8	13	0
Horseback riding	6	9	3	1
Cross-Country Skiing/Snowshoeing	5	6	4	3
Windsurfing	4	4	7	0
Snowmobiling	3	5	1	1

¹ Respondents chose among activities they may have "never" participated in the Project area.

² More than one activity could be indicated. Responses are based on all mail survey responses (N=462). Questions about activities allow for multiple responses. Therefore column percentages do not sum to 100 percent, but this analysis affords activity ranking by survey and across all surveys.

Note: Bold numerals designate the top three responses for each resource area and for the entire Project area.

Source: Licensee 2001a

Fishing, ranked #2, was cited by 75 percent of all respondents as an activity in which they participated. Fewer respondents stated they fished at Lake Almanor than at Butt Valley Reservoir and Project river reaches. Hiking, ranked #3, was cited by 68 percent of all

respondents as an activity in which they participated. Based on all responses, Belden and Seneca Reaches host hiking activity more often than Lake Almanor or Butt Valley Reservoir. Tent camping was cited by 61 percent of all respondents to be an activity in which they participated. Based on all responses, Butt Valley Reservoir hosts proportionally more tent camping than other Project areas.

Sunbathing was cited by 55 percent of all respondents to be an activity in which they participated. Based on all responses, Butt Valley Reservoir hosts proportionally more sunbathing than Lake Almanor, and considerably more than Belden and Seneca Reaches.

Project river reaches and Butt Valley Reservoir do not host proportionally as much bicycling on roads and trails as Lake Almanor does. Water sports such as motorboating, waterskiing, canoeing, PWC use, kayaking, sailing, and windsurfing are predominately activities visitors participate in at Lake Almanor. Of these water sports, Butt Valley Reservoir hosts proportionally more sailing, kayaking, and windsurfing than Lake Almanor does and has a county boating speed ordinance that prohibits PWC use and waterskiing.

Perceptions of Adequacy of Facilities and Services (Lake Almanor Respondents Only)

Table E5.1.1-5 summarizes survey respondents' level of support for possible developments. The possible development garnering the most support was not boating related, but was providing electrical hookups for RVs (49 percent indicating somewhat or strongly support). Creating a no-wake zone was rated similarly high (46 percent indicating somewhat or strongly support). (Support for a no wake zone may be indicative

of conflicts between different types of boating recreationists, and between boating and other types of recreationists. There is already a county ordinance creating a no-wake zone; thus, the greater issue may be enforcement of the existing zone.) Thirty-nine percent of respondents also supported more day use facilities and, although a majority was neutral, 36 percent supported more pay telephones in campgrounds.

**Table E5.1.1-5
Opposition to or Support for Possible Developments at Lake Almanor**

Possible Development	Lake Almanor Majority Opinions *
Create more day use facilities around the reservoir	Neutral / Somewhat support
Install more pay telephones in campgrounds	Neutral
Eliminate alcohol use in campgrounds	Strongly opposed / Neutral
Provide electric hookups for campers	Neutral / Strongly support
Charge a fee for DUAs	Neutral / Strongly oppose
Create more commercial overnight moorage docks	Neutral
Create no-wake zones on the reservoir	Neutral / Somewhat support

* For five of the seven possible developments, no one response was given by a majority. For those items, the top two responses are listed, which together comprise a majority.

Note: Scale used in survey: Strongly support, somewhat support, neutral, somewhat oppose, strongly oppose.

Source: EDAW, Inc.

Table E5.1.1-6 summarizes survey respondents' perceptions of adequacy of a variety of facilities and services at Lake Almanor. Results are reported as the proportion of respondents who thought the number of amount of facilities was either too low or between too low and about right as a potential indication of unmet demand for those facilities. The items considered the most inadequate (i.e., potentially highest unmet demand) were showers at campgrounds and in DUAs (75 and 69 percent, respectively, responding too low). Only two other facilities—RV campsites with hookups and fish cleaning stations—were considered inadequate in number by half or more of the visitors.

**Table E5.1.1-6
Visitor Demand for Additional Facilities and Services at Lake Almanor**

Facilities and Services	Percent of Respondents Indicating Demand *
1. Number of campgrounds	42.7
2. Number of RV sites with hookups	51.6
3. Number of group campsites	33.3
4. Drive-in primitive campsites	46.3
5. Number of boat-in campsites	36.8
6. Shower facilities at campgrounds	75.3
7. Amount of screening between campsites	39.7
8. Presence of campground hosts	15.3
9. Number of developed day use or picnic areas along the shore	40.6
10. Shower facilities at DUAs	68.6
11. Group picnic sites	30.4
12. Shade tree areas	30.3
13. Number of boat ramps	33.6
14. Number of docks or temporary moorage	42.3
15. Boat-in gas stations	43.9
16. Number of marinas	31.6
17. Fish cleaning stations	50.0
18. Number of paved bike trails	32.9
19. Number of mountain bike trails	41.6
20. Number of hiking trails	33.9
21. Number of equestrian facilities	21.7
22. Number of signs indicating trail locations	32.5
23. Amount of public access areas on shoreline	38.0
24. Number of restrooms around the shoreline	46.7
25. Number of interpretive programs/educ. opportunities	42.6
26. Amount of parking along roads	43.1
27. Law enforcement presence	35.9

* Indication of demand corresponds with responses of 4 or 5 on 5-point scale (1=too high, 3=about right, 5=too low).

Note: Bold type represents facilities and services with highest potentially unmet demand (50 percent or more respondents considered number/amount too low).

Source: EDAW, Inc.

Additional information regarding visitor responses may be found in Section E5.2.1—
Questionnaire Survey.

E5.1.1.4.5.2 Existing Statewide Demand for Recreation Activities Occurring in the Project Area

Results of existing regional and future demand analyses are summarized below, organized according to DPR data, other data sources, and projected increases in demand (by activity type) for the study area.

Projections of regional demand were based primarily on data obtained by the most recent DPR survey of California residents (DPR 1998), and results from a recent national survey research (Cordell 1999). The 1999 Cordell study assessed outdoor recreation trends in over 80 activities ranging from walking to canoeing.

Long-term trends are also covered with emphasis on those activities with the greatest differences (in demand) and on where there are regional and national patterns. The 1998 DPR study presents the most recent regional demand data for 43 recreation activities, including several activities that occur in the study area (listed below).

- Trail hiking
- Bicycling (paved surfaces)
- Mountain biking (unpaved surfaces)
- Driving for pleasure
- Primitive camping
- Developed camping
- Nature study/wildlife viewing
- General use of open space
- Beach activities
- Picnicking
- Swimming (non-pool)
- Sailboating and windsurfing
- Kayaking, canoeing, and rafting
- Powerboating
- Waterskiing
- Fishing (freshwater)
- 4-wheel drive vehicle use
- Hunting
- Motorcycling/all-terrain vehicle (ATV) use

Although future participation trends in these activities were not assessed, DPR's baseline survey (DPR 1998) estimated demand for each of the common activities in the study area (see Table E5.1.1-7). Participants in the DPR study were asked to rank activities they would increasingly pursue if good opportunities were available.

As indicated in Table E5.1.1-7, existing demand is expected to be high, based on latent demand and the types of opportunities offered in the Project area. The three most common activities at UNFFR sites all have high levels of existing demand.

Rest and relaxation was not included in the DPR study; however, general use of open space is included in the table as a substitute since these are similar activities.

**Table E5.1.1-7
Existing Demand for Selected Activities in California**

Activity	Existing Demand
Trail hiking	High
Bicycling (paved surfaces)	Moderate
Mountain biking (unpaved surfaces)	Low
Driving for pleasure	Low
Primitive camping	High
Developed camping	High
Nature study/wildlife viewing	High
General use of open space	High
Picnicking	High
Beach activities	High
Swimming (non-pool)	High
Sailboating and windsurfing	Low
Kayaking, canoeing, and rafting	Low
Powerboating	Low
Waterskiing	Low
Fishing (freshwater)	High
4-wheel drive vehicle use	Low
Motorcycling/ATV use	Low
Hunting	Low

Source: DPR 1998

E5.1.1.4.5.3 Existing Statewide Demand for Recreation Activity Settings in the Project Area

For most Californians, the availability of outdoor recreation areas and recreation facilities is regarded as a quality of life issue (DPR 1998). Californians are, for the most part, satisfied with the recreation areas and facilities currently available (DPR 1998). In addition to an activity-based approach to assessing recreation demand, it is also important to assess the types of physical, social, and managerial settings that visitors choose for recreation.

Table E5.1.1-8 indicates the types of outdoor recreation areas California residents visit the most, as well as those areas they would prefer to visit. Visitors are often prevented from visiting the type of area they would prefer to visit due to time, money, availability, or informational constraints (DPR 1998).

The results from Table E5.1.1-8 indicate that over two-thirds (69 percent) of California residents prefer to use either undeveloped areas or nature-oriented parks and recreation areas (similar to the UNFFR Project area). However, relatively few residents actually use these areas on a weekly basis, primarily due to the constraints previously mentioned. Thus, overall demand is high for the types of nature-based experiences available in parts of the Project area.

Demand is much lower for highly developed parks and recreation areas such as parts of LOSRA (e.g. Thermalito North Forebay and Loafer Creek Swimming Area) and parts of the Project area such as Lake Almanor Country Club's day use parks. Ten percent of

residents prefer this type of setting, while over 20 percent actually use this type of setting. This indicates that many residents end up using these areas due to a lack of time, money, awareness, transportation, or other related reasons.

**Table E5.1.1-8
Types of Desired Outdoor Recreation Areas Used in California—
Preferred and Actual**

Type of Area	Preferred Use (percent)	Actual Use (percent) ¹
Natural and undeveloped areas	39.4	11.7
Nature-oriented parks and recreation areas	30	9.7
Highly developed parks and recreation areas	10.2	20.5
Historical or cultural buildings, sites or areas	9.3	2.2
Private, not public, outdoor recreation areas and facilities	11.1	12.9

¹Use of an area at least once a week

Source: DPR 1998

E5.1.1.4.5.4 Estimates of Future Demand and Trends for Recreation Activities Occurring in the Project Area

Although DPR does not provide extensive data on future trends in activity participation, future demand can be determined from other existing sources of information. Recent national and regional data provide demand-related information for many of the activities that are common in the Project area. Table E5.1.1-9 indicates the projected change in participation in various activities by the year 2030 in the Pacific Region (Cordell 1999). The Pacific Region is defined as California, Oregon, Washington, Alaska, and Hawaii. While this area is much broader than the study area, the information nevertheless provides further context for estimating the potential growth in common study area

activities. Participation in these activities is expected to increase in the future. In general, this increase is expected to be larger in the Pacific Region than for the nation as a whole.

**Table E5.1.1-9
National and Regional Trends in Outdoor Recreation Activity Participation
(2000–2030)**

Activity	National Trend	Pacific Region Trend	Pacific vs. National Trend Difference
Canoeing	+22	+45	+23
Motorboating	+28	+45	+17
Non-pool Swimming	+30	+37	+7
Rafting/Floating	+47	+47	+0
Visiting a Beach	+33	+38	+5
Fishing	+20	+18	-2
Hunting	-8	-21	-13
Non-consumptive Wildlife	+37	+44	+7
Hiking	+31	+45	+14
OHV Riding	+6	+16	+10
Primitive Camping	+5	+22	+17
Developed Camping	+28	+39	+11
Biking	+37	+35	-2
Family Gathering	+32	+35	+3
Picnicking	+33	+37	+4
Sightseeing	+42	+49	+7
Walking	+27	+41	+14

Source: Cordell 1999

In addition to this national and regional information, data on activity participation rates from 1987, 1992, and 1997 were compiled by DPR (1988, 1993, and 1998). These data can be used to assess recent trends in participation that may suggest future trends. Although it cannot be assumed that these trends will be consistent throughout the term of the new license period, they do provide general direction.

Based on the regional data provided in Table E5.1.1-9, projected changes in demand were estimated for recreation activities occurring in the study area (see Table E5.1.1-10). The activities in Table E5.1.1-10 reflect those that are popular in the study area and therefore are not exactly the same as those in Table E5.1.1-9.

**Table E5.1.1-10
Projected Future Demand for Selected Activities in the Project Area**

Project Area Recreation Activity	Projected Annual Percent Increase in Demand¹	Projected Percent Increase in Demand 2000-2005	Projected Percent Increase in Demand 2000-2015	Projected Percent Increase in Demand 2000-2025	Projected Percent Increase in Demand 2000-2035
Swimming/Wading	1.03	5.2	16.6	29.1	43.0
Beach Use/Sunbathing	1.00	4.7	14.8	25.9	38.0
Picnicking	1.05	5.3	16.9	29.8	44.0
Hiking/Walking	1.22	6.3	20.0	35.5	53.0
Observing Wildlife	1.20	6.2	19.7	34.9	52.0
Fishing (from shore)	0.60	3.0	9.3	15.9	23.0
Hunting	-0.90	-4.4	-12.6	-20.1	-27.0
Sightseeing	1.31	6.8	21.7	38.6	58.0
Camping (primitive)	0.7	3.5	10.8	18.6	27.0
Camping (developed)	1.07	5.5	17.3	30.4	45.0
Photography	1.2	6.2	19.7	34.9	52.0
Fishing (from boat)	0.6	3.0	9.3	15.9	23.0
OHV use	1.01	2.5	7.8	13.3	19.1
Boating (non-motorized)	0.18	6.1	19.3	34.2	51.0
Bicycling/Mountain Biking	1.0	5.0	15.9	27.8	41.0

1 Based on Cordell 1999 data. Similar activity categories used wherever possible.

Note: Demand projections should be revalidated approximately every 10 years.

Sources: Cordell 1999 and EDAW, Inc.

Demand projections for these activities were estimated for the period from 2000 to 2035. Due to the dynamic nature of recreation demand, these projections should be monitored periodically as a reality check. Changes in demand over time can be expected. These projections show an increasing level of demand in the study area for many of the common activities enjoyed by visitors in the Project area.

As indicated in Table E5.1.1-10, changes in demand through the year 2035 are anticipated to range from a decline of approximately 25 percent (hunting) to an increase of 58 percent (sightseeing).

Caution should be exercised when interpreting the significance of differences between projected growth rates. More confidence should be placed in larger differences (such as between sightseeing (58 percent) and OHV use (19 percent)) than in smaller differences (such as between sightseeing (58 percent) and swimming (43 percent)).

Table E5.1.1-10 indicates that many of the popular activities in the Project area are projected to have higher levels of demand in the near future, based on trends established for California and the nation, and on the types of activities offered at the Project Area. In addition, not only are the activities currently popular in the Project area, but they will become increasingly popular at a faster rate than many other activities. For some of the activities, demand is expected to increase by 50 percent or more (high demand) between 2000 and 2035. These activities are listed below and are followed by their existing demand as indicated by recent DPR surveys (Table E5.1.1-10). This distinction is presented because projected demand is based on data for the entire Pacific Region, while existing demand is based on California data. Some activities that are popular in the study area and are listed in Table E5.1.1-9, are not listed in Table E5.1.1-10, therefore similar activities were used.

Three activities with higher levels of both existing demand and projected future demand include:

- Hiking;
- Observing wildlife; and
- Photography (similar to nature study).

Two activities with lower levels of existing demand, but higher levels of projected future demand include:

- Sightseeing (similar to driving for leisure); and
- Non-motorized boating.

Demand is expected to increase at levels between 30 percent and 50 percent (moderate demand) between 2000 and 2035 for several other activities including:

- Swimming;
- Beach use (similar to beach activities);
- Picnicking;
- Biking; and
- Camping (developed).

All of the above activities have high existing demand, except for biking, which has only moderate demand now. These activities represent some of the most common activities in the Project area, particularly swimming. Although Table E5.1.1-10 indicates only moderate projected demand (based on regional data), DPR data indicate that these

activities all have high levels of existing demand within the state. This suggests that if current trends continue, projected demand for these activities will be higher in California than in the Pacific Region as a whole. The implication of this finding is that these activities may have projected demand levels similar to those with high demand (hiking, observing wildlife, sightseeing, etc.) listed above.

Demand for picnicking, biking, and camping facilities is closely associated with the facilities available for these activities, and is currently increasing. In addition, an increased demand for swimming and beach use, which are generally not facility-dependent, could increase the need for improved access to Project area recreation sites and additional developed camping facilities.

Demand is expected to increase at levels below 30 percent (low demand) between 2000 and 2035 for the following activities:

- Fishing (shore) (similar to freshwater fishing);
- Camping (primitive);
- Fishing (boat) (similar to freshwater fishing); and
- OHV use (similar to motorcycling/ATV use)

All of the above activities have high existing demand, except for OHV use, which has only low demand now. This list represents secondary activities in the Project area with visitor participation levels of less than 35 percent. However, although they each have low projected demand, four of the five activities have high levels of existing demand in

California. Since many of these activities are not facility-dependent, access will likely be the primary need in the future.

Demand is expected to decrease for hunting by 27 percent between 2000 and 2035. This mirrors a declining national trend in hunting participation. Other recent studies have shown that population levels, income, and age of the population (collectively) often account for most of the variation in recreational trips taken (Loomis and Walsh 1997).

One additional component of future demand for activities in the Project area is current population data for the surrounding area where visitors originate, as well as corresponding population change. Table E5.1.1-11 details population projections for various counties in both northern and central California and Nevada. These counties were selected because they are where many of the visitors to the Project area originate.

Table E5.1.1-11 indicates that the rapid growth that has been occurring in many of these counties is projected to continue through the year 2035. The populations of several counties in California and one in Nevada are expected to increase over 100 percent by 2035. Additionally, the population of California will increase by approximately 57 percent by 2035, while the population of Nevada will increase by 145 percent. This increase in county and state populations may result in a comparable increase in the number of visitors and the participation rates of activities occurring in the Project area.

**Table E5.1.1-11
Population Estimates and Forecasts for Selected Counties
in California and Nevada**

County	2000 Population	Yearly Average Change in Population (percent)	Estimated 2035 Population¹	2000-2035 Population Change (percent)
Butte	203,171	1.1	297,956	46.7
Plumas	20,824	0.5	24,796	19.1
Lassen	33,828	2.1	70,013	107
Sacramento	1,223,499	1.6	2,132,472	74.3
Tehama	56,039	1.2	85,076	51.8
Santa Clara	1,682,585	1.1	2,467,559	46.7
Contra Costa	948,816	1.6	1,653,719	74.3
Shasta	163,256	1	231,269	41.7
Alameda	1,443,741	1.2	2,191,832	51.8
Sonoma	458,614	1.6	799,332	74.3
San Mateo	707,161	0.8	934,624	32.2
Glenn	26,453	0.6	32,614	23.3
Placer	248,399	4	980,205	294.6
Solano	394,542	1.4	641,832	62.7
Yolo	168,660	1.8	314,908	86.7
Sutter	78,930	2	157,851	100
California Total	33,871,648	1.3	53,231,281	57.2
Washoe	330,005	1.7	595,325	80.4
Churchill	26,290	3.3	81,903	211.5
Nevada Total	2,059,433	2.6	5,057,144	145.6

¹ Assumes average yearly percent change in population does not change.

Sources: California Department of Forestry (CDF) 2000 and Nevada State Demographer's Office (NSDO) 2000

Although much of these data are incorporated in the demand projections based on data from Cordell (1999) (see Table E5.1.1-11), it is important to note that the populations of the counties adjacent to the Project area are projected to increase between 19 percent (Plumas County) and 107 percent (Lassen County).

Due to the projected increases in population in areas where visitors reside, it is expected that demand for recreational activities in the area will be somewhat higher than in the state as a whole.

E5.1.1.4.6 Synthesis of Regional Recreation Supply and Demand Trends

This section synthesizes data from the previous sections with respect to the supply and demand for regional recreational facilities, activities, and opportunities. This synthesis is intended to be an overview, but establishes findings that will assist in future planning efforts.

Data from DPR and other regional and national demand projections (Cordell 1999) indicate that demand will continue to increase for all of the popular activities in the study area, with the exception of hunting.

Activities that are popular in the study area and are expected to have high levels of demand include:

- Sunbathing;
- Relaxing/sunning;
- Swimming;
- Wildlife observation;
- Picnicking;
- Camping (developed); and
- Hiking.

Growth projections in many of these activities indicate that the current supply of recreational facilities in the region will need to be increased to meet future demand, during the term of the new license, particularly for the above activities. Facilities that will be in the greatest demand include:

- Shoreline day use facilities (picnic areas, swimming beaches);
- Wildlife observation and viewing areas;
- Campgrounds (developed and primitive); and
- Trails.

Similarly, the demand for fishing in the Project area will likely continue and will likewise increase demand for additional access points including parking areas, and access trails. Due to the popularity of the region's fishing resources, demand in the Project area is likely higher than indicated for freshwater fishing in the projections presented above.

E5.1.1.4.7 Evaluation of Latent Demand

There is potentially some degree of latent demand for some facilities and activities. The definition of "latent demand" used in this license application includes activities and facilities *currently available* in the Project area, but possibly not in amounts adequate to meet demand at all times.

Simcox (1995) reported that the Forest Service Almanor Campground was over capacity 58 percent of days in July, and 36 percent of days in August of 1993. This corresponds to about 30 days in which the campground was over capacity during those two months. The

Licensee campgrounds are also stated to have been full all of those days. Yet Licensee campground occupancy data indicate that the 131-site Lake Almanor and 25-site Last Chance Campground were at or over capacity only about 15 days during the entire 1993 season. Further, the Licensee data indicate that for 6 of the 8 years since 1993, Lake Almanor Campground has been at or over capacity 8 or fewer days. Thus, the degree to which camping capacity was exceeded at Lake Almanor during 1993 may have been overstated in the Simcox report. Also, 1993 campground occupancy appears to have been higher than usual and not representative of most recent seasons.

Table E5.1.3-2 details ecological impacts observed during 2001 at Lake Almanor dispersed use sites. It confirms that some adverse resource impacts are occurring in that 9 of the 16 moderate or high-use dispersed use sites displayed at least one of three indicators of damage: erosion, vegetation damage, or medium or large area of bare ground. Simcox recommended that access to the undeveloped shoreline dispersed use sites be eliminated. Additional day use facilities could potentially alleviate overuse of shoreline areas. However, additional or inappropriate recreation facilities can also increase use and alter the character of recreation experiences available.

The majority of Lake Almanor visitors surveyed in 2001 did express the opinion that certain campground or DUA amenities (e.g., showers, fish cleaning stations) were inadequate in number, but 57 percent felt the number of campgrounds was adequate, and 59 percent felt the number of shoreline DUAs was adequate. As for social capacity being strained, the survey data did not suggest that capacity was being exceeded for most

visitors. About 68 percent of those surveyed said the number of people present at Lake Almanor “did not affect” or “improved” their enjoyment, while only about 6 percent said it “detracted a lot” from their enjoyment. About 44 percent said they had changed their visits to Lake Almanor due to crowding, but this was primarily accomplished by avoidance of busy holidays and weekends, a response with the beneficial effect of redistributing some use to weekdays.

The regional studies indeed indicate that significant growth in popular recreation activities should be expected in future decades. However, latent demand by definition in this license application refers only to *current* unmet demand, not that which is projected to occur in the future.

E5.1.1.4.8 Summary of Regional Demand Analysis

This section summarizes the major findings of the previous sections. Overall demand is discussed with a summary of the regional recreation resources detailed above.

E5.1.1.4.8.1 Comparison of Regional Recreation Resources

- There are 12 river reaches and 16 lakes and reservoirs in the region (see Figure E5.1-4) which provide recreational experiences and facilities that visitors to the Project area enjoy. These areas were selected based on visitor survey data regarding potential substitute recreation areas for visitors to the Project Area (Licensee 2001a).

- The vast majority of visitors to Belden and Seneca Reaches identified fishing as their primary activity. Twelve river reaches were identified as potential substitute areas where they might engage in similar activities.
- Belden Reach, and to a lesser extent Seneca Reach, are unique resources among other areas in Northern California. There are relatively few other areas that provide high quality fishing experiences in steep, remote canyons where dispersed camping opportunities abound. The two areas in this analysis that provide experiences most similar to the Project area are portions of the McCloud River and the Pit River, outside of the Project area.
- Ten lakes and reservoirs were identified by visitors to Lake Almanor and Butt Valley Reservoir as possible substitute areas where they would engage in similar activities. Areas studied included 13 lakes and reservoirs that are smaller than Lake Almanor, and three lakes that are larger than Lake Almanor. Nonetheless, Lake Almanor is the second largest reservoir in the state, even at lower pool levels (see Figure E5.1.1-2).
- Lake Almanor and Butt Valley Reservoir are important and unique recreation resources in Northern California. They provide for relatively unique recreation experiences that provide a balance between the region's smaller and more primitive, less developed areas (e.g. Bucks Lake), and very large, highly developed international destinations (e.g. Lake Tahoe). Lake Almanor is the only large lake or reservoir in the region of its size and provides for both moderately developed and primitive recreational experiences, as well as a full array of water-based activities. Maintaining this balance so that Lake

Almanor does not become too crowded and continues to provide a spectrum of recreation opportunities is an important consideration for future planning.

E5.1.1.4.8.2 Indicators of Regional Recreation Demand

Looking into the future, participation is projected to increase by over 50 percent from 2000 to 2035 for some activities occurring in the Project area. These activities include:

- Hiking;
- Observing wildlife;
- Photography;
- Sightseeing; and
- Non-motorized boating.

Participation is projected to increase by between 30 percent and 50 percent from 2000 to 2035 for many of the most common activities occurring in the Project area. Existing statewide demand for these activities is expected to remain high in the future. These activities include:

- Swimming;
- Beach use;
- Picnicking;
- Biking; and
- Camping (developed)

Future participation is projected to increase at a somewhat slower or moderate rate (less than 30 percent from 2000 to 2035) for several other activities in the Project area. These activities include:

- Fishing (shore);
- Camping (primitive);
- Fishing (boat); and
- OHV use.

These moderate to high increases in participation rates are driven in part by population increases. Regional population trends in the counties where most visitors to the Project area live indicate that population will continue to grow at a rapid and steady rate for the next 35 years. These visitor origin and population changes include:

- Project area vicinity counties—projected to increase in population by 75 percent by the year 2035;
- San Francisco Bay Area counties—projected to increase in population by 30 percent by the year 2035; and
- California—projected to increase in population by 61 percent by the year 2035.

As a result of these increases, the following facilities will be in the greatest demand in the future:

- Day use facilities (picnic areas, swimming beaches);
- Wildlife observation areas;
- Campgrounds (developed and primitive); and
- Trails.

E5.1.2 Recreational Facility and Condition Inventory

E5.1.2.1 Introduction

This section presents the results of the Recreational Facility and Condition Inventory study, one of several recreation studies that were conducted by the Licensee for relicensing. This report presents the results of one of those studies: an inventory and evaluation of public, developed recreation facilities, use areas, and site conditions for each site in the Project area. Dispersed sites and private recreation sites are also discussed, but at a lesser level of detail. An assessment of accessible facilities for the physically disabled (compliance with the Americans with Disabilities Act [ADA]) is provided in Section E5.1.4—ADA Accessibility Study.

E5.1.2.1.1 Objectives of the Study

The objective of this study is to create an inventory of existing recreation facilities and site conditions in the Project area and to assess whether these facilities are in good condition and are being well-maintained. This study identifies possible public recreation facility improvements that may be needed, as well as facility operation and maintenance (O&M) needs that may be considered later for proposed protection, mitigation, and enhancement measures (PMEs).

E5.1.2.1.2 Components of the Study

This study report focuses on two main elements: identification of existing public recreational opportunities and facilities, and the physical condition of those facilities and lands.

This report includes the following: a detailed list of facilities available at each site, descriptions of facilities, site facility diagrams, and photographs (Appendices E5-A through E5-C), facility condition ratings, a discussion of O&M at each site, a discussion of planned improvements, and recommendations for facility replacement, repair, or maintenance.

The focus of this analysis is on developed public recreation sites in the immediate vicinity of Lake Almanor, Butt Valley Reservoir, and the two bypass reaches (Belden Reach and Seneca Reach). However, this analysis also includes a review of dispersed sites surrounding these areas and privately-owned and -operated facilities at Lake Almanor. In addition, a discussion of National Recreation Trails and federal Wild and Scenic Rivers (WSRs) occurring in or near the Project area is provided.

E5.1.2.2 Study Area

The Project is located on the North Fork Feather River (NFFR) and Butt Creek, a tributary to the NFFR. It is situated in the northwest corner of Plumas County, approximately 90 miles northeast of the City of Oroville and approximately 160 miles northeast of the City of Sacramento. The study area includes two reservoirs, Lake Almanor and Butt Valley Reservoir, and two bypass reaches (Belden and Seneca).

Project sites were categorized into Level 1 (greater detail provided) or Level 2 (lesser detail provided) recreation sites. Level 1 sites include Licensee and United States Forest Service (Forest Service) developed public recreation facilities and use areas at Lake

Almanor, Butt Valley Reservoir, and the two bypass reaches (see Figure E5.1-1). These facilities are generally located within or adjacent to (0.25 mile) the FERC Project boundary. The next four sections list inventoried sites and use areas.

E5.1.2.2.1 Public Recreation Sites at or Near Lake Almanor (Level 1)

- Almanor Boat Launch
- Almanor Campground North
- Almanor Campground South
- Almanor Group Reservation Camp (state route (SR) 89)
- Almanor Overflow Camping Area (SR 89)
- Almanor Beach
- Almanor Rest Area (SR 89)
- Almanor Scenic Overlook
- Canyon Dam Boat Launch/Day Use Area (DUA)
- Camp Conery Group Camp
- Canyon Dam DUA
- Dyer View DUA
- Eastshore DUA
- Lake Almanor Recreation Trail (LART)
- Lake Almanor Campground (Loops 1, 2, and 3)
- Last Chance Campground/Group Camp

E5.1.2.2.2 Public Recreation Sites at Butt Valley Reservoir (Level 1)

- Alder Creek DUA/Boat Launch
- Cool Springs Campground
- Ponderosa Flat Campground

E5.1.2.2.3 Public Recreation Sites at or Near the Two Bypass Reaches (Level 1)

- Belden Rest Stop (SR 70)
- Gansner Bar Campground
- North Fork Campground
- Queen Lily Campground

E5.1.2.2.4 Level 2 Recreation Sites

Level 2 recreation sites include private facilities and dispersed undeveloped lakeside and riverside day use and overnight sites (see Figure E5.1-2—Dispersed Recreation Sites in the UNFFR Project Vicinity).

Level 2 recreation sites and use areas include:

- 22 privately-owned and -operated recreation facilities including boat launches, marina/slips, and overnight facilities (cabins, recreation vehicles (RV) sites, etc.); and
- Dispersed (undeveloped) lakeside (Lake Almanor and Butt Valley Reservoir) and riverside (Belden and Seneca Reaches) day use and overnight sites and trails.

E5.1.2.3 Methods

This report focuses on two main elements: an inventory of existing recreation facilities and use areas, and an assessment of the physical condition of Level 1 public facilities and use areas. In addition, Level 2 privately-owned recreation facilities and other dispersed recreation sites are also described in lesser detail. Dispersed sites are generally not designated as recreation sites by signs, and have limited or no developed facilities. Private recreation facilities on Lake Almanor were not surveyed in the field, and facility conditions at private facilities were not assessed as part of this study. Private recreation providers, however, were surveyed by mail to gather general inventory information related to their facilities. For all Level 2 sites, a lesser amount of inventory and condition detail was collected and analyzed. The intent was to create a general inventory of recreation resources in the Project area to supplement the more detailed Level 1 Licensee and Forest Service inventory data.

As required by FERC, this study also includes a brief discussion of National Recreation Trails and federal WSRs occurring in or near the Project area. These include the Pacific Crest Trail (PCT) and the Middle Fork Feather WSR Reach.

The methodology used for both Level 1 and Level 2 sites is summarized below.

E5.1.2.3.1 Facility Inventory for Level 1 and 2 Sites

Standard inventory forms were developed for Level 1 and Level 2 sites including significant site elements where appropriate.

For each developed site, field data were collected and recorded, including:

- Site photography (Level 1 sites—used to better describe major sites and for potential future monitoring efforts—see Appendix E5-A);
- General measurements and area calculations of major developed sites based on field notes (Level 1 sites only); and
- Conceptual site mapping of developed recreation sites (Level 1 sites—see Appendix E5-B) in AutoCAD/GIS, and mapping and numbering of dispersed undeveloped site points (Level 2 sites) in GIS.

Methods for the analysis involved review of existing published information, consultation with site managers and/or private operators, and site-specific field investigations. The inventory forms were filled out during field observations. Existing conditions were identified and documented through field reconnaissance and notes and then documented in tabular format. Level 1 sites (Licensee and Forest Service) were inventoried at a higher level of detail compared to Level 2 sites (other private and dispersed sites). Planned or future recreation facilities or use areas were documented through review of existing plans and through consultation with site managers. Facilities that will be expanded or upgraded in the future were noted.

E5.1.2.3.2 Facility Condition for Level 1 and 2 Sites

Facility condition forms were developed for Level 1 sites, including existing Licensee or Forest Service's elements where appropriate.

For Forest Service sites, Meaningful Measures developed recreation inventory forms were also reviewed (Forest Service 2000b). Meaningful Measures is the Forest Service's recreation management program system that establishes standards of quality and uses inventories, condition surveys, and other data to derive and calculate the costs to meet these standards. The inventory forms were filled out after field observations conducted by EDAW, Inc. in September and October 2000. To characterize facility conditions, each Level 1 site was rated using the following criteria: (N) needs replacement (broken or missing components, or non-functional); (R) repairs needed (structural damage or otherwise in obvious disrepair); (M) maintenance needed (primarily cleaning); and (G) is in good condition (functional and well-maintained). Unsafe conditions and signs of overuse were noted. For Level 2 dispersed sites, public use impact data collected as part of Section E5.1.3—Recreation and Public Use Impacts Assessment, were also used as part of the condition assessment.

Private recreation facilities at Lake Almanor were not surveyed in the field, and facility conditions were not assessed as part of this study. An inventory form was developed for private recreation facilities to gather general inventory information related to recreational elements as well as other significant site elements. This inventory form was sent by mail to each private recreation provider. Information gathered from each of these forms was compiled on a single inventory form, providing a comprehensive inventory of privately-owned and -operated recreation facilities at Lake Almanor.

E5.1.2.4 Results and Discussion

Discussion of recreation resources in the Project area is divided into five sections, including the four major Project areas (Lake Almanor, Butt Valley Reservoir, and the two bypass reaches), and other recreation resources (National Recreation Trails and federal WSRs). There are a total of 24 public developed recreation facilities in the Project area: 12 campgrounds, eight DUAs, two boat launches, and two recreation trails. Developed recreation facilities in the Project area are briefly summarized in Table E5.1.2-1 below, with their locations noted in Figure E5.1-1.

**Table E5.1.2-1
Summary of Licensee and Forest Service Developed Recreation Facilities
in the Project Area**

Area	Developed Campsites (Overflow)	Primitive Campsites	Group Sites	Picnic Sites	Boat Launches (Lanes)	Recreation Trails
Lake Almanor	245 (30)	40	23	61	4	1
Butt Valley Reservoir	91 (20)	None	None	3	1	None
Seneca Reach	None	None	None	None	None	1
Belden Reach	46	None	None	9	None	None
Total	382 (50)	40	23	73	5	2

Source: EDAW, Inc.

A detailed discussion of Level 1 developed recreation facilities in the Project area is found in Section E5.1.2.2. A detailed inventory of these recreation resources is presented in Table E5.1.2-2, and facility conditions are presented in Table E5.1.2-3. Planned improvements and O&M for Forest Service- and Licensee-developed recreation facilities are also discussed in Sections E5.1.2.4.1 to E5.1.2.4.4. Each developed site (and their primary features) were photographed (see Appendix E5-A), and conceptual site plans were developed (see Appendix E5-B).

In addition to these developed sites, there are 47 dispersed recreation sites in the Project area (see Figure E5.1-2). These Level 2 sites were identified through a systematic inventory of accessible public shoreline areas in the Project area. Twenty-two sites were documented at Lake Almanor, 20 sites in Belden Reach, three sites at Butt Valley Reservoir, and two sites in Seneca Reach. Descriptions of each of these sites are provided in Sections E5.1.2.4.1 to E5.1.2.4.3. Additional information regarding dispersed recreation sites is provided in detail in Section E5.1.3—Recreation and Public Use Impact Assessment. Each dispersed site (and their primary features) was photographed (see Appendix E5-C).

There are 22 privately owned and operated recreation facilities at Lake Almanor (see Figure E5.1-3). A detailed facility and condition inventory for private facilities was not conducted as part of this study. Private recreation providers, however, were surveyed by mail to gather general inventory information related to their facilities. There are no privately-owned and -operated recreation facilities at Butt Valley Reservoir or at the two bypass reaches.

E5.1.2.4.1 Recreational Facility and Condition Inventory—Lake Almanor

Lake Almanor, created in 1914, is the primary Project reservoir and includes several recreation facilities and sites. It is located in northwestern Plumas County in the northern Sierra Nevada Mountains. Lake Almanor is 13 miles long and up to 6 miles wide, split by a deep peninsula running north to south (Knutsen 1997). Lake Almanor Dam, also known as Canyon Dam, is situated at the southern tip of Lake Almanor.

The reservoir provides approximately 52 miles of shoreline and covers approximately 28,000 surface water acres at a full pool elevation of 4,494 feet mean sea level (msl). A more in-depth discussion of reservoir pool levels, boating and boat launch facilities is provided in a Section 5.2.3—Reservoir Boating Study. Pool elevations in 1999 varied from 4,481.5 feet msl to 4,492.8 feet msl (Licensee 2000b). The surrounding terrain is generally at about the same elevation as Lake Almanor; however, mountain peaks at 7,000 feet and higher are found in the region, including Mt. Lassen (10,457 feet) to the northwest.

Lake Almanor is approximately 90 miles upstream of the City of Oroville, 75 miles northeast of Chico, and approximately 160 miles northeast of the City of Sacramento. Lake Almanor is ringed by several two-lane highways, making vehicle access to the area relatively good from all directions.

The principal route on the north end of the reservoir is SR 36 from the east and west. SR 89 borders the west shoreline, and SR 147 borders the southeast shoreline. There are numerous small communities and residential areas along the shoreline of Lake Almanor, including several private recreation facilities and shoreline residential developments. The developed recreation facilities at Lake Almanor provide public access to Project lands and waters, which offer exceptional recreational opportunities including: boating, camping, picnicking, swimming, hiking/walking, bicycling, and fishing.

E5.1.2.4.1.1 Developed Recreation Facilities

Developed recreation facilities in the Lake Almanor portion of the Project area include: campgrounds, DUAs, boat launches, and a paved recreation trail. These facilities are summarized below. In addition to describing the activities available at these developed sites, this section also summarizes facility conditions. Developed public recreation facilities discussed in this section include:

- Almanor Campground North;
- Almanor Campground South;
- Almanor Group Reservation Camp (SR 89);
- Almanor Overflow Camping Area (SR 89);
- Camp Conery Group Camp;
- Lake Almanor Campground (Loops 1, 2, and 3);
- Last Chance Campground/ Group Camp;
- Almanor Beach;
- Almanor Rest Area (SR 89);
- Canyon Dam DUA;
- Dyer View DUA;
- Eastshore DUA;
- Almanor Scenic Overlook;
- Almanor Boat Launch;
- Canyon Dam Boat Launch/DUA; and
- Lake Almanor Recreation Trail.

Key elements of the developed recreation facilities are discussed below, organized by facility type—campgrounds, DUAs, boat launches, and recreation trails. A detailed inventory of existing recreation facilities is presented in Table E5.1.2-2; the condition of these same facilities is summarized in Table E5.1.2-3. In addition, a detailed discussion of facility condition and planned improvements, if any, is provided for each site.

Campgrounds

There are seven developed campgrounds at or near Lake Almanor. Four of these campgrounds are owned and operated by the Forest Service: Almanor Campground North, Almanor Campground South, Almanor Overflow Camping Area, and Almanor Group Reservation Camp. The other three campgrounds are owned and operated by the Licensee: Lake Almanor Campground, Camp Conery Group Camp, and Last Chance Campground/Group Camp. Site photos and conceptual site diagrams of these campgrounds are provided in Appendices E5-A and E5-B, respectively.

Last Chance Campground/Group Camp. Last Chance Campground is a Licensee-operated facility located north of Lake Almanor approximately 4 miles north of the town of Chester. The facility is divided into two units: a family campground area with 12 campsites, and a group camp with 13 campsites. Each campsite includes a picnic table, camp cupboard, fire ring, cooking grill, and gravel spur, and some have tent pads. The group camp unit is available by reservation only and is separated by a barrier. It also includes similar campsite facilities. Activities at this campground include: camping, resting/relaxation, fishing, horseshoes, volleyball, and group activities.

Based on this evaluation, most of the facilities at Last Chance Campground/Group Camp are generally in good condition (Table E5.1.2-3). However, some facilities are in need of maintenance, including various recreation elements within the developed campsites (several older picnic tables and many of the older Klamath stoves), and some water faucets. The playground area is also in need of some maintenance and minor repair.

Almanor Campground North. Almanor Campground North is managed by the Forest Service and is located off SR 89 on the west shore of Lake Almanor. Activities at this site include: tent and RV camping, resting and relaxation, bank fishing, bicycling, and walking and hiking. The California State University Chico Research Foundation operates this site under a Forest Service concessionaire Special Use Permit.

Lake Almanor Recreation Trail (LART) runs through the campground, providing non-motorized opportunities for walking, hiking, and bicycling. Forty-nine campsites are available, all on a first-come, first-served basis. Campsites include picnic tables and fire ring/cooking grills. Eight vault toilets are provided in five separate buildings dispersed throughout the site. There is also an outdoor amphitheater, a shared facility with Almanor Campground South, where campfire programs are provided. Between the campground and the shoreline, there are five to 10 Forest Service summer lease cabins, set on a small grid of streets. These cabins are part of the Almanor Tract, which stretches south to Plumas Pines Resort (76 total cabins), and are privately-owned. However, they are located on public land leased by the Forest Service through a special use permit lease (Forest Service undated d). As there are no additional recreational elements associated with these cabins, they were not surveyed in the field, and facility conditions were not assessed as part of this study.

Based on this evaluation, most of the facilities at Almanor Campground North are generally in good condition (Table E5.1.2-2). However, the older toilets need replacement. Facilities in need of some maintenance include various recreational

elements within developed campsites, such as picnic tables, and the amphitheater. Renovation of this site by the Forest Service is scheduled to begin in 2001 and last until at least 2004, depending on Congressional funding.

Planned improvements include upgrades of some campsites to accommodate RVs and persons with disabilities; reconstruction of the main access roads and spurs; replacement of all older vault toilet buildings with newer flush toilet restrooms; installation of low profile lighting near restroom buildings; new shower facilities; new interpretive facilities; and construction of a walk-in tent campground. Planned improvements would likely require the removal of six or seven leased recreational residences currently located near the Lake Almanor Campground North recreation area. The Forest Service would provide in lieu lots for the permit holders of these recreational residences and allow them to either relocate or rebuild (Forest Service 2000a). No specific date for this action has been determined.

Almanor Campground South. Almanor Campground South is managed by the Forest Service and is located off SR 89 on the west shore of Lake Almanor. Similar to Almanor Campground North, the California State University Chico Research Foundation operates this site under a Forest Service concessionaire Special Use Permit. Activities include: tent and RV camping, resting and relaxation, bank fishing, bicycling, walking, and hiking. There is access to recreational trails, providing opportunities for walking, hiking, interpretation, and bicycling. Fifty-three campsites are available. All campsites are available on a first-come, first-served basis except sites 1-8 and 53. These sites can be

reserved through the National Recreation Reservation System. Campsite 53 is a multiple unit site. Campsites include picnic tables and fire ring/cooking grills. Twelve vault toilets are provided in four separate buildings dispersed throughout the site. The paved LART runs adjacent to the campground on the west side.

There is a nearby amphitheater (shared facility with Almanor Campground North) where campfire programs are provided. Between the campground and the shoreline, there are five to 10 Forest Service summer lease cabins, set on a small grid of streets. These cabins, part of the Almanor Tract that stretches south to Plumas Pines Resort and has 76 total cabins, are privately owned; however, they are located on public land leased by the Forest Service through a special use permit lease (Forest Service undated d). As there are no additional recreational elements associated with these cabins, they were not surveyed in the field, and facility conditions were not assessed as part of this study.

Based on this evaluation, all of the facilities at Almanor Campground South are generally in good condition (see Table E5.1.2-3). However, the older toilets need replacement. Renovation of this site by the Forest Service was scheduled to begin in 2001 and last until at least 2004, depending on Congressional funding. Planned improvements include upgrades of some campsites to accommodate RVs and persons with disabilities; reconstruction of the main access roads and spurs; replacement of all older vault toilet buildings with newer flush toilet restrooms; installation of low profile lighting near restrooms; new shower facilities; new interpretive facilities; and construction of a walk-in tent campground.

Almanor Group Reservation Camp. This site is in transition and will be relocated across the highway to the east by the Forest Service.

Almanor Group Reservation Camp is a Forest Service-managed primitive group camp area adjacent to the Almanor Rest Area along SR 89. There are spaces for approximately 10 vehicle/families at this "circle the wagons-style" facility. Each site has a picnic table and either a fire ring or cooking grill. Group campers use the two vault toilets at the adjacent rest area. Based on this evaluation, facilities at Almanor Group Reservation Camp generally are in good condition or only need maintenance (see Table E5.1.2-3). Facilities in need of maintenance include picnic tables and fire rings. Renovation of this site by the Forest Service was scheduled to begin in 2001 and last until at least 2004, depending on Congressional funding.

Planned improvements include relocating this entire facility across SR 89 to an area near Almanor Campground North, to a more suitable location away from the noise and activity of the highway. Associated improvements will likely include a new paved access road and a new spur of the LART leading to the new location of the group campground. The existing Almanor Group Reservation Camp would be closed and the area rehabilitated once the new group campground is complete (Forest Service 2000a).

Almanor Overflow Camping Area. Almanor Overflow Camping Area is a Forest Service-managed primitive camping area adjacent to Almanor Rest Area along SR 89. This facility is used for overflow RV or tent camping during periods of peak usage in the

Lake Almanor area. There are an estimated 40 primitive campsites at this facility, based on counts of user-constructed fire rings. There are no truly developed campsites.

Other than user-constructed fire rings, there are no recreational elements provided at this facility. Overflow campers use the two vault toilets at the nearby rest area.

Lake Almanor Campground. Lake Almanor Campground, managed by the Licensee, is located on the west shore of Lake Almanor. As originally built, this facility was comprised of three separate campgrounds. However, with several expansions, the three units were combined into one larger unit and the three loops interconnected years ago. Activities here include camping, fishing, swimming, horseshoes, sunbathing, resting/relaxing, use of the LART, and boating. Loop 1, the northern-most campground loop, has 68 campsites including open, sparsely vegetated waterfront campsites, as well as more forested inland campsites. Each campsite includes: a picnic table, cooking grill, fire ring, paved spurs, and camp cupboard, and some have tent pads. Loop 1 also has 10 overflow campsites at the north end that are used during periods of peak usage. Loop 2, located in the middle, has 41 campsites including both open, sparsely vegetated waterfront campsites as well as more forested inland campsites. Loop 3, at the southern end, has 22 campsites with both open, sparsely vegetated waterfront campsites as well as more forested inland campsites. Loop 3 also has 20 overflow campsites at the southern end which are used during periods of peak usage. The LART currently ends on the south side of Loop 3, adjacent to Rocky Point Road. Plans are underway to extend the trail.

Based on this evaluation, all of the facilities at Lake Almanor Campground are generally in good condition, with the exception of many of the older Klamath stoves which need replacement (see Table E5.1.2-3).

The Forest Service is currently planning an extension of the paved LART, which would extend it south to the Canyon Dam Boat Launch/DUA. Depending on the final alignment of the trail extension, three campsites at the south end of Loop 3 may be removed or modified to be walk-in sites to accommodate the planned new trail segment (Licensee 2001b). Existing vehicular shoreline access north of the boat launch would be modified with barriers and a new access parking lot.

Camp Conery Group Camp. Camp Conery Group Camp is a Licensee-operated reservation-only facility located east of Lake Almanor Dam and inland from the reservoir approximately 0.25 mile. This facility accommodates groups of up to 50 persons and is available to various organizations. Facilities include: five bunk houses, an indoor/outdoor central group meeting and food service facility, a large campfire area, paved parking, a volleyball court, and a basketball area. While a specific RV camping area is not available at Camp Conery Group Camp, users are allowed to park in the parking area.

Based on this evaluation, all developed facilities at Camp Conery Group Camp are generally in good condition, including the bunk houses, group meeting facility, picnic tables, and restrooms. Portions of the access road are currently in need of maintenance.

Day Use Areas

There are six DUAs at Lake Almanor. Three of these areas are owned and operated by the Forest Service: Almanor Rest Area (SR 89), Almanor Beach, and Dyer View DUA. The other three areas are owned and operated by the Licensee: Almanor Scenic Overlook, Canyon Dam DUA, and Eastshore DUA. All of the DUAs, except for Almanor Rest Area, are located along the shoreline of Lake Almanor. Activities at DUAs at Lake Almanor focus on picnicking, swimming, sunbathing, and/or resting/relaxing. The recreation facilities at these areas are discussed below. Site photos and maps of these DUAs are provided in Appendices E5-A and E5-B.

Almanor Beach. The Forest Service-managed Almanor Beach is located on the west shoreline of Lake Almanor, adjacent to the Almanor Boat Launch. This site is operated by the California State University Chico Research Foundation under a Forest Service concessionaire Special Use Permit. This site provides picnicking, sunbathing, boating, swimming, and fishing opportunities. The site includes a vault toilet and flush restroom, seven picnic tables, cooking grills, and a large swimming beach with a buoy safety line.

Based on this evaluation, most of the facilities at Almanor Beach are generally in good condition (see Table E5.1.2-3). The only facility in need of some maintenance is the vault toilet; in addition, the flush restroom is old and is not accessible (see Section E5.1.4—ADA Accessibility Study).

Almanor Rest Area (SR 89). The Almanor Rest Area is a Forest Service-managed day use site located approximately 10 miles south of the town of Chester, adjacent to SR 89.

It is situated between Almanor Group Reservation Camp and Almanor Overflow Camping Area. Built in 1965, this site serves primarily as a roadside rest stop. Facilities consist of two new vault toilets, a paved parking area, and a picnic area with tables and cooking grills. There are also two large signs: one interpretive sign providing information about the Prattville Tree Plantation, and an informational sign providing Forest Service regulations and general recreation information. Next to these signs is a water hand-pump that is non-operational. Additionally, there is a nearby interpretive sign at a vernal pool next to the group campsite.

Based on this evaluation, most of the facilities at Almanor Rest Area are generally in good condition (see Table E5.1.2-3). Facilities in need of some maintenance include the picnic tables and cooking grills. Both the water faucet and water pump need repair.

Planned improvements by the Forest Service include construction of a new access road from SR 89, expansion of the existing parking area, construction of new informational kiosks, and the development of an accessible interpretive trail. Additionally, this site will be renamed the Almanor Picnic Area. These planned improvements, however, have been delayed indefinitely due to a lack of sufficient funding (Forest Service 2000a).

Dyer View DUA. The new, Forest Service-managed Dyer View DUA is located along the west shore of Lake Almanor. This facility functions as a trailhead for the LART, as well as a shoreline beach DUA.

Facilities include paved parking (11 single-vehicle spaces and two designated accessible spaces), interpretive signs, benches, and a vault toilet. There are no picnic tables at this site. The benches at this site are situated in pairs—two along the LART and two within the day use beach area (facing the reservoir and interpretive signs). The shoreline beach cove is fairly sandy and is undeveloped.

Based on this evaluation, all developed facilities at Dyer View DUA are generally in good condition, including the interpretive signs, benches, parking area, and toilet.

Eastshore DUA. Eastshore DUA is a Licensee-operated facility located on SR 147 along the east shore of Lake Almanor. This site functions as a roadside rest and day use picnic area, with nine picnic tables and two vault toilets. Shoreline fishing at this site is possible; however, access is via a steep, undeveloped trail down to the water's edge. This site offers scenic vistas of Lake Almanor and Mt. Lassen.

Based on this evaluation, most of the facilities at the Eastshore DUA are generally in fair condition (see Table E5.1.2-3). The picnic tables, however, are in need of maintenance, as is the user-defined shoreline access trail, which is currently undeveloped and eroding. Additionally, the existing hand-pumped water spigot should be removed or replaced.

Almanor Scenic Overlook. This viewpoint site, managed by the Licensee, is located on SR 147 along the east shore of Lake Almanor near Lake Almanor Dam. The site provides a view of Lake Almanor Dam, Lake Almanor, and Mt. Lassen.

There is a paved parking area and two vault toilets. Based on this evaluation, the parking area is in good condition; however, the vault toilets are in need of maintenance.

Canyon Dam DUA. Canyon Dam DUA is a Licensee-operated facility located just east of Lake Almanor Dam (also referred to as Canyon Dam) along the north side of SR 89. This facility provides 19 picnic tables, cooking grills, and an undeveloped swimming beach. Other facilities at this site include two vault toilets and a circular drop-off and parking area with a separate parking lot located farther upslope.

Based on this evaluation, some facilities are in good condition while others are in need of maintenance (see Table E5.1.2-3). Facilities in need of maintenance include the beach area, picnic tables, and parking area. The large informational sign at the entrance is in disrepair and should be replaced or repaired.

Public Boat Launches

There are two developed public boat launches at Lake Almanor: Almanor Boat Launch and Canyon Dam Boat Launch/DUA. Both of these sites are operated by the Forest Service. Each of these boat launches has a concrete boat ramp and raised walkway, and a wooden courtesy dock. The recreational elements provided at these sites are discussed below. Photos and maps of these two sites are provided in Appendices E5-A and E5-B.

An in-depth inventory and discussion of boat launches and boating issues is provided in Section E5.2.3—Reservoir Boating Study.

Almanor Boat Launch. The Forest Service-managed Almanor Boat Launch is located on the west shore of Lake Almanor just off SR 89 adjacent to Almanor Campground North. This site is operated by the California State University Chico Research Foundation under a Forest Service concessionaire Special Use Permit. This facility is one of two public, no fee developed boat launches at the reservoir.

Built in 1976, the facility offers opportunities for boating and fishing access. The primary facility at this site is the boat launch, which has two steep, concrete ramp lanes and a wooden courtesy dock. Other facilities at the site include a large, paved parking area with 53 boat trailer spaces, a flush restroom near the boat ramp, and a single vault toilet and accessible picnic table on the access road leading to the boat launch.

The California Department of Boating and Waterways (Cal Boating) recently approved a grant to the Forest Service to reconstruct this boat launch facility. Reconstruction, set to begin in the late summer of 2003, will include resurfacing of the boat ramp; two additional courtesy docks; repairing and repaving the parking areas; widening and repaving the access road; construction of two accessible restrooms; improvements to the sewer system; and new signage.

The Forest Service does not keep records of the elevation of the toe of the ramp at Almanor Boat Launch, but observations by staff indicate that the toe is generally submerged year-round.

A more in-depth discussion of boating and boat launch facilities is provided in Section E5.2.3—Reservoir Boating Study.

Based on this evaluation, many of the recreation elements at Almanor Boat Launch are in good condition. However, the access road and parking area are currently in need of repair, the ramp needs to be resurfaced, and the restroom replaced. The courtesy dock associated with the boat ramp is also in need of replacement (see Table E5.1.2-3).

Canyon Dam Boat Launch/DUA. The Forest Service-managed Canyon Dam Boat Launch/DUA is located off SR 89 on the south end of Lake Almanor less than 1 mile from Lake Almanor Dam. Primary activities at this site include boating and fishing access. Boating-related facilities at this site include a boat launch, which has two steep, concrete ramp lanes and a wooden courtesy dock. Other day use recreational elements at this facility include a small picnic area with picnic tables and cooking grills, two toilets and one flush restroom, and a large, paved parking area (with 13 single-vehicle spaces and 51 boat trailer spaces). There is also an adjacent cove that is a good fishing area. A paved, accessible fishing access station was recently constructed at this location.

The Forest Service does not keep records of the elevation of the toe of the ramp at Canyon Dam Boat Launch/DUA, but observations by staff indicate that the toe is submerged year-round. During winter months, the Forest Service contracts the Plumas County Road Department to plow the access road to the boat ramp to allow continued

angler/boat access to Lake Almanor. A more in-depth discussion of boating and boat launch facilities is provided in Section E5.2.3—Reservoir Boating Study.

Based on this evaluation, many of the recreational elements at the Canyon Dam Boat Launch/DUA are in good condition, with some exceptions. The boat ramp needs resurfacing and the associated courtesy dock needs replacement. The Licensee has proposed to extend one lane of the boat ramp to provide launch access to the 4,466-ft elevation. In addition, the picnic tables and cooking grills are in need of maintenance, and the older vault toilets need replacement. The Forest Service has submitted a grant to Cal Boating for improvements at this boat launch facility. Additional boat trailer parking may also be expanded in the future.

Suggested grant-funded improvements include replacement of an old vault toilet with an accessible vault toilet for seasonal use when the restroom is closed, replacement of the courtesy dock, replacement and installation of traffic and interpretive signage, and installation of a potable water system. Construction will begin on approval of the Cal Boating grant application, expected to be fall 2002. In addition, there are plans to extend the walkway leading to the new accessible fishing station to provide for use during periods of low pool levels. Completion of this extension is planned for fall 2002.

Recreation Trails

The LART is the most significant recreational trail at Lake Almanor. A smaller interpretive trail located within Almanor Campground South was previously described. Refer to Appendices E5-A and E5-C for photos and maps of these trails.

Lake Almanor Recreation Trail. The LART is a paved, 10 foot-wide, 9.5 mile-long trail. This non-motorized, multi-use trail is open to walking, hiking, bicycling, and cross-country skiing. The trail winds through wooded areas as well as through several lakeshore areas and provides views of Lake Almanor, Dyer Mountain, and Mt. Lassen. The trail passes through public and private property, campgrounds, and near private residences. Trail features include three trailhead kiosks with interpretive trail maps, several benches, and bike racks.

Four trailhead parking areas (three paved and one gravel) provide access to the trail. The northernmost access is located just off SR 89 on a gravel road opposite Humbug Road. Currently, the trail ends at Rocky Point Road adjacent to the southern end of the Licensee's Lake Almanor Campground Loop 3, with a future trail extension planned. In addition to the four official trailhead/parking areas, the LART can also be accessed from the Almanor Campground (North and South), the Dyer View DUA, and several other paved parking areas between the community of Prattville and SR 89.

Based on this evaluation, most recreational elements associated with LART are in good condition, including the trailheads and parking areas, signs, and bollards. The trail surface is in need of maintenance/repair in approximately 20 locations along the trail.

The Forest Service is currently planning an extension of the trail farther south to Canyon Dam Boat Launch/DUA. This extension would add another 1.5 miles to the trail. Depending on the final alignment of the extension, three campsites at the south end of Loop 3 may be removed or modified to be walk-in sites in order to accommodate the new trail segment (Licensee 2001b).

Operation and Maintenance of Developed Recreation Facilities

O&M practices for both Licensee- and Forest Service-developed recreation facilities at Lake Almanor are described below. Topics addressed in this section include facility maintenance, concessionaires, fees, open and closure dates, and reservoir operations.

Licensee Facilities. American Land and Leisure has a concessionaire contract with the Licensee and is responsible for operating their campgrounds and DUAs. A campground attendant resides within each campground to oversee O&M. Duties of the campground attendant include: providing public assistance and information, as well as performing other maintenance and administrative services (e.g., fee collection).

The concessionaire is responsible for all major facility maintenance, including: cleaning of toilets and restrooms; removing hazard trees; performing minor building repair and maintenance; general cleaning of campsites; and miscellaneous grounds keeping; and repair and replacement of recreational elements (e.g., bulletin boards, signs, and fee stations). They are also responsible for opening and closing the campgrounds via gating and signs.

Maintenance concerns that are a safety hazard receive first priority, followed by routine maintenance, and then, as time permits, facility repair within the capabilities of the campground attendant. In general, recreational elements (e.g., picnic tables, camp cupboards, cooking grills, and fire rings) are replaced on an as-needed basis, and approximately 20 percent of all facilities requiring paint are painted each year (5-year rotation). The concessionaire also repairs vandalism damage on an ongoing basis.

For the 2001 recreation season, user fees at Licensee campgrounds were \$15/night per site. The fee at Last Chance Group Campground was \$20/night. The campgrounds at Lake Almanor are generally open from mid-May through mid-October, weather permitting. Canyon Dam DUA and Eastshore DUA generally close when Lake Almanor Campground closes for the season. Almanor Scenic Overlook does not have a gate, so it is open to the public until access is prevented by heavy snow. The Licensee does not charge a fee for use of its DUAs.

Forest Service Facilities. The California State University Chico Research Foundation (affiliated with California State University (CSU)—Chico) has a concessionaire contract with the Forest Service through Lassen National Forest and is responsible for operating the developed recreation facilities at Lake Almanor. The concessionaire is responsible for all major facility maintenance, including: cleaning of toilet and restroom facilities; removing hazard trees; performing minor building repair and maintenance; general cleaning of campsites; miscellaneous grounds keeping; and repair and painting of recreational elements (e.g., bulletin boards, signs, and fee stations).

They are also responsible for opening and closing the campgrounds and DUAs via gating and signs. Major facilities, such as roads, docks, toilets, water systems, and parking lots, are inspected periodically and repaired on an as-needed basis. The concessionaire also repairs vandalism damage on an ongoing basis. All of these maintenance items must be performed to standards specified in the Prospectus for Concessionaire Operation of Recreation Sites (Prospectus) (Forest Service 1999). The Prospectus cites the standards and guidelines in the Forest Service's recreation management program system, Meaningful Measures, as minimum operating requirements for concessionaire maintenance procedures.

The concessionaire is responsible for controlling the behavior of campground and day use site visitors and providing public safety in these areas. The concessionaire is also responsible for enforcing campground regulations such as failure to pay fees, campfire use regulations, vehicle speeds within campgrounds, and excessive noise.

The Plumas County Sheriff's Department is normally the concessionaire's primary law enforcement contact, although the Forest Service is contacted when US Government facilities or lands are affected.

Most campgrounds have a campground host, a resident camper who can provide campsite information, answer visitors' questions regarding campground facilities, campground and Forest Service regulations, and other facilities in the area.

Within the campgrounds, the concessionaire is responsible for maintaining all trail surfaces in a safe and passable condition. This responsibility includes, but is not limited to, weekly sweeping during the peak recreation season, removal of rocks and debris from the trail surface, and maintaining water drainage structures.

The Lassen National Forest participates in the National Recreation Reservation System (NRRS), which provides nationwide, toll-free phone reservations for single-family or group camping sites. Visitors pay the camping fee at the time they make their reservation, and are not approached for payment at their particular campsites. Reservations can be made up to a year in advance for group sites and 240 days in advance for family and individual campsites. Campsites 1-8 and 53 of the Almanor Campground can be reserved through the NRRS. All other campsites at Almanor Campground are available on a first-come, first-served basis.

For the 2001 recreation season, user fees for the campsites at Almanor Campground North and Almanor Campground South were \$15/night per site. Other fees are also charged for additional vehicles and campsite occupants. The Almanor Overflow Camping area user fee was \$7/night. The fee at Almanor Group Reservation Camp was \$75/night for a group. The Forest Service-developed recreation facilities at Lake Almanor are generally open from mid-May through mid-October, weather permitting.

Canyon Dam Boat Launch/DUA has an extended recreation season and is open year-round.

Currently, the Lassen National Forest does not charge a fee for use of DUAs or a launch fee at either boat launch facility on Lake Almanor. However, management is considering the implementation of new boat launch fees at both the Almanor Boat Launch and Canyon Dam Boat Launch/DUA (Forest Service 2000a).

E5.1.2.4.1.2 Private Recreation Facilities

This section briefly summarizes Level 2 private sector recreation facilities at Lake Almanor. In addition to recreational opportunities provided by the Licensee and Forest Service, several other notable private facilities are located at Lake Almanor. There are several small communities and residential areas along the shoreline of Lake Almanor, including several private recreation facilities and shoreline residential developments. In addition, there are two golf-oriented country clubs at Lake Almanor: Lake Almanor Country Club and Almanor West Community Club.

There are 22 privately-owned and -operated recreation facilities at Lake Almanor (see Figure E5.1-3). These facilities are operating either on privately-owned land adjacent to Licensee-owned land, or on Licensee-owned land in which written agreements are in place for utilizing the adjacent land. Private recreation facilities on Lake Almanor were not surveyed in the field, and facility conditions at private facilities were not assessed as part of this study. Private recreation providers, however, were surveyed by mail to gather general inventory information related to their facilities. This survey was not intended to provide a detailed (i.e., Level 1) facility and condition inventory for every recreational element at each private recreation facility.

Level 2 detail is appropriate for privately-owned and -operated recreation facilities. Table E5.1.2-4 provides an inventory of such facilities at Lake Almanor.

Private recreation facilities play an important role in providing recreational opportunities at Lake Almanor and satisfy a large portion of the recreation demand in the Project area. For example, there are 16 private recreation facilities at Lake Almanor that provide tent and RV campsites, compared to seven public recreation facilities offering tent camping. It is notable that, while there are a handful of private recreation facilities offering tent campsites, the vast majority of these facilities offer RV hookup campsites, rental cabins, or other lodging units such as vacation homes or condominium rentals.

These types of opportunities are generally not provided by the Forest Service or the Licensee in the Project area. Private recreational experiences at Lake Almanor are generally more developed, such as overnight accommodations associated with resorts, cabins, motels, and condos and boating opportunities associated with marinas, gas docks, and boat rentals. Because of their more developed nature, user fees at private recreation facilities are generally higher than those at public recreation facilities. For the 2001 recreation season, user fees at private campgrounds ranged from \$15 to \$21/night for a tent site and \$18 to \$23/night for an RV campsite. Private recreation providers supply the majority of boating facilities at Lake Almanor.

Table E5.1.2-4
Inventory of Privately-Owned and -Operated Recreation Facilities at Lake Almanor

RECREATION FACILITY/USE AREA	RECREATION FACILITIES				HEALTH AND SAFETY SERVICES							RECREATION ACCESS									
	Overnight Use/Camping	Day Use	Sanitary	Water	Other Services	Vehicle	Fishing	Boating													
Almanor Lakefront Village																					
Almanor Lakeside Resort																					
Almanor Lakeside Villas																					
Big Cove Resort																					
Country Club Resorts																					
Dorado Inn																					
High Sierra Resort																					
Knotly Pine Resort																					
Lake Almanor Lakeside Lodge																					
Lake Almanor Resort																					
Lake Cove Resort																					
Lake Haven Resort																					
Lassen View Resort																					
Little Norway Resort																					
Miller's Resort																					
Moorispiners Resort																					
North Shore Campground																					
Novotny's																					
Plumas Pines Resort																					
Vagabond Resort																					
Villager Resort																					
Wilson's Camp Prathville																					

Note: Shaded cell indicates that facility exists at this site. Numbers of facilities are noted if known.

Sources: Plumas County Visitors Bureau 2000, Licensee 2001b and EDAM, Inc.

There are approximately eight private boat launches (as compared to two public boat launches) and over 20 private marinas with a total of nearly 900 boat slips. Other amenities provided at private recreation facilities, which are not available at public Licensee and Forest Service facilities, include stores and restaurants. In addition, private recreation facilities generally provide a greater amount of both single-vehicle and boat trailer parking.

Two country clubs in the Project area also provide the types of opportunities not generally provided by the Forest Service or the Licensee in the Project area: Lake Almanor Country Club and Almanor West Community Club. Each of these clubs provide recreational facilities; however, all of the facilities are private and are for homeowners and/or members only. One exception is the golf course at Lake Almanor West, which is public. A general characterization of the facilities provided at these country clubs is outlined below.

- **Lake Almanor Country Club:** golf course; tennis courts; bandshell; beach and swim area staffed with a lifeguard; two boat launches; lawn area; BBQ, picnic and children's play area; accessible restroom; a private business providing waterskiing, sailing, windsurfing lessons and rentals; and a parking area for approximately 20 vehicles with trailers.
- **Almanor West Community Club:** boat launch; public golf course; beach area with children's play structures; snack bar; accessible restroom; tennis courts; and equipment rental.

E5.1.2.4.1.3 Dispersed Undeveloped Recreation Sites

In addition to the developed recreation facilities provided by the Licensee and the Forest Service at Lake Almanor, the reservoir shoreline provides numerous dispersed recreational use opportunities, both for land-based and water-based activities. Level 2 dispersed recreation use sites at Lake Almanor are described in this section. Photos of these sites are provided in Appendix E5-C.

Many visitors use the reservoir shorelines at Lake Almanor for dispersed activities such as fishing, relaxing, swimming, sunbathing, and camping. These shoreline sites lack any development such as toilets or picnic tables. Fires are not permitted by county ordinance except in developed sites. This “no fires” policy is enforced by the Plumas County Sheriff’s Department.

Twenty-four dispersed undeveloped recreation sites were documented at Lake Almanor, plus an area identified as the southwest Shoreline Access Zone, where the shoreline may be accessed at many locations, by vehicle or foot (see Figure E5.1-2). Many of the sites are located where spur roads end, at or near the reservoir shoreline. These areas are used during periods of low water as vehicle access routes. As shown in Table E5.1.2-5, 14 of the 24 lakeshore sites (64 percent) provide vehicle access to the shoreline. Overnight camping occurs at some of these sites; however, these sites are not developed campsites and many “No Camping” signs are posted. Signs of overnight use were documented at 12 dispersed sites (58 percent). The remainder of the dispersed sites showed signs of day use activity only. No water or toilet facilities are available at any of these sites.

**Table E5.1.2-5
Description of Dispersed Undeveloped Shoreline Sites at Lake Almanor**

Site #	General Site Description
LA-1	Large site on east shore along road to Last Chance Campground. Accommodates approximately 10 persons. Fire ring.
LA-2	Small site on east shore along road to Last Chance Campground. Room for two vehicles.
LA-3	Small site on east shore, at Mud Creek Springs and intersection of road to Last Chance Campground. Fire ring. Room for two vehicles.
LA-4	Small site on east shore along road to Last Chance Campground. Road access to shoreline. Room for two vehicles.
LA-5	Small site on east shore along road to Last Chance Campground. Hunter platform in trees.
LA-6	Large site on west shore. Large fire pit. Stream crossing required from west.
LA-7	East of North Shore Campground. Gated, no vehicle access to shoreline. Old lifeguard stand.
LA-8	Large, well-shaded site. Gated, no vehicle access to shoreline. Three fire rings. 4-wheel drive road connects this site with LA-7. Collins Pine signs state that camping and fires are prohibited.
LA-9	Small site in grassy area. Pull-out for four to five vehicles. Small fire ring. Easy shoreline access.
LA-10	No site, just wide area where 4-wheel drive road hits high water line. Vehicle access to shoreline.
LA-11	Large gravel site. Vehicle access to shoreline on dirt road.
LA-12	Open area beneath trees just off SR 89. Near the Super Channel. "No Camping" signs posted by Forest Service. One fire ring observed. Vehicle access to Super Channel.
LA-13	Large gravel cleared area, adjacent to Super Channel. Two fire rings. Few signs of use. Passenger vehicles can access.
LA-14	No definable site. Vehicle access to site blocked by California Department of Transportation (Caltrans) highway fence. No site at high pool.
LA-15	Shaded, open site on shoreline. Vehicle access to site blocked by Caltrans highway fence. Campsite with two fire rings. Moderate use.
LA-16	Medium shady area. Vehicle access to shoreline has been blocked and marked with signage. One fire ring. Worn down berm originally constructed to prevent access to shoreline. Moderate to heavy use.
LA-17	Medium site. Vehicle access to shoreline has been blocked and marked with signage. Two fire rings. Light to moderate use.
LA-18	Large clearing with site tucked into trees. Vehicle access to shoreline has been blocked and marked with signage. Moderate use.
LA-19	Large gravel areas. Two long rock jetties. Popular fishing and DUA. Vehicle access to shoreline. Bollards block vehicles from jetties. Old boat launch on south side of south jetty.
LA-20	Three separate camping areas on loop road east of Prattville. "No Camping" signs posted. Nice sites.
LA-21	Small gravel parking area just off road. Trail to shoreline. No evidence of camping or significant use. Possible fishing/shoreline access point.
LA-22	Anglers' access trail to Hamilton Branch. Trail to water on southwest of bridge. Well within inundation zone. Angler information signs.
LA-23	Westwood Beach. Small shoreline access area of the highway. Concrete drive is very steep. However, shoreline area is flat with trees.
LA-24	Stumpy Beach. Long highway pull-off area with high bank. Good for viewpoint and rest area. Trails at either end of the pull-off area down to the water.

Note: LA = Lake Almanor

Source: EDAW, Inc.

The majority of these sites are located on the northern end of the reservoir, with sites clustered in two groups: one group along SR 89 just south of the town of Chester, and another group along the road to Last Chance Campground. Several of the sites are adjacent to or near wetlands.

The area north of the SR 36 Bridge is the most notable of these areas. Sites with higher levels of use on Lake Almanor are DUAs with good vehicle access to the shoreline (LA-11, LA-12, and LA-19), one area with several secluded undeveloped shoreline overnight use areas (LA-20), and one site with a unique meadow setting (LA-6).

E5.1.2.4.2 Recreation Facility and Condition Inventory—Butt Valley Reservoir

Butt Valley Reservoir, owned and operated by the Licensee, is located approximately 4 miles south of Lake Almanor. Completed in 1924, Butt Valley Reservoir is a long, narrow water body of moderate depth. At maximum pool elevation (4,142 feet msl), the reservoir covers 1,600 surface water acres (Licensee 2000b). On an annual basis, the Butt Valley Reservoir surface fluctuates about 10 to 15 feet from the maximum water surface elevation. Typical summer water surface elevations are around 4,129 feet msl (13 feet below maximum). Reservoir pool levels may fluctuate a few feet during the typical summer recreation season. A more in-depth discussion of reservoir pool levels, boating, and boat launch facilities is provided in Section E5.2.3—Reservoir Boating Study.

Recreation activities at Butt Valley Reservoir include: RV and tent camping, picnicking, resting/relaxing, fishing, walking/hiking, sunbathing, swimming, and boating. The Licensee operates two campgrounds and one boat launch/day use facility at the reservoir. These are the only developed recreation facilities on the reservoir.

E5.1.2.4.2.1 Developed Recreation Facilities

Developed recreation facilities in the Butt Valley Reservoir portion of the study area are summarized below and shown in Figure E5.1-1—Licensee and Forest Service Public Recreation Sites in the UNFFR Project Vicinity. These sites include: Cool Springs Campground, Ponderosa Flat Campground, and Alder Creek DUA/Boat Launch. Photos and maps of each of these sites are provided in Appendices E5-A and E5-B.

Campgrounds

Cool Springs Campground and Ponderosa Flat Campground are owned and operated by the Licensee. These campgrounds are generally open from mid-May through mid-September, weather permitting. For the 2001 recreation season, user fees for the campgrounds were \$15/night per site. Recreation elements at each of the campgrounds are discussed below.

Ponderosa Flat Campground. Ponderosa Flat Campground is located at the north end of Butt Valley Reservoir, on Prattville–Butt Reservoir Road (county road (CR) 305), approximately 4 miles south of SR 89. This facility has 61 campsites and an overflow camping area with 20 campsites. Each campsite includes a picnic table, fire ring,

cooking grill, camp cupboard, paved spur, and some have tent pads. Ten vault toilets are provided in five separate buildings. Activities at this site include: camping, fishing, swimming, sunbathing, walking/hiking, relaxing/resting, and boating.

Based on this evaluation, most of the facilities at the main Ponderosa Flat Campground are in good condition (see Table E5.1.2-3), with some exceptions. The water system at this site was replaced in 1998; however, the water faucets are in need of minor maintenance. Several of the older Klamath stoves are also in need of maintenance. In the less-utilized overflow area, the older vault toilets need replacement, and several recreational elements have broken or missing components, structural damage, or are otherwise in obvious disrepair.

Cool Springs Campground. Cool Springs Campground is located on Prattville–Butt Reservoir Road (CR 305) on the east shore of Butt Valley Reservoir, approximately 2.5 miles south of Ponderosa Flat Campground. This facility has 30 campsites. Each campsite includes: a picnic table, fire ring, cooking grill, camp cupboard, paved spur, and some have tent pads. Eight vault toilets are provided in four separate buildings. Activities at this site include: camping, fishing, resting/relaxing, sunbathing, walking/hiking, and swimming.

Based on this evaluation, some facilities at Cool Springs Campground are in good condition while the others are in need of maintenance (see Table E5.1.2-3). Facilities in

need of maintenance include the pay station, several of the older Klamath stoves, and water faucets. Portions of CR 305 are also in need of maintenance.

Day Use Areas

Alder Creek DUA/Boat Launch. The Alder Creek DUA/Boat Launch is located along the east shore of Butt Valley Reservoir on Prattville–Butt Reservoir Road (CR 305), approximately 1 mile south of Ponderosa Flat Campground. This facility provides three picnic sites, a toilet, cooking grills, a single-lane concrete boat ramp, and a paved parking area. There is no courtesy dock at this site. This Licensee-operated facility is usually open from May 15 through October 15, weather permitting. Currently, the Licensee does not charge a fee for use of DUAs or a launch fee for motorized watercraft and sailboats. PWC use and waterskiing are not allowed at Butt Valley Reservoir, and a sign is posted stating this regulation. Activities include picnicking, boating, and fishing. At the end of the 2000 recreation season, the ramp at Alder Creek DUA/Boat Launch was out of the water by about 10 feet. At that time, the reservoir pool level was 4,118.7 msl (Licensee 2001b). Due to this fluctuation in water level and because access to this site is prevented by accumulated snow and road closures, it is likely that the boat ramp is not usable year-round.

Based on this inventory and evaluation, most of the facilities at Alder Creek DUA/Boat Launch are in good condition (see Table E5.1.2-3).

Operation and Maintenance of Developed Recreation Facilities

All of the developed recreation facilities at Butt Valley Reservoir are owned and operated by the Licensee. The O&M practices for these facilities are described below. Topics covered include: facility maintenance, concessionaires, open and closure dates, user fees, and reservoir operations.

American Land and Leisure has a concessionaire contract with the Licensee and is responsible for O&M of campgrounds and DUAs. An attendant resides within each campground to oversee O&M. Duties of the attendant include: providing public assistance and information as well as performing other administrative services.

The concessionaire is responsible for all minor facility maintenance, including cleaning of toilets, removing hazard trees, performing minor building repair and maintenance, general cleaning of campsites, and miscellaneous grounds keeping, repair, and replacement of recreational elements (e.g. bulletin boards, signs, camp cupboards, and fee stations). The concessionaire is also responsible for opening and closing the campgrounds via gating and signs. Maintenance concerns that are a safety hazard receive first priority, followed by routine maintenance and then, as time permits, facility repair within the capabilities of the campground attendant. In general, recreational elements (e.g. picnic tables, camp cupboards, cooking grills, and fire rings) are replaced on an as-needed basis and approximately 20 percent of all facilities requiring paint are painted each year (5-year rotation). The concessionaire also repairs vandalism damage on an ongoing basis.

The Licensee is responsible for all major facility maintenance.

For the 2001 recreation season, user fees at Licensee campgrounds were \$15/night. The campgrounds at Butt Valley Reservoir are generally open from mid-May through mid-September, weather permitting. Alder Creek DUA/Boat Launch does not have a gate so it is open to the public until access along CR 305 is prevented by snow (road is plowed when the Licensee needs access to the area). Currently, the Licensee does not charge a fee for use of the Alder Creek DUA/Boat Launch.

E5.1.2.4.2.2 Dispersed Undeveloped Recreation Sites

In addition to the developed recreation facilities provided by the Licensee at the Butt Valley Reservoir, the reservoir shoreline provides dispersed recreational use opportunities, both for land-based and water-based activities. Dispersed undeveloped recreation sites at Butt Valley Reservoir are described below and depicted in Figure E5.1-2—Dispersed Recreation Sites in the UNFFR Project Vicinity. Photos of these sites are provided in Appendix E5-C.

All of the dispersed sites at Butt Valley Reservoir are located at the northern end of the reservoir with sites clustered near the reservoir inlet where fishing is known to be good. Each of these sites provides a roadside pull-out accommodating between two and five vehicles. There is no vehicle access to the shoreline.

Dispersed shoreline sites at Butt Valley Reservoir lack any development such as toilets or picnic tables. Fires are not permitted by Plumas County ordinance, except in developed sites. This “no fires” ordinance is enforced by the Plumas County Sheriff’s Department.

Three dispersed recreation sites were identified at Butt Valley Reservoir. These sites are used primarily for fishing access to the reservoir. No signs of overnight use were documented at these sites (see Table E5.1.2-6).

**Table E5.1.2-6
Description of Dispersed Undeveloped Shoreline Recreation Sites
at Butt Valley Reservoir**

Site #	General Site Description
BV-1	Fishing access point. Pull-out along county road (CR) 305 by transmission lines north of Ponderosa Flat Campground overflow area. Dirt trail down to inlet to reservoir. Swift current. No impacts noted. Can accommodate five vehicles at the road.
BV-2	Fishing access point. Pull-out along CR 305 north of transmission lines. Can accommodate two vehicles.
BV-3	Two fishing access points; one at bridge over creek and one at powerhouse near tunnel. Fishing access only. Gravel road signed with small wooden sign, “Prattville.”

Source: EDAW, Inc.

E5.1.2.4.3 Recreation Facility and Condition Inventory—Two Bypass Reaches

The upper Seneca Bypass Reach (Seneca Reach) consists of a 10.8-mile reach of the UNFFR extending from Lake Almanor Dam to the Caribou Powerhouse 1 (see Figure E5.1-1). Access to this portion of the UNFFR is limited due to steep, rugged terrain. The only developed recreation facility along Seneca Reach is a 1.5-mile anglers’ trail beginning at Caribou Powerhouse 1. Additionally, this reach provides dispersed recreational opportunities such as hiking and fishing.

The lower Belden Bypass Reach (Belden Reach) is a 9.3-mile reach of the UNFFR extending from the Caribou Powerhouse 1 to the confluence of the UNFFR and Yellow Creek at SR 70. This reach is more accessible than Seneca Reach. The Forest Service operates three campgrounds along Belden Reach: Gansner Bar Campground, North Fork Campground, and Queen Lily Campground. The Licensee operates and maintains Belden Rest Stop located on SR 70, adjacent to Belden Powerhouse (see Figure E5.1-1).

E5.1.2.4.3.1 Developed Recreation Facilities—Seneca Reach

Recreational Trails

North Fork Fishing Trail. An angler trail at Caribou Powerhouse 1 extends up the NFFR for approximately 1.5 miles to Butt Creek. This trail is signed and is referred to as the North Fork Fishing Trail. It begins at the Caribou Powerhouse 1 and crosses the face of the powerhouse along a narrow, metal catwalk. The catwalk is located above the tailrace flow releases from the powerhouse. Beyond the powerhouse, the trail follows within 50 feet of the river along its length. The trail includes two single-span footbridges over the NFFR. It can also be accessed near Butt Creek from a dirt road.

Based on this evaluation, the elements associated with the North Fork Fishing Trail are in good condition, including the two footbridges, sign, and the trail surface.

While the trail gets relatively low use, parking to access the trail can be a problem. There is no parking at the start of the trail near the Caribou Powerhouse 1 entry gate.

There are, however, small roadside pull-outs along Caribou Road that may be utilized by anglers and other trail users. Alternatively, trail users can park at the Belden Forebay and walk along Caribou Road to reach the beginning of the trail.

Operation and Maintenance of Developed Recreation Facilities

The North Fork Fishing Trail is not maintained by the Licensee, with the exception of the metal catwalk that crosses the face of the powerhouse above the tailrace. Historically, the Forest Service has maintained this trail, including maintenance and repair of the two trail suspension bridges (Licensee 2001b).

E5.1.2.4.3.2 Dispersed Recreation Use Sites—Seneca Reach

In addition to the North Fork Fishing Trail, Seneca Reach also provides limited dispersed recreational opportunities. Visitors may use the reach for dispersed camping, hiking, and fishing. Fires are not permitted, except in developed sites, per Plumas County ordinance; the Plumas County Sheriff's Department enforces this "no fires" policy.

Only two public dispersed sites were documented along Seneca Reach (see Figure E5.1-2). These sites are used primarily for dispersed overnight camping (see Table E5.1.2-7). No water, picnic tables, or toilets are available at these undeveloped sites. All of the dispersed sites in Seneca Reach appear to have low levels of use.

**Table E5.1.2-7
Description of Dispersed Recreation Sites in Seneca Reach**

Site #	General Site Description
Seneca Reach Sites	
S-1	Abandoned Sweet Marie Mine. Very steep, rough 4-wheel drive access road to river. Old cabin. Two fire rings. Light use observed.
S-2	Old site on east side of bridge. Parking and river access. One old fire ring.

Source: EDAW, Inc.

E5.1.2.4.3.3 Developed Recreation Facilities—Belden Reach

Developed recreation facilities along Belden Reach include three campgrounds and a day use/rest area. These recreation facilities are summarized below and include: Gansner Bar Campground, North Fork Campground, Queen Lily Campground, and Belden Rest Stop (SR 70). While the August, 2000 Storrie Fire burned 46,000 acres in close proximity to these recreation facilities, there was no evidence of fire damage when researchers conducted site visits for this study. A brief summary of the Belden Forebay Access, an undeveloped, informal parking area, is also provided.

Campgrounds

There are three developed campgrounds along Belden Reach: Queen Lily Campground, North Fork Campground, and Gansner Bar Campground. All of these campgrounds are operated by the Forest Service. Recreational elements at each of the campgrounds are discussed below. Photos and maps of these sites are presented in Appendices E5-A and E5-B.

Queen Lily Campground. Queen Lily Campground is located on the west branch of the NFFR along Caribou Road off of SR 70, 34 miles west of Quincy (see Figure E5.1-1).

Its location along the river makes it ideal for fishing and river access. This facility provides 12 campsites, a flush restroom, and water faucets. Each campsite includes: a picnic table, cooking grill, paved spur, and some have tent pads. This campground is more primitive in appearance with no grassy area like other campgrounds in this area.

Based on this evaluation, most of the facilities at Queen Lily Campground are in good condition (see Table E5.1.2-3). The water system, shared with North Fork Campground, was repaired by the Forest Service in 1998, including the installation of a new water tank and water lines. Planned Forest Service improvements include the reconditioning of campsites on an as-needed basis.

North Fork Campground. North Fork Campground is located on the west branch of the along Caribou Road off of SR 70, 33 miles west of Quincy (see Figure E5.1-1). Its location along the river makes it ideal for fishing and river access. This facility provides 20 campsites, a flush restroom, and water faucets. Each campsite includes: a picnic table, cooking grill, paved spur, and some have tent pads. This campground has large trees and a grassy area.

Based on this evaluation, most of the facilities at North Fork Campground are in good condition (see Table E5.1.2-3). The water system, shared with the adjacent Queen Lily Campground, was repaired by the Forest Service in 1998, including the installation of a new water tank and water lines. Planned improvements by the Forest Service include the reconditioning of campsites on an as-needed basis.

Gansner Bar Campground. Located 32 miles west of the City of Quincy, Gansner Bar Campground is located on the west branch of the NFFR along Caribou Road off of SR 70 (see Figure E5.1-1). The campground's location along the river makes it ideal for fishing and river access. There are 14 campsites, a flush restroom, and an amphitheater at this facility. Each campsite includes: a picnic table, cooking grill, paved spur, and some have tent pads. The campground has many trees and a large grassy area. In addition, a small picnic area is provided with a grassy area, picnic tables, and cooking grills. Based on this evaluation, most of the facilities at Gansner Bar Campground are in good condition (see Table E5.1.2-3), with a few exceptions. The amphitheater is in need of some maintenance, and portions of the main paved access road need replacement.

Reconditioning of the amphitheater by the Forest Service was completed in 2001. Other planned Forest Service improvements include the reconditioning of campsites on an as-needed basis.

Day Use Areas

There are two DUAs on Belden Reach: Belden Forebay Access and Belden Rest Stop. Both of these sites are owned by the Licensee. Belden Rest Stop is a well-used, developed rest area with several recreational elements, while Belden Forebay Access provides only a small, informal gravel parking area. The recreational elements at these sites are discussed below.

Belden Forebay Access. Belden Forebay has an undefined small gravel parking area off of Caribou Road at the northwest end of the forebay. This site provides informal parking for about four vehicles and steep trail access to the forebay shoreline. A much larger gravel parking and equipment storage area is also located nearby if needed for overflow. This is the only sizeable public access point on the forebay, though it is undeveloped and all site features are user-defined. Boats are currently not allowed on the Forebay. Since the short trail at this site is very steep, access to the water is difficult. As there are no formal facilities at this location, and no map has been prepared.

Belden Rest Stop. Belden Rest Stop is operated by the Licensee and is located adjacent to Belden Powerhouse on the north side of SR 70 in the Feather River Canyon. This site has several functions including being a roadside rest, trailhead, and interpretive site. Recreational elements at the Belden Rest Stop include a picnic area, a small open pavilion with informational signs, two vault toilets, and a paved parking lot. There are three recreation trails that may be accessed from this site: Yellow Creek Trail, Indian Springs Trail, and the PCT. There are also two historical features at this site: Eby Stamp Mill and Yellow Creek Bridge. Interpretive information on the history of the mill and mining activities in the area is provided.

Based on this evaluation, some of the facilities at the Belden Rest Stop are in good condition, while others need maintenance (see Table E5.1.2-3). Facilities in need of maintenance include the vault toilets, picnic tables, signs, and cooking grills.

The two water faucets near the open pavilion are broken and, since there is no longer water at the site, they should be removed. This facility effectively serves as a trailhead for the three trails noted above; however, the Licensee does not maintain any portions of the trails or any associated recreational elements, such as signs. It is assumed that while the parking area, picnic tables, and toilets are likely utilized by trail users, the majority of use at this facility is related to highway travelers and is maintained by the Licensee.

Operation and Maintenance of Developed Recreation Facilities

The O&M practices for both Licensee- and Forest Service-developed recreation facilities along Belden Reach are described below. Topics covered include facility maintenance, user fees, and open and closure dates.

Licensee Facilities. The Belden Rest Area along SR 70 is operated by the Licensee and is open and maintained year-round. The Licensee does not charge a fee for use of the area. While this facility effectively serves as a trailhead for three trails, the Licensee does not maintain any portions of the trails or associated recreational elements, such as signs.

American Land and Leisure has a concessionaire contract with the Licensee and is responsible for O&M of Belden Rest Area. A site attendant resides off-site and oversees O&M. Duties of the attendant include providing public assistance and information as well as performing other administrative services.

The concessionaire is responsible for all facility maintenance, including: cleaning of toilets, removing hazard trees, performing minor building repair and maintenance, general cleaning of the picnic sites, and miscellaneous grounds keeping, repair, and replacement of recreational elements (e.g., bulletin boards and signs). Maintenance concerns that are a safety hazard receive first priority, followed by routine maintenance and then, as time permits, facility repair within the capabilities of the site attendant.

In general, recreational elements (e.g., picnic tables, cooking grills, etc.) are replaced on an as-needed basis, and approximately 20 percent of all facilities requiring paint are painted each year (5-year rotation). The concessionaire also repairs vandalism damage on an ongoing basis.

Forest Service Facilities. Three campgrounds (Gansner Bar, Queen Lily, and North Fork) located along Belden Reach are operated by the Forest Service—Plumas National Forest. These campgrounds have a longer operating season because they are located at significantly lower elevations (2,500 feet) than campgrounds at Lake Almanor or Butt Valley Reservoir. In general, these campgrounds are open from mid-April through the end of September, weather permitting. Gansner Bar Campground has a somewhat extended season and is open until the end of October. For the 2001 recreation season, user fees for the campgrounds were \$12/night. Other fees are also charged for additional vehicles and campsite occupants. The NRRS provides reservation services for campgrounds throughout the Plumas National Forest. However, individual campsites at these campgrounds are also available on a first-come, first-served basis.

Northwest Park Management has a concessionaire contract with Plumas National Forest and is responsible for operating the three Forest Service campgrounds noted above. A caretaker is required to reside within each campground to oversee operations. Duties include acting as campground host as well as performing other care, and policing and administrative services (e.g., fee collection, toilet cleaning, routine light maintenance, etc.). A campground host, if present, is responsible for providing public assistance and information. Duties include answering visitor questions regarding campground facilities, campground and Forest Service regulations, and information about other facilities in the area.

The concessionaire is responsible for controlling behavior of campground users and providing public safety in the campground area. The concessionaire is also responsible for enforcing campground regulations such as failure to pay fees, campfire regulations, vehicle speeds within campground, and excessive noise. The Plumas County Sheriff's Department is normally the concessionaire's primary law enforcement contact, although the Forest Service is contacted when any US Government facilities or lands are affected.

The concessionaire is responsible for all facility maintenance, including cleaning of toilets and restrooms, removing hazard trees, performing minor building repair and maintenance, general cleaning of campsites, and miscellaneous grounds keeping, repair, and painting of recreation elements (e.g., bulletin boards, signs, and fee stations).

The concessionaire is also responsible for opening and closing the campgrounds via gating and the use of signs. Major facilities, such as roads, restrooms, water systems, and parking lots, are inspected periodically and repaired on an as-needed basis. The concessionaire repairs vandalism damage on an ongoing basis. All of these maintenance items must be performed to Meaningful Measures or other appropriate standards specified in the Prospectus (Forest Service 1998). The Prospectus provides a sample maintenance plan, including a detailed list of maintenance items, frequency, and specified standards.

The Forest Service is responsible for all major maintenance work.

E5.1.2.4.3.4 Dispersed Recreation Use Sites—Belden Reach

In addition to the developed recreation facilities provided by the Licensee and the Forest Service, Belden Reach also provides dispersed recreational opportunities. Many visitors use Belden Reach for dispersed camping, hiking, and fishing. Fires are not permitted except in developed sites per Plumas County ordinance; the Plumas County Sheriff's Department enforces this "no fires" policy.

Twenty dispersed recreation sites were documented along Belden Reach (see Figure E5.1-1). These sites are used primarily for dispersed overnight camping. Some of these sites function as informal overflow areas for the developed fee campgrounds provided by the Forest Service (see Table E5.1.2-8).

**Table E5.1.2-8
Description of Dispersed Recreation Sites at Belden Reach**

Site #	General Site Description
<i>Belden Reach Sites</i>	
B-1	Large clearing just downstream of Gansner Bar Campground. Wooden barrier separates site from campground. Easy access to river.
B-2	Brushy clearing near river. Large gravel pullout with 4-wheel drive road access to site. One fire ring. River not visible from site. Site is shown on angler's map.
B-3	Series of four pull-outs. Small asphalt apron from road. Site 1 has easy shoreline access. Site 2 is largest site with three fire rings. Site 3 is small with one fire ring, easy shoreline access, and moderate use. Site 4 is medium-sized and open to river with one fire ring.
B-4	Gravel pull-out just upstream of pipeline. Somewhat steep, well-defined trail down to river.
B-5	Long, narrow site just below road. Visible from road. Three fire rings. Below powerlines. Three trails down to river. River not visible from site. Heavy use observed.
B-6	Series of three pullouts. Nice, shaded sites. Close to road. Old Forest Service signboard. Three fire rings. Moderate use observed.
B-7	Gravel site adjacent to downstream side of Forest Service bridge. No shade. One fire ring.
B-8	Series of four sites along rough and rocky 4-wheel drive road across bridge from main road. Nice, shaded sites. Light to moderate use.
B-9	Large area cleared of understory brush near Queen Lily Campground. Five fire rings. Nice camping spot; well shaded and flat. Heavy use observed.
B-10	Large gravel parking area on side of road. Trail to small, deep pool in river. Likely a DUA for swimming or fishing.
B-11	Gravel parking area on side of road. One large fire ring. Likely an angling or DUA. Light use observed.
B-12	Small campsite on non-river side of road. One fire ring under trees. Moderate use observed.
B-13	Large site on Mosquito Creek. Well shaded. One fire ring. Heavy use observed.
B-14	Small grassy site at end of short spur road. Two short trails to river. Near large, deep pool marked on fishing map. One fire ring. Moderate use observed.
B-15	Large gravel site on non-river side of road. No shoreline access. Two fire rings; one with little shade, the other with grass and shade.
B-16	Large open area with little shade. One fire ring. Light to moderate use observed.
B-17	Small site on loop spur road. Directly upstream of bridge. Brushy shoreline access from site. One fire ring. Moderate use observed.
B-18	Series of 3 sites near end of long, gravel spur road. Three fire rings. Light use observed.
B-19	Large wooded area near river on spur road. Several trails to river. Very nice, secluded camping area. Five fire rings. Heavy use observed.
B-20	Large gravel parking area below Caribou. Parking area for anglers.

Source: EDAW, Inc.

Overnight camping was documented at 16 of the 20 sites (80 percent). The remainder of these sites show signs of day use only. No water, picnic tables, or toilets are available at these undeveloped sites.

Overall, dispersed sites in Belden Reach appear to have a moderate level of use. Undeveloped sites with higher levels of use in Belden Reach include those that are close to developed campgrounds (B-3, B-5, B-9, and B-10), and a somewhat secluded but large, scenic site (B-19). In Belden Reach, many of the most highly-used sites are near developed Forest Service campgrounds, perhaps indicating a capacity or fee issue at these sites, rather than a high demand for a dispersed camping experience.

E5.1.2.4.3.5 Private Recreation Facilities—Belden Reach

In addition to recreational opportunities provided by the Licensee and the Forest Service, two private recreation facilities are located in Belden Reach. These facilities play an important role in providing recreational opportunities in the Project area. This section briefly summarizes Level 2 private facilities in Belden Reach.

There are two privately-owned and -operated recreation facilities in Project area portion of Belden Reach. These were not surveyed in the field, and facility conditions were not assessed as part of this study. Private recreation providers, however, were contacted and general information was reviewed to gather inventory information related to these facilities. This review was not intended to provide a detailed (i.e., Level 1) facility and

condition inventory for every recreational element at each private recreation facility. Level 2 detail is appropriate for privately-owned and -operated recreation facilities.

Within Belden Reach these include:

- **Belden Town Resort and Lodge:** Located along SR 70 across from Belden Rest Area and Belden Powerhouse. The Feather River runs through the facility. Recreational elements and associated services include: 20 full hookup RV campsites, a camp store, restrooms and showers, and laundry facilities. For the 2001 recreation season, user fees this facility were \$15-19/night; and
- **Caribou Campground:** Located at the junction of SR 70 and CR 305. Recreational elements and associated services include: 20 full hookup RV campsites, five tent sites, restrooms, store and café, and showers. Fee information for this facility was unavailable at the time this study was being completed, but is believed to be comparable to other surrounding campground fees.

E5.1.2.4.4 Other Recreation Resources

FERC requires that Licensees provide information on National Recreation Trails and federal WSRs in the Project vicinity. These two resources are discussed below.

E5.1.2.4.4.1 National Recreation Trails

The National Trail System Act of 1968 authorized the creation of a system comprised of National Recreation Trails, National Scenic Trails, and National Historic Trails.

While National Scenic Trails and National Historic Trails may only be designated by an act of Congress, National Recreation Trails may be designated by the Secretary of the Interior or the Secretary of Agriculture to recognize exemplary trails of local and regional significance in response to an application from the trail's managing agency or organization (American Trails undated). Through designation, these trails are recognized as part of America's national system of trails. National Recreation Trails are jointly administered by the National Park Service (NPS) and Forest Service, with support from a variety of federal agencies and non-profit organizations.

The PCT is one of eight National Scenic Trails in the US, spanning some 2,650 miles from Mexico to Canada through three western states. The route was first explored in the late 1930s by teams of young men from the YMCA. Once proven feasible, trail pioneers Clinton Clarke and Warren Rogers lobbied the federal government to secure a border-to-border trail corridor. Largely through the efforts of hikers and equestrians, the PCT was eventually designated one of the first scenic trails in the National Trails System, authorized by Congress in 1968, and was dedicated in 1993 (Pacific Crest Trail Association (PCTA) 1999).

The PCT runs generally in a north-south direction west of the Project area, crossing SR 36 approximately 6 miles west of Lake Almanor and SR 70 south of the Project area at

Belden. It runs through one of the developed recreation sites in the Project area, Belden Rest Area, along SR 70.

While this facility serves as an informal trailhead, the Licensee does not maintain any portions of the trail or any associated recreational elements, such as signs.

Another nearby federally designated trail is the Spencer Meadows National Recreation Trail. This trail is located 15–20 miles west of the town of Chester. The trail runs from SR 36/89 to Lassen Volcanic National Park, where it connects with the park's trail system. This trail is 12 miles in length and is considered outside of the Project study area.

Other federally-designated trails in the Project vicinity include the Heart Lake National Recreation Trail and the McGowan Lake Cross Country Ski Trail. Both trails are located in the Lassen National Forest near the southwest corner of Lassen Volcanic National Park. Additionally, the LART has been proposed as a National Recreation Trail.

E5.1.2.4.2 Federal Wild and Scenic Rivers

Congress created the National WSRs System in 1968. The Wild and Scenic Rivers Act is intended to preserve selected rivers or sections thereof in their free-flowing condition to balance environmental, recreational, cultural, and historical values with dams, diversions, and water resource development projects. As of November 2001, 180 river segments comprising 11,292 miles have been included in the National WSRs System. While the

goal of the legislation is to preserve the character of a river, uses compatible with the management goals of a particular river, including camping, fishing, hiking, and other recreational activities and facilities, are allowed. Any designated WSR is classified and administered in one of three categories depending on the extent of development and accessibility along each section. Designated river segments are classified and administered as one of the following: wild river areas, scenic river areas, or recreational river areas.

The Middle Fork of the Feather River (MFFR) was designated a WSR in 1968. The MFFR WSR is currently administered by Plumas National Forest and runs from its headwaters near Beckwourth, to Lake Oroville. It is located outside of the Project study area. The river runs generally in an east–west direction approximately 25 miles from the south end of Lake Almanor. The designated reach totals 77.6 miles, including 32.9 miles of wild river area, 9.7 miles of scenic river area, and 35 miles of recreational river area. The MFFR flows through a deep canyon with numerous large boulders, narrow steep canyon walls, and some impassable waterfalls. Rafting and kayaking opportunities are considered to be for experts only (Class V). The upper stretches of the river, however, are gentler with easy access, providing opportunities for rafting and canoeing.

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E5.1.3 Recreation and Public Use Impact Assessment

E5.1.3.1 Introduction

This section presents the results of the Recreation and Public Use Impact Assessment study, one of several recreation studies that were conducted by the Licensee for relicensing. This section presents the results of one of those studies: a qualitative analysis of the recreation and public use impacts to vegetation, soils, and water quality in the Project vicinity.

E5.1.3.1.1 Objectives of the Study

The objectives of this study are to assess recreation and public use impacts to vegetation, soils, and water quality in the Project area. These resources are particularly important to recreation, fisheries, and the visual quality of the Project area.

Potential impacts examined in the study area related to recreation include:

- Soil erosion and soil compaction, especially within and adjacent to campground and day use areas (DUAs);
- Impacts to wetlands and riparian vegetation from visitor use;
- Lack of downed wood in high-use areas due to wood collection for campfires;
- Impacts to vegetation due to off-road vehicle (OHV) and pedestrian use;
- Water quality impacts due to soil erosion and sanitation problems at or near campgrounds and DUAs;
- Litter in high-use areas; and
- Vandalism of facilities.

E5.1.3.1.2 Components of the Study

This section summarizes the recreation and public use impacts to vegetation, soils, and water quality in the Project vicinity. It includes inventory tables of public use impacts observed by site, as well as descriptions of sites and impacts. See Appendices E5-A and E5-C for photos of developed and dispersed recreation facilities.

E5.1.3.2 Study Area

The study area includes developed recreation facilities at Lake Almanor, Butt Valley Reservoir, and along Belden Reach (see Figures E5.1-1 and E5.1-2). Private lands were excluded from this analysis. Impacts at the following developed recreation sites and use areas were assessed:

- Lake Almanor Campgrounds (Loops 1, 2, and 3) (Licensee);
- Camp Conery Group Camp (Licensee);
- Canyon Dam Day Use Area (DUA) (Licensee);
- Almanor Scenic Overlook (Licensee);
- Eastshore Picnic Area (Licensee);
- Last Chance Campground and Group Camp (Licensee);
- Ponderosa Flat Campground (Licensee);
- Alder Creek DUA (Licensee);
- Cool Springs Campground (Licensee);
- Belden Rest Stop (Licensee);
- Almanor Campground (Forest Service);
- Almanor Boat Ramp (Forest Service);

- Almanor Beach (Forest Service);
- Dyer View DUA (Forest Service);
- Canyon Dam Boat Launch/DUA (Forest Service);
- Almanor Rest Area on SR 89 (Forest Service);
- Gansner Bar Campground (Forest Service);
- North Fork Campground (Forest Service); and
- Queen Lily Campground (Forest Service).

Observed impacts were also assessed for public and Licensee dispersed recreation sites at Lake Almanor, Butt Valley Reservoir, and along Belden and Seneca Reaches. Trails on or near the shorelines were not addressed in this document as they are presented as part of Section E5.1.2—Recreational Facility and Condition Inventory. Private lands are excluded, with the exception of some land owned by Collins Pine that is accessible to the public for dispersed recreation on Lake Almanor.

E5.1.3.3 Methods

This study is a qualitative assessment of recreation and public use impacts observed in the study area. The study focuses on developing a thorough assessment of public use and recreation-related impacts in and adjacent to recreation sites in the Project area. The results of this study provide a baseline of ecological information for potential future long-term monitoring of recreation and public use sites.

EDAW solicited input from the Licensee and Forest Service staff to identify sites for field observations. Researchers observed these sites—walking and driving—looking for recreation space and public use-related impacts. Site impact assessment forms were developed and used to document impacts at recreation sites and use areas.

For each site where ecological impacts were identified, the following field data were collected:

- Site photography of ecological impact areas;
- Description of site and impacts; and
- Detailed location of the site.

To assess the ecological impacts, each site was visited and the observed impacts were identified and noted, primarily in a qualitative fashion. Beach erosion impacts were qualitatively assessed via pedestrian surveys of shorelines near dispersed sites. More exhaustive studies of beach erosion and water quality in the Project area are being conducted by the Licensee during the relicensing process. Specific impacts observed include: road and trail cutting, illegal dumping of household debris, littering, wood cutting, vegetation damage and removal, motorcycle/ OHV disturbances, vandalism, illegal campfires, gate lock cutting, grazing, and squatters/dispersed camping. After site observations were completed, impact forms were filled out and photographs were taken to document site conditions (see Appendices E5-A and E5-C).

Evaluations of ecological impacts at each site were based on a qualitative evaluation system that was assigned to each variable.

Variables considered at developed sites and dispersed sites include the following:

- **Erosion**: is erosion readily apparent—yes or no? What activity appears to be causing site erosion—identify the activity.
- **Extent of Bare Ground**: is bare ground readily apparent—yes or no? What is the extent of bare ground—none, small, medium, or large?
- **Vegetation Damage**: is vegetation damage readily apparent—yes or no? What activity appears to be causing the damage?
- **Area Cleared of Firewood**: is the area cleared of on-the-ground firewood—yes or no?
- **Amount of Litter**: is litter readily apparent—yes or no? What is the amount of litter—low, moderate, or high?
- **Sanitation Problems**: does the site have readily apparent sanitation problems—yes or no?
- **Vandalism**: is vandalism readily apparent—yes or no?
- **Proximity to Wetlands**: is the site near a wetland area based on observed wetland vegetation types (should be compared to wetland maps to determine if area is actually classified as a wetland) and proximity of the site—yes or no? Proximity of less than 500 feet to the wetland area—state number of feet.
- **Proximity to Riparian Areas**: is the site near a riparian area based on observed riparian vegetation types (should be compared to riparian maps to determine if

the area is actually classified as a riparian area) and proximity of the site—yes or no? Proximity of less than 500 feet to the riparian area—state number of feet.

Additional variables considered at dispersed sites only included the following:

- Overall Level of Use: estimate of the overall level of use based on the extent of bare ground, vegetation damage, erosion and firewood remaining—high, moderate, or low?
- Vehicle Access to the Shoreline: is vehicle access to the shoreline readily apparent—yes or no?
- Overnight Use: does the site appear to be a day use or overnight use site—is there a campfire ring and room for a tent or RV, which would indicate overnight use?
- Campfires: are user-constructed fire rings present—yes or no?
- Dumping of Household Trash and Debris: is there evidence of prior or current dumping of appliances, furniture or other unwanted household items—yes or no?
- OHV Use: is there evidence of OHV use—yes or no? Where is this use located—identify.

After these variables were assessed, the results were then summarized to identify the number and percentage of the sites with these variables by geographic area and by

developed versus dispersed sites. Based on this summary, potential management actions were identified for future discussion purposes.

E5.1.3.4 Results and Discussion

This section presents results of this qualitative assessment related to observed recreation and public use impacts in the study area including:

- Ecological impacts at public developed recreation sites; and
- Ecological impacts at public dispersed recreation sites.

E5.1.3.4.1 Observed Impacts at Public Developed Recreation Sites and Use Areas

There are 24 developed recreation sites in the Project area (Lake Almanor Campground Loops 1, 2 and 3 are considered one site). Sixteen of the sites are on or adjacent to Lake Almanor, three sites are on or adjacent to Butt Valley Reservoir, and five sites are located along Belden Reach. There are no developed recreation sites along Seneca Reach. A Recreation Site Ecological Capacity Indicators Form was filled out for each developed recreation site (see Appendix E5-D). Each site and its primary features were also photographed (see Appendix E5-A) and are described in Section E5.1.2—Recreational Facility and Condition Inventory.

Table E5.1.3-1 details specific ecological conditions and other associated information documented at each of the 24 sites. This information is summarized below. The specific locations of these sites are shown in Figure E5.1-1—Licensee and Forest Service Public Recreation Sites in the UNFFR Vicinity. During the evaluation of these sites, ecological

**Table E5.1.3-1
Ecological Impacts at Developed Recreation Sites**

Site	Erosion	Extent of Bare Ground	Vegetation Damage	Area Cleared of Firewood	Amount of Litter	Sanitation Problems	Vandalism	Proximity to Wetlands (feet)	Proximity to Riparian (feet)
Lake Almanor Sites									
Eastshore DUA (Licensee)	Yes	Medium	No	No	Moderate	No	No	No	No
Almanor Scenic Overlook (Licensee)	Yes	Small	No	No	Moderate	No	No	No	No
Canyon Dam Boat Launch/DUA (Forest Service)	Yes	Small	Yes	No	Low	No	No	300	No
Canyon Dam DUA (Licensee)	No	Small	No	No	Low	No	No	No	No
Camp Conery Group Camp (Licensee)	No	Small	No	No	Low	No	No	No	No
Lake Almanor Campground (Licensee)	Yes	Medium	No	Yes	Low	No	No	No	No
Dyer View DUA (Forest Service)	No	Small	No	No	Low	No	No	No	No
Almanor Rest Area (SR 89) (Forest Service)	No	Large	Yes	Yes	Low	No	No	No	No
Almanor Overflow Camping Area (SR 89) (Forest Service)	No	Large	Yes	Yes	Low	No	No	No	No
Almanor Group Reservation Camp (SR 89) (Forest Service)	No	Large	No	Yes	Low	No	No	300	No
Almanor Campground North (Forest Service)	Yes	Medium	No	Yes	Low	No	No	No	No
Almanor Campground South (Forest Service)	Yes	Medium	No	Yes	Low	No	No	No	No
Almanor Beach (Forest Service)	No	Small	No	No	Low	No	No	No	No
Almanor Boat Launch (Forest Service)	Yes	Medium	No	No	Low	No	No	No	No
Last Chance Campground/Group Camp (Licensee)	No	Small	No	Yes	Low	No	No	No	No
Lake Almanor Recreation Trail (Forest Service)	No	None	No	No	Low	No	No	No	Variable
Bull Valley Reservoir Sites									
Ponderosa Flat Campground (Licensee)	Yes	Medium	No	Yes	Low	No	No	No	No
Alder Creek DUA/Boat Launch (Licensee)	Yes	Small	No	Yes	Low	No	No	No	No
Cool Springs Campground (Licensee)	Yes	Large	No	Yes	Low	No	No	No	No
Belden Reach Sites									
Gansner Bar Campground (Forest Service)	Yes	Medium	No	Yes	Low	No	No	No	100
North Fork Campground (Forest Service)	Yes	Medium	No	Yes	Low	No	No	No	100
Queen Lily Campground (Forest Service)	Yes	Small	No	Yes	Low	No	No	No	100
Belden Rest Stop (SR 70) (Licensee)	Yes	Medium	No	No	Low	No	No	No	100
North Fork Angler Trail (Licensee)	Yes	None	No	No	Low	No	No	No	50

Source: EDAW, Inc.

impacts associated with site use were noted; types of impacts observed included erosion, extent of bare ground, damage to vegetation, areas cleared for firewood, litter, sanitation problems, vandalism, proximity to wetlands, and proximity to riparian areas.

These variables are discussed below, followed by a summary of observed impacts.

E5.1.3.4.1.1 Erosion

The most common form of site erosion at developed recreation sites occurs near shoreline areas where users have accessed the water. Additional erosion is also found on steep slopes near these areas. Analysis of this impact involved the determination of whether any evidence of erosion was apparent at a site. Fifteen of the 24 sites (63 percent) have areas of erosion (see Table E5.1.3-1).

Erosion at a developed site is evidenced by pedestrian-related impacts at the site, particularly in shoreline areas. These impact areas suggest areas that are in need of hardening. Most of the issues related to erosion at the developed sites are in the form of user-defined trails that lead to shoreline areas where erosion is occurring. This indicates that a few specific areas within 63 percent of the sites may be in need of hardening or that there is a need for public education about potential impacts of shoreline erosion and instruction about how to avoid these impacts by staying on defined trails.

E5.1.3.4.1.2 Extent of Bare Ground

Although many of the developed recreation sites in the Project area are hardened (gravel, paved roads and use areas), some areas of bare ground are found near campsite spurs, picnic tables, fire rings, and user-defined trails. The extent of these areas was documented in a qualitative fashion, with categories including none, small, medium, and large (extent of bare ground). Thirteen of the 24 sites (54 percent) have either a large or medium extent of bare ground (see Table E5.1.3-1).

Sites with extensive areas of bare ground are often indicators of continuous high-use, or may indicate areas where vegetation will not readily grow due to the short season, soil conditions, and/or lack of sun. There are few management actions related to large areas of bare ground that are appropriate in this case, with the exception of temporary or occasional closure and rehabilitation of various campground loops. A few of the most heavily impacted sites in the larger campgrounds may benefit from temporary closure and rehabilitation; however, it may be more feasible to focus on erosion control structures, such as water bars, rather than attempt to revegetate areas that are subject to high foot traffic.

E5.1.3.4.1.3 Vegetation Damage

This category assesses observed damage to vegetation at each site, predominantly to live trees, bushes, and meadow vegetation. Typical damage included bullet and hatchet damage to trees and areas where pedestrians had created paths through bushes and other vegetation.

Rather than attempting to assess the exact amounts of vegetation damage, a “yes” (indicating some level of damage) or “no” (indicating no damage at all) result was noted at each site. Only three of the 24 sites (13 percent) had some type of vegetation damage (see Table E5.1.3-1). However, it is likely that damaged vegetation has been removed from these sites over the years.

Extensive and continued damage to live trees can result in eventual mortality, which has the potential to reduce shade at developed sites. In addition, social trails in campgrounds that damage bushes and other groundcover could reduce vegetative screening between sites. Since only 13 percent of the developed sites have some evidence of vegetation damage, there does not appear to be a large-scale threat to the health of trees and other vegetation at these sites.

E5.1.3.4.1.4 Area Cleared of Firewood

This category assesses the extent to which downed, woody debris at or adjacent to a developed site has been cleared by visitors for use as firewood, and is one of the indicators of overall use at a site. A “yes” or “no” conclusion was made for each site based on the extent of on-the-ground wood present at each site. Thirteen of the 24 sites (54 percent) were in areas where most or all of the available firewood had already been gathered and burned by visitors (see Table E5.1.3-1). The remaining sites (primarily DUAs) were in areas where at least some firewood could be found on the ground in the surrounding area.

The clearing of small woody debris in the area surrounding a developed site has an adverse impact on ecological and biological functions which depend on decaying material. It is also an indicator of high-use and the popularity of campfires. Although these results do not suggest any specific management actions, areas of concern should be monitored to ensure that visitors do not damage live trees for use as firewood. In addition, the continued sale of firewood by site operators and visitor education regarding the gathering of firewood should help minimize impacts caused by the gathering of downed, woody debris.

E5.1.3.4.1.5 Amount of Litter

Although litter is typically not a problem at developed sites where trash receptacles are provided and even though site operators often clean areas regularly, some problems may still exist. Common evidence of litter includes cans, bottles, cigarette butts, and fishing-related materials (fishing line, bobbers). This was assessed by recording whether the amount of litter present was low, moderate, or high. Only two of the 24 sites (8 percent) had amounts of litter that were considered “moderate,” while none had “high” amounts of litter (see Table E5.1.3-1).

The presence of litter at developed sites is one of several indicators of high-use levels at a site and could potentially signal the need for additional management actions such as increased frequency of trash collection, provision of additional trash receptacles, or increased ground cleaning.

Since only 8 percent of the developed sites have a “moderate” or “high” amount of litter, there does not seem to be a need for a management response at this time.

E5.1.3.4.1.6 Sanitation Problems

Sanitation problems at developed sites are most frequently focused on the disposal of human waste or the lack thereof. Although toilets are provided in most recreation areas, visitors may occasionally choose their own site when these facilities are closed or are too far away. A “yes” or “no” conclusion was made for each site based on the presence or lack thereof of human waste. None of the developed sites had any signs of sanitation problems (see Table E5.1.3-1).

Potential responses to sanitation problem include providing more toilets or keeping existing facilities open during the off-season. Since sanitation was not a problem at any of the developed sites, no management response is needed at this time.

E5.1.3.4.1.7 Vandalism

While vandalism is more common at dispersed sites, occasional acts of vandalism in developed sites may include graffiti or damage to picnic tables and trash receptacles. None of the developed sites had any signs of vandalism (see Table E5.1.3-1).

Vandalism at or near developed sites can often indicate law enforcement and potential visitor safety issues.

If this became an issue, appropriate management responses include providing increased law enforcement patrols, or additional lighting in problem areas to deter vandals. Since vandalism at Project area developed recreation areas does not seem to be a problem, no management response is needed at this time.

E5.1.3.4.1.8 Proximity to Wetlands

Due to the sensitive ecological components of wetlands, documenting sites that are in proximity to seasonal or permanent wetlands is important. Proximity to a wetland was determined by estimating the distance between the site and the observed wetland. Sites within 500 feet of a wetland were considered to be in the proximity of a wetland.

The presence of a wetland was based on field observations of the occurrence of wetland indicator vegetation at the site. All field-based judgements regarding proximity to wetlands should be compared with detailed maps for verification. Only two of the 24 sites (8 percent) are in proximity to a wetland area, and both of these adjacent wetland areas appeared to be undamaged (see Table E5.1.3-1).

It is important to monitor use at sites that are in proximity to seasonal or permanent wetlands. Where resources are particularly sensitive, or impacts are becoming significant, barriers could be erected to limit public access to the wetlands. Of the two areas in proximity to wetland areas, only the vernal pool near the Almanor Group Reservation Camp may be in need of an additional management response.

Although current interpretive and informational materials seem to be keeping visitors out of this sensitive area, continued monitoring for impacts may be considered.

E5.1.3.4.1.9 Proximity to Riparian Areas

Due to the sensitive ecological components of riparian vegetation, documenting sites that are in proximity to riparian areas is important. Assessment of the proximity of a site to a riparian area was made by estimating the distance from the site to rivers, streams, or creeks with riparian vegetation (if the distance was less than 500 feet). Similar to the presence of wetlands, proximity to riparian areas was based on field observations and should be compared with detailed maps for verification. Five of the 24 sites (21 percent) are in proximity to riparian areas (see Table E5.1.3-1).

It is important to monitor use at sites that are in proximity to riparian vegetation. Where resources are particularly sensitive, or impacts are becoming significant, some areas could be closed to public use. All five sites in proximity to riparian vegetation are along Belden Reach. However, the relatively small size of these sites likely minimizes impacts from visitor use.

E5.1.3.4.1.10 Summary

Overall, there appear to be relatively few ecological impacts associated with recreation and public use of developed recreation sites in the study area. While some sites do have some ecological impacts (vegetation damage, bare ground), these impacts are not extensive or widespread.

Erosion resulting from user-defined trails to shoreline and river areas is a common issue at developed sites, but is not causing significant ecological damage at this time.

Few necessary management actions associated with ecological impacts are apparent from this analysis. The gathering of firewood in and around campgrounds and minor erosion (associated with pedestrian access to shoreline or streams) appear to be the most important concerns; however, even these issues are relatively minor. Potential management actions include continued provision of firewood at developed campgrounds, visitor education regarding the gathering of firewood and related erosion exacerbated by pedestrian use, and hardening or formalization of some trails or sites. In addition, future monitoring efforts, based on baseline data contained in this and other studies, could be initiated to evaluate changing conditions over time.

E5.1.3.4.2 Observed Impacts at Public Dispersed Recreation Sites

A total of 49 dispersed recreation sites were identified in the study area. These sites were identified through a systematic inventory of all publicly-accessible shoreline areas in the study area. Twenty-four sites were documented at Lake Almanor, three sites at Butt Valley Reservoir, 20 sites along Belden Reach, and two sites along Seneca Reach. A Recreation Site Ecological Capacity Indicators Form was filled out for each site (see Appendix E5-E). Each site was also photographed (see Appendix E5-C).

Tables E5.1.3-2 and E5.1.3-3 detail specific ecological conditions and other associated information documented at each of the 49 sites.

**Table E5.1.3-2
Ecological Impacts at Lake Almanor and Butt Valley Reservoir Dispersed Recreation Sites**

Site	Level of Use	Vehicle Access to Shoreline	Overnight Use	Erosion	Extent of Bare Ground	Vegetation Damage	Campfires	Area Cleared of Firewood	Dumping of Waste	Amount of Litter	Sanitation Problems	Vandalism	OHV Use	Proximity to Wetlands (feet)	Proximity to Riparian (feet)
Lake Almanor Sites															
LA-1	Moderate	No	Yes	No	Large	Yes	Yes	Yes	No	Low	No	No	Yes	100	NA
LA-2	Low	No	No	No	Small	No	No	No	No	Low	No	No	No	20	NA
LA-3	Low	No	Yes	No	Small	No	Yes	No	No	Low	No	No	No	10	10
LA-4	Low	No	No	No	None	No	No	No	No	Low	No	No	No	200	NA
LA-5	Low	No	No	No	None	Yes	No	No	No	Low	No	No	No	300	NA
LA-6	High	No	Yes	No	Small	No	Yes	Yes	No	High	No	No	Yes	NA	100
LA-7	Moderate	Yes	No	No	None	Yes	No	No	No	Moderate	No	No	Yes	100	NA
LA-8	Moderate	Yes	Yes	Yes	Large	No	Yes	No	No	Moderate	No	No	Yes	100	NA
LA-9	Moderate	Yes	Yes	Yes	Small	No	Yes	No	No	Low	No	No	Yes	50	NA
LA-10	Moderate	Yes	No	No	None	No	No	No	No	Low	No	No	Yes	50	NA
LA-11	High	Yes	No	No	None	No	No	No	No	High	No	No	Yes	50	NA
LA-12	High	Yes	Yes	No	Large	No	Yes	Yes	No	High	No	Yes	Yes	NA	NA
LA-13	Low	Yes	Yes	Yes	Small	No	Yes	No	No	Low	No	No	Yes	NA	NA
LA-14	Low	Yes	No	No	None	No	No	No	No	Low	No	No	Yes	NA	NA
LA-15	Moderate	Yes	Yes	No	Medium	Yes	Yes	No	Yes	Moderate	No	No	Yes	NA	NA
LA-16	Moderate	Yes	Yes	Yes	Medium	Yes	Yes	Yes	No	Low	No	No	Yes	NA	NA
LA-17	Moderate	Yes	Yes	No	Small	No	Yes	Yes	No	Low	No	No	Yes	NA	NA
LA-18	Moderate	Yes	Yes	No	Medium	No	Yes	Yes	No	Low	No	No	Yes	NA	NA
LA-19	High	Yes	No	No	None	No	No	No	No	Low	No	No	Yes	NA	NA
LA-20	High	Yes	Yes	No	Large	Yes	Yes	Yes	No	Low	No	No	Yes	NA	NA
LA-21	Moderate	No	No	No	None	No	No	Yes	No	Low	No	No	No	NA	NA
LA-22	Moderate	No	No	Yes	Medium	No	No	No	No	Moderate	No	No	No	NA	NA
LA-23	Moderate	Yes	No	Yes	Large	No	No	No	No	High	No	No	No	NA	NA
LA-24	Moderate	No	No	Yes	Large	Yes	No	No	No	High	No	No	No	NA	NA
Butt Valley Reservoir Sites															
BV-1	Low	No	No	No	None	No	No	No	No	Low	No	No	No	NA	10
BV-2	Low	No	No	No	None	No	No	No	No	Low	No	No	No	NA	10
BV-3	Low	No	No	No	None	No	No	No	No	Low	No	No	No	NA	10

Source: ED&W, Inc.

**Table E5.1.3-3
Ecological Impacts at Belden and Seneca Reach Dispersed Recreation Sites**

Site	Level of Use	Overnight Use	Erosion	Extent of Bare Ground	Vegetation Damage	Campfires	Areas Cleared of Firewood	Dumping of Waste	Amount of Litter	Sanitation Problems	Vandalism	OHV Use	Proximity to Wetlands (feet)	Proximity to Riparian (feet)
Belden Reach Sites														
B-1	Moderate	No	Yes	Large	No	No	No	No	Low	No	No	No	NA	100
B-2	Moderate	Yes	No	Large	Yes	Yes	No	No	Moderate	No	No	No	NA	80
B-3	High	Yes	Yes	Medium	Yes	Yes	Yes	No	Moderate	No	No	No	NA	5-30
B-4	Moderate	No	Yes	None	Yes	No	No	No	Low	No	No	No	NA	30
B-5	High	Yes	Yes	Large	No	Yes	Yes	No	High	No	No	No	NA	50
B-6	Moderate	Yes	No	Medium	No	Yes	Yes	No	Low	No	No	No	NA	20-150
B-7	Low	Yes	Yes	Large	No	Yes	No	No	Low	No	No	No	NA	30
B-8	Moderate	Yes	No	Medium	Yes	Yes	No	No	Low	No	No	No	NA	30-200
B-9	High	No	Yes	Large	Yes	Yes	Yes	No	High	No	Yes	No	NA	10-50
B-10	High	No	Yes	None	No	No	No	No	Low	No	No	No	NA	30
B-11	Low	Yes	Yes	None	No	Yes	No	No	Low	No	No	No	NA	50
B-12	Moderate	Yes	No	Medium	No	Yes	No	No	Low	No	No	No	NA	150
B-13	Moderate	Yes	Yes	Large	Yes	Yes	Yes	No	Low	No	No	No	NA	10
B-14	Moderate	Yes	No	None	No	Yes	No	No	Low	No	No	No	NA	50
B-15	Low	Yes	No	None	No	Yes	No	No	Low	No	No	No	NA	150
B-16	Moderate	Yes	No	Large	No	Yes	No	No	Low	No	No	No	NA	30
B-17	Moderate	Yes	No	None	Yes	Yes	No	No	Moderate	No	No	No	NA	100
B-18	Low	Yes	Yes	None	No	Yes	No	No	Low	No	No	No	NA	20
B-19	High	Yes	No	Medium	Yes	Yes	Yes	No	Moderate	Yes	No	No	NA	50
B-20	Moderate	No	Yes	None	No	No	No	No	Low	No	No	No	NA	50
Seneca Reach Sites														
S-1	Low	Yes	No	Large	No	Yes	No	Yes	Low	No	No	No	NA	15
S-2	Low	Yes	Yes	Small	No	Yes	No	No	Low	No	No	No	NA	20

Source: EDAW, Inc.

Table E5.1.3-2 details the sites located adjacent to Project reservoirs, and Table E5.1.3-3 details the sites along the two bypass reaches. This information is summarized below. The specific locations of these dispersed sites are shown in Figure E5.1-2—Dispersed Recreation Sites in the UNFFR Vicinity. During the evaluation of these sites, ecological impacts associated with site use were noted; types of impacts observed included erosion, extent of bare ground, damage to vegetation, areas cleared for firewood, litter, sanitation problems, vandalism, proximity to wetlands, and proximity to riparian areas, among others. These variables are discussed below, followed by a summary of observed impacts.

E5.1.3.4.2.1 Level of Use

An estimate of the overall level of use at each dispersed site was made based on observed conditions. Estimates are relative to other similar sites in the area. Factors that were considered in making estimates included the extent of bare ground, vegetation damage, erosion, and the amount of woody debris remaining nearby.

Based on this assessment, 10 of the 49 sites (20 percent) in this analysis have relatively high levels of use, 24 sites (49 percent) have moderate levels of use, and 15 sites (30 percent) have low levels of use (see Tables E5.1.3-2 and E5.1.3-3).

The levels of use at dispersed sites can be an indicator of overall demand for a specific type of experience, and can indicate areas where management actions may be beneficial.

Overall, dispersed sites in the study area have moderate levels of use, with the sites in Belden Reach having the highest overall use of the four geographic areas. In Belden Reach, many of the most highly-used sites are near developed campgrounds, perhaps indicating a capacity issue at nearby developed sites rather than high demand for dispersed camping experiences.

E5.1.3.4.2.2 Vehicle Access to the Shoreline

Each of the 27 dispersed sites on Lake Almanor and Butt Valley Reservoir were categorized according to whether or not vehicles could access the shoreline from the site. Many of the sites are located where spur roads end, at or near the reservoir shoreline. Some sites with road access are used during periods of low pool level to access the dry lakebed. Vehicle access below 4,494 feet is not permitted by the Licensee (Licensee 1992). Fourteen of the 28 lakeshore sites (57 percent) provide vehicle access to the shoreline (see Table E5.1.3-2).

Use of shoreline access sites is an indicator of overall demand for vehicle access, particularly to the reservoir during low pool levels. Identification of these sites also provides information relevant to current regulations which prohibit vehicle use in any areas of Lake Almanor below the 4,494-foot high pool level elevation contour (Licensee 2001b). Many of the dispersed sites on or near Lake Almanor function as vehicle access points. This seems to be a somewhat popular activity as evidenced by the significant number of access points, particularly in the Southwest Shoreline Access Zone (see Figure

E5.1-2). Enforcement of current regulations has been infrequent and problematic for the Licensee.

The significant number of dirt access sites which lack regulation signs may suggest the need to provide additional road access blockage, posting of regulation signs, rehabilitation and revegetation of some access roads, and development of good access roads at suitable locations. The Southwest Shoreline Access Zone is particularly in need of actions such as these.

E5.1.3.4.2.3 Overnight Use

While many of the dispersed sites are used for camping, some sites are day use only sites. This distinction was made by documenting the presence of campfire rings and assessing whether or not sufficient space for a medium-sized tent or RV was available. Based on these observations, 30 of the 49 sites (61 percent) were used for overnight camping, with the remainder used for day use (see Tables E5.1.3-2 and E5.1.3-3). It should be recognized that campsites may not be used every year, but only periodically.

Overnight use sites tend to have greater impacts, such as sanitation concerns, compared to DUAs. The results of this assessment indicate that there is demand for dispersed camping and that appropriate management actions to manage such use may be warranted to minimize site impacts. In Belden Reach, many of the most highly-used overnight dispersed sites are near developed campgrounds, perhaps indicating a capacity issue at developed sites rather than high demand for dispersed camping experiences. Hence,

management actions at developed campgrounds may potentially reduce overnight use at adjacent dispersed sites.

E5.1.3.4.2.4 Erosion

Erosion at dispersed sites is one indicator of public use impacts at a site. Most of the erosion observed at dispersed sites appears to have resulted from either vehicle use or user-defined trails leading to a body of water. A qualitative analysis of these areas was made based on whether erosion was present, resulting in “yes” or “no” conclusions. Eighteen of the 49 sites (37 percent) had some evidence of erosion, with most of these sites located along Belden Reach (see Tables E5.1.3-2 and E5.1.3-3).

Analysis of dispersed sites in the study area indicates that some of these sites may need hardening and/or that there is a need for public education regarding impacts of erosion and instructions to remain on defined trails. Other areas had beach erosion due to wave action, such as Stumpy Beach and Westwood Beach (LA-23 and LA-24).

E5.1.3.4.2.5 Extent of Bare Ground

Bare ground and compaction at dispersed sites is one indicator of public use impacts at a site. The extent of bare ground observed was noted as none, small, medium, or large. Fourteen of the 49 sites (29 percent) had a large extent of bare ground (see Tables E5.1.3-2 and E5.1.3-3). Sites with extensive areas of bare ground often have high-use levels. There are few management actions related to large areas of bare ground that are appropriate in this case, with the exception of potential closure and/or rehabilitation.

E5.1.3.4.2.6 Vegetation Damage

This category assesses damage to vegetation at each site, predominantly to live trees and bushes. Typical damage included bullet and hatchet damage to trees, and areas where vehicles had destroyed bushes and other riparian vegetation. “Yes” or “no” conclusions were used to document the presence, or lack thereof, of vegetation damage. Fifteen of the 49 sites (30 percent) had some type of vegetation damage (see Tables E5.1.3-2 and E5.1.3-3).

Continuous damage to live trees or shrubs can result in mortality. The loss of trees and shrubs, particularly in riparian areas, could have an impact on stream temperature and sedimentation. Although there is some vegetative damage at 30 percent of the sites, this damage is limited and does not appear to be threatening the health of trees and other vegetation.

E5.1.3.4.2.7 Campfire Rings

The presence, or lack thereof, of user-constructed fire rings, or fire scars from previous fire rings, was noted at each dispersed site. Thirty of the 49 sites (61 percent) had evidence of campfires (see Tables E5.1.3-2 and E5.1.3-3).

Documentation of fire rings helps identify overnight use areas and areas where dead and downed wood has been cleared for use as firewood. Many sites had campfire rings that were not in accordance with posted regulations. In areas where campfires are illegal, enforcement efforts could be increased.

E5.1.3.4.2.8 Area Cleared of Firewood

This category reflects the extent to which the downed, woody debris at or adjacent to a dispersed site has been cleared by visitors for use as firewood. This category is one indicator of the overall use at a site. A “yes” or “no” conclusion was made for each site based on the presence, or lack thereof, of downed, woody debris. Twelve of the 49 sites (24 percent) were in areas where most of the available firewood had been gathered and burned by visitors (see Tables E5.1.3-2 and E5.1.3-3). At the remaining sites at least some woody debris could be found in the surrounding area.

The clearing of downed, woody debris has an adverse impact on the ecological and biological functions which depend on decaying material. The lack of woody debris is also an indicator of high-use levels and the popularity of campfires. Although results do not suggest necessary management actions, high-use areas should be monitored to ensure that users do not turn to live trees as a source of firewood.

E5.1.3.4.2.9 Dumping of Waste and Debris

Dispersed use areas are occasionally used to dump household trash and debris. Evidence of prior or current dumping includes the presence of unwanted appliances, furniture, or other similar items. Only two of the 49 sites (4 percent) had such evidence, both of which were sites with only a small amount of waste and debris (see Tables E5.1.3-2 and E5.1.3-3).

Due to the potentially hazardous practice of illegally dumping waste, sites where this is a problem could pose potential health and safety concerns. However, this is not currently a problem at dispersed sites in the area.

E5.1.3.4.2.10 Amount of Litter

Some dispersed sites showed presence of user-related trash and litter. Common evidence of litter includes cans, bottles, cigarette butts, and fishing-related materials (fishing line, bobbers). The amount of litter was assessed according to low, moderate, or high designations. Seven of the 49 sites (14 percent) had amounts of litter that were considered high (see Tables E5.1.3-2 and E5.1.3-3).

The presence of litter at dispersed sites is one indicator of high-use and could potentially signal the need for management actions such as routine trash collection or the provision of trash receptacles. Since only 14 percent of the dispersed sites had a high amount of litter, there does not seem to be a need for an aggressive management response at this time.

E5.1.3.4.2.11 Sanitation Problems

Sanitation problems at dispersed sites are typically related to the improper disposal of human waste. Visitors often designate areas that then become informal toilets. “Yes” or “no” conclusions were made at each site based on the presence of waste such as toilet paper.

Very few sanitation problems were documented at dispersed sites. Only one of the 49 sites (2 percent) had any apparent signs of sanitation problems (see Tables E5.1.3-2 and E5.1.3-3).

Aside from signaling high levels of use at dispersed sites, sanitation problems can also become a health hazard to visitors. A common management action would be to close a site or to provide portable toilets. Since only one site had any sign of sanitation problems, there does not seem to be a need for an aggressive management response at this time.

E5.1.3.4.2.12 Vandalism

Vandalism can be a problem at dispersed, undeveloped recreation sites. Typical evidence includes damaged structures, fences, and gates. Relatively few instances of vandalism were observed at dispersed study area sites. Acts of vandalism were documented at only two of the 49 sites (4 percent), and represented minor acts (graffiti and damaged signs) (see Tables E5.1.3-2 and E5.1.3-3).

Vandalism at or near dispersed sites can potentially indicate visitor safety issues. In some cases, dispersed sites near frequently vandalized areas need to be closed to curb this behavior. Vandalism at the dispersed sites in the study area does not seem to be a problem, as the instances cited above are considered minor.

E5.1.3.4.2.13 OHV Use

Evidence of OHV use was noted for each of the dispersed sites and a zone of shoreline vehicular use in the southwestern portion of Lake Almanor. Only one individual DUA appeared to be adjacent to a popular OHV area (LA-12), while most of the remaining sites (all on Lake Almanor) appeared to be staging areas for vehicles which access the lakebed during lower pool level. Sixteen of the 49 sites (33 percent) had evidence of OHV use (see Tables E5.1.3-2 and E5.1.3-3).

The Southwest Shoreline Access Zone on Lake Almanor (see Figure E5.1-2) contains a nearly continuous zone where visitors, primarily in 4-wheel drive vehicles, access the shoreline at several points, and drive along the shoreline at lower pool levels. Extensive OHV use near dispersed sites and along the shoreline can cause ecological impacts such as erosion runoff and damage to vegetation. Where shoreline impacts are extensive, vehicle access could be limited through the placement of ditches, mounds, rocks, gates, or pits. A third (33 percent) of the shoreline dispersed sites have evidence of OHV use. Most of the OHV use was focused on dry lakebed portions of Lake Almanor in the southwest zone. OHV use is not considered a significant threat to sensitive areas along most of the Lake Almanor shoreline, above the 4,494-foot high pool elevations. However, continued OHV use below this elevation is not permitted by the Licensee because it may cause long-term ecological impacts. This problem is particularly evident in the Southwest Shoreline Access Zone. The Licensee and the Forest Service should work together to develop a few designated access points to discourage OHV use below the 4,494-foot elevation.

E5.1.3.4.2.14 Proximity to Potential Wetlands

Most of the dispersed sites in the study area were not in proximity to wetland areas. Several sites on Lake Almanor, however, are adjacent to areas that were previously inundated when the pool level fluctuated. An extensive area north of the SR 36 Bridge was the most notable of these areas and is located adjacent to several dispersed recreation sites. Assessment of the proximity of sites to regularly inundated or wetland areas was made by estimating the distance from the site to the wetland area (if the distance was less than 500 feet). Determining the presence of a wetland was based on field observations of wetland indicator vegetation. All field-based judgements should be compared with detailed maps for verification. None of the sites along Belden or Seneca Reaches, and only 10 of the 49 sites (20 percent) elsewhere, are in proximity to wetland areas observed or mapped in 2002 (see Tables E5.1.3-2 and E5.1.3-3).

Due to the sensitive ecological components of wetlands, it is important to monitor use at sites in their proximity. Where resources are particularly sensitive, or impacts are becoming significant, sites could be closed. Although 20 percent of the sites are in proximity to wetlands, these areas are mostly seasonal and are formed by fluctuating reservoir pool levels. Currently, new aggressive management actions related to dispersed sites in proximity to wetlands are warranted.

E5.1.3.4.2.15 Proximity to Riparian Areas

Assessment of the proximity of a site to a riparian area was made by estimating the distance from the site to any river, stream, or creek (if the distance was less than 500 feet).

Similar to the presence of wetlands, proximity to riparian areas was based on field observations and should be compared with detailed maps for verification (which were unavailable at the time this field work was conducted). Only one of the Lake Almanor sites was in proximity to a riparian area; however, most of the remaining non-Lake Almanor sites were situated adjacent to or within riparian zones. Twenty-seven of the 49 sites (55 percent) are in proximity to riparian areas (Tables E5.1.3-2 and E5.1.3-3).

Due to the sensitive ecological components of riparian areas, it is important to monitor dispersed use at sites in proximity to riparian areas. Where resources are particularly sensitive, or impacts appear to become significant, sites could be closed. Most of the sites along Belden Reach are located in riparian zones, but do not appear to be causing significant adverse impacts at this time. Further consultation with the Forest Service is needed to identify problem sites and potential actions needed at these locations since many sites also serve as overflow sites for surrounding campgrounds.

E5.1.3.4.2.16 Summary

Overall, use levels at the dispersed recreation sites in the Project area appear to be low to moderate. Belden Reach sites receive more use than the other sites assessed. While some sites do have ecological impacts (vegetation damage, bare ground), these impacts are not widespread. Litter, sanitation, and the dumping of household waste or debris represented minor ecological impacts. Erosion, as it relates to public use of dispersed recreation sites, was also not considered a significant impact at most sites.

Highly-utilized sites on Lake Almanor include DUAs with good vehicle access to the shoreline (LA-11, LA-12, and LA-19); one area with several secluded shoreline campsites (LA-20); and one site with a unique meadow setting (LA-6). Sites with high levels of use along Belden Reach are close to developed campgrounds and likely function as informal overflow areas (B-3, B-5, B-9, and B-10). Additionally, a somewhat secluded but large, scenic site (B-19) along Belden Reach also exhibits a high level of use. All of the sites along Seneca Reach and at Butt Valley Reservoir appear to have low levels of use.

Few aggressive new management actions at existing dispersed sites are readily apparent from this analysis. Vehicle access to shorelines (principally at the Southwest Shoreline Access Zone of Lake Almanor) and minor erosion associated with pedestrian access to shorelines or streams appear to be the most important concerns.

E5.1.3.4.2.17 Summary of Observed Impacts at Public Developed and Dispersed Sites

Visitor use of public developed and dispersed sites in the study area does not seem to be having a significant adverse impact on ecological conditions at the recreation sites. Developed sites appear to be well-managed and have use levels that are not causing widespread ecological impacts. Similarly, dispersed sites seem to be receiving only low to moderate levels of use, with impacts resulting from this use confined primarily to the Southwest Shoreline Access Zone of Lake Almanor and dispersed sites in the lower Belden Reach that serve as overflow sites for the three developed campgrounds in this area.

The most common impacts resulting from public use include:

- Clearing of downed, woody debris around sites for use as firewood;
- Minor erosion associated with pedestrian access to bodies of water; and
- Vehicle access to the shoreline and associated illegal vehicle use of the dry lakebed below the 4,494-foot elevation at Lake Almanor.

Potential management actions to consider associated with these impacts are relatively few, but include:

- Visitor education regarding the impacts of use near water bodies (erosion and water quality);
- Visitor education regarding the impacts of gathering firewood near recreation sites;
- Visitor education regarding regulations prohibiting campfires in some areas;
- Visitor education regarding, and enforcement of, OHV regulations;
- Continued provision of firewood in developed campgrounds;
- Hardening of heavily-used areas to reduce erosion and vegetation damage;
- Monitoring of conditions using current data as a baseline;
- Control of vehicle use below the 4,494-foot high pool elevation at Lake Almanor;

- Consultation with the Forest Service to limit and control vehicle access points to the shoreline at the Southwest Shoreline Access Zone of Lake Almanor, to provide public access but limit the impact area to a manageable zone; and
- Consultation with the Forest Service on dispersed sites of concern in Belden Reach that serve as overflow for nearby developed campgrounds.

E5.1.4 ADA Accessibility Study

E5.1.4.1 Introduction

This section presents the results of the ADA Accessibility Study, one of several recreation studies that were conducted by the Licensee for relicensing. This section presents the results of one of those studies: an analysis of the accessibility of public recreation sites in the Project area for persons with disabilities, prepared in compliance with the Americans with Disabilities Act (ADA).

E5.1.4.1.1 Objectives of the Study

The objectives of this study are to assess the present adequacies and future accessibility needs for persons with disabilities who may use public recreation facilities and use areas associated with the Project, and who may participate in the primary recreation activities (i.e., camping, fishing, picnicking, swimming, shoreline access, and boating) occurring in the Project area. The Americans with Disabilities Act Guidelines for Buildings and Facilities (ADAAG) represents the current guidance for accessibility. These guidelines are in the process of being expanded to address a range of recreation facilities and activities, referred to as the Draft Proposed ADAAG Guidelines (see Appendix E5-F) (US Architectural and Transportation Barriers Compliance Board (Access Board) 1991 and 1999).

Compliance with ADA and its associated accessibility guidelines is an important element related to potential facility upgrades that may be considered for proposed protection, mitigation, and enhancement measures (PMEs) during relicensing.

This ADA-related assessment is not intended to provide the Licensee or others with a comprehensive set of measurements and design recommendations for every structure. That level of detail goes beyond the scope of this study. Rather, the level of analysis provided in this study is programmatic and is appropriate for identifying overall program improvements, options, and needs related to compliance with the ADA, as required by FERC. Follow-up detailed design studies will be necessary in the future to implement any improvements identified as a result of relicensing.

A Facility and Access Accessibility Survey Form was developed and used when conducting field assessments, which were conducted at Licensee and United States Forest Service (Forest Service) recreation facilities in the study area. Following the field visit, this summary report was prepared. It assesses accessibility needs and options at Licensee- and Forest Service-developed recreation sites in the study area. Accessibility, for the purposes of this report, is defined by the design standards and technical criteria set forth in the draft proposed ADAAG guidelines discussed in Section E5.1.4.3.1—Review of Existing Literature and Background Considerations.

This study includes a table that summarizes the accessibility of existing Licensee and Forest Service facilities. Recommendations and options are provided regarding how to make these facilities more accessible in the future in accordance with the draft proposed ADAAG guidelines. It should be noted that the proposed ADAAG guidelines apply only to new facilities or altered portions of facilities. The proposed ADAAG guidelines do not apply to existing facilities until they are modified or require major maintenance.

In addition, this study provides summary information for surrounding recreation facilities operated by private entities and at Chester Park. This information is provided to place Forest Service- and Licensee-operated public recreation facilities in context.

E5.1.4.2 Study Area

The study area includes all Licensee- and Forest Service-developed recreation facilities at Lake Almanor, Butt Valley Reservoir, and Belden Reach. These facilities include all developed recreational sites that are open for public use located within and adjacent to (0.25 mile) the FERC Project boundary. Minor recreation use areas at the Caribou Powerhouses 1 and 2 and at Belden Forebay, located approximately 3 miles south of Butt Valley Reservoir, are not included in the study area. Figure E5.1-1—Licensee and Forest Service Public Recreation Sites in the UNFFR Project Vicinity, shows the location of each of the recreation facilities in the study area. Facilities are listed below.

Forest Service Public Recreation Sites

- Almanor Campground North
- Almanor Campground South
- Almanor Campground Boat Launch
- Almanor Campground Day Use Picnic Beach
- Canyon Dam Boat Launch/DUA
- Almanor Rest Area (state route (SR) 89)
- Almanor Overflow Camping Area (SR 89)
- Almanor Group Reservation Camp (SR 89)

- Dyer View DUA
- Lake Almanor Recreation Trail (LART)
- Gansner Bar Campground
- North Fork Campground
- Queen Lily Campground

Licensee Public Recreation Sites

- Lake Almanor Campground (Loops 1, 2, and 3)
- Camp Conery Group Camp
- Canyon Dam DUA
- Almanor Scenic Overlook
- Eastshore DUA
- Last Chance Campground/Group Camp
- Ponderosa Flat Campground
- Alder Creek DUA/Boat Launch
- Cool Springs Campground
- Belden Rest Stop (SR 70)

This study also includes a brief assessment of the general extent of accessibility at Chester Park. This public facility is not within the study area but is located in the town of Chester along the UNFFR. It is operated and maintained by a local veterans' group and services the local community.

Also included in this report is an assessment characterizing the general extent of accessibility for people with disabilities at privately-owned and -operated recreation facilities at Lake Almanor. A detailed assessment of private resorts was not conducted as part of this study; however, resort owners were asked to complete a survey. Private recreation facilities are listed below (see Figure E5.1-3).

Private Study Area Recreation Sites

- Almanor Lakefront Village
- Almanor Lakeside Resort
- Almanor Lakeside Villas
- Big Cove Resort
- Country Club Resorts
- Dorado Inn
- High Sierra Resort
- Knotty Pine Resort
- Lake Almanor Lakeside Lodge
- Lake Almanor Resort
- Lake Cove Resort
- Lake Haven Resort
- Lassen View Resort
- Little Norway Resort
- Miller's Resort
- Moonspinners Resort
- North Shore Campground
- Novotny's
- Plumas Pines Resort
- Vagabond Resort
- Villager Resort
- Wilson's Camp Prattville

An analysis of accessibility at minor recreational use areas at Belden and Seneca Reaches was not conducted. There are no developed public recreation facilities except for an angler access trail at Caribou Powerhouses 1 and 2 and at Belden Forebay.

The trail at Caribou Powerhouses 1 and 2 is not accessible and likely could not be made accessible due to topography. There is a parking area for fishing access at Belden Forebay; however, the shoreline is too steep to provide accessible access here. Several other dispersed recreation use areas exist along the two bypass reaches. None of these areas are accessible for persons with disabilities.

E5.1.4.3 Methods

Methods for this study involved review of published information and guidelines, consultation with agencies and facility operators, and site-specific field investigations. Existing conditions were systematically identified and documented through field notes (see Appendix E5-G). The methodology involved two primary components: review of existing literature and background considerations, and field assessment of recreation facility accessibility. Each of these components is described in detail below.

E5.1.4.3.1 Review of Existing Literature and Background Considerations

Primary sources of information reviewed for this study included:

- ADAAG (Access Board 1991 and 1999);
- ADA (as discussed below);
- Access Board proposed rules and ongoing recreation committee actions (see Appendix E5-F);
- States Organization for Boating Access (SOBA) guidelines;
- Recent renovation assessments and plans by the Licensee and Forest Service;
- and
- Recent Forest Service accessibility direction (see Appendix E5-H).

In addition, site action plans, as available, for sites in the Plumas and Lassen National Forests were reviewed. These plans provide similar accessibility information as that found in Accessibility Transition Plans prepared by Forest Service for other regions.

The ADA, signed into law in 1990, protects individuals with disabilities by specifying that adequate access to facilities be provided to the physically disabled, including recreation facilities. In 1991, ADAAG was published. ADAAG specified guidelines, not standards, to consider when designing facilities, including recreation facilities. Since then, recreation facilities design guidelines have been documented in *Universal Access to Outdoor Recreation—A Design Guide* (PLAE, Inc. 1993). These guidelines were developed in cooperation with Forest Service, the agency that has taken the lead in addressing access needs in recreational settings. The Forest Service cites the guidelines outlined in PLAE, Inc. as standards for accessibility in its recreation management program system, Meaningful Measures. Most recently, however, Forest Service is using the draft proposed ADAAG guidelines, discussed below, as its interim policy for new facility construction and alterations to existing facilities in outdoor recreation areas (see Appendix E5-H).

In 1997, the federal Outdoor Developed Areas Regulatory Negotiating Committee (Committee) was established and charged with developing proposed accessibility guidelines for trails, picnic and camping areas, and beaches.

The Committee has been working on new guidelines and presenting its report in phases to the Access Board 1999. This phased report is the basis for proposed rules that are being published for public comment between 1998 and 2002. Final guidelines for accessible playgrounds were published in October 2000.

The Access Board has completed work on proposed guidelines for certain other recreation facilities, such as sports facilities, places of amusement, golf areas, and boating and fishing facilities. The Access Board has published guidelines for the latter for public comment.

The Access Board is now preparing a proposed rule based on this report. The proposed rule, once published, will be available for public comment. These guidelines will supplement the existing ADAAG by adding a new chapter on outdoor developed areas.

When adopted in 2001 or 2002, all of these new guidelines will provide design standards and technical criteria regarding the mandate to provide ADA-accessible recreation facilities in the US ADAAG have not been adopted as regulations by law, but are used as the "best available guidance" for outdoor facility compliance with the ADA (Access Board 2000). Building facilities, such as restrooms and parking, however, are specifically identified under the existing ADAAG and must be in compliance if altered or modified. New facilities must also be in compliance with the existing ADAAG. Under the draft proposed guidelines, existing facilities are not affected until they are modified.

In past years, the Licensee has reviewed all of its recreation facilities in the Project area for ADA compliance. This review focused on developed facilities addressed in ADAAG or PLAE, Inc. As a result of this review, some developed facilities have been upgraded in the past few years. The Licensee has renovated restrooms at each of its recreation facilities and has made at least 5 percent of its campsites accessible for persons with disabilities.

The Forest Service has also been doing some accessibility renovations of its recreation facilities and is focusing on providing new accessible angler access sites. However, it has not upgraded its campsites or picnic sites.

E5.1.4.3.2 Assessing Recreational Facility Accessibility

ADA-related elements assessed at each site included: restrooms; toilets; outdoor recreation access routes to primary elements; recreation trails to non-primary elements; parking; picnic areas; campsites; group sites; water sources; trash receptacles; fishing areas; and boating and swimming areas/shoreline access. While all of these recreational elements were assessed if present at each site, three unique areas within the Project area were noted: Lake Almanor, Butt Valley Reservoir, and Seneca Reach. Each of these areas, because of varying natural features, levels of urban characteristics, and developed recreation facilities, provides a unique recreational experience and attracts different types of users. Therefore, guidelines for recreational programs and resources within these areas such as boat launches, swimming areas, and fishing sites, were recommended at an area-wide level, rather than for each individual facility in these three geographic areas.

Recreational facility accessibility, facility and access needs for the Project's primary recreational programs and activities were reviewed. Chuck Frayer, an ADA specialist, worked with EDAW to conduct fieldwork, make assessments of potential facility improvements and options, and recommend priority improvements, if needed. These recommendations consider the draft proposed and current ADAAG guidelines, site action plans, and Meaningful Measures reports. The draft proposed ADAAG guidelines were used as the primary guidance for design standards and technical criteria for trails, beaches, and camping and picnic areas. It is expected that these recommendations will be implemented after they are adopted and during the course of the new license. However, these proposed recommendations will need to be reassessed once the guidelines for outdoor developed areas are formally adopted by the Access Board in 2002 or 2003.

A field assessment of Licensee and Forest Service public recreation facilities in the study area was conducted. The completed field survey forms used for Licensee and Forest Service public recreation facilities are included as Appendix E5-G to this report. The field assessment conducted in September/October 2000 reviewed accessibility in several key areas, including: access to primary elements; elements in space and the recreation environment; parking areas; boat launches and boarding docks; and access to recreation trails, campsites, and group sites. Assessment guidelines relevant to developed recreation facilities in the following section.

Private facilities were not specifically surveyed in the field. However, a survey form was sent to private recreation providers to gather recreation-related information.

The survey form was used to both develop an inventory of recreation facilities and use areas (see Section E5.1.2—Recreation Facility and Condition Inventory) and to characterize the general extent of accessibility at private facilities in the Project area.

E5.1.4.3.2.1 Existing ADAAG Guidelines

Primary design elements considered in this assessment of recreation sites with regard to existing ADAAG guidelines include toilets, restrooms, telephones, trash receptacles, water faucets, and parking areas. Each of these elements is described below.

Toilets/Restrooms

To the extent feasible, toilets and restrooms at developed sites must be accessible and located on an accessible route, if provided (Access Board 1991). This assessment looked at the extent to which current toilets and restrooms at recreation facilities in the Project area accommodate the physically disabled. Elements assessed included accessible and maneuverable interior designs, and firm and stable surfaces which can be easily used by a person in a wheelchair.

Telephones

If provided, telephones should be able to be easily reached by a person in a wheelchair, and should include a volume control for people with hearing difficulties. Telephone service in the study area is provided by Communix, which is responsible for installation and repair of phone systems at the campgrounds and day use facilities.

Trash Receptacles

Each trash receptacle provided must be accessible and connected to other accessible recreational elements by an accessible access route (Access Board 1999). Elements such as location, height, and operating mechanisms are important to consider when providing and locating trash receptacles. For example, higher dumpsters are generally difficult for the physically disabled to use.

Water Faucets

Water faucets serving accessible elements must be accessible and connected to other accessible recreation elements by an accessible access route. If provided, important accessibility elements to consider for water faucets include spout height and location, control and operating mechanisms, and ground clearance.

Access to Parking Areas

Most people travel to recreation sites in vehicles. Therefore, it is important that parking areas and loading zones be designed and constructed in accordance with the appropriate accessibility design guidelines. Accessible parking spaces should be located on or near the shortest accessible route to restrooms and to the recreational site. Appropriate signs designating spaces as reserved for the physically disabled must be installed.

E5.1.4.3.2.2 Draft Proposed ADAAG Guidelines

Primary design elements considered in this assessment of recreational sites included access to: primary elements; picnic tables; swimming areas/beach access routes; fishing

areas; boat launches and boarding docks; campsites; and recreational trails. Each of these elements is described below.

Primary Elements

Outdoor recreation access routes are required to connect elements in order to be considered accessible. An outdoor recreation access route is defined as “a continuous unobstructed path designated for pedestrian use that connects accessible elements within a picnic area, camping area, or designated trailhead” (Access Board 1999). The route should be at least 36 inches wide, with a slope no greater than 3 percent, and have a stable and firm surface. For the purposes of this report, an outdoor recreation access route is referred to as an accessible access route. When practicable, such a route should coincide with the route used by the general public. It is unclear, however, if a road may be used as an accessible access route, or if a separate route must be designated. This issue will likely be clarified in the final ADAAG expected in 2002 or 2003.

Picnic Tables

To the extent possible, picnic table designs should allow people of all ages and abilities to sit together at the same table. Important elements to consider include number of tables, location, seating for people using wheelchairs, and table height.

Picnic tables are typically provided at developed recreation facilities, both at individual campsites and in common spaces at DUAs and group campsites.

The draft proposed ADAAG guidelines state that: where one picnic table is provided in a picnic area, the picnic table shall be accessible; where two or more picnic tables are provided in a picnic area, at least 50 percent, but never less than two tables, shall be accessible; and at least 40 percent, but never less than two tables, shall be connected to an accessible access route.

Swimming Areas/Beach Access Routes

Elements to consider for accessible swimming areas include ramps into the water, gentle slope, clear width, landings, handrails, and/or stairs into the water. The draft proposed ADAAG guidelines also include specifications for beach access routes. These guidelines include technical provisions for proximity to the shoreline, width, surface material, slope, and other design considerations. The intent is to provide access to get people to the edge of the water, but not to below the water's surface.

Fishing Areas

Elements to consider for fishing areas and facilities include designated fishing stations, location, safety rails, curbs, seating, shade, and fishing rod holders. Most of the fishing in the study area, however, occurs on boats or banks at unimproved beaches or impromptu shoreline access points.

Access to Boat Launches and Boarding Docks

Boat launches serve two purposes—the primary purpose is to facilitate the launch and retrieval of boats. The second purpose is to serve as an accessible access route to the

boarding dock. Elements to consider include boarding docks and gangways, and skid piers.

Access to Campsites

Under the draft proposed ADAAG guidelines, where campsites are provided, a minimum number of accessible campsites shall be provided in accordance with Table E5.1.4-1, below (Access Board 1999).

**Table E5.1.4-1
Required Minimum Number of Accessible Campsites**

Number of Total Campsites	Minimum Number of Accessible Campsites
1	1
2 to 25	2
26 to 50	3
51 to 75	4
76 to 100	5
101 to 150	7
151 to 200	8

Source: Access Board 1999

Furthermore, when other camping elements, such as parking areas, tent pads, picnic tables, fire rings and grills, water faucets, and trash receptacles, are provided within accessible campsites, they must be accessible as well.

Access to Recreation Trails

All areas of newly designed or constructed trails and altered portions of existing trails which connect to designated trailheads or accessible trails must be accessible (Access Board 1999). Draft proposed ADAAG guidelines include technical provisions for trail width, surface material, slope, and other design considerations. In the study area, this

applies to the paved portion of the LART and its trailheads. It is expected that guidelines for trails will be the last to be adopted because of continuing debate regarding these specific guidelines.

E5.1.4.4 Results and Discussion

This section summarizes the accessibility of public, developed recreation facilities and use areas in the Project area for persons with disabilities. It also provides a brief summary of other private recreation facilities near Lake Almanor for contextual purposes. Recreation resources are presented according to provider: the Forest Service, Licensee, and others. For each Forest Service and Licensee facility, a review of existing accessibility and recommendations for future improvements is presented, both in table format (Table E5.1.4-2) and narrative format.

E5.1.4.4.1 Accessibility at Forest Service Public Recreation Facilities

This section assesses the Forest Service public recreation facilities listed below.

- Almanor Campground North
- Almanor Campground South
- Almanor Campground Boat Launch
- Almanor Campground Day Use Picnic Beach
- Canyon Dam Boat Launch/DUA
- Almanor Rest Area (SR 89)
- Almanor Overflow Camping Area (SR 89)
- Almanor Group Reservation Camp (SR 89)

**Table E5.1.4-2
Summary of the Accessibility of Existing Public, Forest Service,
and Licensee Recreation Facilities**

	Toilets/Restrooms	Telephones	Trash Receptacles	Water Faucets	Picnic Tables	Swimming Areas/ Shoreline Access	Fishing Sites	Parking Areas	Boat Launches	Campsites	Recreation Trails
Forest Service Facilities											
Almanor Campground North	X		X								X
Almanor Campground South	X		X								X
Almanor Campground Boat Launch	X		X								
Almanor Campground Day Use Picnic Beach	X		X		X						
Canyon Dam Boat Launch/DUA	X		X				X	X			
Almanor Rest Area (SR 89)	X										
Almanor Overflow Camping Area (SR 89)											
Almanor Group Reservation Camp (SR 89)											
Dyer View DUA	X		X					X			
Lake Almanor Recreation Trail											X
Gansner Bar Campground	X		X							X	
North Fork Campground	X		X							X	
Queen Lily Campground			X								
Licensee Facilities											
Lake Almanor Campground Loop 1	X		X							X	
Lake Almanor Campground Loop 2	X		X	X						X	
Lake Almanor Campground Loop 3	X	X	X	X						X	
Camp Conery Group Camp											
Canyon Dam DUA	X		X		X						
Almanor Scenic Overlook	X							X			
Eastshore DUA	X		X					X			
Last Chance Campground/ Group Camp											
Ponderosa Flat Campground	X		X	X						X	
Alder Creek DUA/Boat Launch	X		X								
Cool Springs Campground	X		X							X	
Belden Rest Stop (SR 70)	X		X	X				X			

Note: X indicates that the existing recreational element in the corresponding column is fully or partially accessible at that recreation facility. However, the number of accessible facilities may not be fully adequate.

Source: EDAW, Inc.

- Dyer View DUA
- Lake Almanor Recreation Trail (LART)
- Gansner Bar Campground
- North Fork Campground
- Queen Lily Campground

E5.1.4.4.1.1 Almanor Campground North

Almanor Campground North is located off SR 89 on the west shore of Lake Almanor. Activities include tent and recreational vehicle (RV) camping, resting and relaxation, bank fishing, bicycling, walking, and hiking. The LART runs through the campground, providing additional opportunities for walking, hiking and bicycling.

Existing Accessibility

Access to Primary Elements. There are no accessible routes to the primary features at this site. There is also no accessible access route to the entry sign and pay station. It is unclear if the interior campground road may be used for an accessible access route, or if a separate route must be designated. This issue will likely be clarified in the final ADAAG guidelines once adopted.

Elements and Space in the Recreation Environment. Primary design elements considered in this assessment included toilets/restrooms, trash receptacles, water faucets, parking areas, campsites, and recreational trails. Forty-nine campsites are available on a first come-first served basis at Almanor Campground North. Campsites include tables and

fire ring/cooking grills. Ten toilets are provided in four separate buildings. There are 15 water faucets and 14 trash receptacles in the campground. Each of these elements is discussed below.

- **Toilets/Restrooms:** Each of the four toilet buildings has one accessible toilet; however, none of them have accessible access routes.
- **Trash Receptacles:** The trash receptacles provided are an accessible type, but many do not have accessible access routes.
- **Water Faucets:** None of the 15 water faucets at this site are accessible.

Access to Parking Areas. Small extra vehicle parking areas are provided; however, no designated accessible parking spaces are provided.

Access to Campsites. None of the 49 campsites are currently accessible. Several of the campsites could be easily modified to meet the draft proposed ADAAG guidelines.

Access to Recreational Trails. The paved portion of LART is accessible from the campground. It was noted during fieldwork that the slope of the trail exceeds current ADAAG guidelines in some segments. A more detailed discussion regarding LART is provided in Section E5.1.4.4.1.10. There are no painted crosswalks at roadway crossings.

Recommended Future Improvements

The list below represents recommendations for future improvements to Almanor Campground North to provide accessible facilities for persons with disabilities.

- An accessible access route that meets draft proposed ADAAG guidelines should be installed between the entrance road and the pay station and entry sign.
- Accessible access routes that meet draft proposed ADAAG guidelines should be installed leading from roadways and/or walkways to trash receptacles.
- Removal of all older toilets should be considered. Old toilets could be replaced with newer Romtec- or CXT-type (or equivalent) toilets. Additional toilets should be added and dispersed throughout the site so that there is at least one toilet for each of the loops within the campground. If these toilets are not replaced, then the existing toilets will need to be modified to meet current ADAAG guidelines, including the installation of an accessible access route.
- Existing ADA signage should be removed until it is modified or replaced.
- Water faucets near accessible elements, such as toilets and campsites, should be retrofitted to meet the draft proposed ADAAG guidelines.
- Three of the campsites should be made accessible. All of the elements provided in the upgraded campsites, such as picnic tables, fire rings, cooking grills, tent or RV areas, and water faucets, must be made accessible. During the field assessment, the following sites were identified as easily retrofitable: Sites 1, 2, 5, 10, 22, 30, 36, 45, 46, and 48.
- A crosswalk that meets current California Department of Transportation (Caltrans) requirements should be installed in areas where the LART crosses roads within the campground.

E5.1.4.4.1.2 Almanor Campground South

Almanor Campground South is located off SR 89 on the west shore of Lake Almanor. Activities include tent and RV camping, resting and relaxation, bank fishing, bicycling, walking, and hiking. There is access to the LART, providing additional opportunities for walking, hiking, and bicycling.

Existing Accessibility

Access to Primary Elements. There are no accessible access routes to any of the primary recreational features at this site. The toilet at the entrance, however, has an accessible access route from the main access road.

Elements and Space in the Recreation Environment. Primary design elements considered in this assessment included toilets/restrooms, trash receptacles, water faucets, parking areas, campsites, and recreational trails. Fifty-three campsites are available (campsite 53 is a multiple unit site). Campsites include picnic tables and fire ring/cooking grills. Thirteen toilets are provided in six separate buildings. There are 11 water faucets and 23 trash receptacles in the campground. The LART runs adjacent to the campground on the west side.

- **Toilets/Restrooms:** The vault toilet at the entrance is accessible. The width of the accessible access route is just over the minimum dimension specified in ADAAG guidelines. None of the remaining 12 toilets throughout the campground are fully accessible; they do not have accessible access routes, and the interior design does not comply with current ADAAG guidelines.

- **Trash Receptacles:** The trash receptacles provided are an accessible type, but many do not have accessible access routes.
- **Water Faucets:** None of the 11 water faucets at this site are accessible due to their height and handle design.

Access to Parking Areas. Small extra vehicle parking areas are provided; however, no designated accessible parking spaces are provided.

Access to Campsites. None of the 53 campsites are currently accessible. Several of the campsites could be easily modified to meet the draft proposed ADAAG guidelines.

Access to Recreational Trails. The LART is not accessible from Almanor Campground South because there is no accessible access route leading to the trail (see Section E5.1.4.4.1.10).

Recommended Future Improvements

The list below represents recommendations for future improvements to Almanor Campground South to provide accessible facilities for persons with disabilities.

- Accessible access routes that meet draft proposed ADAAG guidelines should be installed leading from roadways and/or walkways to the trash receptacles.
- Removal of all toilets (except for the newer one at the entrance) should be considered. Old toilets could be replaced with newer Romtec- or CXT-type (or equivalent) toilets. Additional toilets should be added and dispersed

throughout the site so that there is at least one toilet for each of the loops within the campground. If these toilets are not replaced, then the existing toilets should be modified to meet current ADAAG guidelines, including the installation of accessible access routes. Existing ADA signage should be removed until it is modified or replaced.

- Water faucets near accessible elements, such as toilets and accessible campsites, should be retrofitted to meet ADAAG guidelines.
- Four of the campsites should be made accessible. All of the elements provided in a campsite, such as picnic tables, fire rings, cooking grills, tent or RV areas, and water faucets, must be made accessible.

During the field assessment, the following sites were identified as retrofittable to meet the draft proposed ADAAG guidelines: Sites 2, 3, 5, 9, 13, 15, 24, 26, 34, 42, and 50.

- The LART should be modified to meet the draft proposed ADAAG guidelines for trails. A more detailed discussion of the trail is provided in Section E5.1.4.4.1.10.

E5.1.4.4.1.3 Almanor Campground Boat Launch

The Almanor Campground Boat Launch is located on the west shore of Lake Almanor adjacent to Almanor Campground North. This facility is one of two public, no fee, developed boat launches at the lake. Activities include boating, swimming, and fishing.

Existing Accessibility

Access to Primary Elements. There are no accessible access routes from the parking lot to the primary activity areas at this site. The grade of the boat ramp is very steep and the width of the gangway and dock do not meet the draft proposed ADAAG guidelines.

Elements and Space in the Recreation Environment. Primary design elements considered in this assessment included toilets/restrooms, trash receptacles, water faucets, fishing areas, parking areas, and boat launches and boarding docks. This site provides a restroom near the boat launch and a vault toilet on its access road. There are two trash receptacles and one water faucet at this site. Each of these elements is discussed below.

- **Toilets/Restrooms:** There is an accessible restroom (with four flush toilets). However, the width of the accessible access route is slightly too narrow and does not meet existing ADAAG guidelines. There is also a new accessible vault toilet on the access road leading to the boat launch.
- **Trash Receptacles:** The trash receptacles are of an accessible type but do not have accessible access routes.
- **Water Faucets:** The water faucet at this site is not accessible due to its height and handle design.
- **Shoreline Fishing Access:** The shoreline area is not currently accessible due to its sandy surface.

Access to Parking Areas. There is no designated accessible access route to the parking area.

Access to Boat Launches and Boarding Docks. The boat launch is not accessible due to the slope and width of the gangway, and the lack of other accessible features such as railings and tie-downs.

Recommended Future Improvements

The list below represents recommendations for future improvements to Almanor Campground Boat Launch to provide accessible facilities for persons with disabilities.

- The accessible access route to the restroom should be widened slightly to meet ADAAG guidelines.
- The current gangway is too steep and its replacement should be considered. Both the dock and the gangway are outdated and in disrepair and would need to be retrofitted or replaced to meet draft proposed ADAAG guidelines for boating facilities. The boat ramp and associated dock could be redesigned to facilitate easier access. The dock would need to be widened and other features, such as railings and tie-downs, would need to be installed. Also, to be accessible there would need to be a gangway or other ramp from the parking lot to the dock. Alternatively, a loading platform in the flatter parking area could provide direct access from vehicles to boats.
- Parking stalls at the boat launch are unmarked. If improvements to the parking area are made, at least two accessible parking spaces should be designated to meet existing ADAAG guidelines, with one located at the top of the parking area near the restroom.

- Signage is inadequate for directing the public to the boat launch. New signs that meet ADAAG guidelines and (indicate the location of accessible facilities at the site) should be installed.

E5.1.4.4.1.4 Almanor Campground Day Use Picnic Beach

The Almanor Campground Day Use Picnic Beach is located on the west shore of Lake Almanor. This site provides parking, restroom, and picnicking facilities. Activities include boating, swimming, picnicking, and fishing.

Existing Accessibility

Access to Primary Elements. There are no accessible routes from the parking lot to the primary activity areas at this site.

Elements and Space in the Recreation Environment. Primary design elements considered in this assessment included toilets/restrooms, water faucets, picnic tables, and swimming areas. This site provides five toilets in two separate buildings, six picnic tables, a swimming beach, and one water faucet. Each of these elements is discussed below.

- **Toilets/Restrooms:** An older restroom (with four flush toilets) at this site is not accessible due to interior design features and lack of access routes.
- **Water Faucets:** The one water faucet at this site is not accessible due to its handle design.
- **Picnic Tables:** There is one accessible picnic table; however, it is segregated from the rest of the site.

- **Shoreline Fishing Access:** The shoreline area is not currently accessible due to its sandy surface.
- **Swimming Areas:** The beach area is not accessible due to its sandy surface.

Access to Parking Areas. No accessible parking stalls are provided at Almanor Campground Day Use Picnic Beach.

Recommended Future Improvements

The list below represents recommendations for future improvements to Almanor Campground Day Use Picnic Beach to provide accessible facilities for persons with disabilities.

- Consider replacement of the older restroom. A new restroom that is accessible should be installed to meet current ADAAG guidelines.
- The accessible picnic table is segregated from the rest of the site. It should be relocated and integrated with other picnic tables.
- At least one swimming area and one fishing area on Lake Almanor should be accessible. These facilities could be provided nearby at the old breakwaters and/or at this site.
- Parking stalls are unmarked. When improvements to the parking area are made, at least two accessible parking spaces should be designated to meet current ADAAG guidelines.

E5.1.4.4.1.5 Canyon Dam Boat Launch/DUA

Canyon Dam Boat Launch/DUA is located just off SR 89 on the south end of Lake Almanor less than 1 mile from Lake Almanor Dam. Activities include boating, picnicking, swimming, and fishing.

Existing Accessibility

Access to Primary Elements. There are no accessible access routes from the parking lot to the primary activity areas at this site. There is an accessible parking space near the picnic area, but there are no accessible access routes to picnic tables or barbecues. The boat ramp's grade is too steep to meet ADAAG guidelines.

Elements and Space in the Recreation Environment. Canyon Dam Boat Launch/DUA includes a boat ramp and a picnic area. There are seven picnic tables, two water faucets, and a trash receptacle. There is also a popular undeveloped fishing area. An accessible fishing trail was constructed in 2001 by the Forest Service. Primary design elements considered in this assessment included toilets/restrooms, trash receptacles, picnic tables, fishing areas, parking areas, and boat launches and boarding docks. Each of these elements is discussed below.

- **Toilets/Restrooms:** One accessible flush restroom is provided in the DUA; however, the older vault toilet near the boat launch is not accessible due to its interior design features and lack of accessible access routes.
- **Trash Receptacles:** The trash receptacles are of an accessible type but do not have accessible access routes.

- **Water Faucets:** There are two water faucets at this site; however, they are not accessible due to their handle design.
- **Picnic Tables:** There are no accessible picnic tables at this site.
- **Fishing Areas:** The new shoreline fishing station is accessible and meets ADAAG guidelines.

Access to Parking Areas. Three accessible parking spaces are provided at Canyon Dam Boat Launch/DUA.

Access to Boat Launches and Boarding Docks. The boat launch is not accessible due to the slope and width of the gangway, and the lack of accessible design features such as railings and tie-downs.

Recommended Future Improvements

The list below represents recommendations for future improvements to Canyon Dam Boat Launch/DUA to provide accessible facilities for persons with disabilities.

- The non-accessible toilet has a steep grade leading to it. A new toilet that meets current ADAAG guidelines, including an accessible access route, should be installed.
- There are no accessible picnicking facilities at this site. Three accessible picnic tables are required at this site. Two of the tables must be connected to an accessible access route.

- Relocating the accessible parking space in the boat launch, either closer to the ramp or closer to the existing toilet, should be considered.
- The current gangway is too steep and should be considered for replacement. Both the dock and the gangway are outdated and in disrepair and would need to be retrofitted or replaced to meet the proposed ADAAG guidelines for boating facilities. The boat ramp and associated dock should be redesigned to facilitate easier access and accessibility. The dock would need to be widened and other features such as railings and tie-downs would need to be installed. Also, to meet accessibility requirements there would need to be a gangway or other ramp from the parking lot to the dock. Alternatively, a loading platform in the flatter parking area could provide direct access from vehicles to boats.

E5.1.4.4.1.6 Almanor Rest Area (SR 89)

The Almanor Rest Area is an 8-acre day use site located approximately 10 miles south of the town of Chester, adjacent to SR 89. The Almanor Overflow Camping Area is located adjacent, to the south. This site primarily serves as a roadside rest stop.

Existing Accessibility

Access to Primary Elements. The access routes between the parking area and the primary activity areas are not accessible. The surface of the access routes to the informational and interpretive signage does not meet draft proposed ADAAG guidelines.

Elements and Space in the Recreation Environment. Present facilities consist of two vault toilets and a small picnic and parking area. Additionally, there is an interpretive sign for a vernal pool at the northeast edge of the site.

While this sign is of an accessible type, there is no accessible access route to it. Primary design elements considered in this assessment include toilets/restrooms, trash receptacles, water faucets, picnic tables, and parking areas. Each of these elements is discussed below.

- **Toilets/Restrooms:** The two vault toilets at this site are new and fully accessible.
- **Trash Receptacles:** The trash receptacles are accessible but they do not have accessible access routes.
- **Water Faucets:** There is one water faucet and a historic water hand-pump; however, there is no accessible water source at this site.
- **Picnic Tables:** There are no accessible picnic tables at this site.

Access to Parking Areas. No designated, accessible parking is provided at Almanor Rest Area.

Recommended Future Improvements

The list below represents recommendations for future improvements to Almanor Rest Areas to provide accessible facilities for persons with disabilities.

- There are no accessible picnic tables at this site; draft proposed ADAAG guidelines require four accessible picnic tables. Two of these accessible picnic tables must be connected to an accessible access route.
- Parking stalls at the rest area are unmarked and there is no defined circulation pattern. When improvements to the parking area are made, parking stalls should be defined with wheel stops or other markers, and at least two accessible parking spaces should be designated to meet current ADAAG guidelines.
- Informational signs need to be updated or replaced and moved to a location closer to the entrance road where they can be more easily observed.
- The current interpretive sign—located near the adjacent group campsite—is too far from the main features of this site. Moving the sign closer to the toilets and picnic area, and providing access to it via an accessible access route should be considered.

E5.1.4.4.1.7 Almanor Overflow Camping Area (SR 89)

Almanor Overflow Camping Area is a primitive camping area adjacent to Almanor Rest Area along SR 89. This facility is used for overflow RV or tent camping during periods of peak usage.

Existing Accessibility

Access to Primary Elements. The access routes between the parking area and the primary activity areas are not currently accessible. The surfaces of the access routes to the campsites and to interpretive signage do not meet draft proposed ADAAG guidelines.

Elements and Space in the Recreation Environment. Based on fire ring counts, there are 40 campsites at this facility. None of them are truly developed.

Primary design elements considered in this assessment included toilets/restrooms, trash receptacles, water faucets, parking areas, and campsites. Each of these elements is discussed below.

- **Toilets:** No toilets are provided at this site; however, campers use the two accessible toilets at Almanor Rest Area.
- **Trash Receptacles:** None of the trash receptacles at this site are accessible due to their handle design and the lack of accessible access routes.
- **Water Faucets:** Water at this site is not accessible due to faucet handle design and the lack of accessible access routes.

Access to Parking Areas. There is no accessible parking at this site.

Access to Campsites. None of the campsites at Almanor Overflow Camping Area are accessible.

Recommended Future Improvements

The list below represents recommendations for future improvements to Almanor Overflow Camping Area to provide accessible facilities for persons with disabilities.

- The undeveloped camping area is used for overflow RV camping. The draft proposed ADAAG guidelines do not provide any guidance for overflow camping; therefore, no accessibility improvements are recommended at this

time. However, if the site is developed in the future as a formalized campground, it should provide accessible campsites in accordance with minimum ADAAG requirements.

E5.1.4.4.1.8 Almanor Group Reservation Camp (SR 89)

Almanor Group Reservation Camp is a primitive group camp area adjacent to Almanor Rest Area along SR 89. There are spaces for approximately 10 campsites at this “circle-the-wagons-style” facility.

Existing Accessibility

Access to Primary Elements. The access routes between the parking area and the primary activity areas are not currently accessible. The surfaces of the access routes to the campsites and interpretive signage do not meet the draft proposed ADAAG guidelines.

Elements and Space in the Recreation Environment. Primary design elements considered in this assessment included toilets/restrooms, trash receptacles, water faucets, picnic tables, parking areas, and campsites. Each of these elements is discussed below.

- **Toilets/Restrooms:** Group campers use the two accessible toilets at Almanor Rest Area.
- **Trash Receptacles:** There are no accessible trash receptacles at this site due to their handle design and the lack of accessible access routes.
- **Water Faucets:** There is no accessible water at this site due to faucet handle design and the lack of accessible access routes.
- **Picnic Tables:** There are no accessible picnic tables at any of the campsites.

Access to Parking Areas. No accessible parking is provided.

Access to Campsites. There are no accessible campsites.

Recommended Future Improvements

The list below represents recommendations for future improvements to Almanor Group Reservation Camp to provide accessible facilities for persons with disabilities.

- The Forest Service has proposed to relocate this group facility across SR 89 to an area near Almanor Campground North. If this occurs, ADAAG guidelines will require that two of the sites be accessible. All of the elements provided in an accessible campsite must also be accessible. Also, any new toilets or restroom facilities must meet current ADAAG guidelines.

E5.1.4.4.1.9 Dyer View DUA

The new Dyer View DUA is located along the west shore of Lake Almanor. This facility functions as a trailhead for the LART, as well as a shoreline beach DUA. Facilities include interpretive signage, benches, and a toilet.

Existing Accessibility

Access to Primary Elements. Access routes between the parking area and the primary activity areas are not all accessible. The surface and slope of the access routes to the benches and interpretive signage do not meet draft proposed ADAAG guidelines. The access route to the adjacent paved portion of the LART, however, is accessible.

Elements and Space in the Recreation Environment. The primary design elements considered in this assessment included toilets, trash receptacles, picnic tables and benches, swimming and shoreline access areas, fishing areas, parking areas, and recreational trails. Each of these elements is discussed below.

- **Toilets:** The new vault toilet at this site is fully accessible.
- **Trash Receptacles:** The new trash receptacle is an accessible, animal-resistant type but has no accessible access route.
- **Picnic Tables and Benches:** There are no picnic tables at this site. There are four benches at this site, two along the LART and two within the sandy day use beach area facing the lake. None of the benches are accessible because they do not have armrests or accessible access routes.
- **Swimming/Shoreline Access Areas:** The shoreline beach area is undeveloped and does not have an accessible swimming area or an accessible access route to the water's edge.
- **Fishing Areas:** The shoreline area is not accessible for fishing.

Access to Parking Areas. There are two accessible parking stalls next to the access point for the LART.

Access to Recreational Trails. The LART is accessible at this site. The Dyer View DUA represents one of several access sites for the trail (see Section E5.1.4.4.1.10).

Recommended Future Improvements

The list below represents recommendations for future improvements to Dyer View DUA to provide accessible facilities for persons with disabilities.

- An accessible access route leading from the parking area to the trash receptacle should be installed.
- Two benches at this site are required to be accessible, including being connected by an accessible access route, and one bench having an armrest. It is recommended that both benches at the sandy beach area be removed and replaced. An accessible access route between the benches to the LART should be provided. The three existing interpretive signs could be relocated closer to the LART with a pull-out. If they remain in their current location, a firm and stable accessible access route must be installed and a landing area added near the signs.

This site, due to its proximity to Lake Almanor and its gentle slope, provides an opportunity to enhance the overall accessibility of recreation facilities in the Project area. Additional accessibility improvements not required by the draft proposed ADAAG guidelines but recommended for Dyer View DUA site include:

- An accessible beach access trail leading to the shoreline could be developed. This route would need to comply with the draft proposed ADAAG guidelines. In addition to beach access, this trail could also provide placement space for additional interpretive signage. This site is a good location for accessible beach access because it is relatively flat, protected, and sandy.

- It is recommended that the two benches along the LART also be replaced with accessible armrests to provide accessible seating opportunities and potential rest areas along the trail. While benches along a trail are not required to be connected by an accessible access route under the draft proposed ADAAG guidelines, replacing these benches would enhance the accessibility of Dyer View DUA.

E5.1.4.4.1.10 Lake Almanor Recreation Trail

The LART is a paved, 10 foot-wide, 9.5 mile trail. This non-motorized, multi-use trail is used for walking, hiking, bicycling, and cross-country skiing. The trail winds through wooded areas as well as through several lakeshore areas. Portions of the trail pass through private property, campgrounds, and near private residences.

The northernmost access to the trail is located just off SR 89 on a small gravel road opposite Humbug Road. This trailhead has a small gravel parking area and an informational sign, which includes a map. Additional trailheads are located at the Almanor Campground Boat Launch parking area located near Almanor Campground North and at four other parking areas between the community of Prattville and SR 89. The Dyer View DUA also serves as a trailhead, but it is considered a separate facility. The Forest Service is currently planning an extension of the LART, which would be routed south to Canyon Dam Boat Launch/DUA. This extension would add another few miles to the trail.

The following assessment includes the LART itself and each of its trailheads, except for the Dyer View DUA trailhead. An assessment of the Dyer View DUA trailhead is presented in Section E5.1.4.4.1.9.

Existing Accessibility

Access to Primary Elements. There is no accessible access route provided from the trailhead parking areas to the trail, except for at Dyer View DUA. The surface of the parking areas does not meet current ADAAG guidelines.

Access to Parking Areas. No marked accessible parking is provided at the trailheads except at Dyer View DUA.

Access to Recreational Trails. The LART is paved and generally accessible in most segments. In some areas, however, the trail is too steep and does not contain rest areas. The informational signs provided at the trailheads do not provide basic accessibility information, such as maximum grade, length, width, maintenance practices, and types of surface materials.

Recommended Future Improvements

The list below represents recommendations for future improvements to the LART and its trailheads to provide accessible facilities for persons with disabilities.

- Parking stalls at the trailheads are unmarked, except for at Dyer View DUA.

If improvements to the parking areas are made and parking stalls are defined

with wheel stops or other markers, one accessible parking space should be designated to meet current ADAAG guidelines.

- The existing surfaces of the parking areas do not meet current ADAAG guidelines because they are composed of large, uncompacted gravel. If improvements to the parking areas are made, an accessible access route that meets the draft proposed ADAAG guidelines should be installed.
- Informational signs should be modified to include the accessibility information noted above.
- An accessibility survey should be conducted to inventory the existing cross slope and grade of the LART and potential locations for future rest areas. Based on the results of this survey, the trail should be modified to meet the draft proposed ADAAG guidelines. Rest areas may need to be placed in areas where the trail is too steep.
- The southern end of the LART is currently being extended to the Canyon Dam Boat Launch/DUA. The new trail segment should meet the draft proposed ADAAG guidelines for accessible trails.

E5.1.4.4.1.11 Gansner Bar Campground

Located 32 miles west of Quincy, Gansner Bar Campground is on the west branch of the North Fork of the Feather River (NFFR) along Caribou Road off of SR 70. The campground's location along the river provides opportunities for bank fishing.

Existing Accessibility

Access to Primary Elements. The access routes between parking areas and primary activity areas are not currently accessible. There are no accessible access routes within the picnic area. There is also no accessible access route at the entry sign and pay station.

Elements and Space in the Recreation Environment. There are 14 campsites, with one restroom at this campground. A small picnic area is also provided. Primary design elements considered in this assessment included toilets/restrooms, trash receptacles, water faucets, picnic tables, fishing areas, parking areas, and campsites. Each of these elements is discussed below.

- **Toilets/Restrooms:** The restroom (four flush toilets) at this site is fully accessible.
- **Trash Receptacles:** The trash receptacles are an accessible type but there are no accessible access routes leading to them.
- **Water Faucets:** There is no accessible water at this site due to faucet handle design.
- **Picnic Tables:** The picnic area is not accessible and there are no accessible picnic tables. The barbecue grills are of an accessible type, but there are no accessible access routes between the barbecues, tables, and/or parking.
- **Fishing Areas:** The river shoreline is not accessible due to its slope and rocky/sandy surface.

Access to Parking Areas. No accessible parking is provided.

Access to Campsites. One of the 14 campsites is accessible.

Recommended Future Improvements

The list below represents recommendations for future improvement to Gansner Bar Campground to provide accessible facilities for persons with disabilities.

- An accessible access route should be installed from the entrance road to the pay station and entry sign area.
- Accessible access routes that meet draft proposed ADAAG guidelines should be installed from roadways and walkways to trash receptacles.
- The water faucets near accessible elements, such as campsites and the restroom, should be retrofitted to meet draft proposed ADAAG guidelines.
- There are no accessible picnic facilities at this site. Three accessible picnic tables are required at this site. All of the tables must be connected to an accessible access route.
- The draft proposed ADAAG guidelines will likely require that two of the campsites be accessible. All of the elements provided in the campsites, such as picnic tables, fire rings, cooking grills, tent or RV areas, and water faucets, must be made accessible. One campsite is already accessible (Campsite 11), so only one additional campsite must be made accessible. The Site Action Plan for Gansner Bar Campground (Forest Service undated e) recommends retrofitting Campsites 10 and 13.

E5.1.4.4.1.12 North Fork Campground

North Fork Campground is located on the west branch of the NFFR along Caribou Road off of SR 70, 33.5 miles west of Quincy. Its location along the river provides opportunities for bank fishing.

Existing Accessibility

Access to Primary Elements. The access routes between the parking area and the campsites are not currently accessible. There is also no accessible access route to the entry sign and pay station. The NFFR runs through the site but there is no accessible access route to it.

Elements and Space in the Recreation Environment. There are 20 campsites and one restroom at this campground. Primary design elements considered in this assessment included toilets/restrooms, trash receptacles, water faucets, fishing areas, parking areas, and campsites. Each of these elements is discussed below.

- **Toilets/Restrooms:** The restroom at this facility (with four flush toilets) is accessible.
- **Trash Receptacles:** The trash receptacles are of an accessible type but do not have accessible access routes.
- **Water Faucets:** The water provided at this site is not accessible due to faucet handle design.
- **Fishing Areas:** The river shoreline is undeveloped and is not accessible for fishing due to its slope and surface.

Access to Parking Areas. No accessible parking is provided at North Fork Campground.

Access to Campsites. One of the 20 campsites is designated accessible (Site 20). However, the picnic table is not of an accessible type, and the height of the fire ring does not meet current ADAAG guidelines.

Recommended Future Improvements

The list below represents recommendations for future improvements to North Fork Campground to provide accessible facilities for persons with disabilities.

- An accessible access route should be installed from the entrance road to the pay station and entry sign area.
- Accessible access routes should be installed from roadways and walkways to trash receptacles.
- The water faucets near accessible elements, such as the restroom and campsites, should be retrofitted to meet draft proposed ADAAG guidelines.
- The proposed ADAAG guidelines will likely require that two of the campsites be accessible. All of the elements provided in the campsites, such as picnic tables, fire rings, cooking grills, tent or RV areas, and water faucets, must be made accessible. One campsite is already accessible (Site 20) so only one additional campsite must be made accessible. The Forest Service Site Action Plan for North Fork Campground (Forest Service undated f) recommends retrofitting Campsites 7, 8, 16, or 17.

E5.1.4.4.1.13 Queen Lily Campground

Queen Lily Campground is located on the west branch of the NFFR along Caribou Road off of SR 70, 34 miles west of Quincy. Its location along the river provides opportunities for fishing.

Existing Accessibility

Access to Primary Elements. There are no accessible access routes provided between the primary activity areas at this site. The river is adjacent to this campground; however, shoreline access to the river is not accessible.

Elements and Space in the Recreation Environment. There are 12 campsites and one restroom at this campground. Primary design elements considered in this assessment include toilets/restrooms, trash receptacles, water faucets, fishing areas, parking areas, and campsites. Each of these elements is discussed below.

- **Toilets/Restrooms:** The restroom (two flush toilets) at this site is not accessible; however, it has signage indicating that it is accessible.
- **Trash Receptacles:** The trash receptacles at this site are accessible but do not have accessible access routes.
- **Water Faucets:** The water provided at this site is not accessible due to faucet handle design.
- **Fishing Areas:** The shoreline is undeveloped and is not accessible for fishing due to its slope and surface.

Access to Parking Areas. There is no accessible parking provided at this site.

Access to Campsites. None of the campsites at this facility are currently accessible.

Recommended Future Improvements

The list below represents recommendations for future improvements to Queen Lily Campground to provide accessible facilities for persons with disabilities.

- Accessible access routes should be installed from roadways and walkways to trash receptacles.
- The existing designated accessible restroom needs to be modified to meet current ADAAG guidelines. Accessibility signage should be removed until modifications are made.
- The water faucets near accessible elements, such as the restroom and campsites, should be retrofitted to meet ADAAG guidelines.
- The proposed ADAAG guidelines will likely require that two of the campsites be accessible. All of the elements provided in the campsites, such as picnic tables, fire rings, cooking grills, tent or RV areas, and water faucets, must be made accessible. The Forest Service's Site Action Plan for Queen Lily Campground (Forest Service undated g) recommends retrofitting Campsite 5, 7, or 8.

E5.1.4.4.2 Accessibility at Licensee Public Recreation Facilities

The following Licensee public recreation facilities are analyzed in this section:

- Lake Almanor Campground (Loops 1, 2, and 3)
- Camp Conery Group Camp
- Canyon Dam DUA

- Almanor Scenic Overlook
- Eastshore DUA
- Last Chance Campground/Group Camp
- Ponderosa Flat Campground
- Alder Creek DUA/Boat Launch
- Cool Springs Campground
- Belden Rest Stop (SR 70)

E5.1.4.4.2.1 Lake Almanor Campground Loop 1

Lake Almanor Campground is located on the west shore of Lake Almanor. Loop 1 is the northernmost loop. Activities include camping, fishing, swimming, horseshoes, sunbathing, resting/relaxing, use of the LART, and boating.

Existing Accessibility

Access to Primary Elements. Campground rules require that visitors check with the camp host before occupying accessible campsites; however, there is no accessible access route to the host's site. There is also no accessible access route to the shoreline, the entry sign, pay station, nor to the camp library box.

Elements and Space in the Recreation Environment. Loop 1 has 68 campsites and 12 toilet buildings. Primary design elements considered in this assessment include toilets/restrooms, telephones, trash receptacles, water faucets, shoreline access, and campsites. Each of these elements is discussed below.

- **Toilets/Restrooms:** All of the toilets at Loop 1 are accessible. However, the signs indicating this need to be relocated.
- **Telephones:** The telephone at the entrance to Loop 1 is not accessible because it exceeds ADAAG height standards and has no accessible access route.
- **Trash Receptacles:** The trash receptacles at Loop 1 are accessible but do not have accessible access routes.
- **Water Faucets:** The water provided at this site is not accessible due to faucet handle design.

Access to Shoreline. No accessible access routes are provided to the shoreline.

Access to Campsites. Four of the 66 campsites are accessible sites (Sites 4, 14, 34A, and 38). Many of the elements in each of these campsites, however, are not accessible, as described below.

- **Campsite 4 Elements:** The fire ring needs to be incorporated into the site. Currently, it sits off to the side with no accessible access route. The cross slope of the site exceeds current ADAAG guidelines; the camp cupboard latch is not accessible.
- **Campsite 14 Elements:** The fire ring needs to be incorporated into the site. Currently, it sits off to the side with no accessible access route. The fire ring is not accessible (too low). The cross slope of the site exceeds draft ADAAG guidelines. The height of the camping cupboard exceeds draft ADAAG guidelines and the latch is not accessible.

- **Campsite 34A Elements:** The fire ring needs to be incorporated into the site. Currently, it sits off to the side with no accessible access route. The height of the fire ring and the distance between the table, grill, and camping cupboard do not meet draft ADAAG guidelines. The height of the camping cupboard exceeds draft ADAAG guidelines and the latch is a not accessible.
- **Campsite 38 Elements:** The fire ring needs to be incorporated into the site. Currently, it sits off to the side with no accessible access route. The fire ring is not accessible (too low). The height of the camping cupboard exceeds draft ADAAG guidelines and the latch is a not accessible.

Recommended Future Improvements

The list below represents recommendations for future improvements at Lake Almanor Campground Loop 1 to provide accessible facilities for persons with disabilities.

- An accessible access route should be installed to provide shoreline access to the water's edge.
- Existing facilities, such as the camp library box, telephones, and the envelope box at the pay station, should be retrofitted to meet draft ADAAG height standards. An accessible access route should be installed from the entrance to the interior loop roadways.
- The water faucets near accessible elements, such as toilets and campsites, should be retrofitted to meet draft ADAAG guidelines.
- The draft proposed ADAAG guidelines will likely require that four of the campsites be made accessible. All of the elements provided in the campsites,

such as picnic tables, fire rings, cooking grills, tent or RV areas, and water faucets, must be made accessible. The four existing accessible campsites need to be retrofitted to meet the draft proposed ADAAG guidelines.

- A sign on the door of each toilet should be installed to meet draft proposed ADAAG guidelines (mounted next to the door, and including tactile features).

E5.1.4.4.2 Lake Almanor Campground—Loop 2

Lake Almanor Campground is located on the west shore of Lake Almanor, in between Loops 1 and 3. Activities include camping, fishing, swimming, horseshoes, sunbathing, resting/relaxing, use of the LART, and boating.

Existing Accessibility

Access to Primary Elements. Campground rules require that visitors check with the camp host before occupying accessible campsites. However, there is no accessible access route to the host's site. There is also no accessible access route to the shoreline, the entry sign, pay stations, nor to the camp library box.

Elements and Space in the Recreation Environment. Loop 2 has 41 campsites, two of which are designated accessible sites, and four toilet buildings. Primary design elements considered in this assessment included toilets/restrooms, telephones, trash receptacles, water faucets, shoreline access, and campsites.

Each of these elements is discussed below.

- **Toilets/Restrooms:** All of the toilets in Loop 2 are accessible. However, the surface and slope of access routes of two of the toilets (near the entry sign and near Site 100) do not meet draft proposed ADAAG guidelines.
- **Telephones:** The telephone at the entrance to Loop 2 is not accessible because it exceeds ADAAG height standards and does not have an accessible access route.
- **Trash Receptacles:** The trash receptacles at Loop 2 are of an accessible type but do not have accessible access routes.
- **Water Faucets:** The water faucet next to Site 89 is fully accessible. Other water faucets dispersed throughout Loop 2, however, are not.

Access to Shoreline. No accessible access routes are provided to the shoreline.

Access to Campsites. Two of the 28 campsites are accessible sites (Site 75 and 89). Many of the elements at these campsites, however, are not accessible, as described below.

- **Campsite 75 Elements:** The fire ring needs to be incorporated into the site. Currently, it sits off to the side with no accessible access route; its height does not meet draft proposed ADAAG guidelines. The cross slope of the site exceeds draft proposed ADAAG guidelines, as does the height of the camp cupboard. The cupboard's latch is not accessible. The clearance around the picnic table does not

meet ADAAG standards, nor does width of the site meet guidelines for RV camping.

- **Campsite 89 Elements:** The fire ring needs to be incorporated into the site. Currently, it sits off to the side with no accessible access route and its height does not meet draft proposed ADAAG guidelines. The cross slope of the site exceeds ADAAG guidelines. The height of the camping cupboard exceeds draft ADAAG guidelines and its latch is not accessible.

Recommended Future Improvements

The list below represents recommendations for future improvements to Lake Almanor Campground Loop 2 to provide accessible facilities for persons with disabilities.

- The surface and slope of the access routes of two of the toilets (near the entry sign and near Site 100) should be improved to meet draft ADAAG guidelines.
- The interior pay station should be relocated directly across the road to a level, firm, and stable surface.
- Existing facilities, such as the camp library box, telephones, and the envelope box at the pay station, should be retrofitted to meet ADAAG height standards. An accessible access route should be installed from the entrance to interior loop roadways.
- The water faucets near accessible elements, such as toilets and campsites, should be retrofitted to meet draft ADAAG guidelines.
- An accessible access route should be installed to provide shoreline access to the water's edge.

- The proposed ADAAG guidelines will likely require that three of the campsites be made accessible. All of the elements provided in the campsites, such as the picnic tables, fire rings, cooking grills, tent or RV areas, and water faucets, must be made accessible. The two existing accessible campsites need to be retrofitted to meet the draft proposed ADAAG guidelines, and one additional campsite needs to be made fully accessible.

E5.1.4.4.2.3 Lake Almanor Campground—Loop 3

Lake Almanor Campground is located on the west shore of Lake Almanor. Loop 3 is the southernmost located of the three loops. Activities include camping, fishing, swimming, horseshoes, sunbathing, resting/relaxing, use of the LART, and boating.

Existing Accessibility

Access to Primary Elements. Campground rules require that visitors check with the camp host before occupying the designated accessible campsites. However, there is no accessible access route to the host's site. There is also no accessible access route to the shoreline, the entry sign, pay stations, nor to the camp library box.

Elements and Space in the Recreation Environment. Loop 3 has 22 campsites, two of which are accessible. Primary design elements considered in this assessment included toilets/restrooms, telephones, trash receptacles, water faucets, shoreline access, and campsites. Each of these elements is discussed below.

- **Toilets/Restrooms:** All of the toilets in Loop 3 are accessible.
- **Telephones:** The telephone provided in Loop 3 is not accessible due to its height, design features, and lack of access route.
- **Trash Receptacles:** The trash receptacles at this site are of an accessible type but do not have accessible access routes.
- **Water Faucets:** The water faucet next to Site 123 is fully accessible. Other water faucets dispersed throughout Loop 3, however, are not.

Access to Shoreline. No accessible access routes are provided to the shoreline.

Access to Campsites. Two of the 37 campsites are accessible sites (Sites 123 and 124). Many of the elements at these campsites, however, are not accessible, as described below.

- **Campsite 123 Elements:** The fire ring needs to be incorporated into the site. Currently, it sits off to the side with no accessible access route. Its height does not meet draft proposed ADAAG guidelines. The cross slope of the site exceeds guidelines. The height of the camp cupboard exceeds draft proposed ADAAG guidelines and its latch is not accessible.
- **Campsite 124 Elements:** The fire ring needs to be incorporated into the site. Currently, it sits off to the side with no accessible access route. Its height does not meet draft proposed ADAAG guidelines. The latch of the camping cupboard is not accessible. The clearance around the picnic table does not meet ADAAG standards.

Recommended Future Improvements

The list below represents recommendations for future improvements to Loop 3 to provide accessible facilities for persons with disabilities.

- An accessible access route should be installed to provide shoreline access to the water's edge.
- Existing facilities, such as the camp library box, telephones, and the envelope box at the pay station, should be retrofitted to meet draft proposed ADAAG guidelines height standards and an accessible access route should be installed from the entrance to interior loop roadways.
- The water faucets near accessible elements, such as toilets and campsites, should be retrofitted to meet draft proposed ADAAG guidelines.
- The proposed ADAAG guidelines will likely require that three of the campsites be made accessible. All of the elements provided in the campsites, such as picnic tables, fire rings, cooking grills, tent or RV areas, and water faucets, must also be accessible. The two existing accessible campsites need to be retrofitted to meet the draft proposed ADAAG guidelines, and one additional campsite needs to be made fully accessible.

E5.1.4.4.2.4 Camp Conery Group Camp

Camp Conery Group Camp is just east of Lake Almanor Dam and inland from the lake approximately 0.25 mile. This public facility accommodates groups of up to 50 people and is available to various organizations by reservation only.

Existing Accessibility

Access to Primary Elements. The access routes between the paved parking lot and the primary activity areas are not accessible. The access routes to the cabins and central group meeting facility are comprised of large, loose gravel, and do not meet draft proposed ADAAG guidelines.

Elements and Space in the Recreation Environment. Facilities include five cabins and a central group meeting facility, a picnic area, and a basketball area. A restroom and water faucets are also provided. Primary design elements considered in this assessment included toilets/restrooms, telephones, trash receptacles, water faucets, picnic tables, parking areas, and cabins. Each of these elements is discussed below.

- **Toilets/Restrooms:** The restroom entrances are accessible; however, the accessibility of the interior space is unknown because the restroom was locked at the time of the field assessment. It is assumed that the interior space is not accessible due to the age of the building.
- **Telephones:** The height of the telephone exceeds draft proposed ADAAG guidelines and is therefore considered non-accessible.
- **Trash Receptacles:** The trash receptacles at this site are of an accessible type but do not have accessible access routes.
- **Water Faucets:** Water at this site is not accessible due to faucet handle designs.
- **Picnic Tables:** None of the picnic tables are currently accessible.

Access to Parking Areas. The parking area at this site is undefined and there are no designated accessible parking stalls.

Access to Cabins. None of the five cabins are accessible. There are no ramps to access the buildings and the interior space is not accessible.

Recommended Future Improvements

The list below represents recommendations for future improvements to Camp Conery Group Campsite to provide accessible facilities for persons with disabilities.

- The telephone in the meeting facility should be repositioned so that its height does not exceed draft proposed ADAAG guidelines.
- The water faucet near accessible elements should be retrofitted to meet draft proposed ADAAG guidelines.
- Parking at this site is unmarked and there is no defined circulation pattern. If improvements to the parking area are made and parking stalls are defined with wheel stops or other markers, at least one accessible parking space should be designated.
- One of the five cabins should be retrofitted to meet draft proposed ADAAG guidelines.

E5.1.4.4.2.5 Canyon Dam DUA

Canyon Dam DUA is located just east of Lake Almanor Dam on the north side of SR 89.

Activities include picnicking, swimming, sunbathing, and resting/relaxing.

Existing Accessibility

Access to Primary Elements. The access routes between the parking lot and the primary activity areas are accessible. Two picnic tables and the toilets can be reached via a firm and stable pathway. The informational sign at the entrance does not have an accessible access route. There is no accessible access route to the shoreline.

Elements and Space in the Recreation Environment. The facility provides 19 picnic tables, a swimming beach, and two toilets. Primary design elements considered in this assessment included toilets/restrooms, trash receptacles, water faucets, picnic tables, swimming areas, fishing access, and parking areas. Each of these elements is discussed below.

- **Toilets/Restrooms:** The two vault toilets are fully accessible.
- **Trash Receptacles:** The trash receptacles at this site are of an accessible type but do not have accessible access routes.
- **Water Faucets:** The water at this site is not accessible due to faucet handle design.
- **Picnic Tables:** Two picnic tables at this site are of an accessible type and have a firm and stable accessible access route.
- **Swimming Areas/Shoreline Access:** The beach area is undeveloped and does not have an accessible swimming area or access to the water's edge.
- **Fishing Access:** The shoreline fishing area is undeveloped and is not accessible due to its surface characteristics.

Access to Parking Areas. The parking area is paved but unmarked. There is no designated accessible parking provided.

Recommended Future Improvements

The list below represents recommendations for future improvements at the Canyon Dam DUA to provide accessible facilities for persons with disabilities.

- The informational sign at the entrance is in serious disrepair and should be replaced. An accessible access route to it should be installed.
- The water faucets near accessible elements, such as toilets, should be retrofitted to meet draft proposed ADAAG guidelines.
- Ten accessible picnic tables are required at this site. At least three of the tables must be connected to an accessible access route. Two existing picnic tables and routes meet the requirements. Under draft proposed ADAAG guidelines, seven additional accessible picnic tables are required, one of which needs to be connected to an accessible access route.
- No parking stalls at this site are designated accessible. If improvements to the parking area are made and parking stalls are defined with wheel stops or other markers, at least one accessible parking space should be designated. This space could be located adjacent to the landscaped island in the center of the parking area.

E5.1.4.4.2.6 Almanor Scenic Overlook

This facility is located on SR 147 on the east shore of Lake Almanor near Lake Almanor Dam. It provides a roadside rest stop and a “photo spot” with a view of the lake, Lake Almanor Dam, and Lassen Peak.

Existing Accessibility

Access to Primary Elements. At this site, the primary activity area is the overlook area within the parking lot. No accessible access route is needed.

Elements and Space in the Recreation Environment. This facility is comprised of a paved parking area and a vault toilet. Primary design elements considered in this assessment included toilets/restrooms and parking areas. Each of these elements is discussed below.

- **Toilets/Restrooms:** There is one accessible vault toilet at this site; however, it does not have an accessible access route.

Access to Parking Areas. The paved parking area is accessible, but no accessible spaces are designated.

Recommended Future Improvements

The list below represents recommendations for future improvements to Almanor Scenic Overlook to provide accessible facilities for persons with disabilities.

- An accessible access route leading from the parking area to the vault toilet should be installed to meet draft proposed ADAAG guidelines.

- At least one accessible parking space should be designated to meet accessibility requirements.

E5.1.4.4.2.7 Eastshore Picnic Area

Eastshore Picnic Area is located on SR 147 on the east shore of Lake Almanor. This site functions as a roadside rest area and day use picnic area. Shoreline fishing at this site is possible via a steep trail down to the water's edge.

Existing Accessibility

Access to Primary Elements. There is no accessible access route from the parking area to the picnic area.

Elements and Space in the Recreation Environment. This facility provides nine picnic tables and one vault toilet. Primary design elements considered in this assessment included toilets/restrooms, trash receptacles, picnic tables, fishing access, and parking areas. Each of these elements is discussed below.

- **Toilets/Restrooms:** The vault toilet at this site is fully accessible.
- **Trash Receptacles:** The trash receptacles at this site are of an accessible type but do not have accessible access routes.
- **Picnic Tables:** None of the nine picnic tables at this site are accessible.
- **Fishing Access:** The nearby shoreline fishing area is undeveloped and is not accessible due to its slope and surface.

Access to Parking Areas. The parking area is accessible but is not signed or designated. Access routes leading from the parking area are not accessible.

Recommended Future Improvements

The list below represents recommendations for future improvements to Eastshore Picnic Area to provide accessible facilities for persons with disabilities.

- The trash receptacles need accessible access routes.
- The water faucet should be retrofitted to meet draft proposed ADAAG guidelines.
- There are no accessible picnic tables at this site; at least five are required. At least two of the accessible picnic tables must be connected to accessible access routes.
- Parking at this site is unmarked and there is no defined circulation or parking pattern. If improvements to the parking area are made, parking stalls should be defined with wheel stops or other markers. At least one accessible parking space should be designated near the toilet.

E5.1.4.4.2.8 Last Chance Campground/Group Camp

Last Chance Campground/Group Camp is located on the northern end of Lake Almanor approximately 3 miles north of the Town of Chester. The facility is divided into two sections: a family campground area and a group camp. The group camp is available by reservation only. Activities at this campground include camping, resting/relaxation, fishing, horseshoes, volleyball, and group activities.

Existing Accessibility

Access to Primary Elements. There are no accessible routes from the main access gravel roadway to the primary activity areas at this site.

Elements and Space in the Recreation Environment. This facility has 25 campsites, 12 in the family campground area and 13 in the group camp. There are four vault toilets in two separate buildings. Primary design elements considered in this assessment included toilets/restrooms and campsites. Each of these elements is discussed below.

- **Toilets/Restrooms:** The interior design of the existing toilets does not meet draft proposed ADAAG guidelines, and one restroom does not have an accessible access route. However, signage indicates that they are both accessible.

Access to Campsites. None of the 25 campsites are accessible.

Recommended Future Improvements

The list below represents recommendations for future improvement at Last Chance Campground/Group Camp to provide accessible facilities for persons with disabilities.

- An accessible access route leading to the creek should be installed.
- Existing toilets should be modified or replaced to adhere to draft proposed ADAAG guidelines. Remove ADA signage until toilets are modified or replaced.

- Two accessible campsites are required at this site. During the field assessment, the following sites were selected as easily retrofittable: Sites 1, 3, 8, 16, 23, and 24.

E5.1.4.4.2.9 Ponderosa Flat Campground

Ponderosa Flat Campground is located at the north end of Butt Valley Reservoir along the east shore. It also has an overflow area. Activities at both sites include camping, fishing, swimming, sunbathing, walking/hiking, relaxing/resting, and boating.

Existing Accessibility

Access to Primary Elements. There are no accessible access routes to any of the activity areas at these sites.

Elements and Space in the Recreation Environment. This facility is divided into two sections: 61 campsites adjacent to Butt Valley Reservoir and 20 overflow campsites across the road. Ten vault toilets are provided in five separate buildings. Primary design elements considered in this assessment included toilets/restrooms, trash receptacles, water faucets, swimming areas/shoreline access, fishing areas, and campsites. Each of these elements is discussed below.

- **Toilets/Restrooms:** All of the vault toilets at Ponderosa Flat Campground are accessible. However, an accessible access route for one toilet (near Site 45) is missing a portion of the route on one side, and an accessibility sign is missing on another toilet (next to Site 36).

The vault toilets in the overflow area have no accessible access route, and the interior dimensions do not meet accessibility requirements.

- **Trash Receptacles:** The trash receptacles are of an accessible type but do not have accessible access routes.
- **Water Faucets:** The water faucet next to Site 14 is fully accessible. Other water faucets dispersed throughout the site have accessible access routes but do not have handles that are of an accessible type.
- **Swimming Areas/Shoreline Access:** The beach area is not accessible due to its surface characteristics.
- **Fishing Sites:** The shoreline is undeveloped and is not accessible for fishing due to its surface characteristics.

Access to Parking Areas. The overflow parking areas have no designated accessible parking spaces.

Access to Campsites. Four of the 81 campsites are designated accessible sites (Site 14, 16, 36, and 37). None of these are located in the overflow area. Many of the camping elements in these sites, however, are not accessible, as described below.

- **Campsites 14 and 16 Elements:** The fire ring should be incorporated into the site. Currently, it is off to the side with no accessible access route and its height does not meet draft proposed ADAAG guidelines. The height of the camp cupboard exceeds draft proposed ADAAG guidelines, it does not have an accessible access route, and the latch is a non-accessible type.

- **Campsites 18 and 36 Elements:** The fire ring needs to be incorporated into the site. Currently, it is off to the side with no accessible access route and its height does not meet draft proposed ADAAG guidelines. The height of the camp cupboard exceeds draft proposed ADAAG guidelines and the latch is a non-accessible type.

Recommended Future Improvements

The list below represents recommendations for future improvements at Ponderosa Flat Campground to provide accessible facilities for persons with disabilities.

- A sign on the door of the restroom near Site 36 should be installed to meet draft proposed ADAAG guidelines (mounted next to the door, and including tactile features).
- An accessible access route for the restroom near Site 45 should be installed.
- Consider replacement of the vault toilets in the overflow area. A new accessible restroom that is accessible should be installed. Existing designated accessible toilets need to be modified to meet draft proposed ADAAG guidelines. ADA signage should be removed until toilets are modified or replaced.
- At least one swimming area and one fishing site on Butt Valley Reservoir should be made accessible. An accessible swimming area could be provided at Ponderosa Flat Campground, and an accessible fishing site could be provided near the overflow area.

- If improvements to the parking area are made, parking stalls should be defined with wheel stops or other markers, and at least one accessible parking space should be designated and located near the toilets.
- The proposed ADAAG guidelines will likely require that four of the campsites at Ponderosa Flat Campground be made accessible. All of the elements provided in the campsites, such as picnic tables, fire rings, cooking grills, tent or RV areas, and water faucets, must also be accessible. The existing designated accessible campsites at Ponderosa Flat Campground need to be retrofitted to be made fully accessible. The draft proposed ADAAG guidelines do not provide guidance for overflow camping areas; therefore, no campsites in the overflow area need to be made accessible.
- There are currently no accessible recreational trails at Butt Valley Reservoir. Providing a new accessible shoreline trail from Ponderosa Flat Campground north to the existing overflow camping area and to the proposed accessible fishing area should be considered. This new trail would need to meet design standards and technical criteria for trails set forth in ADAAG.

E5.1.4.4.2.10 Alder Creek DUA/Boat Launch

Alder Creek DUA/Boat Launch is located along the east shore of Butt Valley Reservoir, approximately 1 mile south of Ponderosa Flat Campground. Activities include picnicking, boating, and fishing. This is the only developed boat launch on the reservoir.

Existing Accessibility

Access to Primary Elements. The site is generally steep, and there are no accessible access routes to any of the activity areas.

Elements and Space in the Recreation Environment. Elements at this facility include a boat ramp, picnic tables, and one vault toilet. Primary design elements considered in this assessment included toilets/restrooms, trash receptacles, picnic tables, fishing areas, parking areas, and boat launches. Each of these elements is discussed below.

- **Toilets/Restrooms:** The vault toilet at this site is accessible.
- **Trash Receptacles:** The trash receptacles at this site are of an accessible type but need accessible access routes.
- **Picnic Tables:** The DUA has no picnic tables that are accessible.
- **Fishing Site:** The shoreline is undeveloped and is not accessible for fishing due to its surface characteristics.

Access to Parking Areas. No accessible parking spaces are provided at Alder Creek DUA/Boat Launch.

Access to Boat Launches and Boarding Docks. The boat launch is not accessible due to the lack of accessible design features such as railings and tie-downs.

Recommended Future Improvements

The list below represents recommendations for future improvements at Alder Creek DUA/Boat Launch to provide accessible facilities for persons with disabilities.

- Parking is unmarked and there is no defined circulation or parking pattern. If improvements to the parking area are made, parking stalls should be defined with wheel stops or other markers. At least one accessible parking space should be designated near the toilet.
- At least one boat launch on Butt Valley Reservoir should be made accessible. The lower launch area is not steep, and could be modified to be accessible. This new boat launch would need to meet draft proposed ADAAG guidelines for boating facilities.

E5.1.4.4.2.11 Cool Springs Campground

Cool Springs Campground is located on the east shore of Butt Valley Reservoir approximately 2 miles south of Ponderosa Flat Campground. Activities include camping, fishing, resting and relaxing, sunbathing, walking/hiking, and swimming.

Existing Accessibility

Access to Primary Elements. There are no designated accessible access routes throughout this site; however, the main access road is currently functioning as an accessible access route between accessible campsites and toilet facilities.

Elements and Space in the Recreation Environment. This facility has 25 RV/tent campsites and five walk-in tent campsites. Primary design elements considered in this assessment included toilets/restrooms, trash receptacles, water faucets, swimming areas/shoreline access, fishing areas, and campsites.

Each of these elements is discussed below.

- **Toilets/Restrooms:** All of the vault toilets at this site are fully accessible; however, the vault toilet at the entrance does not have appropriate signage.
- **Trash Receptacles:** The trash receptacles at this site are of an accessible type but do not have accessible access routes.
- **Water Faucets:** Water at this site is not accessible due to faucet handle design.
- **Swimming Areas/Shoreline Access:** The beach area is not accessible due to its surface characteristics.
- **Fishing Site:** The shoreline is undeveloped and is not accessible for fishing due to its surface characteristics.

Access to Campsites. Two (Sites 9 and 18) of the 30 campsites at this campground are accessible; however, they do not have accessible water faucets.

Recommended Future Improvements

The list below represents recommendations for future improvements at Cool Springs Campground to provide accessible facilities for persons with disabilities:

- Water faucets near accessible elements should be retrofitted to meet accessibility requirements.
- The proposed ADAAG guidelines will likely require that three of the campsites be made accessible. All of the elements provided in the campsites, such as picnic tables, fire rings, cooking grills, tent or RV areas, and water

faucets, must also be made accessible. Two campsites are already accessible so only one additional campsite must be made fully accessible.

- A sign on the entrance of the vault toilet should be installed to meet draft proposed ADAAG guidelines (mounted next to the door, and including tactile features).

E5.1.4.4.2.12 Belden Rest Stop (SR 70)

Belden Rest Stop is located adjacent to the Belden Powerhouse on the north side of SR 70. This site functions as a roadside rest, trailhead, and interpretive area.

Existing Accessibility

Access to Primary Elements. The access routes between the parking lot and the primary activity areas are not currently accessible. The picnic area is accessible only by stairs; the surface and slope of the access routes to the pavilion, overlook area and historical features do not meet draft proposed ADAAG guidelines.

Elements and Space in the Recreation Environment. Recreational elements at the Belden Rest Stop include a picnic area, a small gazebo with informational signage, two vault toilets, a parking lot, and area for launching small car-top or hand-launched boats, rafts, canoes, or kayaks.

There are three recreational trails that may be accessed from this site: Yellow Creek Trail, Indian Springs Trail, and the Pacific Crest Trail (PCT). There are also two

historical features at this site: Eby Stamp Mill and Yellow Creek Bridge. Primary design elements considered in this assessment included: toilets/restrooms, trash receptacles, water faucets, picnic tables and grills, fishing areas, parking areas, and trail access. Each of these elements is discussed below.

- **Toilets/Restrooms:** The two vault toilets at this site are fully accessible; however, current signage does not meet draft proposed ADAAG guidelines.
- **Trash Receptacles:** The trash receptacles at this site are accessible.
- **Water Faucets:** Two accessible water faucets are provided at this site; however, both were broken at the time of the field assessment.
- **Picnic Tables and Grills:** None of the four picnic tables are accessible. Neither of the two barbecue grills are accessible.
- **Fishing Areas:** Access to the adjacent creek is undeveloped and is not accessible due to its slope and surface.

Access to Parking Areas. There is one designated accessible parking space at this site, located in front of the restroom.

Access to Recreational Trails. Three recreational trails pass through this site; however, none of the trails are currently accessible.

Recommended Future Improvements

The list below represents recommendations for future improvements at Belden Rest Stop to provide accessible facilities for persons with disabilities.

- Accessible access routes that lead to the gazebo, overlook area, the Eby Stamp Mill historical features, and along the creek should be installed.
- There are no accessible picnic facilities at this site. Under draft proposed ADAAG guidelines, at least two accessible picnic tables are required. These accessible sites could be provided near either near the gazebo and overlook area or just off the existing parking area. At least one of the accessible picnic tables must be connected to an accessible access route.

E5.1.4.4.3 Accessibility at Chester Park

This site is not located within the Project area but is nearby and serves the residents of Chester. Chester Park is located in downtown Chester along the UNFFR. The day use park is operated and maintained by a local veterans' group. The facility has a paved parking area and restroom. Activities at the park include baseball, volleyball, horseshoes, and picnicking. There is also a small outdoor stage. The playground equipment was recently renovated through citizen efforts. None of these facilities are accessible and there are no accessible routes to the primary features at this site. No accessibility improvements are planned at this time (Forest Service 2000a). However, future accessibility improvements may not be difficult to implement because the site is relatively flat and the parking area is already paved.

E5.1.4.4.4 Accessibility to Private Recreation Facilities

An assessment characterizing the general extent of accessibility for persons with disabilities at privately-owned and -operated recreation facilities at Lake Almanor is provided below. Private recreation facilities in the study area are listed below.

- Almanor Lakefront Village
- Almanor Lakeside Resort
- Almanor Lakeside Villas
- Big Cove Resort
- Country Club Resorts
- Dorado Inn
- High Sierra Resort
- Knotty Pine Resort
- Lake Almanor Lakeside Lodge
- Lake Almanor Resort
- Lake Cove Resort
- Lake Haven Resort
- Lassen View Resort
- Little Norway Resort
- Miller's Resort
- Moonspinners Resort
- North Shore Campground
- Novotny's
- Plumas Pines Resort
- Vagabond Resort
- Villager Resort
- Wilson's Camp Prattville

Private recreation facilities on Lake Almanor were not surveyed in the field, and the Licensee has no jurisdiction related to ADA compliance at these facilities. However, recreation providers were surveyed to gather information related to the extent of accessibility at their facilities.

Based on survey results, there are currently numerous opportunities for persons with disabilities to use private recreation facilities in the vicinity of the Project area.

Some facilities, however, are only partially accessible. These private facilities allow visitors to participate in the primary recreation activities (i.e., camping, fishing and boating) they are available in the Project area. The general extent of accessibility at private recreation facilities is summarized below.

- **RV Camping and Cabins:** Five surveyed private recreation facilities provide either fully or partially accessible RV hookup sites. Three facilities provide either fully or partially accessible fire rings or barbecue grills, and seven facilities provide either fully or partially accessible rental cabins.
- **Shoreline Fishing and Boating Access:** Four surveyed private recreation facilities provide either fully or partially accessible shoreline fishing access. Three facilities provide either fully or partially accessible boat launches, and four facilities provide either fully or partially accessible marinas.
- **Restroom and Parking Facilities:** Eight surveyed private recreation facilities provide either fully or partially accessible restrooms. Four facilities provide either fully or partially accessible single-vehicle parking, and three facilities provide either fully or partially accessible boat trailer parking.
- **Other Recreation Facilities:** Five surveyed private recreation facilities provide either fully or partially accessible swimming beaches. Two facilities provide either fully or partially accessible playground areas; and seven facilities provide either fully or partially accessible open grass areas.

E5.1.4.4.5 Summary and Conclusions

A summary of accessibility for people with disabilities at public recreation facilities in the Project area is provided below. Table E5.1.4-3 provides an overall accessibility summary of existing Forest Service and Licensee recreation facilities in the Project area.

**Table E5.1.4-3
Summary of Existing and Required Accessible Campsites and Picnic Sites**

	Total Number of Campsites	Total Number of Existing Accessible Campsites	Minimum Number of Accessible Campsites Required by ADAAG	Total Number of Picnic Tables	Total Number of Existing Accessible Picnic Tables	Minimum Number of Accessible Picnic Tables Required ¹
Forest Service Facilities						
Almanor Campground North	49	0	3	N/A	N/A	N/A
Almanor Campground South	53	0	4	N/A	N/A	N/A
Almanor Campground Boat Launch	N/A	N/A	N/A	N/A	N/A	N/A
Almanor Campground Day Use Picnic Beach	N/A	N/A	N/A	6	1	3
Canyon Dam Boat Launch/DUA	N/A	N/A	N/A	5	0	3
Almanor Rest Area (SR 89)	N/A	N/A	N/A	7	0	4
Almanor Overflow Camping Area (SR 89)	N/A	N/A	N/A	N/A	N/A	N/A
Almanor Group Reservation Camp (SR 89)	(add)	(add)	(add)	N/A	N/A	N/A
Dyer View DUA	N/A	N/A	N/A	N/A	N/A	N/A
Lake Almanor Recreation Trail	N/A	N/A	N/A	N/A	N/A	N/A
Gansner Bar Campground	14	1	2	3	0	2
North Fork Campground	20	1	2	N/A	N/A	N/A
Queen Lily Campground	12	0	2	N/A	N/A	N/A
Licensee Facilities						
Lake Almanor Campground Loop 1	66	4	4	N/A	N/A	N/A
Lake Almanor Campground Loop 2	28	2	3	N/A	N/A	N/A
Lake Almanor Campground Loop 3	37	2	3	N/A	N/A	N/A
Camp Conery Group Camp	5	0	1	14	0	7
Canyon Dam DUA	N/A	N/A	N/A	19	2	8
Almanor Scenic Overlook	N/A	N/A	N/A	N/A	N/A	N/A
Eastshore Picnic Area	N/A	N/A	N/A	9	0	5
Last Chance Campground/Group Camp	26	0	3	N/A	N/A	N/A
Ponderosa Flat Campground	81	4	5	N/A	N/A	N/A
Alder Creek DUA/Boat Launch	N/A	N/A	N/A	3	0	2
Cool Springs Campground	30	2	3			
Belden Rest Stop (SR 70)	N/A	N/A	N/A	4	0	2

N/A = not applicable

Source: EDAW, Inc.

E5.1.4.4.5.1 Summary of Accessibility by Activity

Opportunities for persons with disabilities to participate in recreational activities at public facilities in the Project area are currently limited to camping, picnicking, and trail use.

No accessible facilities for boating or swimming/shoreline access are currently available.

An accessible fishing access trail was constructed in 2001 at Canyon Dam Boat Launch/DUA by the Forest Service. In addition, much of the paved LART is accessible.

The draft proposed ADAAG guidelines include specifications for the minimum number of accessible campsites required within a campground and the minimum number of accessible picnic tables required in DUAs. Table E5.1.4-3 summarizes these campsites and picnic sites in the Project area.

Currently, only one facility, Lake Almanor Campground Loop 1, meets the minimum requirements set forth in the draft proposed ADAAG guidelines. Overall, opportunities for persons with disabilities to participate in recreational activities in the Project area are moderate at this time. The Licensee has done the most to provide accessible public recreation facilities. When the draft proposed ADAAG guidelines become adopted, the Licensee, the Forest Service, and other recreation providers will need to reassess their recreation facilities and comply with the new guidelines. A summary of the existing extent of accessibility of each of these recreational activities—camping, picnicking, boating, fishing, and swimming/shoreline access—is provided below.

Camping

Overall, there are limited opportunities for persons with disabilities to participate in camping in the study area. Lake Almanor Campground (Loops 1, 2, and 3) provides accessible campsites; however, this facility is the only one that provides accessible campsites at Lake Almanor. There are also accessible campsites at Butt Valley Reservoir

at both Ponderosa Flat Campground and Cool Springs Campground, and at North Fork and Gansner Bar campgrounds on the UNFFR along Seneca Reach.

Picnicking

Overall, there are limited opportunities for persons with disabilities to picnic in the study area. An accessible picnic site must include an accessible access route to an accessible picnic table, an accessible trash receptacle, and an accessible water faucet. Only two recreation facilities in the study area provide accessible picnic sites: Almanor Campground Day Use Picnic Beach and Canyon Dam DUA.

These facilities are relatively close to one another, creating a poor distribution of accessible picnic sites at Lake Almanor (an uneven distribution of all types of public recreation facilities exists around Lake Almanor). Other day use facilities in the study area, such as Almanor Rest Area (SR 89), Alder Creek DUA (Butt Valley Reservoir), and Belden Rest Stop (SR 70), do not provide accessible picnic tables. However, future accessibility improvements may be relatively easy to implement because all but one of the DUAs provide accessible toilet or restroom facilities.

Boating Access

There are no accessible boating facilities at Lake Almanor or Butt Valley Reservoir. At least one accessible boating facility should be provided at Butt Valley Reservoir and, due to its size, more than one accessible boating facility is recommended at Lake Almanor. Both Almanor Campground Boat Launch and Canyon Dam Boat Launch/DUA are

suitable locations for potential accessible boating facilities. The boat ramps and associated docks could be redesigned to facilitate easier accessibility. The docks would need to be widened and other features such as railings and tie-downs, would need to be installed to meet the draft proposed ADAAG guidelines. Also, to be fully accessible there would need to be gangways or other ramps from the parking lots to the docks.

Alternatively, loading platforms in the parking areas could provide direct access from vehicles to boats. This latter option would appear to be more feasible due to the steepness of the boat ramps.

Fishing Access

Currently there is only one accessible fishing access site on Lake Almanor or Butt Valley Reservoir. At least one accessible fishing area should be provided at Butt Valley Reservoir and, due to its size, more than one accessible fishing access site is recommended at Lake Almanor. An accessible fishing access site was constructed at Canyon Dam Boat Launch/DUA in 2001. It should be noted, however, that the draft proposed ADAAG guidelines do not specify a minimum number of fishing access areas. These recommendations are provided as a means to improve the overall accessibility of the recreation facilities in the Project area.

An additional accessible fishing access site could also be provided at one of the old breakwaters near Almanor Campground Day Use Picnic Beach. At Butt Valley

Reservoir, an accessible fishing area could be provided at Ponderosa Flat Campground near the overflow camping area.

Swimming/Shoreline Access

There are no accessible swimming or shoreline access areas on Lake Almanor or Butt Valley Reservoir. At least one accessible swimming or shoreline access area should be provided at Butt Valley Reservoir if a formal swimming or shoreline area is proposed in future recreation planning efforts. Due to its size, more than one accessible swimming or shoreline access area is recommended at Lake Almanor.

It should be noted, however, that the draft proposed ADAAG guidelines do not specify a minimum number of swimming or shoreline access areas. These recommendations are provided as a means to improve the overall accessibility of the recreation facilities in the Project area. An accessible swimming or shoreline access area could be provided at one of the old breakwaters near Almanor Campground Day Use Picnic Beach or at Lake Almanor Campground Loop 3. At Butt Valley Reservoir, an accessible swimming or shoreline access area could be provided at Ponderosa Flat Campground.

E5.1.4.4.5.2 Summary of Accessibility by Provider

Both the Forest Service and the Licensee have made efforts in providing opportunities for persons with disabilities to participate in primary recreational activities in the study area. Each provider has emphasized different activities, which has helped fill gaps in access. A

summary of the area and extent of accessibility provided by the Forest Service and the Licensee is provided below.

Forest Service Recreation Sites

The Forest Service has conducted some limited accessibility renovations of its recreation facilities and is focusing on providing new accessible angler access to the shoreline. However, the Forest Service has not upgraded its campsites to be accessible. Only two accessible campsites are provided at Forest Service campgrounds. Gansner Bar Campground and North Fork Campground each provide one accessible campsite.

No accessible campsites are provided at Forest Service campgrounds at Lake Almanor. Only four of the campgrounds provide accessible toilet or restroom facilities. There are also very limited day use and picnicking facilities. The Forest Service provides only one accessible picnic table in the Project area.

The Forest Service operates both the boat launches at Lake Almanor, neither of which is accessible. At least one accessible boating facility should be provided at Lake Almanor. Due to its size, however, more than one boating facility is recommended. Both Almanor Campground Boat Launch and Canyon Dam Boat Launch/DUA are potentially suitable locations for accessible boating facilities. The Forest Service provides the LART, which is generally accessible in most areas, and is currently being extended to reach Canyon Dam Boat Launch/DUA.

Both the existing trail and the extension should meet draft proposed ADAAG guidelines. The Forest Service constructed an accessible fishing access site at Canyon Dam Boat Launch/DUA. Overall, the agency has focused its efforts on accessibility to recreational trails, but has not provided other accessible recreation facilities in the Project area. Future facility improvements and renovations should include providing additional campsites, picnic sites, and other facilities to meet draft proposed ADAAG guidelines when adopted.

Licensee Recreation Sites

In past years, the Licensee has reviewed all of its recreation facilities at the Project for ADA compliance. This review focused on developed facilities addressed in the existing ADAAG or in PLAE, Inc. (1993). As a result of this review, some recreation facilities at the Project have been renovated for accessibility in the past few years.

The Licensee has renovated its restrooms at each of its recreation facilities and has made at least 5 percent of its campsites accessible. A majority of Licensee campgrounds provide designated accessible campsites. Only Last Chance Campground/Group Camp has no accessible campsites. Some of the elements in each of these designated accessible sites, however, are not accessible and should be retrofitted to meet draft proposed ADAAG guidelines when adopted.

Overall, the Licensee has provided a decent number of accessible campsites, but should retrofit existing elements within designated campsites and add additional accessible campsites. The Licensee does not provide many accessible picnic sites.

Only Canyon Dam DUA provides an accessible picnic area. Future facility improvements and renovations should include the provision of additional accessible picnic sites and other facilities to meet draft proposed ADAAG guidelines.

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