

**SACRAMENTO MUNICIPAL UTILITY DISTRICT
UPPER AMERICAN RIVER PROJECT
(FERC NO. 2101)**

**RECREATION SUPPLY
TECHNICAL REPORT**

Prepared by:

Devine Tarbell & Associates, Inc.
Sacramento, California

The Louis Berger Group
Oakhurst, California

Prepared for:

**Sacramento Municipal Utility District
Sacramento, California**

SEPTEMBER 2004

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- Recreation Supply Study Plan

7.6 Recreation Supply Study

The Recreation Supply Study is primarily a recreation site and facility inventory. It focuses on the existing Project recreation facilities and their condition and includes an inventory of the type of recreation facilities, opportunities and accommodations available in the Project vicinity. It also identifies dispersed recreational sites near Project reservoirs and the status of any Wild and Scenic Rivers in the vicinity.

7.6.1 Pertinent Issue Questions

The Recreation Supply Study addresses the following recreational resource questions:

5. What are the material conditions of Project developed sites and facilities? Do Project recreational facilities on USFS land meet current design requirements (including accessibility)?
36. What are the regional recreational opportunities in view of the primary recreational opportunities at the Project?
- 40/48. Are there any and, if so, what is the status of any identified/designated Wild and Scenic River reaches (e.g., USFS, BLM, NRI, or state) affected by the Project?
59. What are the existing Project facilities (e.g., identify, inventory and map)?
60. Where are the dispersed recreational sites near Project facilities (e.g., identify and map)?
61. What are the existing recreational opportunities (note: includes opportunities at dispersed recreational sites near Project facilities)?

7.6.2 Background

The Project provides settings that attract recreating visitors who often stay for extended periods of time (i.e., not just passing by). The Project recreation facilities accommodate the needs of these visitors by providing for basic needs such as water and sanitation as well as visitor comfort in the form of tables, fire grills and formal sites in day use areas and campgrounds. It is important that the public visiting the Project is provided with safe and accessible facilities for their recreational experience.

In addition to the recreation use at numerous developed facilities, dispersed camping occurs along reservoir shorelines and roads in the Crystal Basin and dispersed day use occurs from people staying at Project facilities and recreating at other locations on the Forest (e.g., Wrights Lake). There are also informal access points to Silver Creek via Bryant Springs Road and Jay Bird Road, and the SFAR via Meadow Lane, Mosquito Road, North Canyon Road and Forebay Road near Camino Powerhouse.

When discussing recreation needs, it is necessary to identify what supply exists in terms of both opportunities and facilities. The Recreation Supply Study is designed to provide this information in both Project and regional aspects.

7.6.3 Study Objectives

The objectives of this study include:

- Documenting and describe the recreation opportunities
- Documenting and describe Project recreation facilities
- Documenting and describe non-Project recreation facilities/sites
- Identifying the existing condition (including accessibility) of Project recreation facilities and determine consistency with management plans
- Identifying management direction for the recreation resources
- Answering all pertinent issue questions listed above in 7.6.1

7.6.4 Study Area and Sampling Locations

The study area for determining the regional recreation supply in the vicinity of the Project will include the Highways 50, 80, and 88 corridors, between the California Central Valley and the Highway 395 corridor.

The study area for condition and accessibility inventories will include all of the developed Project recreation facilities including:

Crystal Basin--Northshore Campground, Red Fir Group Campground, Pleasant Campground, Loon Lake Day Use Area, Loon Lake Campground, Loon Lake Group Campgrounds, Loon Lake Equestrian Campground, Loon Lake Equestrian Group Campground, Loon Lake Chalet, Loon Lake Wilderness Trailhead, Loon Lake Sanitation Station, Gerle Creek Campground, Airport Flat Campground, Gerle Creek Day Use Area, Angel Creek Day Use Area, Yellowjacket Campground, Wolf Creek Campground, Camino Cove Campground, West Point Campground, Jones Fork Campground, Lone Rock Campground, Fashoda Campground and Day Use Area, Sunset Campground, Big Silver Campground, Azalea Cove Campground, Union Valley Bike Trail, Sunset Sanitation Station, Wolf Creek Sanitation Station, Wench Creek Campground, Ice House Campgrounds, Northwind Campground, Strawberry Point Campground, Ice House Day Use Area, Crystal Basin Information Station, Cleveland Corral Information Station, and all developed boat launch facilities at Loon Lake, Gerle Creek, Union Valley and Ice House reservoirs.

Canyonlands--primitive boat launches at Junction, Brush Creek and Slab Creek reservoirs.

Although dispersed use is prevalent throughout the ENF, much of it occurs near Project reservoirs. The study area to identify dispersed recreation sites will be generally within one-quarter of a mile of Project reservoirs (the study area and process for identifying dispersed sites is described further in Study Methods and Schedule).

The study area for assessing Wild and Scenic River status will include all river reaches below Project impoundments between Rubicon Reservoir and Folsom Dam.

7.6.5 Information Needed From Other Studies

Any pertinent information developed in the whitewater boating studies. Recreation activity information from Visitor Use and Impact Study will be used to develop the supply of opportunities.

7.6.6 Study Methods And Schedule

REVIEW OF PUBLISHED OR OTHERWISE AVAILABLE INFORMATION--A review of the following ENF data will be completed in 2002: facility condition inventory reports, ADA surveys, transition plans, meaningful measures standards and data, trail condition inventory, GIS map of dispersed campsites, wilderness permit data and wilderness campsite inventory (code-a-site). These sources will be reviewed to determine if there is information lacking on any of the sites in the study area. A review of existing plans and documents will be made to identify the status of any Wild and Scenic Rivers and to identify regional recreation opportunities. These would include: EDC Trails Plan, El Dorado County Chamber of Commerce Tourism Plan, SFAR River Management Plan and supporting documents, LRMP's for ENF, TNF and LTBMU, California Travel Parks Association.

CONDITION INVENTORY--For developed sites where condition information is not available or is insufficient, inventories will be conducted in 2002 for condition and accessibility using established Forest Service standards (condition standards and accessibility guidelines established by the Regulatory Negotiation Committee on Accessibility Guidelines for Outdoor Developed Areas).

INTERVIEWS WITH AGENCIES AND PRIVATE RESORT OPERATORS--Key operational staff will be contacted to gather basic information regarding recreation facilities such as facility capacity, season of use, and type of accommodations. Information on any planned facility development will also be acquired. Interviews would be initiated in 2002 and completed by the fall of 2003.

IDENTIFICATION OF DISPERSED SITES-- Identification of the dispersed sites (including sites or river access points in the High Country, Crystal Basin and Canyonlands) will be made in consultation with the ENF and other interested participants. Differentiation will be made between dispersed camping sites and dispersed day use sites. The process of identifying the sites will begin with a review of a GIS map layer that identifies dispersed sites located by ENF staff with GPS equipment. Generally, all identified sites within one-quarter of a mile of Project reservoirs (including locations or river access points in the High Country, Crystal Basin and Canyonlands), as well as other

sites beyond the one-quarter mile zone identified in consultation with the ENF and other interested participants, and agreed to by SMUD, will be included in the Recreation Supply Study. These locations will be provided to other Technical Working Groups that require this information to complete the other resource studies. There may be exceptions to this qualification and these will be discussed and resolved with the ENF and interested participants and documented by the Licensee. This task to identify the dispersed sites will begin in February 2002 and should be completed by the end of March 2002. Available information about these locations will be obtained and reviewed for adequacy from ENF dispersed site data. If this information is unavailable or insufficient, site visits will be made to the locations during the summer 2002 and information will be gathered that includes the approximate size of the area and the proximity of the site to shoreline, roads or other sensitive areas.

7.6.7 Analysis

The information developed in this study will be used to assess the adequacy of the developed Project recreation facilities relative to established standards for health and safety and accessibility. It will also include a discussion of dispersed and other recreation opportunities that are available in the vicinity of the Project. The regional supply of recreation facilities will provide a context for the Project recreation facilities and will be used in preparing the Recreation Needs Assessment and, ultimately, the Project Recreation Plan. The location of the developed and dispersed use sites will be used to define study areas for other resource studies.

7.6.8 Study Output

The study output will be mostly narrative report with tables displaying Project facility condition and capacity data. It will include photographs of facilities and a discussion of developed and dispersed recreation opportunities in the vicinity of the Project. It will be organized by geographical location (High Country, Crystal Basin and Canyonlands) and include the issue questions addressed, objectives, study area, methods, results, analysis, discussion and conclusions. Maps that show the locations and configurations of the developed recreation facilities and the dispersed sites will also be included in the report. The report will be prepared in a format that allows the information to be inserted directly into the Licensee-prepared Draft Environmental Assessment that will be submitted to the FERC with the Licensee's application for a new license.

7.6.9 Preliminary Estimated Study Cost

SMUD's consultant estimates that this study will cost \$29,000 ± 20 percent.

7.6.10 Recreation and Aesthetic TWG Endorsement

This study plan was approved on February 22, 2002 by the following entities of the TWG: ENF, SWRCB, American River Recreation Association, PCWA, NPS, BLM and SMUD. This study plan will be sent out to other members of the Recreation and Aesthetics TWG for their consideration.

The Plenary Group approved this study plan on March 6, 2002. The participants at the meeting who said they could "live with" the study plan were: Taxpayers of EDC, ENF, Camp Lotus/ARRA, SMUD, EDC, PG&E, EDC Citizens for Water, PCWA, NPS, BLM, CDFG, California Outdoors, and SWRCB. None of the participants at the meeting said they could not "live with" the study plan.

7.6.11 Literature Cited

None.

RECREATION SUPPLY TECHNICAL REPORT

SUMMARY

SMUD collected information about recreation resources in the region and at the UARP for this study. The information presented in this technical report includes a description of the recreation opportunities as well as the general types of facilities and services that are available to visitors in the region which was generally defined as the area bounded by Interstate 80 and Highways 50 and 88, between Highway 395 and the Central Valley of California. Recreation opportunities, facilities and services available at the UARP were investigated generally within one-quarter mile of the UARP reservoirs. The facilities investigated in this study included the UARP recreation facilities, which are defined as the facilities that were constructed by SMUD as part of the original Recreation Plan for the UARP and the facilities that were constructed under the amended Recreation Plan. The original UARP recreation facilities were constructed in the 1960s when the reservoirs were constructed. Additional facilities were constructed after SMUD amended the Recreation Plan in 1985 due to the construction of the Jones Fork Powerhouse.

Regionally, there is a wide spectrum of recreation opportunities available to visitors. There are wilderness areas and Wild and Scenic Rivers, which are managed for natural settings and motorized access is restricted. There are forested settings where there is paved and unpaved roaded access and visitors can find facilities for overnight and day use as well as undeveloped areas where visitors must provide for their own comfort. Flatwater bodies of water and flowing streams and rivers are abundant and these are generally available for public use because of the predominance of National Forest System land. On the other end of the spectrum Lake Tahoe, a nationally and internationally known recreation destination, provides the ultimate combination of developed facilities including resorts, restaurants and marinas, with proximity to natural areas with public access in the surrounding Lake Tahoe Basin. Within the region there are motorized and non-motorized trails and opportunities for boating, watersports, stream and lake angling, road and mountain biking, downhill and cross country skiing, snowmobile and OHV use, camping and day use and whitewater boating. Important recreation features in the region also include National Trails and Scenic Byways.

At the UARP there are large reservoirs with boat launching facilities that allow public access to the reservoirs for angling, watersports, boat-in camping, power and non-motorized boating. There are also smaller reservoirs with small, informal areas for hand launching small motorized and non-motorized boats and two reservoirs at the highest elevation are accessible by hiking, pack stock or OHV. The majority of the recreation use associated with the UARP occurs during the summer months in the geographic area referred to as the Crystal Basin. SMUD has developed many facilities in the Crystal Basin for accommodating recreation use at the Project reservoirs. These recreation facilities include campgrounds, day use areas, boat launches, trails (biking, hiking, and interpretive), an overlook and a chalet. The total developed overnight capacity in the Crystal Basin is 5,325 people-at-one-time (PAOT). The campgrounds have a capacity of 4,633 PAOT and the privately owned resorts and private camps have a capacity of 692 PAOT.

The conditions of the UARP recreation facilities range from poor to excellent. Examples of poor facility conditions include the cracked pavement and broken traffic control barriers, short spurs and worn and dated campsite components and restrooms. Most of the developed facilities have at least some deficiencies related to accessibility however the more recently constructed facilities have been designed to comply with accessibility guidelines. The report presents the actions that would bring the existing UARP recreation facilities into compliance with the accessibility guidelines.

Dispersed recreation use is common near the four main UARP reservoirs in the Crystal Basin and infrequent at the remaining reservoirs. The dispersed recreation sites where overnight and day use activities presently occur were identified, mapped, and inventoried for resource damage. The means of access to the sites were also identified. There are designated and user created access roads within and adjacent to the powerline corridors that receive OHV use, particularly in the area between Loon Lake and Gerle Creek reservoirs and on the north side of Union Valley Reservoir.

A flatwater recreation summary table is presented in the report which lists reservoir size, range of reservoir fluctuation, boat launches and their usable elevations, visitor use restrictions, season and condition of access, important attributes of the reservoirs, boating difficulties, and shoreline facilities available.

Visitor information, education and interpretive opportunities are available in the Crystal Basin. There are two information stations which are the main locations where visitors can obtain information including a brochure and map that is provided to the ENF by SMUD. Visitor education and interpretive opportunities are not widely available for visitors to the UARP.

1.0 INTRODUCTION

This technical report is one in a series of reports prepared by Devine Tarbell & Associates, Inc., and The Louis Berger Group, Inc. for the Sacramento Municipal Utility District (SMUD) as an appendix to the SMUD's application to the Federal Energy Regulatory Commission (FERC) for a new license for the Upper American River Project (UARP or Project). This technical report identifies the recreation facilities at the UARP and their condition. This report includes the following sections:

- **BACKGROUND** – Includes when the applicable study plan was approved by the UARP Relicensing Plenary Group; a brief description of the issue questions addressed, in part, by the study plan; the objectives of the study plan; and the study area. In addition, requests by resource agencies for additions to this technical report are described in this section.
- **METHODS**– A description of the methods used in the study, including a listing of study sites.
- **RESULTS** – A description of the salient data results. Raw data where copious and detailed model results are provided in a separate compact disc (CD) for additional data analysis and review by interested parties.
- **FINDINGS** – A broad statement of the study findings.
- **LITERATURE CITED** – A listing of all literature cited in the report.

This technical report does not include a detailed description of the UARP Alternative Licensing Process (ALP) or the UARP, which can be found in the following sections of SMUD's application for a new license: The UARP Relicensing Process, Exhibit A (Project Description), Exhibit B (Project Operations), and Exhibit C (Construction).

Also, this technical report does not include a discussion regarding the effects of the UARP on recreational resources or associated environmental resources, nor does the report include a discussion of appropriate protection, mitigation and enhancement measures. A discussion regarding resource impacts associated with the UARP is included in the applicant-prepared preliminary draft environmental assessment (PDEA) document, which is part of SMUD's application for a new license. Development of resource measures will occur in settlement discussions, which will commence in early 2004, and will be reported on in the PDEA.

The UARP Relicensing Plenary Group agreed that this study would not specifically address Pacific Gas and Electric Company's Chili Bar Reservoir or the 20-mile-long section of the South Fork American River from Chili Bar Dam to Folsom Reservoir.

2.0 BACKGROUND

The UARP Recreation and Aesthetics Technical Working Group (TWG) developed a total of eight recreation studies to collect information to answer the issue questions relating to recreation resources associated with the UARP. This report contains the results of the Recreation Supply Study, which is discussed below.

2.1 Recreation Supply Study Plan

On March 6, 2002 the UARP Relicensing Plenary Group approved the Recreation Supply Study Plan that was developed and approved by the Recreation and Aesthetics TWG on February 22, 2002. The study plan was designed to address, in part, the following issues questions developed by the Plenary Group:

- | | |
|-----------------------|---|
| Issue Question 5. | What are the material conditions of Project developed sites and facilities? Do Project recreational facilities on USFS land meet current design requirements (including accessibility)? |
| Issue Question 36. | What are the regional recreational opportunities in view of the primary recreational opportunities at the Project? |
| Issue Question 40/48. | Are there any and, if so, what is the status of any identified/designated Wild and Scenic River reaches (e.g., USFS, BLM, NRI, or state) affected by the Project? |
| Issue Question 59. | What are the existing Project facilities (e.g., identify, inventory and map)? |
| Issue Question 60. | Where are the dispersed recreational sites near Project facilities (e.g., identify and map)? |
| Issue Question 61. | What are the existing recreational opportunities (note: includes opportunities at dispersed recreational sites near Project facilities)? |

Specifically, the objectives of the study plan were to:

- Document and describe the recreation opportunities
- Document and describe UARP recreation facilities
- Document and describe non-UARP recreation facilities/sites
- Identify the existing condition (including accessibility) of UARP recreation facilities and determine consistency with management plans

- Identify management direction for the recreation resources
- Answering all pertinent issue questions listed above

As discussed above, this *Recreation Supply Technical Report* does not address UARP impacts or protection, mitigation or enhancement measures.

The study area for the regional aspects of the recreation supply in the vicinity of the UARP included the area bounded by the corridors of Interstate 80, State Highways 50 and 88 between the California Central Valley and the State Highway 395 Corridor.

The study area for condition and accessibility inventories included all of the developed UARP recreation facilities listed below. The UARP recreation facilities are defined as facilities that were constructed by SMUD as part of the original recreation plan for the UARP and the facilities that were constructed under the Exhibit R of the Jones Fork amendment to the UARP license. The study area for condition and accessibility inventories does not include Pacific Gas and Electric Company's Chili Bar Reservoir or any recreation facilities located along the 20-mile-long section of the South Fork American River from Chili Bar Dam to Folsom Reservoir.

Crystal Basin--Northshore Campground, Red Fir Group Campground, Pleasant Campground, Loon Lake Boat Launch & Day Use Area, Loon Lake Wilderness Trail Head, Loon Lake Campground, Loon Lake Equestrian Campground, Loon Lake Equestrian Group Campground, Loon Lake Chalet, Gerle Creek Campground, Airport Flat Campground, Angel Creek Day Use Area, Yellowjacket Campground, Wolf Creek Campground, Camino Cove Campground, West Point Campground, West Point Boat Launch, Jones Fork Campground, Lone Rock Campground, Fashoda Campground and Day Use Area, Sunset Campground, Sunset Boat Launch, Big Silver Campground, Azalea Cove Campground, Union Valley Reservoir Bike Trail, Wench Creek Campground, Ice House Campground, Ice House Boat Launch, Ice House Day Use Area, Northwind Campground, Strawberry Point Campground, Big Hill Overlook, and Cleveland Corral Information Station.

Canyonlands--primitive boat launches at Junction, Brush Creek and Slab Creek reservoirs.

Although dispersed use is prevalent throughout the ENF, much of it occurs near UARP reservoirs. The study area to identify dispersed recreation sites was generally the area within one-quarter of a mile of UARP reservoirs.

The study area for assessing Wild and Scenic River (WSR) status includes all river reaches below UARP impoundments between Rubicon Reservoir and Pacific Gas and Electric Company's Chili Bar Dam, and includes the Reach Downstream of Chili Bar.

2.2 Water Types

The Water Balance Model Subcommittee developed a recommendation for defining water types however, these water year types do not pertain specifically to the Recreation Supply Study.

2.3 Recreation TWG Determination of Adequacy

At the July 29, 2004, Recreation TWG meeting, the Recreation TWG determined that the *Recreation Supply Technical Report*, dated April 2004, is adequate subject to all comments submitted by the TWG participants being incorporated into a new version of the report and reviewed by the Recreation TWG. The Recreation TWG developed specific comments and action items for the report at its July 28, 2004, and August 9, 2004, meetings, as documented in the corresponding Recreation TWG meeting summaries. Appendix D summarizes all comments and action items and references how each comment was addressed.

3.0 METHODS

The study methods conformed to those approved by the UARP Relicensing Plenary Group. The methods used to collect data for this study included reviewing published or otherwise available information, interviews with visitors, agency staff and facility operators and field inspections. These methods are described in greater detail below.

3.1 Review of Published or Otherwise Available Information

In March 2003, the ENF provided SMUD with the following information that was reviewed for this report:

- Facility condition reports for recreation facilities in Crystal Basin
- Facility surveys for accessibility for recreation facilities in Crystal Basin
- Capital Investment Program (approved projects to construct or reconstruct recreation facilities with funds appropriated from Congress to the Forest)
- Special Use Permit for American Land & Leisure (AL&L) to operate and maintain recreation facilities in Crystal Basin that are federally-owned
- ENF Land and Resource Management Plan (LRMP) (as amended)
- Recreation Opportunity Guides (material published by the ENF and provided at points of visitor contacts such as Crystal Basin Information Station)

Other information used for this study included:

- Recreation site information developed by SMUD in the Initial Information Package for the UARP (SMUD 2001)
- Results of visitor surveys conducted in 2002-03 by SMUD (*Visitor Surveys 2002 –03 Technical Report*)
- Wild & Scenic Rivers status from the National Park Service Website at <http://www.nps.gov/rivers/wildriverslist.html#ca> and from the ENF LRMP.

- Exhibit R Recreation Plan, Upper American River Project License No. 2101. SMUD, January 1985 (as amended).
- The draft Recreation Studies Map, showing probable and possible locations of recreation activity that may be related to the UARP which were developed by the ENF and approved by the Recreation Technical Working Group on April 17, 2002
- California Recreational Trails Plan
- El Dorado County Trail Planning Documents
- Websites for the National Wilderness Preservation System, National Scenic Byways Online, National Trail System (Forest Service), El Dorado County, California State Parks Department
- Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Recreation Facilities; Recreation Facilities, (Access Board 2002)

3.2 Interviews with Agency Staff and Recreation Facility Operators

Interviews with agency staff and recreation facility operators were conducted between the summer 2002 and spring 2004. The interviews were conducted using a list of questions developed to collect data for this study as well as other recreation studies. The data collected from these interviews was reviewed and used in developing the recreation activities that occur at the developed recreation sites. Interviews were conducted in person or by phone with the following individuals:

<i>Name(s)</i>	<i>Facility/Title</i>	<i>Date of Interview</i>
George & Rosemary Lewis	Ice House 1/Campground Host	August 11, 2002
Irene Harpel	Sunset 1/Campground Host	August 11, 2002
Darryl & Sue Balderston	Loon Lake/Campground Host	August 19, 2002
Frank O'Halloran	Robbs Valley Resort/Owner	August 28, 2002
Julie Wentworth	Ice House Resort/Owner	August 28, 2002
Jim Pence	Wench Creek/Campground Host	August 28, 2002
Sharon Figg	Wolf Creek/Campground Host	September 1, 2002
John Sailor	Sunset 3/Campground Host	September 1, 2002
John Young	AL&L ¹ Area Manager	September 20, 2002
Lester Lubetkin	Forest Recreation Officer, ENF	January 29, 2004
Rich Platt	District Resource Officer, ENF	January 29, 2004
David Boyer	District Recreation Officer, ENF	January 29, 2004
Ron Hancock	District Recreation Officer, ENF	April 7, 2004

¹American Land and Leisure, ENF Concessionaire operating recreation facilities in Crystal Basin

The information in this report also draws upon discussions and information shared by participants at various Recreation and Aesthetics TWG's meetings. In particular, the preliminary findings of this study were presented at the July 23, 2003 Recreation and Aesthetics TWG meeting, which initiated discussion among the TWG participants about observed recreation activities and conditions of the UARP recreation facilities.

3.3 Identification of Dispersed Recreation Sites

Recreation activities that take place outside of areas with developed facilities such as boat launches, campgrounds and day use areas are referred to as dispersed recreation. Dispersed

recreation includes day use activities such as swimming, fishing, sightseeing, hunting, and picnicking as well as overnight camping. Inspections for dispersed recreation sites included the area generally located within one-quarter mile of the reservoir shorelines. SMUD also investigated a few areas beyond one-quarter mile of the reservoir shorelines on National Forest System (NFS) lands where the Forest Service expressed a belief that recreation use occurring at these sites is related to the UARP. SMUD conducted a survey of visitors in this area to assess the level of dispersed recreation that is related to the UARP in order to assist in determining SMUD's proportionate share of responsibility for addressing needs associated with dispersed recreation activity in this area. The results of this survey referred to as the Zone 3 Survey, are contained in the *Visitor Use and Impact Technical Report*.

The dispersed recreation sites were identified by field inspections and direct observations of recreation use. Initial locations identified for the field inspections were determined on May 16, 2002 during consultation with the ENF field staff familiar with recreation activity in the study area. The locations used by SMUD to conduct the field inspections were identified on USGS quad maps by the Forest Service field staff. Additional sites were identified by the ENF during the March 26, 2003 Recreation TWG meeting.

Field inspections were completed on the following dates:

Upper Jones Fork Silver Creek (Frisco Ford)*	May 25, 2002 June 12, 2003
Lower Jones Fork Silver Creek*	June 12, 2003
Big Silver Creek (Millionaire Camp)*	May 25, 2002 June 12, 2003
Robbs Forebay	May 25, 2002
Loon Lake Reservoir	May 25, 2002 August 11, 2002 August 19, 2002 July 16, 2003
Union Valley Reservoir	May 25, 2002 July 23, 2002 September 1, 2002 June 23, 2003
Ice House Reservoir	July 4, 2002 July 23, 2002 March 31, 2002
Gerle Creek Reservoir	May 25, 2002 July 5, 2002
Spider Lake*	August 19, 2002
Junction Reservoir	April 8, 2003
Slab Creek Reservoir	April 8, 2003 April 9, 2003
Rubicon Reservoir	July 15, 2003
Buck Island Reservoir	July 15, 2003

*Sites that are outside of the Project boundary and more than ¼ mile beyond reservoir shorelines.

The shorelines were inventoried by driving the various roads that access the shoreline and by boating or hiking to areas of the shoreline that did not have roaded public access. SMUD inspected all of the areas that were identified during consultation with the ENF staff. The entire

shorelines of Rubicon, Ice House, Union Valley, Gerle and Loon Lake, reservoirs were also inspected. Aerial reconnaissance of Buck Island Reservoir indicated that along the eastern shoreline there was no evidence of recreation activity such as user-created trails or campsites. Additionally, the slope along the shoreline appeared steep and unsuitable for most dispersed recreation activities. Consequently the eastern shoreline was not inspected on the ground but the north, west and south portions of the shoreline of Buck Island Reservoir between the Rubicon OHV Route and the Rubicon Hiking Trail were inspected for dispersed recreation sites.

The shorelines of Junction, Camino, Brush and Slab Creek reservoirs were only inspected in the vicinity of the adjoining access roads. These reservoirs have steep shorelines and the remoteness of the reservoir locations and rough-surfaced access roads limit boating opportunities. Consequently, dispersed recreation activities generally occur where there is roaded access near the reservoir shoreline and where roads cross the UARP reaches.

The dispersed sites associated with overnight use were generally identified by the presence of a rock fire ring. The latitude and longitude of the dispersed overnight site locations were recorded using a Global Positioning System device. Photographs of some of the sites and nearby site conditions were also taken during the site inventory.

The dispersed sites associated with day use were generally identified by observations of actual visitor use during the summer of 2002 and 2003 which were taken concurrent with the visitor survey effort; usually visitors were observed swimming, fishing and relaxing in these areas. In general, these areas are along or within one-quarter mile of the reservoir shorelines, are usually located immediately adjacent to an access road and do not have user-created rock fire rings. At times some of the dispersed sites are used for both day and overnight use.

The site inventory noted an opinion of how the site is accessed by visitors and the presence of: 1) user-created amenities such as fire rings, shelves, and tables; 2) proximity to shoreline, water, or trail; 3) vegetation damage or removal; 4) erosion; 5) trash; and 6) sanitation problems.

4.0 RESULTS

The results related to the UARP vicinity are presented in three sections. The first section describes the regional recreation opportunities including wilderness, WSR, whitewater boating, and developed recreation facilities. The second section describes the UARP recreation facilities and recreational opportunities associated or possibly associated with the UARP that are present in the three geographical areas described in Section 2.1: 1) High Country; 2) the Crystal Basin; and 3) Canyonlands. The study results for each geographical area includes a discussion of 1) recreation opportunities available; 2) developed recreation facilities (both public and privately owned); and 3) dispersed use sites present at and near the UARP. SMUD has also included photographs of UARP recreation facilities and sites with dispersed recreation use in Appendix B. The third section summarizes details about flatwater recreation resources at each reservoir.

4.1 Regional Recreation

4.1.1 Wilderness

There are over 91,000 acres in three designated wilderness areas in the study area region. The three wilderness areas are: Mt. Rose, Granite Chief, and Desolation wildernesses. In general, activities in designated wilderness areas are restricted to non-motorized uses, there are trails for hiking and pack stock, directional signing is provided on trails, party size is limited, overnight camping permits are required and campers are required to locate their campsites away from trails, streams and lakes. Administrative units manage wilderness areas to preserve and enhance the natural character of these areas. These areas are shown in Figure 4.1-1.

The only wilderness in the region that is not located in California is the Mt. Rose Wilderness. This area is located in western Nevada between Lake Tahoe and Reno, Nevada and it encompasses 28,121 acres of most of the high country of the Carson Range. Due to its proximity to Reno, it is heavily used and an estimated 200 hikers per day use the Mt. Rose Trail on weekends. The Hunter Lake OHV Route (non-wilderness) divides the wilderness into two sections where users can find meadows and lakes for camping and other dispersed activities. This wilderness is administered by the Toiyabe National Forest.

The Granite Chief Wilderness is the smallest of the three designated wilderness areas and it encompasses 19,048 acres in the Sierra Nevada. This area is located at the headwaters of the American River south of Interstate 80 and approximately five miles west of Lake Tahoe. This wilderness includes a portion of the Pacific Crest Trail and the French Meadows Game Refuge. The wilderness includes several trails that visitors use to enjoy the high mountain setting of forests, meadows, streams, exposed rock formations, granite cliffs and glacier-carved valleys. This wilderness is administered by the Tahoe National Forest.

The wilderness area nearest to the UARP is the Desolation Wilderness. This wilderness encompasses 63,475 acres on the west and east slopes of the Sierra Nevada. Located north of Highway 50 and approximately two miles southwest of Lake Tahoe, this is one of the most heavily used wilderness areas of its size (USDA 1998). Approximately 17 miles of the Pacific Crest Trail traverse this wilderness in a north-south direction. The wilderness includes many other trails that visitors use to enjoy the forested mountain setting. Two administrative units of the Forest Service manage this wilderness: the Lake Tahoe Basin Management Unit and the Eldorado National Forest.

4.1.2 Wild and Scenic Rivers

In the study area, there is currently only one designated Wild and Scenic River and one candidate river that is on the National Park Service list of inventoried rivers. These river segments are shown in Figure 4.1-2.

The 38.3-mile segment of the North Fork American River between Heath Springs and the Colfax-Iowa Hill Bridge has a 'wild' classification. This river is noted for its outstanding scenery, remote recreation, and historic gold mining values. About half of the river segment is accessible by steep historic trails. Gorge scrambling is the most popular activity followed by hiking, fishing and rafting. The managing agencies for this river segment are the BLM and the Tahoe National Forest.

The 29-mile segment of the Rubicon River between Hell Hole Dam (a non-UARP dam) and the confluence with the Middle Fork of the American River at Oxbow Reservoir (a non-UARP reservoir) is a candidate for WSR designation. The river segment between the upstream end of the river and Ellicott Bridge has a potential 'Wild' classification and the river segment below Ellicott Bridge has a potential 'Scenic' classification (pers. comm. L.Lubetkin, ENF, 7/29/2004). The first 10 miles of the reach are designated a California Wild Trout Stream. The ENF LRMP has guidance to provide interim protection of the river's wild, scenic or recreational values until it is formally designated or removed from the list of rivers proposed for designation. The management direction for the Rubicon River stated in the ENF LRMP is to:

- Provide moderate sized campgrounds and other recreation facilities that are accessible from the rivers. Screen buildings and improvements. Keep them at least 100 feet from the rivers edge.
- Allow development at Levels I and II with designs that harmonize with surroundings.

The agency responsible for managing this river segment is the ENF.

4.1.3 National Trails and Scenic Byways

There are several travel routes in the study area with special status that are designated National Trails and Scenic Byways. These routes are also recognized as existing or planned long-distance trail routes in the California Recreational Trails Plan (California State Parks 2002).

The National Trails System consists of Congressionally designated national scenic trails, which are continuous, protected scenic corridors for outdoor recreation, and national historic trails which recognize prominent past routes of exploration, migration and military action. The historic trails generally consist of remnant sites and trail segments and thus are not necessarily continuous. Although both types are administered by federal agencies, land ownership may be in public or private hands. National Recreation Trails are existing trails recognized by the Federal government as contributing to the National Trails System. These trails are managed by public and private agencies at the local, state, and national levels and include nature trails, river routes, and historic tours.

The National Trails present in the region include the Pacific Crest National Scenic Trail (PCT), California National Historic Trail and the Pony Express National Historic Trail. The locations of these trails are shown in Figure 4.1-3. There are no National Trails within the UARP boundary or even within one mile of any UARP feature.

The PCT is a hiking trail that lies along the spectacular shoulders of the Cascade and Sierra Nevada mountain ranges from Canada to Mexico. It passes through 25 national forests and seven national parks. The trail was completed in Oregon and Washington in 1987. Portions of the PCT are also part of the Tahoe Rim Trail, one of the world's premier trails. The Tahoe Rim Trail encircles Lake Tahoe and it offers something for everyone. Hiking, horseback riding and skiing are allowed on all portions of the trail. Mountain biking is allowed on the trail with the exception of within the wilderness areas, the section that is in the City of Lake Tahoe, Nevada State Park and the part that co-located with the Pacific Crest Trail. The Tahoe Rim Trail is not part of the National Trails System however it has regional importance because it encircles Lake Tahoe.

The California National Historic Trail has several branches that pass through this region of California. After the discovery of gold at Sutter's Mill in California, the 1849 gold rush followed many paths. Starting at several points along the Missouri River, gold seekers converged on the Great Platte River Road, overlapping with Oregon and Mormon emigrants, until they had crossed the crest of the Rockies. From there a variety of routes were used to get to and cross various passes through the Sierra Nevada mountains. These routes were generally determined by the availability of water and grass, the knowledge of guides, or the presence of Indians. Today the trail's comprehensive management plan is being completed to outline auto tour routes, public land management policies, interpretive themes, and public-private partnerships essential to commemorating this important chapter in opening the American west.

The Pony Express Route began in 1860 as a vital mail route connecting the eastern United States to California, this privately financed operation only lasted 18 months before it was supplanted by telegraph. Dozens of wiry riders and hundreds of horses conducted the relay of mail through desert and plain, mountains and storms around the clock to get the mail through. Today, many portions of the route are marked by highways signs and, in the study area, the trail parallels portions of Highway 50.

The ENF LRMP also lists the Rubicon OHV Route as a candidate for the National Recreation Trails System. The route itself is a county road under jurisdiction of El Dorado County. There are approximately six miles of the trail located on NFS land between Airport Flat Campground (T.13N., R.14E., section 11) and the ENF boundary (T.14N., R.16.E, section 30). The trail passes through both NFS land and privately owned land however only the portions of the trail located on NFS land are proposed for inclusion in the National Recreation Trails System.

The region also has several scenic byways that are designated at the state and national levels. These are designated routes that are recognized because of their archaeological, cultural, historic, natural, recreational and scenic qualities. The scenic byways are shown on Figure 4.1-4 and described below.

In California there are three state scenic byways. Route 50 is a 58-mile byway between Placerville and South Lake Tahoe that travels through the American River Canyon, over the granite peaks of Echo Summit and descends into the Tahoe Basin with spectacular views of Lake Tahoe. Carson Pass Scenic Byway (portions of State Highway 88) is a 59-mile byway that winds through the western slopes of the Sierra Nevada, crossing the summit at Carson Pass to the eastern slope. It travels along alpine forests and meadows, with spectacular views of lakes and mountain peaks, and features volcanic landscapes. Route 89 is a 56-mile scenic highway that journeys through the Sierra Nevada, passing through high passes and open mountain valleys on its way to Lake Tahoe.

To the east of the UARP in Nevada, there is one state scenic byway and one national scenic byway. The Mt. Rose Highway is a 19.5-mile state scenic byway in the Carson Range of the Sierra Nevada. The Mt. Rose Highway is the highest all-season pass in the Sierra Nevada and it is a favorite all-season recreation area for local residents. It extends from Tahoe Meadows to Highway 28 at Incline Village on the north shore of Lake Tahoe. It has views and vistas and provides access to the Mt. Rose Wilderness, Tahoe Rim Trail, Mt. Rose Ski Resort, and Diamond Peak Cross-Country Ski Resort.

The Lake Tahoe Eastshore Drive is a 28-mile national byway that is designated an 'America's Byway'. It follows the eastern shore of Lake Tahoe and affords travelers with breathtaking views of Lake Tahoe and snow-capped mountains. In addition to its scenic value, it also provides access to a variety of recreation opportunities in the Lake Tahoe Basin.

4.1.4 Whitewater Boating

The reaches of rivers and streams that provide whitewater boating opportunities in the study area are shown in Figure 4.1-5 and listed in Table 4.1-1.

Table 4.1-1. Regional whitewater boating opportunities.						
Name of Run	Put-In & Take Out	Length (miles)	Gradient (feet per mile)	Class	Boating Range¹ and (Optimum Flow)	Boating Season
North Fork American River						
Generation Gap	Tadpole Creek to Colfax-Foresthill Rd.	12.3	75	IV-V 0 portages	600-2,000 (1,200)	Spring
Giant Gap	Euchre Bar to Colfax-Iowa Hill Rd.	14.5	54	IV-V 0 portages	600-2,500 (1,000)	Winter, Spring
Chamberlain Falls	Colfax-Iowa Hill Rd. to Colfax-Foresthill Rd.	4.8	44	III-IV+ 0 portages	800-2,500 (1,500)	Winter, Spring
Ponderosa Way	Colfax- Foresthill Bridge to Ponderosa Way Bridge	5	21	II+ to III 0 portages	500-1,500 > 1,500 (1,200)	Spring
Middle Fork American River						
No. Middle Fk. American River	Last Chance Bridge to Middle Fk. American River	12.9	129	V 7 portages	600-800 (600)	Winter, Spring
Tunnel Run	Ralston Afterbay to Spring Garden Rd.	17	23	IV 1 portage	800-1,500 (1,200)	Spring, Summer
Rubicon River						
Lower Run	Ellicott Bridge to Ralston Afterbay	20.3	108	V- to V 2 portages	500-1,000 1,000-2,000 (1,200)	Spring
South Fork American River						
Lovers Leap	Strawberry to Kyburz	9.6	171	V 3 portages	500-1,200 (1,000)	Spring
Dugald Bremner	Upper Bridge to Girard Cr.	3.5	191	V 1 portage	300-800 (500)	Winter, Spring
Lower Run	China Flat to So. Fk. American	3.3	236	V+ 2 portages	350-550 (400)	Spring, Summer
Kyburz to Riverton	Kyburz to Route 50 Bridge	9.6	90	III-IV+ IV-V 2 portages	700-1,200 1,200-1,300 (1,200)	Spring
Riverton to Peavine	Route 50 Bridge to Peavine Ridge Rd.	3.5	69	III-IV 0 portages	700-4,000 (1,500)	Spring
Golden Gate	Peavine Ridge Rd. to Forebay Rd.	9.4	117	V+ 5 portages	700-1,500 (1,000)	Spring
Silver Creek	Near FS Road 12N25 to Ice House Reservoir	1.75	481	V	50-300 ² (150-200)	Spring
Silver Creek	Camino Reservoir to SFAR	9.2	119	V 8 portages	600-800 (600)	Spring
Slab Creek	Slab Cr. Dam to White Rock PH	7	89	V 1 portage	500-2,000 (1500)	Spring
Rock Creek	Near Dutch Cyn to Rock Cr. Rd.	6.3	110	IV+ 2 portages	300-800 (600)	Winter, Spring
Chili Bar	Route 193 to Coloma	5.8	31	III+	700 -1,500	Year-

Table 4.1-1. Regional whitewater boating opportunities.						
Name of Run	Put-In & Take Out	Length (miles)	Gradient (feet per mile)	Class	Boating Range¹ and (Optimum Flow)	Boating Season
				III-IV 0 portages	1,500-10,000 (2,000)	round
Coloma to Lotus	Coloma Park to Lotus Campground	3	24	II II+ III 0 portages	500-1,500 1,500-3,000 >3,000 (1,500)	Spring, Summer
The Gorge	Lotus Campground to Folsom Lake	11.2	21	III+ III-IV 0 portages	800-2,000 2000-10,000 (2,000)	Year-round
Truckee River						
River Ranch	River Ranch to Truckee	11	30	III VI (low bridges)	500-1,000 >1,000	Spring, Summer
Floriston	Boca to Floriston	6	25	II III	500-1,000 >1,000	Spring Summer
Verdi	Verdi to Mayberry Park	Approx. 20	Not Available	I-III	Not Available	Not Available
Mayberry	Mayberry Park to Cottonwood Park			I-III		
Reno Waterpark	Reno			I-III		
Sparks	Sparks (Vista Blvd) to Pyramid Lake			I-II (III)		
South Fork Yuba River						
Kingvale	Kingvale to Indian Springs CG	8.7	69	IV+ 6 portages	400-1,000 (800)	Spring
Indian Springs	Indian Springs CG to Lake Spaulding	5.5 (2 on lake)	123	IV-V- 4 portages	400-1,000 (800)	Spring
Fordyce Cr.	Fordyce Lake to Lake Spaulding	12	123	IV-V 2 portages	350-600 (500)	Summer
Washington	Washington to Edwards Crossing	14	46	IV 1 portage	700-2,000 (1,500)	Winter Spring
Edwards	Edwards Crossing to Purdons Crossing	4	65	III-IV IV+	800-2,000 (1,500) 2,000-3,000	Spring
Purdons	Purdons Crossing to Route 49	4	125	IV-V 4 portages	1,000-2,000 (1,500)	Spring
Route 49	Route 49 to Bridgeport	7.2	90	IV-V 2 portages	1,000-2,000 (1,500)	Spring
Bear River						
Hwy 174	Hwy 174 to Taylor Crossing	2.3	52	III-IV+	300-600 (500)	Spring
Consumnes River						
NF Upper Run	Below Capps Crossing to Sciaroni Rd. to	7.8	172	IV+	200-400 (300) 5-6 portages	Winter Spring
NF Lower Run	Sciaroni Rd. to Sweeney's Crossing	7.5	160	V+ 4-5 portages	300-500 (400)	Winter Spring
MF Run	Mt. Aukum Rd to Highway 49	13.1	66	IV+ 1 portage	600-1,200 (900)	Winter Spring
Upper Run	Highway 49 to Latrobe Road	10.5	41	IV 1 portage IV+	500-1,500 (1,200) 1,500-2,500	Winter

Name of Run	Put-In & Take Out	Length (miles)	Gradient (feet per mile)	Class	Boating Range¹ and (Optimum Flow)	Boating Season
				V	>2,500	
Lower Run	Latrobe Road to Highway 16	10	24	III+ IV	800-1,500 (1,500) >1,500	Winter

¹Boatable range and optimum flow from Holbek and Stanley, 1995.

²Boatable range and optimum flow from boater interviews.

4.1.5 Regional Recreation Opportunities

Regional recreation opportunities are discussed in terms of four general areas of the regional study area: 1) Lake Tahoe, 2) Interstate 80 Corridor, 3) Highway 88 Corridor and 4) Highway 50 Corridor. This discussion is a broad discussion of the types of recreation opportunities, access and activities available in these areas. Facilities or locations that are particularly popular with visitors for recreational uses are also discussed within each general area.

4.1.5.1 Lake Tahoe

Of the four areas in the regional study area, the opportunities in the vicinity of Lake Tahoe are the most diverse and people enjoy year-round recreational activities. This area of the study region receives the highest proportion of recreational use and it has cities and towns with year-round populations. It is known as a vacation destination nationally as well as internationally.

At one end of the spectrum, there are numerous lodging facilities, restaurants, marinas, casinos, golf courses, ski areas and resorts where abundant amenities and entertainment are provided for visitors. There are also opportunities for people desiring fewer user comforts for outdoor overnight and day use activities provided by the State of California, Forest Service and private commercial operators. Overnight accommodations are available at Forest Service and privately owned campgrounds located around the lake; paved roaded access to these recreation facilities is common. There are sites for family tent and RV camping however group sites are not generally available. Most of the recreation facilities at Lake Tahoe have potable water available. Showers are provided at some privately operated campgrounds and there are fees charged at the campgrounds located near the lake. There are also day use facilities distributed around the lake such as parking areas, vistas, boat launches, beaches, visitor information center and designated State Recreation areas and Parks. Several points of interest such as the Gate Keepers Museum, the Vikingsholm Castle and Erhman Castle are places to visit along the lakeshore with interpretive opportunities.

Although Lake Tahoe is the main attraction for visitors, people also enjoy the nearby natural setting within the Lake Tahoe Basin. Public land provides trails for non-motorized uses such as hiking, mountain biking, and equestrian use. Access to public land also enables visitors to fish in streams and nearby lakes, view wildlife and enjoy the outdoor setting of the Sierra Nevada. Accessible trail opportunities may exist on a limited basis. Trails also access primitive areas in the Granite Chief, Desolation and Mt. Rose Wilderness Areas. Visitors can reach these areas by day hikes or take extended trips with overnight stays by obtaining a wilderness permit. The main

OHV route in this area is the eastern end of the Rubicon OHV Route, which terminates at Lake Tahoe near the community of Tahoma. Additionally, OHV use takes place within the basin on dirt-surfaced roads and trails, where allowed.

Boating use on the lake includes large house boats, power boats for watersports and scenic touring, fishing boats, Personal Watercraft (PWC) use, sail boating, and flat water paddling. There are many public and privately owned boat launches and marinas at the lake that support boating activity. Whitewater boating opportunities are also available this area at the Truckee River, located to the north of Lake Tahoe.

During the winter, downhill skiing is a popular activity at ten ski resorts; there are also resorts that provide cross-country ski trails. Snow mobiling occurs in the vicinity of Lake Tahoe on groomed and ungroomed trails and there are designated Sno-Parks where people can park, for a fee, for snowmobiling or snow play. Winter recreation is discussed in more detail in section 4.1.5.5.

4.1.5.2 Interstate 80 Corridor

Interstate 80 is located to the north of the UARP and it is a major east-west travel corridor through the Sierra Nevada. Along this corridor there is a network of public roads leading north and south of the corridor that lead to forested mountain settings and small lakes located on both public and private land. Traveling from west to east between Sacramento and Reno, there are no sizable full-service residential communities between Auburn and Truckee. There are small communities where fuel, food and lodging are available but there are no major population centers between these two communities along the corridor. Three of the largest lakes are Lake Spaulding, Lake Valley and Donner Lake; these are also generally the only lakes in the area that have boat launch facilities. Although there are no boating restrictions on Donner Lake, PWC use is not allowed on Lake Spaulding and watersports and PWC use are not allowed on Lake Valley. There are boating opportunities on other lakes in the area however visitors must hand launch their boats and some of these lakes are accessed only by dirt-surfaced roads. Fordyce Lake provides a large flatwater resource in the area where only non-motorized boats are allowed which creates a quiet, uncrowded setting for flatwater paddling. This lake is connected by trails to nearby Lake Sterling, which has a campground and somewhat easier access by dirt-surfaced roads. Gasoline powered boats are not permitted on Lake Sterling (Steinstr 2000).

The Forest Service, Pacific Gas and Electric Company, and the State of California provide campgrounds and day use areas in this area. Campgrounds have group sites as well as family campsites for tents and RV's. There are some non-motorized trails in the area for hiking, mountain biking and equestrian use however, in general, this area does not provide direct access to wilderness areas. The locations of the developed facilities provide suitable settings for lake and stream fishing and proximity to Interstate 80 affords visitors easy access to forested mountain settings for scenic driving and enjoyment. There are also designated motorized trails for OHV use that are accessed from roads leading from Interstate 80.

A portion of the Tahoe National Forest (TNF) includes the Interstate 80 corridor. The TNF LRMP states that forest-wide there are 197 developed recreation sites with a capacity of 30,014 PAOT. There were almost 1.9 million recreation visitor-days at the developed sites on the TNF. The types and number of sites available on the TNF listed in Table 4.1-2.

Table 4.1-2. Developed recreation facilities available on the TNF.	
Type of Facility	Number of Sites
Vistas	5
Park-Sports Site	1
Boating Sites	9
Swimming Sites	4
Family Camping	67
Group Camping	9
Family Picnicking	19
Lodge-Resort-Private	4
Organization-Private	17
Other Concessionaires	2
Recreation Residences-Private	42
Ski Areas (on NFS and private land)	4
Interpretive Services	14
Total	197

Other developed recreation facilities along the corridor include vistas, day use areas, an OHV staging area at Indian Springs, three Sno-Park sites and four downhill ski areas. The Auburn State Recreation Area (ASRA), located along 40 miles of the North Fork of the American River offers many trails for equestrian use, hiking and mountain biking including portions of the popular Western States Trail that is used annually for an equestrian endurance competition. Mountain biking is restricted on some of the trails. Also in the ASRA, Lake Clementine provides a somewhat unique opportunity for visitors in the region. This narrow 3.5-long reservoir is limited to 25 boats at a time and boaters may travel up to 40 m.p.h. The 22 family campsites and 2 group campsites are accessed by boat and require a fee and reservations. This reservoir provides visitors with an opportunity to enjoy a tranquil setting removed from noise and crowds that often occur at areas where there is unrestricted vehicle access to a lake or shoreline. There are also limestone cave and other geologic features for visitors to view and explore from the lake surface.

4.1.5.3 Highway 88 Corridor

Highway 88 is located to the south of the Project and this route is another trans-Sierran travel corridor. The route is designated as the Carson Pass Scenic Byway for its remarkable vistas of mountains, glacier-carved valleys, spring and summer meadows filled with wildflowers, and brilliant fall colors (USDA 1997).

Along this scenic route, which passes through mainly public land managed by the Forest Service, there are no residential communities with major population centers along the route between Pioneer and Gardnerville, Nevada. There are developed recreation facilities clustered mainly near the route and three lakes. These facilities include campgrounds, day use areas, vistas, trailheads, a ski area. During the winter the trails in this area are popular for cross-country skiing, and snowshoeing; ice-skating and ice fishing also occur in this area. Summer-time activities in this area include fishing in streams and lakes, day use, scenic driving and camping. Swimming and water contact recreation activities occur in this area but the cold water at these

high mountain elevation lakes may be a disincentive for all but the hardiest visitors. There are opportunities for boating however most of this use is associated with fishing (Steinstra 2000). There is a network of public roads extending from Highway 88 that provide vehicular access to non-motorized trails for hiking, mountain biking and equestrian use as well as designated routes for OHV use. Trails at the eastern edge of the Highway 88 corridor provide non-motorized access into the Mokelumne Wilderness. In addition, there is a designated OHV Route between Highway 4 (Hermit Valley Trailhead) and Blue Lakes that passes through the Mokelumne Wilderness.

Lower Bear River Reservoir, Silver and Caples lakes are popular recreation attractions in the corridor. There are boat launches at each of these lakes however boating restrictions and the types of use vary. At Lower Bear River Reservoir there is paved access to the lake from Highway 88 and a paved boat launch; there are no restrictions on boating use. There are campgrounds (RV, tent and group sites), swimming beach, a marina and watercraft rentals are available. Although wintertime access to this reservoir is limited by snow, it is one of the first reservoirs along the corridor that becomes available as the snow melts in the spring. The lower elevation also provides slightly more tolerable water temperatures for swimming and water contact recreation. With no boating restrictions and its location relative to the population centers in the Central Valley and foothill communities makes this lake a popular destination for day users including visitors who enjoy watersports; it is also a popular lake for fishing (Steinstra 2000). There are trailheads for the Mokelumne Wilderness located within approximately five miles of the lake. These are accessed by paved and dirt-surfaced roads.

Silver Lake also has campgrounds, a marina and watercraft rentals; there are no boating restrictions on the lake. The campgrounds have fee sites for RV and tent camping and potable water is available. There are also three full service resorts with paved access to all of the recreation facilities and fishing is a popular activity here.

Caples Lake has campgrounds, a resort, cabin rentals and watercraft rentals. Motorized boating is allowed on the lake but there is a 5 miles per hour speed limit. There is paved access to the recreation sites at Caples Lake. The campground has fee sites for RV and tent camping and potable water is available.

Another attraction in this corridor is Blue Lakes, which is located south of Carson Pass. This assemblage of lakes is a popular destination for summer visitors. There is a paved access road leading to Blue Lakes where visitors can find campgrounds managed by Pacific Gas and Electric Company. There are primitive boat launches at Upper and Lower Blue Lake that are suitable for small motorized or non-motorized watercraft. The lakes are known for their quality trout fishing opportunities. This area is unique to the area in that the lakes are located on land owned by Pacific Gas and Electric Company that is entirely surrounded by the Mokelumne Wilderness (NFS land). This situation creates an island of lakes with paved roaded access surrounded by the primitive setting in the adjacent wilderness area where motorized use is not allowed. During their stay at the campgrounds at Blue Lakes, visitors can take day trips into the wilderness on one of the many trails in the area, including the Pacific Crest Trail. Similarly, visitors can also use OHV's on a designated route that travels through the Mokelumne Wilderness. The designated

OHV route is a corridor through the wilderness area between Blue Lakes and Hermit Valley Trailhead on Highway 4.

4.1.5.4 Highway 50 Corridor

Highway 50 is located just south of the UARP and it is also a tran-Sierran travel corridor that extends between the Central Valley and South Lake Tahoe. This is also the main travel route to the Project. The recreation facilities at the UARP are discussed in Section 4.2 and this section includes a broader description of the regional recreation opportunities.

Unlike the Highway 88 and 80 corridors, this corridor parallels a river for much of its distance; the route shares the same slopes as the SFAR between Riverton and Echo Summit. There are residential populations in Sacramento, El Dorado Hills, Placerville at the west end of the corridor and the community of South Lake Tahoe is at the east end of the corridor. These communities and some smaller communities along the corridor have full services for travelers including fuel, restaurants and lodging. Visitor information is provided by the Forest Service in Placerville and at the two ranger stations located along the corridor.

At the west end of the corridor the main recreational attraction is the American River, which is, designated a WSR. The State of California is the agency responsible for managing this WSR segment. More than five million visitors every year to this area where there are paved trails for bicycling, jogging, and walking extending for 23 miles along the American River from the Sacramento River to Folsom Lake offering views of riverine forests and oak woodlands, and the winding green river itself. There are also day use facilities and several trailheads providing access to the river at various locations along the trail. Many people access the river for fishing, swimming, floating in rafts and kayaks or otherwise enjoying the riverside setting. There is a separate system of trails running along the river for equestrian use. Motorized use is not allowed on any of the trails. Boat ramps are located at the lower end of the river, where the river is deep enough for motorized boating and there are several hand launching sites at the upper end of the river where visitors can put in rafts and kayaks. Visitor use is highest during the summer but the trail system is accessible year-round. Since this feature is located mostly within the greater Sacramento area, which is mostly residential, there are no overnight campgrounds.

Located at the eastern end of the American River Trail, are Lake Natoma and Folsom Lake, which are the next largest recreation attractions in the Highway 50 corridor. There is a 5 miles per hour speed limit on Lake Natoma which provides quiet, calm water and it is known as a popular place for rowing, paddling and sailing. There is a campground for overnight visitors and, because of its proximity to Sacramento, the area also receives heavy day use. There are day use areas and watercraft rentals and lessons are available. There is a fee for day use and boat launching.

Folsom Lake, which is included in the Folsom Lake State Recreation Area, is a much larger body of water and several factors cause this lake to receive high visitation: 1) located at under 500 feet in elevation, water temperatures are suitable for swimming and other water contact recreation; 2) proximity to Sacramento and its surrounding communities; 3) accessible shorelines provide

many suitable beaches, and there are designated swimming beaches; 4) the large body of flatwater, with no speed restrictions, allows space for high speed watercraft use; and 5) there are many boat launches at the lake and marinas offering watercraft rentals. Although this area is accessible year-round, the peak use season is April through September with highest use occurring on nights and weekends. Overnight family and group camping opportunities are also available at the state operated campground. There are fees for overnight and day use and boat launching. Nearby there are numerous trails that are popular for jogging, hiking and equestrian use. Boat and shoreline fishing are also popular at the reservoir. There are routes accessible to persons with disabilities that lead to beaches and fishing access points at Folsom Lake. There are also day use areas, overnight campsites, hiking trails, and the visitors' center that are accessible to persons with disabilities.

Continuing eastward and just north of Highway 50, the town of Coloma has the Marshall Gold Discovery Site where the State of California operates a visitor center with interpretive opportunities at the center as well as guided tours and living history programs. There are nature and hiking trails, a day use facility and gold panning opportunities in the SFAR. Another public recreation facility at Coloma is the El Dorado County Henningsen Lotus Park. This park provides day use facilities, a put-in/take-out for whitewater boats, swimming and fishing access to the SFAR and sports fields. Overnight lodging available in the community include cabin rentals and campgrounds that are privately owned. Coloma is also where businesses that provide commercial whitewater boating trips on the 20-mile reach of the SFAR downstream of Chili Bar Dam are located. The main portion of Coloma is included with a state recreation area and there is a fee required for parking in the town. There is also a user fee required for the Henningsen Lotus Park. Although this area is accessible year-round the peak use season is between April and September, depending on weather and summer flows in the SFAR.

Placerville, the county seat for El Dorado County, is located on Highway 50 approximately 50 miles east of Sacramento. A full range of lodging, restaurants, grocery stores, and recreation equipment rentals are available in this community, which is the last sizable community that travelers pass through as they travel east toward South Lake Tahoe. Nearby in the gentle sloping hills there are apple orchards, vineyards and tree farms in an area known as Apple Hill. This is a particularly popular destination where visitors enjoy sightseeing, craft fairs, wine tasting and Christmas tree shopping in the fall and winter. El Dorado County identifies 64 miles of road biking routes in the Apple Hill area. Additional trails for biking, hiking and equestrian use are planned for in El Dorado County in and near the communities of Placerville, Camino Heights. Camino Hills (Environmental Stewardship & Planning, Inc. 2002). The EDC has identified the Placerville-Sacramento Transportation Corridor as the key artery for non-motorized transportation along the Highway 50 corridor where other trails can connect to this route (EDC 2003a). This corridor generally follows a former railroad route. The county seeks to work with other land management agencies to plan an interconnecting network of trails for the public (EDC 1997).

Jenkinson Lake is located 11 miles to the east of Placerville and south of Highway 50. There are two paved boat launches, swimming beach, marina, campground, and day use facilities (owned and operated by El Dorado Irrigation District) at the lake. There are family and group camping

opportunities as well overnight camping facilities for equestrian users. There are fees for boat launching, day and overnight use. There is a 5 miles per hour speed limit on 80 of the 640 surface acres providing calmer quiet water for anglers and flat water paddling at the same time there is area available for high speed boating and watersports. There are trails for bicycling, hiking and equestrian use. In particular, there are 92 miles available for road bike touring and there is a 20-mile loop trail for mountain bikers. There is paved access to this reservoir located outside of and adjacent to the boundary of the Eldorado National Forest. Located at 3,500 feet in elevation, this lake is usually accessible year-round. Nearby the Sacramento County Office of Education operates the Sly Park Outdoor Education and Conference Center. This facility is operated under a Special Use Authorization from the Forest Service, which provides outdoor education for children and a reservable conference facility for 75 to 200 people.

Along Highway 50 between Placerville and Echo Summit, there are four day use areas, two campgrounds, and trailheads for the Pony Express National Historic Trail and the PCT. Visitors enjoy the scenic drive along the SFAR between Riverton and Echo Summit including views of Horsetail and Bridalveil Falls and Lovers Leap, which is a massive cliff that is a popular place for rock climbing. There are numerous privately owned recreation residences along the SFAR which are authorized under Special Use Permits from the Forest Service. At the eastern end of this corridor is Echo Summit where there are two Sno-Parks on Highway 50, a ski area (Sierra-at-Tahoe) and access to Echo Lake. At the Echo Lake, there is a trailhead which provides access to the Desolation Wilderness by the PCT and the Echo Chalet also operates a ferry to the upper end of the lake where visitors can pick up the trail. There is paved access to Echo Lake from Highway 50 and there is lodging available at the Echo Chalet, day use areas, and a marina with fishing boat rentals. There are no overnight camping facilities or swimming beaches at the lake. There are some restrictions at the lake relating to the type of engines allowed on the lake and waterskiing is not allowed in the area known as Upper Echo. Consequently the area known as Lower Echo is popular for watersports and visitors enjoy paddling, angling, swimming and low-speed boating at Upper Echo. Plowed roads allow year-round access to a Sno-Park within one mile of Echo Lake and this is a popular place for cross country skiing in the winter.

4.1.5.5 Winter Recreation

Winter recreation in the region includes downhill skiing, cross-country skiing, snowmobiling, snowplay and scenic driving. A map showing the locations of downhill ski areas, cross country trails and ski areas, snowmobile areas, and Sno-Parks is provided in Figure 4.1-6.

There are several downhill ski areas in the region. In general, these developments offer lifts, groomed downhill ski trails, food service, equipment rental and lodging. Most of these are located near Lake Tahoe, which is a recreation destination for winter sports. These areas include Alpine Meadows, Diamond Peak, Granlibakken, Heavenly Resort, Homewood, Kirkwood, Mt. Rose, Northstar, Squaw Valley, and Tahoe Donner. Boreal Ridge, Donner Ski Ranch, Soda Springs, and Sugar Bowl are located north of Lake Tahoe near Donner Summit by Interstate 80. Kirkwood and Sierra-at-Tahoe are located to the south of Lake Tahoe by Highway 88 and Highway 50, respectively.

Lake Tahoe also has several commercial ski areas that have trails, trailhead parking, warming huts, equipment rental and other facilities for cross country skiing. These include Camp Richardson, Eagle Mountain XC, Northstar at Tahoe, Royal Gorge, Tahoe Cross Country, and Tahoe Donner XC. Caples Lake Resort and Kirkwood near at Caples Lake on Highway 88 are other commercial cross country ski areas in the region. Combined, these areas offer over 800 kilometers (430 miles) of groomed cross country ski trails.

There are also cross country ski trails available on public land. These include:

- **Carson Pass**-Located at the crest of the Sierra Nevada on Highway 88. 6 miles of mostly intermediate trails with some beginner and advance trails.
- **Echo Lakes Basin-Johnson Pass**-Between Echo Lakes and Johnson Pass off Highway 50 near Echo Summit. 3.1 miles of mostly beginner trails with some intermediate trails.
- **Echo Summit**-At Echo Summit 2.8 miles from Highway 50. 3.9 miles of mostly beginner to intermediate trails with one difficult trail.
- **Echo to Kirkwood**-Between Highway 50 (Echo Summit and Highway 88 near Kirkwood. 11 miles of intermediate to advanced trails.
- **Strawberry Canyon**-Located off of Highway 50 approximately 10 miles west of Echo Summit. 11 miles of beginner and beginner to intermediate trails.
- **Grass Lake**-Located on Highway 89, 5 miles north of Highway 88.
- **Hope Valley**-West of the Junction of Highways 88 and 89.
- **Red Lake**-Located off of Highway 88 just east of Carson Pass. Trails lead to Blue Lakes.
- **Mt. Rose**-Located off Highway 431, 12 miles west of Highway 395.
- **Spooner Summit at Lake Tahoe Nevada State Park**--Located on the east side of Lake Tahoe, north of Highway 50 on Highway 28. Almost 50 miles of groomed trails including easy and moderate trails, day-long treks, overnight stays in wilderness cabins.
- **Crystal Basin** – 5.2 miles of beginner trails, 11 miles of intermediate trails and 1.5 miles of most difficult trails. Accessed by Ice House Road, which is plowed.

A popular component of back country and cross country skiing is the ability to stay overnight at cabins and huts. Overnight accommodations in the region for back country and cross country skiers exist at Spooner Summit Lake Tahoe Nevada State Park and at Meiss Meadow (see description in the following discussion of Sno-Parks).

Sno-Parks are a system of snow-cleared parking lots, with sanitation facilities that provide direct access to popular cross country ski trails, snowmobile routes, and snow play areas. This is a state-wide program managed by the California Department of Parks and Recreation. Visitors may park at these locations by purchasing a pass for either a day or season. The Sno-Parks in the region include:

- **Blackwood Canyon**-West side of Highway 89, three miles south of Tahoe City. Cross country skiing; snowmobiling. Poor snow play. Capacity 30 cars.
- **Donner Lake**-Interstate 80, Donner Lake exit, on Donner Pass Road at Donner Memorial State Park, next to Emigrant Trail Museum. Marked ski trails to Donner Lake and Donner Party Historic site. No snowmobiles. Snow play, cross country skiing; no sled slope. No overnight parking. Capacity 35 cars.
- **Cisco Grove**-North side of Interstate 80, Cisco Grove exit by Thousand Trails Campground. Good snowmobile area and cross country skiing. Small snow play area and sledding slope. Capacity 50 cars.

- **Donner Summit**-Interstate 80, Castle Peak exit, on the frontage road south of freeway just beyond Boreal Inn. Trails on north side of freeway. Very popular cross country ski area. Snow play at south parking lot. Some snowmobiling. Capacity 100 cars.
- **Echo Summit**-On the south side of Highway 50 at Echo Summit. Popular snow play area; extensive sledding hill and some cross country skiing. No snowmobiling. Capacity 100 cars. This site has the highest use in the Sno-Park system.
- **Echo Lake**-One mile west of Echo Summit, on the north side of Highway 50, a 1/2 mile in on Echo Lake road. Popular cross-country ski area and visitors access the Desolation Wilderness for snow camping from this site. No snowmobiles. Capacity 40 cars.
- **Carson Pass**-On Highway 88 at Carson Pass, 25 miles south of Lake Tahoe. Very popular cross-country ski area. No snowmobiles. Limited snow play, no sled slope. Overnight wilderness permit also required if skiing overnight into the nearby Mokelumne Wilderness. Capacity 20 cars.
- **Hope Valley**-Highway 88 five miles east of Carson Pass; two miles west of the junction of Highways 88 and 99. Good snow play; groomed snowmobile trails; cross country skiing. Some overnight parking. Capacity 80 cars.
- **Meiss Meadow**-On Highway 88, 1/4 mile west of Carson Pass. Very popular cross-country ski area. No snowmobiles. Limited snow play, no sled slope. Capacity 30 cars.
- **Yuba Gap**-Interstate 80, Yuba Gap exit; south of freeway at National American Snowflower Campground. Snow play area, sled slopes. No snowmobiles/motorized off-road vehicles. Capacity 200 cars.
- **Iron Mountain**-On Highway 88, 40 miles east of Jackson on Mormon-Emigrant Trail Road. Excellent groomed snowmobile trails; fair cross-country skiing. Good snow play; no sled slope. Capacity 30 cars.
- **Taylor Creek**-West side of Highway 89 near Camp Richardson. Cross country skiing to Fallen Leaf Lake. Limited snowmobile use. Snow play and a small sledding hill available. Capacity 40 cars.

Snow shoeing and backcountry skiing are also available in the region. Some of the popular areas in the region for snowshoeing include:

- **Alpine Meadows to Five Lakes**-3.25 miles, difficulty level: moderate to difficult, near Alpine Meadows Ski Area
- **Andesite Peak**-3.5 miles, difficulty level: moderate, north of Interstate 80 and west of Donner Lake
- **Angora Lookout and Angora Lakes**-6.75 miles, difficulty level: easy to moderate, South of South Lake Tahoe
- **Becker Peak**-3.25 miles, difficulty level: moderate, near Echo Summit
- **Big Meadow**-1.75 miles, difficulty level: easy, near South Lake Tahoe
- **Echo Lakes**-6.5 miles, difficulty level: easy, near Echo Summit
- **Norden**-2.5 miles, difficulty level: moderately difficult, near Norden on Interstate 80
- **Richardson Lake and Ludlow Hut**-13.75 miles, difficulty level: moderately difficult, west of Tahoma (Millers Meadows)
- **Donner Lake Shallenberger Ridge**-9.75 miles (loop trail), difficulty level: difficult, near Donner Lake

Some of the popular areas in the region for backcountry skiing include:

- **Castle Peak**-6 miles, difficulty level: strong intermediate, north of Donner Summit off Interstate 80
- **Mount Tallac**-10 miles, difficulty level: strong intermediate and advanced, west of South Lake Tahoe
- **Mount Rose**-10 miles, difficulty level: intermediate and advanced, north of Lake Tahoe near Incline Village
- **Pyramid Peak**-6 miles, difficulty level: strong intermediate, north of Highway 50 (north of Twin Bridges)
- **Ralston Peak**-4 miles, difficulty level: strong intermediate and advanced, north of Highway 50 (north of Twin Bridges)

An additional area known for winter recreation activities is the Mormon Emigrant Trail, which is located south of Highway 50. When snow accumulates during the winter and closes this road, it becomes a popular location for OHV and snowmobile use and the ENF reports that visitors often snow camp along this route. There are no developed recreation facilities provided for snow camping along this road.

4.1.5.6 Off-Highway Vehicle Areas

OHV use takes place in the region in areas that have trailheads and designated routes to support this use. These areas are shown in Figure 4.1-7 and details about the areas are listed in Table 4.1-3.

OHV Area or Trailhead	Miles of Trail	Vehicles Allowed	Managing Agency	General Area/Notes
Gold Note Trail System	28.35	5.85 mi- Motorcycle 22.5 mi-ATV & Motorcycle	ENF	10 mi. north of Amador (Hwy 88)
Elkins Flat	63.75	Motorcycle Only	ENF	10 miles northwest of Amador (Hwy 88)
Indian Springs Staging Area Grouse Ridge/Bowman Lake Fordyce Lake	70	ATV & Motorcycle	TNF ¹	Colfax Exit off I-80
Rock Creek OHV Area Bald Mountain Mace Mill	85 (trails) 35 (dirt roads)	ATV & Motorcycle	ENF	8 miles east of Georgetown. Current status: Partially closed.
Foresthill OHV Area Sugar Pine Staging Area Parker Flat Staging Area China Wall Staging Area	80	ATV & Motorcycle	TNF	9 miles northeast of Foresthill

Table 4.1-3. OHV Areas in the region.				
OHV Area or Trailhead	Miles of Trail	Vehicles Allowed	Managing Agency	General Area/Notes
Rubicon/McKinney OHV Rubicon OHV Route Ellis Peak OHV Route Barker Meadow OHV Route	12 mi-Rubicon Tr.(Loon Lake to Tahoe)	4WD, ATV & Motorcycle	ENF/TNF/ LTBMU/EDC/ Placer County	OHV routes between Loon Lake and Lake Tahoe
Prairie City State Vehicle Recreation Area	836 acres	4WD, ATV & Motorcycle	State of CA	White Rock Road south of Highway 50/ tracks and 4WD areas
Auburn State Recreation Area	N/A	Motorcycles	State of CA	Between Auburn and Colfax
Kings Beach	N/A	ATV & Motorcycles	Not determined	At Kings Beach, Lake Tahoe/easy to moderate trails
Prosser Hill OHV Area Prosser Hill Staging Area Billy Hill OHV Route	N/A	ATV & Motorcycles	TNF	5 miles north of Truckee
Bear Valley OHV Loop Trail	18 mi.	4WD, ATV, Motorcycles	TNF	6 miles east of Hwy 89 and 17 miles north of Truckee
Meadow Lake OHV Staging Area	N/A	4WD, ATV, Motorcycles	TNF	8 miles north of Cisco Grove near Fordyce Lake

¹Tahoe National Forest
Source: Websites for CA OHV Commission, EDC, TNF, ENF, Trails.com
N/A=Not available, could not find a definitive information source.

4.2 Recreation at the UARP

The following section provides details about the recreation opportunities, activities and facilities that exist on the UARP reservoirs and generally within one-quarter mile of the UARP reservoirs. This section is presented by the three general geographic areas developed by the Recreation and Aesthetics TWG: High Country, the Crystal Basin and Canyonlands.

The information presented in the following section that relates to the accessibility of the UARP recreation facility to persons with disabilities is based on guidelines developed by the Architectural and Transportation Barriers Compliance Board (Access Board) for compliance with the Americans with Disabilities Act (ADA). Accessibility guidelines apply to newly designed or newly constructed buildings and facilities and to existing facilities when they are altered. Accessibility guidelines for complying with the ADA at *Outdoor Recreation Facilities* were proposed by the Access Board in 1999 however a Final Rule has not been published (Access Board 1999). The proposed guidelines have specific design requirements for various types of recreation facilities, and guidelines for the number of accessible sites that should be provided at recreation developments. Departures from the guidelines are allowed where compliance would harm cultural, historical, religious significant natural resources, alter the setting or purpose, require construction methods prohibited by federal/state law or be infeasible due to terrain or prevailing construction practices. A Final Rule for accessibility guidelines for *Boating Facilities* was published in the Federal Register on October 3, 2002 (Access Board 2002).

Although a Final Rule has not been published for *Outdoor Recreation Facilities*, the Forest Service has proposed its own guidelines in a draft publication titled Forest Service Outdoor Recreation Accessibility Guidelines (draft FS Accessibility Guidelines), dated August 20, 2003. The draft Accessibility Guidelines are consistent with the Access Board proposed guidelines. The Forest Service is currently accepting comments on the proposed guidelines during an 18 month comment period after which the guidelines will be incorporated into Forest Service Manual 2330. When the Access Board completes the rule-making process with the guidelines for outdoor recreation areas, the Forest Service will revise its Accessibility Guidelines as necessary to ensure that its requirements are at least equivalent to the Access Board's final guidelines.

Within the Crystal Basin Recreation Area there are numerous developed recreation facilities that provide day use and overnight camping recreation opportunities, most of which are UARP recreation facilities. The UARP recreation facilities are defined as facilities that were constructed by SMUD as part of the original Recreation Plan for the UARP and the facilities that were constructed under the amended Recreation Plan. The original UARP recreation facilities were constructed in the 1960s when the reservoirs were constructed. Additional facilities were constructed after SMUD amended the Recreation Plan in 1985 due to the construction of the Jones Fork Powerhouse. User fees are collected at most developed campgrounds within the Crystal Basin Recreation Area, while there are some facilities where no fees are currently collected (e.g. boat launches, day use areas).

Agreements in place since 1964, as amended, between SMUD and the ENF dictate each entity's respective responsibilities related to UARP recreation facilities. Following the completion of SMUD-constructed recreation facilities, ownership was accepted by the ENF. From the time they were initially constructed, the ENF has been responsible for administration, operation and maintenance of all UARP recreation facilities and assumes this responsibility through the current license term. In 1988, the ENF also assumed the responsibility for operating, maintaining and replacing the UARP recreation facilities constructed pursuant to the amended Recreation Plan using funding provided by SMUD under the terms of a Collection Agreement. Under the Collection Agreement, SMUD provides annual funding to the ENF in the amount of three percent of the capital cost of those UARP recreation facilities that were constructed after 1988, and referred to as Exhibit R facilities. Specifically, the agreement states that SMUD agrees to make annual deposits "... for the purpose of providing money to the Forest Service for the administration, operation, maintenance and any future replacements of Exhibit R facilities during the life of the aforementioned FERC license." The agreement also states the ENF agrees to deposit the payments received and to use the funds "to provide the administration, operation, maintenance and any necessary future replacements of the Exhibit R recreation facilities." Under the terms of this agreement, which has been updated regularly to include new facilities as they were constructed and to account for inflation, SMUD has provided annual funding to the ENF for the agency to operate, maintain and to provide for replacement (e.g., restroom replacement) of the UARP recreation facilities as described above. For the last seven years SMUD has provided the following annual payments to the ENF:

1998	\$149,010
1999	\$188,867
2000	\$229,414
2001	\$237,214
2002	\$240,298
2003	\$285,482
2004	\$335,048

Currently the ENF operates and maintains most of the UARP recreation facilities through a Special Use Permit issued to a third party; the current concessionaire is American Land and Leisure. Under the terms of this permit, the concessionaire agrees to collect fees for operating and maintaining government-owned facilities and returns a portion of the gross receipts to the Federal government. The concessionaire is responsible for all tenant types of maintenance such as broken infrastructure, utilities, grounds maintenance and enforcing campground/facility rules. In effect, the cost of daily operation and maintenance of the facilities is an operating expense borne by the concessionaire. The fees due to the Federal government under this arrangement can either be paid by the concessionaire or the concessionaire can provide work-in-lieu of fees. Under this agreement, the ENF has chosen to work with the concessionaire to use fees due to the government to accomplish facility replacements and improvements. Through fees collected at concession-operated developed recreation sites within the Crystal Basin, the ENF and its concessionaire have provided an additional \$65,000 to \$95,000 annually for operation, maintenance and facility replacement (pers. com. without supporting documentation, J. Marsolais, ENF, September 2004). Examples of completed replacement and improvement

projects include modifications necessary to comply with the ADA and installation of wildlife resistant food storage lockers. This allows a portion of the fees collected at the site to be used for replacement and improvements to the facilities.

The remaining UARP recreation facilities are operated under the Fee Demonstration Project. This program is available to the Forest Service under temporary authority which is reviewed every five years while permanent authority is being debated in Congress. Under this authority, the ENF collects the fees at the facilities, performs operation and maintenance and the agency is authorized to use those fees to operate, maintain and provide replacement of the facilities. Fees collected at the sites in the Crystal Basin that are operated under the Fee Demonstration Project have been used for facility improvements including chip sealing the angler access parking areas at Strawberry and Northwind campgrounds, developing a campground host site at Strawberry Campground and improving access trails and signage.

As stated above, after construction the ENF has accepted ownership of the UARP recreation facilities as well as the responsibility for facility administration, operation, and maintenance. SMUD has provided the ENF with funding for the agency to accomplish these responsibilities at the UARP recreation facilities developed after 1988 through the terms of the Collection Agreement discussed above. The ENF has stated that it has also used appropriated funds and other funding mechanisms to operate and maintain the UARP recreation facilities however the agency states these funding sources have been insufficient to cover all of the costs associated with managing the facilities. The ENF was asked to provide documentation how the funds provided by SMUD were spent on the UARP recreation facilities. The accounting documents showed that the agency had spent SMUD-provided funding however the agency could not report what management services and facility improvements or replacements have been accomplished with these funds because the agency's accounting practices do not provide enough details on its expenditures.

The ENF can also obtain funding for renovations, improvements and replacement of recreation facilities to meet health, safety and accessibility design requirements through the Forest Service Capital Investment Program (CIP). This is a region-wide program whereby individual National Forests in California submit proposals to the agency's regional office for funding design and construction of administrative and recreation facilities. This is an annual competitive process (each Forest can submit up to five projects) for limited amount of appropriated funding which funds design, construction and reconstruction of a spectrum of capital investments on the Forests such as recreation facilities, trails and trailheads, offices and fire engine barracks, and visitor information and interpretive centers. This program is being reduced in response to National and Regional agency budget restraints. The Gerle Creek Campground, a Project recreation facility, was submitted for renovation under the CIP however this project was not approved for funding. The ENF received \$200,000 of CIP funding to install wildlife resistant food storage lockers at some of the campgrounds in the Crystal Basin where there are recurrent problems with bear/human encounters.

There are also a few other government-owned public recreation facilities in the Crystal Basin that are not Project recreation facilities that the ENF operates and maintains. With regard to

ADA compliance at these facilities, the ENF has a Transition Plan for bringing these facilities into compliance however, there is no statutory requirement or identified funding source for this effort. Since the agency receives an annual budget as appropriated by the Congress there is no commitment of funding to accomplish the actions identified to in the Transition Plan. It is likely that any necessary actions at these non-UARP recreation facilities would be linked to a Capital Investment Program submittal or accomplished as appropriated funds become available. However, the ENF expects that their near term appropriated recreation budget will be reduced by 25 percent and this reduces the likelihood of meeting these needs with appropriated funds (pers. com. J. Marsolais, ENF, September 2004). If a site is managed under the Fee Demonstration Project, the ENF could use fees collected at the site to fund ADA compliance actions.

4.2.1 High Country

The area designated as High Country includes two UARP reservoirs: Buck Island and Rubicon reservoirs as well as Rockbound Lake, a non-UARP body of water located between Buck Island and Rubicon reservoirs. The reservoirs are located on public land managed by the ENF. Buck Island is located in an area the agency manages as general forest and Rockbound Lake and Rubicon Reservoir are located in an area the agency manages as wilderness (Desolation Wilderness). The area is generally accessible in the non-winter months from June through October. This area is shown on Figure 4.2-1.

Buck Island Reservoir is located on the ENF less than one-quarter mile outside of the Desolation Wilderness and there are two main routes of access to this reservoir. Non-motorized access to the reservoir is by way of the Rubicon Hiking Trail (16E30). It is 6.1 miles from the Loon Lake Wilderness Trailhead to the south shore of Buck Island Reservoir; the hike is moderate in difficulty. Visitors can also access Buck Island Reservoir using the Rubicon Off-Highway Vehicle (OHV) Route (14N34 and County Road No. 63); it is approximately 5.5 miles from the Loon Lake Dam at Gerle Creek to the north shore of the reservoir. Construction of Buck Island Dam in 1963 enlarged the existing, natural Buck Island Lake and inundated a portion of the historic Rubicon OHV Route consequently requiring rerouting of the trail to a higher elevation.

Rubicon Reservoir is located approximately 1.5 miles inside the boundary of the Desolation Wilderness and the main route of access to the reservoir is the Rubicon Hiking Trail (16E30). Although technically not within the wilderness due to congressional exclusion, the ENF manages the Rubicon Reservoir area consistent with wilderness goals and objectives, while allowing the Licensee reasonable access to the reservoir for facility operation and maintenance. It is 8.3 miles from the Loon Lake Wilderness Trailhead to Rubicon Reservoir. Motorized public access is not allowed within the Desolation Wilderness.

4.2.1.1 Recreation Opportunities-High Country

Recreation opportunities in this area are dispersed in nature in a mostly natural setting. The recreation activities available in this area include dispersed camping, rock climbing, picnicking, fishing, hunting, swimming, hiking, OHV use and scenic viewing. Mountain biking is allowed and was observed during the study, on the Rubicon Hiking Trail up to the Desolation Wilderness boundary. The ENF staff stated that mountain bikers also use the Rubicon OHV Route. Although it is not prohibited, equestrian use on the Rubicon Hiking Trail does not appear to be common. This assessment is based on SMUD's observations while hiking the trail in the course of conducting various studies during the summers of 2002 and 2004.

At Buck Island Reservoir the Rubicon OHV Route provides motorized access to the northern shoreline of the reservoir. A map from the mid 1950s shows the Rubicon jeep trail historically ran from Georgetown to Lake Tahoe via Wentworth Springs Road. Today, many OHV enthusiasts access the trail at Loon Lake Dam (via Ice House Road) or Airport Flat Campground (via Wentworth Springs Road). At Loon Lake, OHV users access the historical route by driving on the Ice House Road to the base of the Loon Lake Main Dam where users park trailers and tow vehicles. In addition, amenities at Loon Lake such as campgrounds, restrooms and trash collection attract many OHV users to begin their trip on the Rubicon OHV Route from this location rather than at the historic beginning of the route. From the base of Loon Lake Main Dam, users drive on a short route, known as the Ellis Creek Tie, to connect with the historic Rubicon OHV route. The Ellis Creek Tie is a user-created route that is not a designated OHV route nor is it included in the ENF transportation system. The Rubicon OHV Route is an extremely popular attraction with estimated use on a summer weekend between 200 and 500 OHV's (pers. com. R. Platt, ENF, March 2001), and approximately 45,000 to 65,000 visitors annually during the three summer months (pers. comm. J.Marsolais (ENF), 8/24/04). Many OHV users camp at dispersed sites along the route, including along the north shore of Buck Island Reservoir and the north shore of Loon Lake Reservoir where impacts of this activity are easily observed.

At Rubicon Reservoir, where motorized use is not allowed, the recreation activities available at and adjacent to this reservoir include dispersed camping, rock climbing, hiking, picnicking, fishing, hunting, swimming and scenic viewing. Wilderness permits are required to enter the Desolation Wilderness for both day and overnight use between Memorial Day and September 30. There is currently not a quota on the number of day use permits. Forty-five zones have been established for the Desolation Wilderness to manage overnight use on a quota basis. Overnight visitors are required to select a zone for the first night of their trip when obtaining a wilderness permit. There is a maximum party size of 12 and campfires are prohibited in the Desolation Wilderness.

Similarly, the other lakes, streams, trails, and terrestrial features located in the High Country also provide settings for the recreation activities listed above. In particular, Spider Lake, which is located outside of the wilderness boundary and partially on privately owned land, provides dispersed recreation opportunities for many OHV users on its northern shore near the Rubicon

OHV Route. Rockbound Lake is located just inside the Desolation Wilderness between Rubicon and Buck Island reservoirs and provides opportunities similar to those associated with Rubicon Reservoir, subject to regulations pertaining to wilderness use. Opportunities for equestrian use in the High Country exist mainly south of Buck Island and Rubicon reservoirs and these trails are accessed from trailheads at the Loon Lake and Tells Creek equestrian camps.

The reader is referred to the *Visitor Use and Impact Technical Report* for additional information about visitors' activities.

4.2.1.2 Developed Recreation Facilities - High Country

There are no developed recreation facilities other than trails located in the High Country. These trails are shown on Figure 4.2-2 and are listed in Table 4.2-1 below. These trails are not UARP-recreation facilities however they are developed recreation facilities that provide access to the UARP reservoirs.

Table 4.2-1. Trails and routes in the High Country.			
Trail/Route Name	Trail/Route No.	Type of Trail/Route	Trailhead to Destination
Rubicon OHV Route	14N34 and County Rd. No. 63	OHV	Loon Lake Dam or Airport Flat Campground to Lake Tahoe
Rubicon Hiking Trail	16E30	Non-motorized up to the wilderness boundary. No wheeled access in wilderness.	Loon Lake Trailhead to destinations and other trails within the Desolation Wilderness.
Pleasant Campground Trail	16E30B	Non-motorized	Connects the Rubicon Hiking Trail and Pleasant Campground.
West shore of Buck Island Reservoir	Unnumbered Primitive Trail ¹	Non-motorized	Connects the Rubicon OHV Route and the Rubicon Hiking Trail along the west shore of Buck Island Reservoir.

¹As identified on the Desolation Wilderness Trail Map (USDA 2000b).

4.2.1.3 Condition and Accessibility of Developed Recreation Facilities in the High Country

The only developed facilities in the High Country for recreation are the trails. The Rubicon OHV Route requires a 4-wheel drive vehicle and its condition meets users expectations of a difficult route. An access road used for construction of Buck Island and Rubicon reservoirs now serves as the Rubicon Hiking Trail. Portions of the trail that are surfaced with 3 to 6-inch spoil material from the Project tunnels. This material provides an uneven and uncomfortable tread for hiking and equestrian use. Some portions of the trail have vegetation encroaching into the travel way and there are areas with erosion. The trail between the Rubicon Hiking Trail and Pleasant Campground is very overgrown and the trail tread needs maintenance.

Specific measures to improve accessibility of the area to persons with disabilities are not necessary since the area has an ROS classification of primitive and semi-primitive, non-motorized and it is expected that this area would have a corresponding level of challenge.

4.2.1.4 Dispersed Sites-High Country

An inventory of dispersed recreation sites was completed at Rubicon and Buck Island Reservoirs. Dispersed sites are also located at Spider Lake however, since this is not a UARP feature and it is partially located on privately owned land, this water body was not included in the inventory. For informational purposes, the locations of these dispersed sites at Spider Lake, which are mainly accessed by vehicles using the Rubicon OHV Route, are included with the dispersed recreation site locations in Figure 4.2-3.

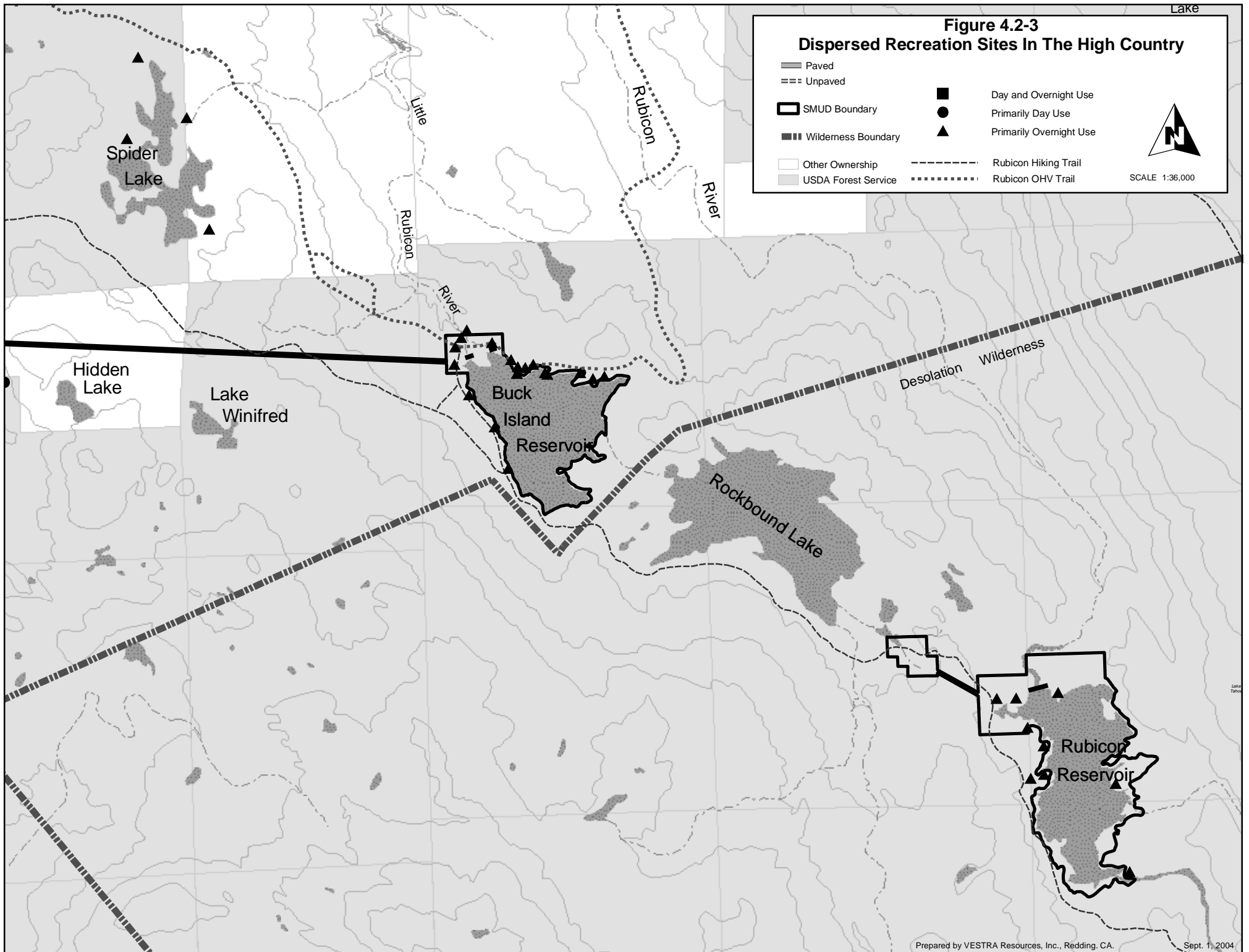


Figure 4.2-3
Dispersed Recreation Sites In The High Country

- Paved
- Unpaved
- ▭ SMUD Boundary
- ▨ Wilderness Boundary
- Other Ownership
- ◻ USDA Forest Service
- Day and Overnight Use
- Primarily Day Use
- ▲ Primarily Overnight Use
- Rubicon Hiking Trail
- ⋯ Rubicon OHV Trail



SCALE 1:36,000

Rubicon Reservoir

Rubicon Reservoir, located inside the Desolation Wilderness adjacent to the Rubicon Hiking Trail, was inspected on July 15, 2003. Campfires are not allowed in the wilderness however the presence of flat areas that had been cleared of duff, twigs and pine cones, and a few fire rings revealed nine campsites at the reservoir, most of them on the south side of the reservoir. Trash was not observed during the site inspection and the presence of needles and cones covering the previously-cleared areas at the dispersed sites indicates that seven of the nine sites had not received use at the of the site inspection. Fire rings at two of the sites had ashes and appeared to have been recently used. Visitors have constructed a rock bench at one site. All of the sites are located 50 to 300 feet from the high water mark of the reservoir. Other than the evidence of campfires at two of the dispersed campsites, resource damage was not observed. Visitors access these sites from the Rubicon Hiking Trail.

Buck Island Reservoir

Buck Island Reservoir receives a high level of recreation use that is mostly associated with OHV access by way of the Rubicon OHV Route. A site inspection on July 15, 2003 of the shoreline revealed 17 dispersed campsites with some of the sites having multiple campfire rings that seem to be used by groups of visitors. The types of resource damage observed at this reservoir included soil compaction, cut and damaged vegetation, nails and signs in trees, oil and transmission fluid on rocks and soil, carved trees, trash, vehicle tracks off of designated routes, vehicle tracks in streams and wet areas and scorched trees. There are also user-created tables and outhouses and evidence of improperly disposed human and animal waste. Some of the sites are not set back from the shoreline and are located at the high water mark of the reservoir. Fourteen of the sites are accessed by vehicle from the Rubicon OHV Route and three of the sites are accessed from the Rubicon Hiking Trail.

West of the primitive trail that connects the Rubicon Hiking and OHV Routes there is evidence of an informal trail apparently used by hikers to access the shoreline and by SMUD's staff to access UARP structures at the reservoir. The trail appears to only have been used for non-motorized forms of travel such as hiking and possibly mountain bikes.

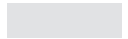

River Access

Access to the UARP reaches in the High Country only exists from the Rubicon Hiking Trail and the Rubicon OHV Route. Below Rubicon Reservoir, which is within the Desolation Wilderness, visitors can hike to the reach from the Rubicon Hiking Trail. The Buck Island reach can be accessed by visitors who drive the Rubicon OHV Route, which crosses the reach, or by way of the Rubicon Hiking Trail which is located to the south of the Buck Island dams. There are numerous user created trails leading to the reach immediately downstream of the dams.

4.2.2 Crystal Basin

The area designated as the Crystal Basin includes Loon Lake, Gerle Creek, Union Valley Robbs Peak and Ice House reservoirs, which support the majority of the recreation use associated with the UARP. As partial settlement of damages from the Ice House Fire, which occurred in 1959, SMUD purchased and deeded to the Forest Service approximately 200 feet of shoreline surrounding each of the reservoirs (pers. com J. Marsolais, ENF, September 2004). As a result, nearly all of the shoreline lands surrounding the UARP reservoirs are federal lands available to the public for recreation, managed by the ENF and designated as general forest. Within the Crystal Basin there are also parcels of privately owned land, most of which are owned by Sierra Pacific Industries and managed for timber production. This geographical area is shown on Figure 4.2-4.

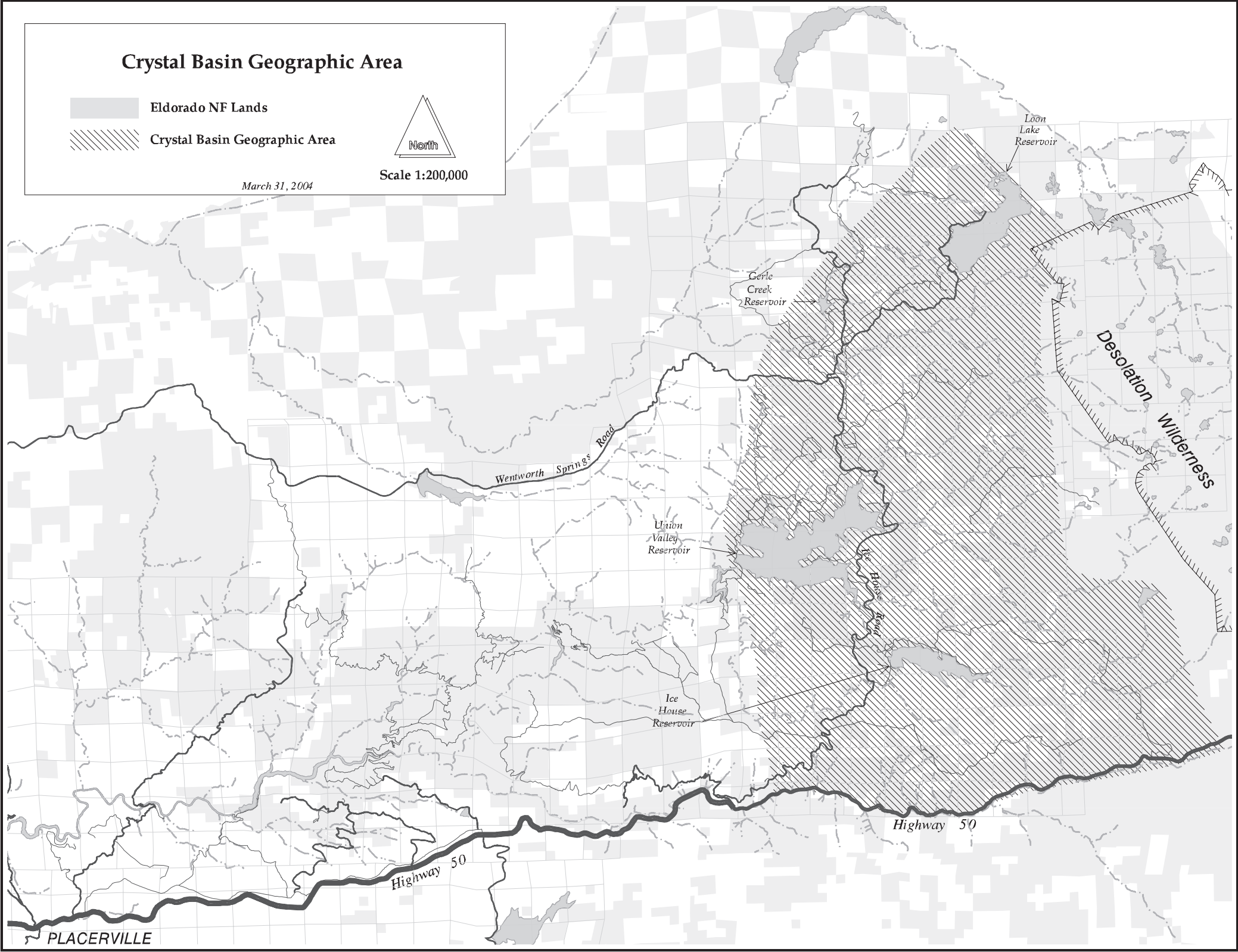
Crystal Basin Geographic Area

-  Eldorado NF Lands
-  Crystal Basin Geographic Area



Scale 1:200,000

March 31, 2004



The main route of access to the Crystal Basin is by way of Ice House Road, which is a 30-mile, paved two-lane road that begins at U.S. Highway 50 at Riverton and ends at Loon Lake. Ice House, Union Valley and Robbs Peak reservoirs are also accessed by this road and these reservoirs are approximately 11, 14 and 20 miles, respectively, from Riverton. The access road to Gerle Creek Reservoir (Wentworth Spring Road) is approximately one mile north of Robbs Peak Reservoir. From this intersection, it is approximately two miles to Gerle Creek Reservoir.

In 2002, the Wentworth Springs Road between Georgetown and the Ice House Road, a distance of about 30 miles, was realigned and paved. This greatly improved the public access to the Crystal Basin by shortening the travel time and the ease of travel for visitors coming from the Georgetown area. This road is not plowed and the Crystal Basin is not accessible via this route during the winter.

Although the majority of recreation use in the Crystal Basin occurs in the summer, the main access roads to UARP facilities are plowed during the winter months, enhancing winter recreation use. SMUD plows roads that are under county and Forest Service jurisdiction to access UARP facilities and provide parking for recreational use according to a snow removal plan with the ENF. These routes in the Crystal Basin and the Canyonlands include:

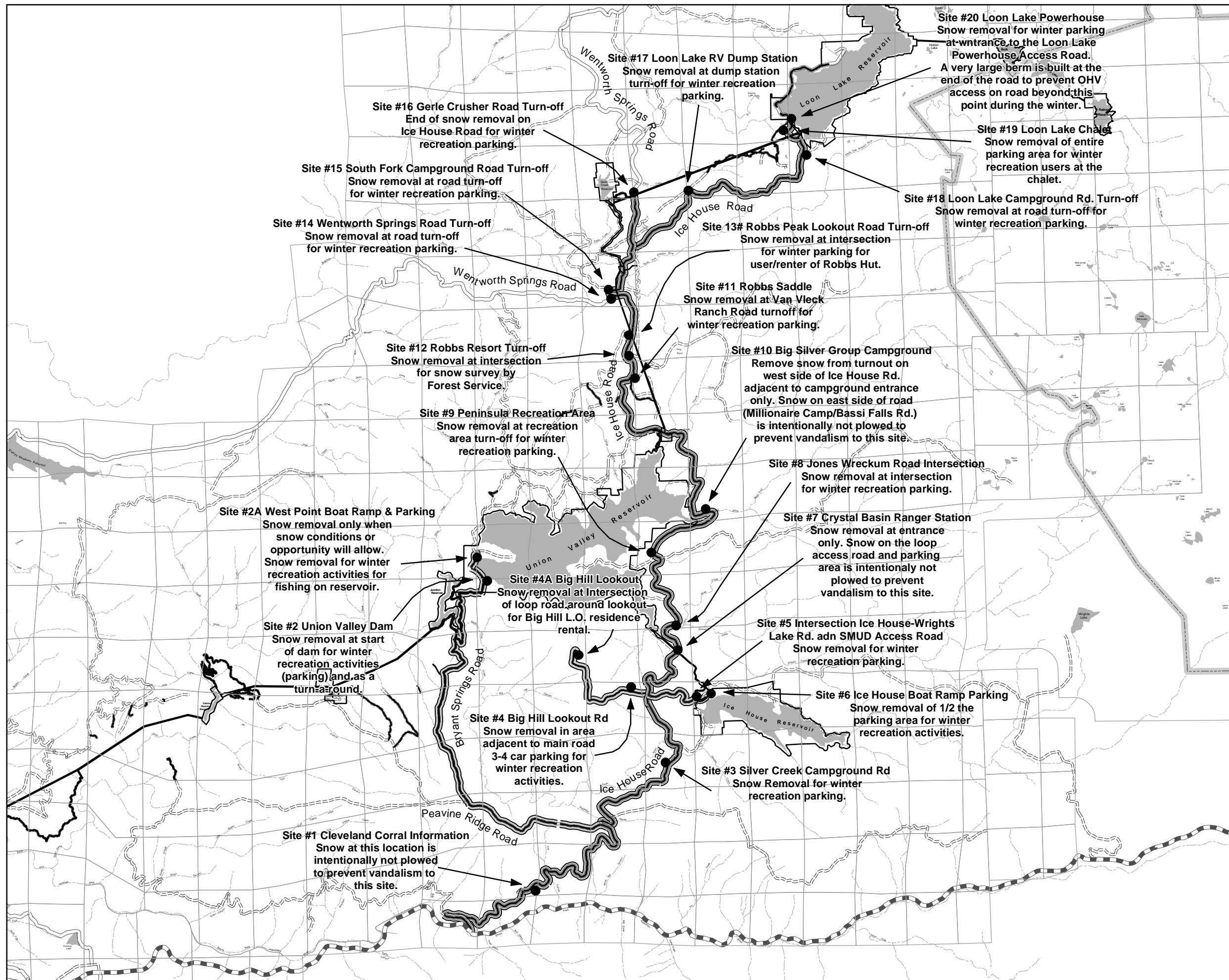
Ice House Road	Between Highway 50 and Loon Lake Chalet (a county road)
Peavine Ridge Road	Between Ice House Road and Bryant Springs Road
Bryant Springs Road	Between Peavine Ridge Road and West Point Boat Launch
Big Hill Road	Between Ice House Road and Big Hill Lookout
FS Road No. 11N37	Between Ice House Road and Ice House Boat Launch
Wentworth Springs Road	Between Ice House Road and the turnoff to Gerle Creek Dam

A map of the routes with the locations of plowed parking areas along the routes is provided in Figure 4.2-5.

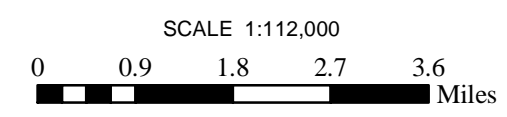
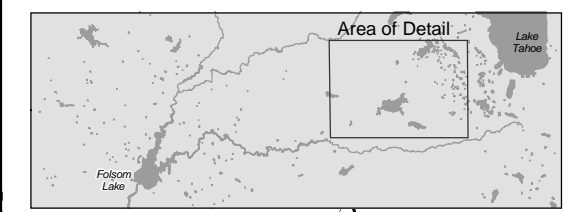
Upper American River Project



Crystal Basin Snow Removal Plan



- Plowed
- Highway 50
- County Road
- Other Road
- Wilderness Boundary
- SMUD Boundary



4.2.2.1 Recreation Opportunities - Crystal Basin

The Crystal Basin hosts a wider spectrum of recreation opportunities than either the High Country or the Canyonlands. Developed recreation facilities are numerous with approximately 700 campsites available along the reservoirs (not including group campgrounds). Most of these facilities were constructed by SMUD and they are owned and managed by the ENF. There are also many areas adjacent to and within the UARP boundary where dispersed recreation is popular. The reservoirs provide flat-water opportunities for motorized (except for Gerle Creek Reservoir) and non-motorized boating, watersports, shoreline and lake surface fishing, and swimming. Section 4.3 summarizes flatwater opportunities on UARP reservoirs. Non-reservoir based recreational activities in the Crystal Basin include camping at developed facilities and at dispersed locations (both tent and recreation vehicle), picnicking, stream fishing, OHV use, rock climbing, hunting, hiking, equestrian use, mountain biking and scenic viewing. Opportunities for these recreation activities are mainly available to visitors during the non-winter months when most visitors come to the Crystal Basin between Memorial Day and Labor Day when the air temperature is usually warm.

The road system in the area creates opportunities for scenic driving. As mentioned above, the two main routes of access are the Ice House Road and Wentworth Springs Road. Since the Wentworth Springs Road was paved, this route has seen increased vehicle traffic and the route is described on a popular website for motorcycle touring, www.pashnit.com. The ENF staff stated that over the past two years they have seen car clubs as well as motorcycles now traveling on the roads, apparently touring as groups of users. Paving the Wentworth Springs Road produced an attractive touring feature in that it has created a scenic, paved, loop route of travel connecting Georgetown, the Crystal Basin, Highway 50 and Placerville. Besides scenic views, this route also provides access to the Rock Creek OHV area and Stumpy Meadows Lake. There are campgrounds for tent and RV camping, picnic area, boat launch and swimming beach at Stumpy Meadows Lake. There is a 10 horsepower boating restriction and a 5 m.p.h. speed limit on this 320-acre lake. These restrictions attract visitors who enjoy a quiet boating experience and a calm water surface which make this a popular place for fishing and flatwater paddling. This reservoir is also regularly stocked with fish during the summer months by the California Department of Fish and Game. Since it is located at 4,400 feet in elevation and Wentworth Springs road is not plowed, access during the winter depends on the weather (Steinstra 2000).

Within only the last few years, whitewater boating activity has increased on the South Fork of Silver Creek above Ice House Reservoir. This run is two miles long terminating where the South Fork of Silver Creek enters Ice House Reservoir and it has a Class V+ difficulty rating. Other areas in the Crystal Basin that may provide opportunities for whitewater boating are the South Fork of Silver Creek below Ice House Reservoir and the South Fork Rubicon River below Robbs Forebay. The reader is referred to the *Whitewater Boating Feasibility Technical Report* for additional information about whitewater recreation resources.

During the winter, the Crystal Basin usually receives enough snow to provide opportunities for visitors to participate in winter activities such as cross country skiing, snowshoeing, snow play

and snow camping. It should be noted that although snow camping occurs in the area, the campgrounds in the Crystal Basin are closed during the winter and developed facilities are not provided for this activity. The plowed route to the hydro facilities also provides visitors with the opportunity for scenic driving. Although the campgrounds in Crystal Basin are closed during the winter, visitors can reserve the Loon Lake Chalet, Robbs Hut and the Van Vleck Bunkhouse for overnight use. Snowmobiling is allowed in most of the Crystal Basin but there is a posted restriction on the Ice House Road approximately 1.5 miles south of Loon Lake. The sign announces to visitors that the Loon Lake Winter Recreation Area is open to cross country skiing, snow play and snowshoeing and it is closed to all over-the-snow motorized travel beyond the posted sign. Anecdotal accounts of the Licensee's staff indicate that snow mobile use in the Crystal Basin is not common.

Many of the opportunities that exist in the summer, that are not inhibited by snow, are also available during the winter months however participation is significantly lower. The plowed access roads and boat launches at West Point (Union Valley Reservoir) and Ice House Reservoir affords the opportunity for visitors to enjoy fishing and boating during winter months on these two reservoirs in the Crystal Basin. OHV users also visit the area during the winter. The visitor surveys indicated 13.5 percent of the winter visitors surveyed participated in OHV use.

The reader is referred to the *Visitor Use and Impact Technical Report* for additional information about visitors' activities in the Crystal Basin.

4.2.2.2 Developed Recreation Facilities-Crystal Basin

A majority of the recreation facilities in the Crystal Basin are Project recreation facilities. All of the UARP recreation facilities are located on federal land and are owned by the ENF. The UARP recreation facilities were constructed and are maintained by SMUD and the ENF through a cooperative partnership that has existed since the beginning of the UARP. In 1964, as part of the original construction of the UARP reservoirs, SMUD and the ENF agreed on a recreation plan for the development and maintenance of recreation facilities at the UARP. As a result of the Jones Fork Powerhouse addition, the recreation plan was substantially amended in 1985, resulting in the creation of new recreation facilities and an expanded role for SMUD in meeting its responsibilities relative to project recreation. The new recreation facilities included the creation of a dozen group or small-sized campgrounds around the reservoirs primarily to improve management of dispersed camping. Construction of the new facilities was phased in over a 15-year period from 1989 to 2003. Responsibility for the administration, operation, maintenance and replacement of the UARP recreation facilities has two components: 1) funding; and 2) implementation. SMUD has provided funding to the ENF which has the responsibility for implementation. The reader is referred to section 4.2 for additional discussion regarding how the ENF operates and maintains the UARP Recreation facilities and the funding that the SMUD has provided to manage these facilities.

The types of recreation facilities present in the Crystal Basin include: campgrounds, day use areas, boat launches, trails (biking, hiking, interpretive and equestrian), OHV routes, resorts, visitor centers and lodging. Locations of the developed facilities are shown on maps by reservoir













area. Following the maps, the details about the developed facilities are presented in tables. The planned development for recreation facilities is also noted in each table. A discussion of the condition and accessibility of the UARP recreation facilities follows each table.

The total developed overnight capacity in the Crystal Basin is 5,325 PAOT. The campgrounds have a capacity of 4,633 PAOT and the resorts and private camps have a capacity of 692 PAOT. The ENF has published Recreation Opportunity Guides (ROG) for some of the UARP recreation facilities that include details about accessibility, spur lengths, nearby facilities, site layout and rules. The ROGs for Airport Flat, Fashoda, Gerle Creek, Ice House, Jones Fork, Loon Lake, Northwind, Strawberry Point, Sunset, Wench Creek, Wolf Creek and Yellowjacket campgrounds are included in Appendix A.

Loon Lake

Figure 4.2-6 shows the locations of the developed recreation facilities at Loon Lake Reservoir. Details about the recreation facilities at Loon Lake Reservoir are provided in Table 4.2-2. Information about the future improvements that are planned at the reservoir is based on interviews with ENF staff, the AL&L Area Manager (ENF concessionaire operating the developed facilities in the Crystal Basin), and resort operators as well as information based on the ENF Quarterly Schedule of Actions and ENF projects funded through the Forest Service Capital Investment Program. The developments listed are UARP-recreation facilities, unless otherwise noted.

Developed Facilities at Loon Lake Reservoir

-  Campground
 -  Day Use/Picnic Area
 -  Visitor Information
 -  Boat Launch
 -  Sanitation Station
 -  Resort
 -  Chalet/Hut
 -  Hiking Trail
 -  Cross Country Ski Trail
 -  Off Highway Vehicle Route
 -  Project Boundary
 -  North
- Scale 1:28,000

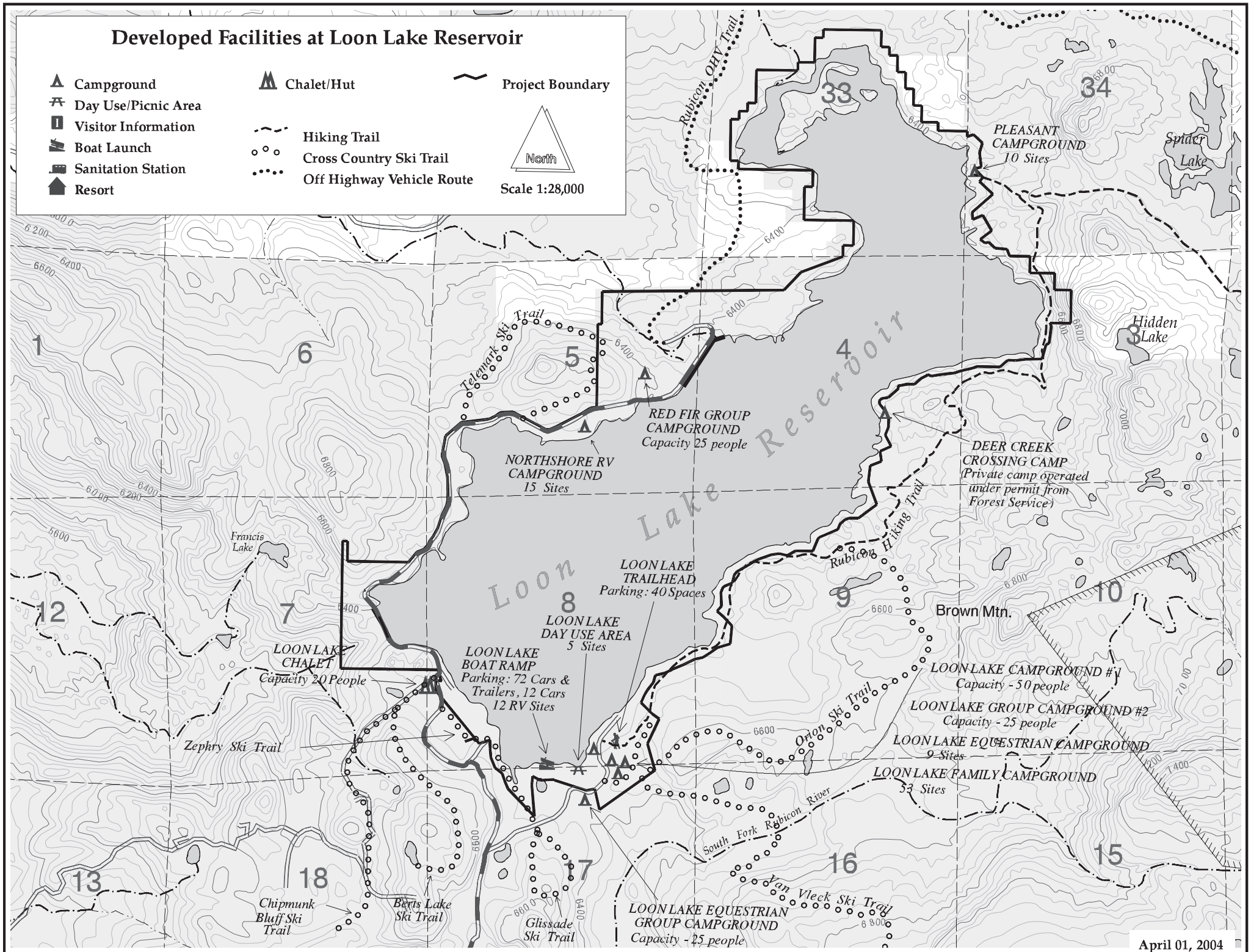


Table 4.2-2. Recreation facilities at Loon Lake Reservoir.							
	Capacity			Potable Water	Toilets (F=Flush, V=vault, P=Pit)	Reservations (#reservable/#total)	Comments
	# sites ¹	PAOT ²	Trail length (mi)				
Campgrounds							
Pleasant	10			No	P	0	Access by foot, bicycle or boat only. Pack-in/pack-out trash. No fee.
Wentworth Springs ³	8			No	V	0	4WD or dirt bike access recommended for access. No fee.
Northshore RV	15			No	V	0	
Loon Lake	53			Yes	V	48/53	
Loon Lake Equestrian	9			Yes	V	4/9	
Loon Lake Boat Launch	15			Yes	V	0/15	Self contained RV overflow. No campfires allowed.
Group Campgrounds							
Loon Lake Group 1 & 2	2	75		Yes	V	2/2	
Loon Lake Equestrian	1	25		Yes	V	1/1	
Red Fir	1	25		Yes	V	1/1	Tents only. No RV or trailers
Lodges							
Loon Lake Chalet		20		Yes	V	1/1	Overnight use by reservation only. Heat, electricity, kitchen, sleeping loft.
Deer Crossing Camp ³ (no road access)	1	50					Private youth camp authorized under Special Use Permit from ENF
Day Use Areas							
Loon Lake Chalet				Yes	V		Open to public during the day on weekends in the winter. Water available inside chalet. No fee.
Loon Lake Boat Launch	5			Yes	V		Picnic sites available. 72 vehicle w/trailer and 12 vehicle parking spaces. No fee. Accessible loading platform.
Sanitation Station							
Loon Lake Sanitation Station							Located south of Loon Lake adjacent to Ice House Road. No fee.
Trailhead							
Loon Lake Trailhead				Yes	V		40 parking spaces. No fee.
Trails (non-motorized)³							
Rubicon Hiking Trail			3.8				Foot and pack stock trail (Loon Lake TH to Pleasant CG)
Loon Lake Trail			3.0				Foot and pack stock trail (Tells Cr. To Loon Lake TH)
Trails (cross country ski)³							
Chipmunk Bluff			1.6				
Berts Lake			.9				
Polaris			2.5				
Telemark			1.6				
Zephyr			.6				

	Capacity			Potable Water	Toilets (F=Flush, V=vault, P=Pit)	Reservations (#reservable/#total)	Comments
	# sites ¹	PAOT ²	Trail length (mi)				
Campground			1.2				
Glissade			.6				
Orion			3.4				Unmarked route
Van Vleck			5.6				
Routes (motorized)³							
Rubicon OHV Route			22				OHV route between Loon Lake and Lake Tahoe
Planned Development/Improvement							
Wildlife resistant food storage lockers at Loon Lake (all sites) and Northshore campgrounds in 2004						Funded by ENF CIP ⁴	

¹Fire ring or fire grill with a picnic table, potable water and trash collection unless otherwise noted

²People-at-one-time

³non-UARP facility

⁴Capital Investment Program (ENF improvements with appropriated funding)

Condition and Accessibility of Developed Recreation Facilities at Loon Lake

The condition and accessibility of the UARP recreation facilities at Loon Lake are discussed below. This report does not include facilities that are: 1) not within the study area; 2) located on private land; or 3) privately owned and authorized under Special Use Permit from the ENF.

Pleasant Campground

This is a walk-in (4.1 miles from the Loon Lake Wilderness Trailhead) or boat-in campground that was constructed in 1968. The site has two pit toilets, poor signage, broken tables, and damaged fire grills. The trail between the campground and the Rubicon Hiking Trail is narrowed by encroaching vegetation, there are protruding roots and rocks and there is erosion occurring on parts of the trail. The paths of travel between the campsites within the campground are in similar condition. There are reportedly 10 sites but all of the sites could not be located due to missing components such as a table or fire grill. The remaining components in the campground are damaged or worn out and the sanitation facilities are inadequate.

The campground does not have any components that are accessible to persons with disabilities. The site has a ROS classification of Semi-Primitive Motorized. Changes to the site that would require major modifications that would alter the landscape character and experience level are not required by the accessibility guidelines. Actions identified by the ENF to improve accessibility that are consistent with this guiding principle are listed below.

- Replace the restrooms and locate them in an area with the fewest ground obstacles.

- Reconstruct the Rubicon Hiking Trail between the Loon Lake Trailhead and Pleasant Campground to meet a 'difficult' access level.
- Clear, level and compact surfaces for tent pads, fire grills and tables.
- Install (replace) accessible fire grills and tables.

Northshore RV Campground

This 15-site campground was opened in 1990. As the name implies, it is designed to spatially accommodate recreational vehicles. The improvements are over 10 years old and they are in good condition. The access road and spurs are paved and are not currently in need of repaving. The one 2-unit vault restroom, tables, fire rings, signs, site markers and traffic control barriers are also in good condition and do not need immediate replacement. The visitor information posted at the campground should be reviewed annually for relevancy and accuracy and consequently, the information provided at the site may be out of date.

The campground has some deficiencies related to accessibility. The site has a ROS classification of Semi-Primitive Motorized. Changes to the site that would require major modifications that would alter the landscape character and experience level are not required by the accessibility guidelines. Actions identified by the ENF to improve accessibility that are consistent with this guiding principle are listed below.

- At site nos. 11, 12 and 13 widen the spurs to 16 feet and reposition the barrier rocks so they are 4 feet apart.
- Install (replace) accessible fire grills

Americans with Disabilities Act Accessibility Guidelines (ADAAG) require that there be at least two accessible campsites at a campground with 2-25 campsites.

Loon Lake Campground

This campground was opened in 1967 and it was renovated in 1991. In 1967 campsites 1-34 were constructed and in 1991, 19 family campsites were added. The site has been well maintained and the campsite components in the original 34 sites are in fair condition while the remaining newer sites are in good condition. The campground access roads are paved and the ones in the original loops have protruding objects, potholes and they are narrow. There are also broken and missing traffic control barriers in the original loops. Two of the five vault restrooms are also in good condition and do not need immediate replacement. The remaining restrooms are worn and in need of replacement. The tables, fire grills, fire rings, faucets, signs, site markers are also in good condition and do not need immediate replacement. The visitor information posted at the campground should be reviewed annually for relevancy and accuracy and consequently, the information provided at the site may be out of date.

The campground has some deficiencies related to accessibility. The site has a ROS classification of Roaded Natural. Changes to the site that would require major modifications that would alter the landscape character and experience level are not required by the accessibility guidelines.

Actions identified by the ENF to improve accessibility that are consistent with this guiding principle are listed below.

- Sites 40, 47, 49 and 51 are accessible sites and two of these are signed as accessible.
- Sites 35-39, 41-48, and 50-53 are all accessible sites.
- Install (replace) three accessible vault restrooms located in site nos. 1-34
- Install a paved turnout in front of all restrooms with a paved access route to the restroom.
- Replace all faucets to meet accessible requirements (height, controls, surface flush with sumps and hardened in front and on sides of faucet unit).
- Reconstruct access road for site nos. 1-34 to reduce grade to 10 percent or less. If this cannot be done without major site modification, relocate the restroom, faucets and the accessible campsites to avoid the path of travel that exceeds the accessibility standards.
- Reconstruct all spurs in site nos. 1-34 and 14 spurs in loop 35-53 to 16 ft. width and reposition the barrier rocks so they are 4 feet apart.
- Install (replace) accessible tables in sites 1-34 and retrofit tables in site nos. 35-53 to meet accessibility requirements (lengthen boards to 10 ft. and raise top boards to provide minimum 28" clearance).
- Increase clearance (36") and level the ground around the fire rings in site nos. 1-34.
- Install (replace) all fire rings to meet accessibility requirements.
- Reset height of fire grills (30"-36") in site nos. 1-34 to meet accessibility requirements.
- Reconstruct site nos. 1-34 to remove obstacles, level and compact the native surface and enlarge them to a minimum of 1200 sq. ft. with a 3 percent or less grade in all directions.
- Pave approaches to trash bins.

ADAAG require that there be at least four accessible campsites at a campground with 51-75 campsites.

Loon Lake Equestrian

This facility was opened in 1991. The campground access roads are paved and are not currently in need of repaving. The one 1-unit vault restroom, tables, faucets, fire grills, fire rings, signs, site markers and traffic control barriers are also in good condition and do not need immediate replacement. The visitor information posted at the campground should be reviewed annually for relevancy and accuracy and consequently, the information provided at the site may be out of date.

The campground has some deficiencies related to accessibility. The site has a ROS classification of Roaded Natural. Changes to the site that would require major modifications that would alter the landscape character and experience level are not required by the accessibility guidelines. Actions identified by the ENF to improve accessibility that are consistent with this guiding principle are listed below.

- Install a paved turnout in front of all restrooms with a paved access route to the restroom.

- Replace all faucets to meet accessible requirements (height, controls, surface flush with sumps and hardened in front and on sides of faucet unit).
- Reconstruct all spurs in site nos. E-1, E-2, E-8 and E-9 to 16 ft. width and reposition the barrier rocks so they are 4 feet apart.
- Retrofit tables in all sites to meet accessibility requirements (lengthen boards to 10 ft. and raise top boards to provide minimum 28" clearance).
- Install (replace) all fire rings to meet accessibility requirements.
- Pave approaches to trash bins.

ADAAG require that there be at least two accessible campsites at a campground with 2 to 25 campsites.

Loon Lake Group Campground 1 and 2

This facility was opened in 1991. The campground access roads and parking areas are paved and are not currently in need of repaving. The two 2-unit vault restrooms, tables, faucets, fire grills, fire rings, signs, site markers and traffic control barriers are also in good condition and do not need immediate replacement.

The campground has some deficiencies related to accessibility. The site has a ROS classification of Roded Natural. Changes to the site that would require major modifications that would alter the landscape character and experience level are not required by the accessibility guidelines. Actions identified by the ENF to improve accessibility that are consistent with this guiding principle are listed below.

- Nine of the 10 camp and tent pads in Group #1 and all camp and tent pads in Group #2 are accessible.
- Replace all faucets to meet accessible requirements (height, controls, surface flush with sumps). Pave the surface in front and on the sides of each faucet.
- Retrofit 15 tables (10 tables in Group #1 and 5 in Group #2) to meet accessibility requirements (lengthen boards to 10 ft. and raise top boards to provide minimum 28" clearance). Install (replace) accessible tables in group eating areas of both sites.

Loon Lake Equestrian Group Campground

This facility was opened in 1988. The campground access roads and parking areas are paved and need to be repaved. The one 1-unit vault restroom, tables, faucets, fire grills, fire rings, signs, site markers and traffic control barriers are in fair condition and do not need immediate replacement. The gate needs immediate replacement.

The campground has some deficiencies related to accessibility. The site has a ROS classification of Roded Natural. Changes to the site that would require major modifications that would alter the landscape character and experience level are not required by the accessibility guidelines. Actions identified by the ENF to improve accessibility that are consistent with this guiding principle are listed below.

- Install (replace) one 1-unit CXT vault restroom.
- Replace the two faucets to meet accessible requirements (height, controls, surface flush with sumps). Level and compact the surface in front and on the sides of each faucet.
- Remove protruding obstacles on pathways within the site. Regrade, widen and harden the natural surface on the pathways.
- Reconstruct all (5) spurs to 16 ft. width and reposition the barrier rocks so they are 4 feet apart. Resurface with compacted aggregate base rock.
- Install (replace) accessible tables in the group eating area.
- Install (replace) accessible fire rings. Clear and level the ground surface (36”).
- Clear and level the ground surface (36”) around the cooking grills.
- Reconstruct all (5) camp and tent pads to remove obstacles, level and compact the native surface and enlarge them to a minimum of 1200 sq. ft. with a 3 percent or less grade in all directions.

Red Fir Group Campground

This facility was opened in 1990. The paved access road and spurs and are in good condition and are not currently in need of repaving. The one 2-unit vault restroom, tables, faucet, fire grills, fire ring, signs and traffic control barriers are also in good condition and do not need immediate replacement.

The campground has some deficiencies related to accessibility. The site has a ROS classification of Roded Natural. Changes to the site that would require major modifications that would alter the landscape character and experience level are not required by the accessibility guidelines. Actions identified by the ENF to improve accessibility that are consistent with this guiding principle are listed below.

- The paths of travel associated with one of the 6 spurs are not accessible.
- Replace the seats in the existing restroom with ones that are 18” in height.
- Replace the faucet to meet accessible requirements (height, controls, surface flush with sumps). Raise, level and pave the surface in front and on the sides of each faucet.
- Reconstruct 2 double spurs to 32 ft. width and repave.
- Retrofit all 5 tables to meet accessibility requirements (shorten seat boards to 6 ft. and raise top boards to provide minimum 28” clearance).

Loon Lake Chalet

This facility was constructed in 1989 and remodeled in 1994. This facility is reservable for overnight use on weekends and the main floor is open to the public as a day use warming hut on weekends during the winter. The chalet is a three-story facility with two public vault restrooms and rooms for the ski patrol personnel located on the first floor, a kitchen, eating area and fireplace located on the second floor and the sleeping area is located in a loft above the second floor. There is also a deck with picnic tables located off of the kitchen area on the second floor.

The facility has some deficiencies related to accessibility. The restrooms are accessible from the parking lot and there are designated accessible parking spaces. The stairs to the second and third levels are barriers to accessibility. The kitchen sink, stove, counters, cabinets, tables and emergency phone are not accessible. The hardware on the entry door and doors and some signs at the facility do not meet accessible standards. The site has a ROS classification of Roaded Natural. Changes to the site that would require major modifications that would alter the landscape character and experience level are not required by the accessibility guidelines. Actions identified by the ENF to improve accessibility that are consistent with this guiding principle are listed below.

- Replace door levers.
- Add accessibility signs.
- Set emergency phone at an accessible height.
- Make sink, cabinets and counters accessible
- Install accessible tables.
- Construct an enclosed entry with an elevator to the second floor.

Loon Lake Boat Launch

This facility was opened in 1966. In 2002 the ENF paved the surface of the parking area and installed two new CXT vault restrooms, constructed an accessible boarding ramp designed for transferring visitors in wheel chairs to boats, and replaced the faucet to meet accessibility requirements. The two concrete launch lanes and asphalt surfaces of the access road, curbs and parking area are smooth and in good condition. The 1 four-unit and 1 two-unit CXT vault restroom, and signs are also in good condition and are not in need of immediate replacement. The site includes 12 spaces for self-contained RV camping, 5 picnic sites and parking for 84 vehicles with trailers.

The facility has some deficiencies related to accessibility. The site has a ROS classification of Roaded Natural. Changes to the site that would require major modifications that would alter the landscape character and experience level are not required by the accessibility guidelines. Actions identified by the ENF to improve accessibility that are consistent with this guiding principle are listed below.

- Install (replace) 2 accessible tables in the picnic sites.
- Clear and level the ground surface (36") around the cooking grills, tables and fire rings at each picnic site.
- Level and compact the native surface at each picnic site.

ADAAG require that there be at least one accessible RV site at the boat launch at a campground with 2 to 25 campsites.

Loon Lake Sanitation Station

The access road, signs and service apparatus at this facility are in good condition and are not in need of replacement.

The facility has some deficiencies related to accessibility. The site has a ROS classification of Rooded Natural. Changes to the site that would require major modifications that would alter the landscape character and experience level are not required by the accessibility guidelines. Actions identified by the ENF to improve accessibility that are consistent with this guiding principle are listed below.

- Cut out part of the concrete island so that the control valve can be reached.
- Lower the control valve and replace it with a lever control.

Loon Lake Trailhead

This facility was opened in 1992. The paved parking area with 40 parking spaces, curbs and access road are in good condition. The one 2-unit vault restroom, faucets and signs are also in good condition.











The trailhead has some deficiencies related to accessibility. The site has a ROS classification of Rooded Natural. Changes to the site that would require major modifications that would alter the landscape character and experience level are not required by the accessibility guidelines. Actions identified by the ENF to improve accessibility that are consistent with this guiding principle are listed below.

- Replace the faucet to meet accessible requirements (height, controls, surface flush with sumps). Raise, level and pave the surface in front and on the sides of each faucet.
- Designate two of the 40 parking spaces for parking for persons with disabilities. Sign one of the two spaces as van accessible.

Gerle Creek Reservoir

Figure 4.2-7 shows the locations of the developed recreation facilities at Gerle Creek Reservoir. Details about the recreation facilities at Gerle Creek Reservoir are provided in Table 4.2-3. Information about the future improvements that are planned at the reservoir is based on interviews with ENF staff, the AL&L Area Manager (ENF concessionaire operating the developed facilities in the Crystal Basin), and resort operators as well as information based on the ENF Quarterly Schedule of Actions and ENF projects funded through the Forest Service Capital Investment Program. The developments listed are UARP-recreation facilities, unless otherwise noted.

Developed Facilities at Gerle Creek Reservoir

-  Campground
-  Day Use/Picnic Area
-  Visitor Information
-  Boat Launch
-  Sanitation Station
-  Resort
-  Fishing Pier
-  Hiking Trail
-  Project Boundary
-  North
- Scale 1:24,000

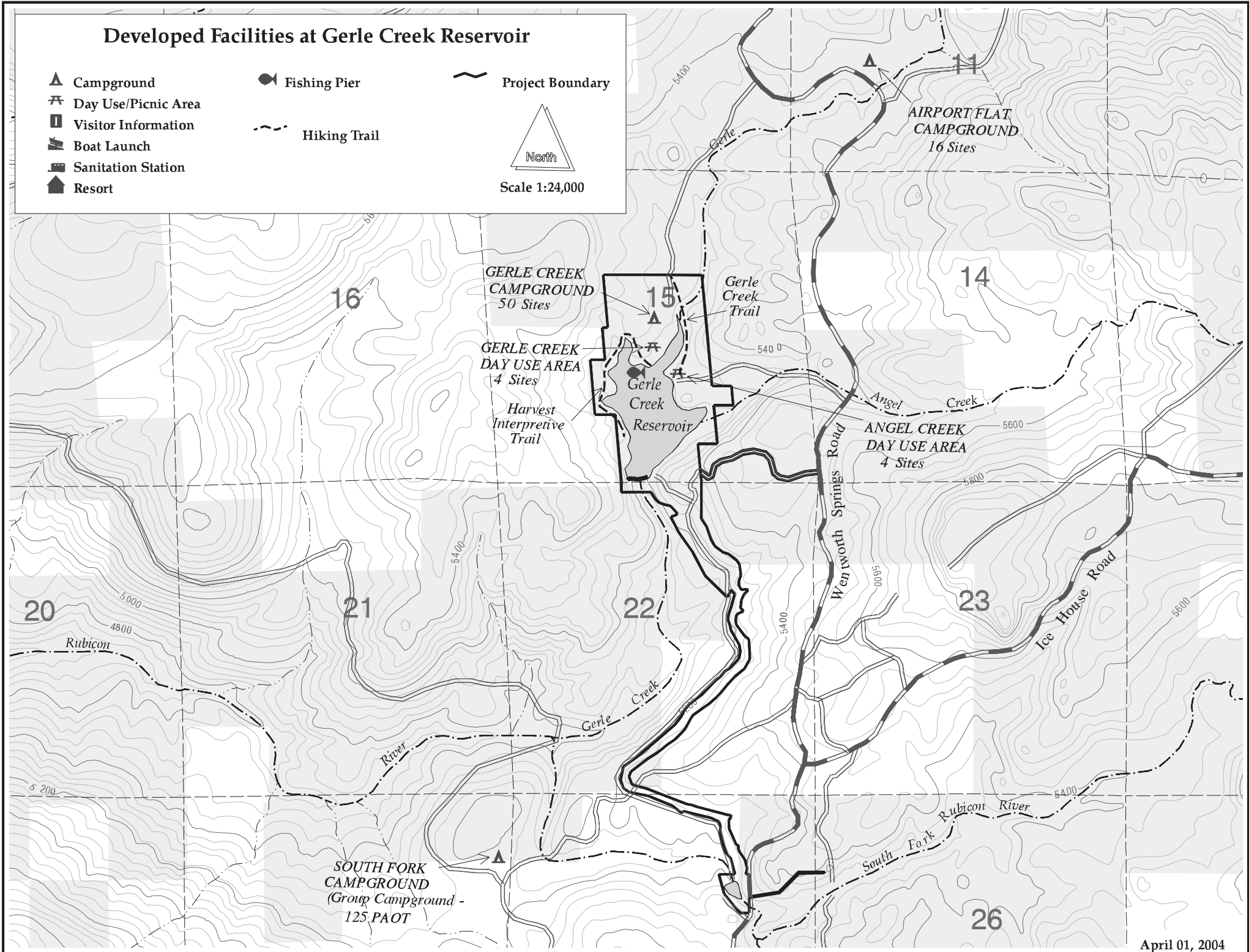


Table 4.2-3. Recreation facilities at Gerle Creek Reservoir.							
	Capacity			Potable Water	Toilets (F=Flush, V=vault, P=Pit)	Reservations (# reservable/#total)	Comments
	# sites ¹	PAOT ²	Trail length (mi.)				
Campgrounds							
Gerle Creek	50			Yes	V	32/50	
Airport Flat	16			No	V	0/16	No fee.
South Fork ³		125		No	V	1/1	Operated as a group campground
Day Use Areas							
Gerle Creek	4			Yes	V		Includes a fishing pier accessible to persons with disabilities. 18 parking spaces. No fee.
Angel Creek	4			No	V		No fee.
Trails (non-motorized)							
Summer Harvest Trail			.5				Interpretive trail accessible to persons with disabilities
Gerle Creek Trail			.7				Aggregate surfaced trail connecting the two day use areas with trailhead parking (15 spaces) on Gerle Cr. CG access road.
Recreation Residences³							
Gerle Creek Tract (located x.x miles from Gerle Creek Reservoir)							Privately owned residences for seasonal occupancy on public land under Special Use Permit from ENF
Planned Development/Improvement							
Gerle Cr. Campground-Drill a new well in 2004						Funded by federal funds	
Wildlife resistant food storage lockers at Gerle Cr. and Airport Flat CG's in 2004						Funded by ENF CIP ⁴	

¹Fire ring or fire grill with a picnic table, potable water and trash collection unless otherwise noted

²People-at-one-time

³non-UARP facility

⁴Capital Investment Program (ENF improvements with appropriated funding)

Condition and Accessibility of Developed Recreation Facilities at Gerle Creek Reservoir

The condition and accessibility of the UARP recreation facilities at Gerle Creek Reservoir are discussed below. This report does not include facilities that are: 1) not within the study area; 2) located on private land; or 3) privately owned and authorized under Special Use Permit from the ENF.

Gerle Creek Campground

This 50-unit campground was opened in 1967. The access roads and spurs have cracked asphalt. Many of the spurs are short and do not easily accommodate trailers or recreational vehicles. The

six 2-unit restrooms, water faucets, tables, fire rings, signs, site markers and traffic control barriers in the campground are worn and out of date. The visitor information posted at the campground should be reviewed annually for relevancy and accuracy and consequently, the information provided at the site may be out of date. The current potable water supply is insufficient and a new well was unsuccessfully drilled in 2002. A second effort to drill a productive well for a potable water supply will be attempted in 2004.

The campground has many deficiencies related to accessibility. The site has a ROS classification of Roaded Natural. Changes to the site that would require major modifications that would alter the landscape character and experience level are not required by the accessibility guidelines. Actions identified by the ENF to improve accessibility that are consistent with this guiding principle are listed below.

- Install (replace) accessible vault restrooms.
- Pave a turnout adjacent to the entrance station.
- Replace the faucets to meet accessible requirements (height, controls, surface flush with sumps). Raise, level and pave the surface in front and on the sides of each faucet.
- Remove protruding obstacles on pathways within the site. Regrade, widen and harden the natural surface on the pathways.
- Reconstruct all 50 spurs to 16 ft. width, pave and reposition the barrier rocks so they are 4 feet apart.
- Install (replace) accessible tables in all 50 sites.
- Reset fire grill surface height (30"-36")
- Clear and level the ground surface (36") around the cooking grills, tables and fire rings at each site.
- Reconstruct all (50) camp and tent pads to remove obstacles, level and compact the native surface and enlarge them to a minimum of 1200 sq. ft. with a 3 percent or less grade in all directions.
- Pave approaches to trash bins.

ADAAG require that there be at least three accessible campsites at a campground with 26 to 50 campsites.

Airport Flat Campground

This 16-unit campground was opened in 1996. The access roads and spurs have a hardened aggregate surface that are smooth and in good condition. The three 1-unit CXT vault restrooms, tables, fire rings, signs, site markers and traffic control barriers in the campground are in good condition and do not need immediate replacement. The visitor information posted at the campground should be reviewed annually for relevancy and accuracy and consequently, the information provided at the site may be out of date.

All of the camp and tent pads, restrooms, fire rings, signs and paths of travel within the campground are accessible to persons with disabilities. One table is not accessible and needs to be replaced.

Gerle Creek Day Use Area

This 4-unit day use area was opened in 1990. The paved parking area was expanded in 2002 and there are 18 paved parking spaces available. This facility is in good condition. The signs and traffic barriers are also in good condition. The visitor information and education posted at the day use area should be reviewed annually for relevancy and accuracy and consequently, the information provided at the site may be out of date. The water faucet, tables and fire grills at the picnic sites are in good condition. The paved and aggregate base paths of travel between the parking area and the picnic sites are smooth and the vegetation is properly cleared from the paths. The one 2-unit restroom at the parking area is in good condition and does not need immediate replacement.

The day use area has some deficiencies related to accessibility. The site has a ROS classification of Roaded Natural. Changes to the site that would require major modifications that would alter the landscape character and experience level are not required by the accessibility guidelines. Actions identified by the ENF to improve accessibility that are consistent with this guiding principle are listed below.

- Replace the seats in the existing restroom with ones that are 18" in height.
- Replace faucet control with an accessible fixture.

The picnic sites and the routes of travel that connect the restroom, parking spaces, picnic sites, Summer Harvest Trail and fishing pier are accessible to persons with disabilities.

Angel Creek Day Use Area

This 4-unit day use area was opened in 1992. The aggregate surfaced parking area, traffic barriers and signs are in good condition. The visitor information posted at the day use area should be reviewed annually for relevancy and accuracy and consequently, the information provided at the site may be out of date. The one 2-unit vault restroom is in good condition

All of the four picnic sites, restroom, fire grills, signs and paths of travel within the day use area are accessible to persons with disabilities. One space in the parking area needs to be designated for accessible parking that can accommodate a van.

Summer Harvest Trail

The Summer Harvest Interpretive Trail has an aggregate surface with segments of wooden walkways over wet areas and creeks. The trail tread and wooden surfaces are in good condition and vegetation is properly cleared from the travel way. The fishing pier adjacent to the Summer Harvest Trail has asphalt surfacing, rails and supporting structure which are all in good condition

with no current maintenance or replacement needs. The visitor education and information posted at the on the trail should be reviewed annually for relevancy and accuracy and consequently, the information provided at the site may be out of date.

The trail and fishing pier are accessible to persons with disabilities and these are connected to the parking area, picnic sites and restroom by accessible paths of travel.

Gerle Creek Trail











The Gerle Creek Trail and parking area were constructed in 2002 and there are no maintenance needs for these facilities at this time.

The trail and parking area are designed to be accessible to persons with disabilities.

Union Valley Reservoir

Figure 4.2-8 shows the locations of the developed recreation facilities at Union Valley Reservoir. Details about the recreation facilities at Union Valley Reservoir are provided in Table 4.2-4. Information about the future improvements that are planned at the reservoir is based on interviews with ENF staff, the AL&L Area Manager (ENF concessionaire operating the developed facilities in the Crystal Basin), and resort operators as well as information based on the ENF Quarterly Schedule of Actions and ENF projects funded through the Forest Service Capital Investment Program. The developments listed are Project-recreation facilities, unless otherwise noted.

Developed Facilities at Union Valley Reservoir

-  Campground
-  Day Use/Picnic Area
-  Visitor Information
-  Boat Launch
-  Sanitation Station
-  Resort
-  Vista Point
-  Bicycle Trail
-  Project Boundary
-  North
- Scale 1:35,000

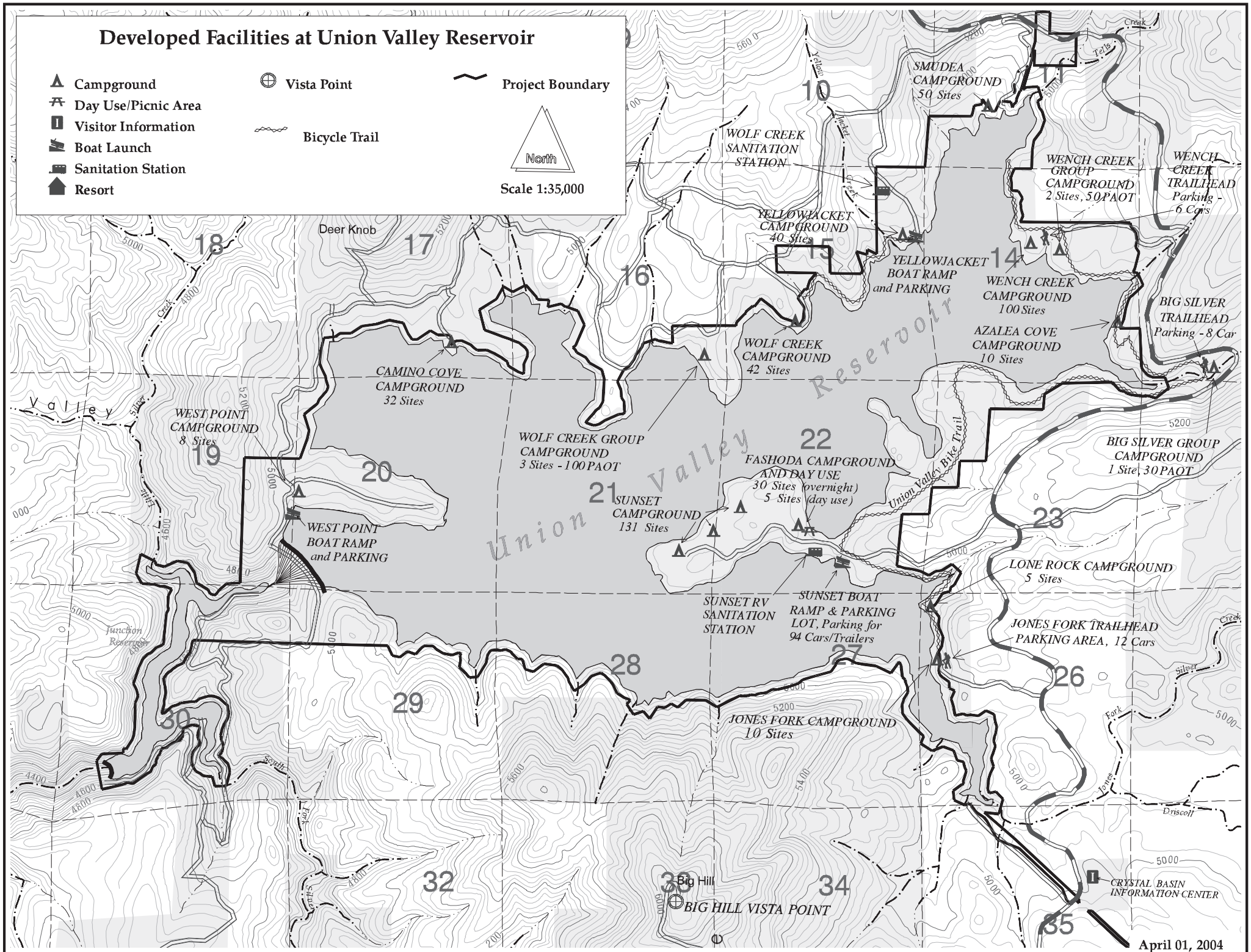


Table 4.2-4. Recreation facilities at Union Valley Reservoir.							
	Capacity			Potable Water	Toilets (F=Flush, V=vault, P=Pit)	Reservations (# reservable/#total)	Comments
	# sites ¹	PAOT ²	Trail length (mi.)				
Campgrounds							
Azalea Cove	10			No	V	0/10	Access by foot, boat or bicycle only. Pack-in/pack-out. No fee.
Camino Cove	32			No	V	0/32	No fee. No picnic tables.
Fashoda	30			Yes	V	0/30	Walk-in campground (service road is available to unload equipment) Showers and new restrooms installed in 2002.
Jones Fork	10			No	V	0/10	
Lone Rock	5			No	V	0/5	Access by foot, boat or bicycle only. Pack-in/pack-out. No fee.
Sunset	131			Yes	V	66/131	
Wench Creek	100			Yes	V/F	0/100	
Westpoint	8			No	V	0/8	No fee. No picnic tables or fire grills.
Wolf Creek	41			Yes	V	15/41	
Yellowjacket	40			Yes	V/F	19/40	
Group Campgrounds							
Big Silver	1	50		No	V	1/1	
Wench Creek	2	100		Yes	F	2/2	Site capacity: 50 and 50.
Wolf Creek	3	100		Yes	V	3/3	Site capacity: 25, 25 and 50.
Organization Camp							
SMUDEA	50			Yes	F	N/A	Privately owned camp.
Day Use Areas							
Big Hill Vista Point	1			No	V		Interpretive display, paved path and formal overlook of the Crystal Basin.
Fashoda	5			Yes	V		Designated swimming beach with buoys. No fee.
Sunset Boat Launch				Yes	V		92 vehicle with trailer parking spaces. Paved launching lane with courtesy dock. No fee. Available for self-contained RV overflow (fee). Accessible boarding platform.
Westpoint Boat Launch				No	V		14 vehicle with trailer parking spaces. Paved launching lane. No fee.
Yellowjacket Boat Launch				No	V		18 vehicle with trailer parking spaces. Paved launching lane. No fee.
Sanitation Stations							
Wolf Creek							Near Yellowjacket CG. No fee.
Sunset							Located between Sunset CG and Sunset Boat Launch. No fee.
Lodging³							
Robbs Hut	1	6				1/1	Year-round rental available by

Table 4.2-4. Recreation facilities at Union Valley Reservoir.							
	Capacity			Potable Water	Toilets (F=Flush, V=vault, P=Pit)	Reservations (# reservable/#total)	Comments
	# sites ¹	PAOT ²	Trail length (mi.)				
							reservation. Heat, electricity, cooking stove.
Van Vleck	1	6				1/1	Year-round rental available by reservation. Heat, electricity, cooking stove.
Trailhead							
Union Valley Bike Trailhead-Jones Fork CG				No	V		12 paved parking spaces
Union Valley Bike Trailhead-Big Silver CG				No	V		7 paved parking spaces
Union Valley Bike Trailhead at Wench Cr. CG				No	V		6 paved parking spaces
Trails							
Union Valley Bike Trail (east segment)			5.2				Paved 8' wide bike path between Wench Creek CG and Jones Fork CG
Union Valley Bike Trail (north segment)			1.1				Paved 8' wide bike path between Yellowjacket CG and Wolf Creek CG
Resort (Private)							
Robbs Valley Resort	30 ⁴						Privately owned resort with RV sites, store, restaurant, bar, live music, showers, dump station and parking for OHV events
Planned Development/Improvement							
Wildlife resistant food storage lockers at Lone Rock, Azalea Cove and Jones Fork campgrounds in 2004							
Robbs Valley Resort (private) plans to add 6 cabins in 2003 and possibly more in the future. May expand capacity for camping but no implementation date is set. Would also like to develop a group use site to host youth events (movies, programs).							
Shadow Mountain Hut construction 2 miles south of Loon Lake (Van Vleck area). To be used as overnight rental and warming hut.							
Azalea Cove Parking Area Improvement							
Bassi Falls Hiking Trail Construction (.75 mile)							

¹Fire ring or fire grill with a picnic table, potable water and trash collection unless otherwise noted

²People-at-one-time

³non-UARP facility

⁴RV sites with hook-ups

⁵Capital Investment Program (ENF improvements with appropriated funding)

Condition and Accessibility of Developed Recreation Facilities at Union Valley Reservoir

The condition and accessibility of the UARP recreation facilities at Union Valley Reservoir are discussed below. This report does not include facilities that are: 1) not within the study area; 2) located on private land; or 3) privately owned and authorized under Special Use Permit from the ENF.

Azalea Cove Campground

This 10-unit campground was opened in 1999. The campground is accessed by walking, biking or boating to the site. The Union Valley Bike Trail is used by persons to access the site and this surface is smooth and in good condition and the vegetation is properly cleared. The two 1-unit CXT vault restrooms, tables, fire rings, bike racks, signs, and site markers in the campground are in good condition and do not need immediate replacement. The visitor information posted at the campground should be reviewed annually for relevancy and accuracy and consequently, the information provided at the site may be out of date.

All of the camp and tent pads, restroom, tables, fire rings, signs and paths of travel within the campground are accessible to persons with disabilities. The trash cans are not accessible but new wildlife resistant trash cans that are accessible to persons with disabilities are planned to be installed in 2004. One parking space is designated for persons with disabilities. Wenck Creek and Big Silver trailheads parking areas that are potentially used to access the facility.

Camino Cove Campground

This 32-unit campground was opened in 1999. The campground has aggregate surfaced access roads and spurs that are smooth and in good condition. The three 1-unit CXT vault restrooms, fire rings, signs and traffic barriers are also in good condition and not in need of immediate replacement. The visitor information posted at the campground should be reviewed annually for relevancy and accuracy and consequently, the information provided at the site may be out of date.

All of the camp and tent pads, restrooms, spurs, fire rings, signs and paths of travel within the campground are accessible to persons with disabilities.

Fashoda Campground

This site was developed in 1966 as a day use area and it was converted to a 30-unit walk-in campground in 1991. The campground has a paved access road that visitors use to unload equipment at their campsite before parking in the paved parking lot adjacent to the campground. The access road and the parking area are in good condition. The parking area was resurfaced in 2003 and has 110 spaces including two spaces designated for persons with disabilities. A shower building was also added in 2003. The fire rings, water faucets, tables, signs and traffic barriers are also in good condition and not in need of immediate replacement. In 2002 the existing restrooms were removed and six 1-unit CXT vault restrooms were installed. The visitor

information posted at the campground should be reviewed annually for relevancy and accuracy and consequently, the information provided at the site may be out of date.

The campground has some deficiencies related to accessibility. The site has a ROS classification of Roaded Natural. Changes to the site that would require major modifications that would alter the landscape character and experience level are not required by the accessibility guidelines. Actions identified by the ENF to improve accessibility that are consistent with this guiding principle are listed below.

- Currently only site no. 6 is accessible to persons with disabilities. Five additional sites could be made accessible with modifications (site nos. 12-16).
- Retrofit 29 tables to meet accessibility requirements (lengthen top boards to 10 ft. and raise top boards to provide minimum 28" clearance).
- Designate two additional parking spaces in the parking area for a total of four designated accessible spaces in the 110-space parking area. One of the additional sites should be near site nos. 12-16 and should be designated as an accessible site for a van.

ADAAG require that there be at least three accessible campsites at a campground with 26 to 50 campsites.

Jones Fork Campground

This 10-unit campground was opened in 1991. The campground has a paved access road and spurs. The access road and spurs are in good condition and are not currently in need of repaving. The one 2-unit vault restroom, fire rings, tables, signs and traffic barriers are also in good condition and not in need of immediate replacement. The visitor information posted at the campground should be reviewed annually for relevancy and accuracy and consequently, the information provided at the site may be out of date.

The campground has some deficiencies related to accessibility. The site has a ROS classification of Roaded Natural. Changes to the site that would require major modifications that would alter the landscape character and experience level are not required by the accessibility guidelines. Actions identified by the ENF to improve accessibility that are consistent with this guiding principle are listed below.

- Reconstruct all 10 spurs to 16 ft. width, pave and reposition the barrier rocks so they are 4 feet apart.
- Retrofit 10 tables to meet accessibility requirements (lengthen boards to 10 ft. and raise top boards to provide minimum 28" clearance).
- Install (replace) accessible fire rings. Clear and level the ground surface (36").

Nine of the 10 sites have accessible paths of travel within the campground and the restroom is accessible.

Lone Rock Campground

This 5-unit campground was opened in 2000. The campground is accessed by walking, biking or boating to the site. The Union Valley Bike Trail is used by persons to access the site and this surface is smooth and in good condition and the vegetation is properly cleared. The one 1-unit CXT vault restroom, tables, fire rings, bike racks, signs, and site markers in the campground are in good condition and do not need immediate replacement. The visitor information posted at the campground should be reviewed annually for relevancy and accuracy and consequently, the information provided at the site may be out of date.

All of the camp and tent pads, restroom, tables, fire rings, signs and paths of travel within the campground are accessible to persons with disabilities. The parking area used to access the campground at the Sunset Boat Launch has four out of 92 parking spaces designated for persons with disabilities.

Sunset Campground

This 131-unit campground was opened in 1966. The initial construction in 1966 included 51 sites and 80 more sites were added in 1969. The campground is organized in three loops. The access roads in the loops and the spurs are paved. There are some protrusions in the road and paths, broken pavement and there are some steep drop-offs from the spurs to the sites. Although the facilities are over 20 years old, they are in good condition however they are worn and dated.

The campground has many deficiencies related to accessibility. The site has a ROS classification of Roaded Natural. Changes to the site that would require major modifications that would alter the landscape character and experience level are not required by the accessibility guidelines. Actions identified by the ENF to improve accessibility that are consistent with this guiding principle are listed below.

- Install (replace) 15 accessible vault restrooms. Pave turnouts in front of restrooms and provide a paved access route to the restroom entrance. Relocate restrooms as necessary to avoid steep slopes.
- Replace the faucets to meet accessible requirements (height, controls, surface flush with sumps). Provide a level and compacted surface in front and on the sides of each faucet.
- Remove protruding obstacles on all pathways within the site. Regrade, widen and compact the native surface on the pathways.
- Reconstruct all 131 spurs to 16 ft. width, pave and reposition the barrier rocks so they are 4 feet apart.
- Install (replace) accessible tables in all sites.
- Reset fire grill surface height (30"-36") on 51 of the existing grills.
- Install (replace) 62 accessible fire grills.
- Clear and level the ground surface (36") around the cooking grills, tables and fire rings at each site.

- Reconstruct all 131 camp and tent pads to remove obstacles, level and compact the native surface and enlarge them to a minimum of 1200 sq. ft. with a 3 percent or less grade in all directions. Where feasible, construct raised tent platforms in 27 of the sites.
- Pave approaches to trash bins.

ADAAG require that there be at least seven accessible campsites at a campground with 100 to 150 campsites.

Wench Creek Campground

This 100-unit campground was opened in 1969. The campground has paved access roads and graveled spurs. Some of the access road surfaces are rough and narrow. The four 2-unit flush and nine 2-unit vault restrooms, fire rings, grills, tables, signs and traffic control barriers are in good condition and not in need of immediate replacement. A new well was drilled and connected to the water distribution system in 2003.

This campground has deficiencies related to accessibility. A Site Action Plan for this site was not provided by the ENF. However, the types of barriers to access at this site are similar to those that exist at the Wench Creek Group Campground (see text in the following section). The restrooms are not accessible and there are no accessible campsites, tables, paths of travel or routes of access to the shoreline.

ADAAG require that there be at least seven accessible campsites at campground with 100 to 150 campsites.

Wench Creek Group Campground

There are two group sites at this campground and it was opened in 1969. The access road and spurs are paved and in good condition but the path surfaces are rough with protrusions. The 4- and 6-unit flush restrooms are worn and need replacement. The signs, tables, fire rings, fire grills and faucets are in good condition.

The campground has many deficiencies related to accessibility. The site has a ROS classification of Roaded Natural. Changes to the site that would require major modifications that would alter the landscape character and experience level are not required by the accessibility guidelines. Actions identified by the ENF to improve accessibility that are consistent with this guiding principle are listed below.

- Install (replace) 2 accessible flush restrooms.
- Remove protruding obstacles on all pathways within the site. Regrade, widen and compact the native surface on the pathways.
- Reconstruct all spurs in Group Site #1 to 16 ft. width and pave.
- Install (replace) accessible tables in all sites.
- Clear and level the ground surface (36") around tables and cooking areas.

- Remove obstacles, level and compact the native surface in the tent areas. Provide 25 tent pads in each group site.
- Pave approaches to trash bins.
- Restripe and designate one of the 10 spaces in the parking area for Group Site #2 for accessible parking for vans.

Westpoint Campground

This 8-unit campground was opened in 2000. The campground has natural surfaced access roads and spurs which are in good condition. The one 1-unit vault restroom, fire rings, traffic barriers and signs are also in good condition and not need of immediate replacement. The visitor information posted at the campground should be reviewed annually for relevancy and accuracy and consequently, the information provided at the site may be out of date.

All of the camp and tent pads, restroom, spurs, fire rings, signs and paths of travel within the campground are accessible to persons with disabilities.

Wolf Creek Campground

This 41-unit campground was opened in 1996. The campground has paved access roads and spurs, which are in good condition. The seven 1-unit CXT vault restrooms, water faucets, tables, fire rings, fire grills, signs and traffic barriers are also in good condition and are not in need of immediate replacement. The visitor information posted at the campground should be reviewed annually for relevancy and accuracy and consequently, the information provided at the site may be out of date. A new water well was drilled and connected to the distribution system in 2003. This water system also serves Wolf Creek Group Campground. The visitor information posted at the campground should be reviewed annually for relevancy and accuracy and consequently, the information provided at the site may be out of date.

All of the restrooms, spurs, tables, fire rings, signs and paths of travel within the campground are accessible to persons with disabilities. The ENF Recreation Opportunity Guide for this campground identifies the accessibility level of the campsites for persons with disabilities. There are 23 sites with easy access, 13 sites with moderate access, and 5 sites that are not accessible.

ADAAG require that there be at least four accessible campsites at a campground with 26 to 50 campsites.

Wolf Creek Group Campground

This group campground has three sites; two sites have a capacity of 25 PAOT and one site has a capacity of 50 PAOT. The site construction was completed in 2003 and will be opened for use in 2004. The facility has aggregate surface access roads and three CXT vault restrooms, water faucets, tables, fire rings, fire grills, signs and traffic barriers. Since this is a new facility, these facilities are in good condition and are not in need of immediate replacement. The visitor

information posted at the campground should be reviewed annually for relevancy and accuracy and consequently, the information provided at the site may be out of date.

Yellowjacket Campground

This 40-unit campground was opened in 1970. The campground has paved access roads and aggregate surfaced spurs which are in good condition. The traffic barriers are in poor condition and need replacement. The four 2-unit flush, and one 2-unit vault restrooms are also in good condition. The water faucets, tables, fire rings, fire grills and signs are also in good condition and are not in need of immediate replacement. The visitor information posted at the campground should be reviewed annually for relevancy and accuracy and consequently, the information provided at the site may be out of date.

The campground has many deficiencies related to accessibility. The site has a ROS classification of Roaded Natural. Changes to the site that would require major modifications that would alter the landscape character and experience level are not required by the accessibility guidelines. Actions identified by the ENF to improve accessibility that are consistent with this guiding principle are listed below.

- Install (replace) 4 accessible 2-unit flush restrooms and 1 accessible 2-unit vault. Pave turnouts in front of restrooms and provide a paved access route to the restroom entrance. Relocate restrooms as necessary to avoid steep slopes.
- Remove protruding obstacles on all pathways within the site. Regrade, widen and compact the native surface on the pathways.
- Reconstruct spurs in site nos. 1, 2, 5 and 27-31 to 16 ft. width and compact the native surface.
- Install (replace) accessible tables in all 40 sites.
- Reset fire grill surface height (30"-36") on all 40 of the existing grills.
- Clear and level the ground surface (36") around the cooking grills, tables and fire rings at each site.
- Remove obstacles, level and compact the native surface in the tent areas and enlarge them to a minimum of 1200 sq. ft. with a 3 percent or less grade in all directions.
- Pave approaches to trash bins.

ADAAG require that there be at least four accessible campsites at a campground with 26 to 50 campsites.

Big Silver Group Campground

This group campground consists of one site that can accommodate 50 PAOT. The campground was opened in 1999. The access roads in the campground are paved and in good condition. The two 1-unit CXT vault restrooms, fire rings, fire grills, tables, water faucets, signs and traffic barriers are also in good condition and not in need of immediate replacement. The visitor information posted at the campground should be reviewed annually for relevancy and accuracy and consequently, the information provided at the site may be out of date.

Seven of the 10 spurs, and all restrooms, tables, fire rings, signs and paths of travel within the campground are accessible to persons with disabilities.

Big Hill Vista Point

This site was reconstructed in 2002. It is in excellent condition and it was designed to be accessible to persons with disabilities. There is a paved parking area with 5 parking spaces including one site designated for persons with disabilities that can accommodate a van. There is additional space available for parking upslope from the parking area near the ENF lookout tower. The overlook, restroom, signage and 350-foot paved path are also accessible. The restroom is located up the hill and away from the overlook and the accessible route between the overlook and the restroom is the road. There are two picnic sites with tables that are not accessible because of the location and the configuration of the tables. The ENF is evaluating if it is possible to relocate the picnic sites to accommodate accessibility. Accessible trash cans are also needed at the site.

Fashoda Day Use Area

In 1991 when the day use area was converted to a campground this 5-unit day use area was developed near the high water line of the reservoir. There is a paved parking area that is in good condition and is not in need of repaving. The restrooms were replaced in 2002 with two 1-unit vault CXT restrooms. The tables, signage and faucets are in good condition and are not in need of immediate replacement. The entire cove adjacent to the day use area has a buoy line that designates a swimming area where motorized boating is prohibited.

The day use area has some deficiencies related to accessibility. The site has a ROS classification of Roded Natural. Changes to the site that would require major modifications that would alter the landscape character and experience level are not required by the accessibility guidelines. Actions identified by the ENF to improve accessibility that are consistent with this guiding principle are listed below.

- Construct an accessible parking space at site no. 4 (site no. 5 has a designated accessible parking space).
- Retrofit 4 tables (site nos. 1-4) to meet accessibility requirements (lengthen boards to 10 ft. and raise top boards to provide minimum 28" clearance).

Sunset Boat Launch

This facility was opened in 1965 and renovated in 1999. The concrete launch lanes and asphalt surfaces of the access road, curbs and parking area are smooth and in good condition. The two-unit CXT vault restroom, signs and the courtesy dock are also in good condition and are not in need of immediate replacement.

There are 92 parking spaces for vehicles with trailers including 4 spaces designated for persons with disabilities. An accessible boarding ramp designed for transferring visitors in wheel chairs

to boats was constructed near the top of the ramp in 2002. The courtesy dock does not meet ADA requirements. The seats in the existing restroom are too low and will be accessible if they are replaced with ones that are 18" in height and signs should be posted with signs indicating that it is an accessible facility.

West Point Boat Launch

This facility was opened in 1987. The launch lanes were concreted and the access road, curbs and parking area were repaved in 1990. They are smooth and in good condition. The two-unit vault restroom and signs are also in good condition and are not in need of immediate replacement.

The boat launch area has some deficiencies related to accessibility. The site has a ROS classification of Roded Natural. Changes to the site that would require major modifications that would alter the landscape character and experience level are not required by the accessibility guidelines. Actions identified by the ENF to improve accessibility that are consistent with this guiding principle are listed below.

- Replace the seats in the existing restroom with ones that are 18" in height. Post the restroom with signs indicating it is an accessible facility.
- Pave approaches to trash bins.
- Construct a boarding ramp in the parking area designed for transferring visitors in wheel chairs to boats.

Yellowjacket Boat Launch

This facility was opened in 1970. The parking area and launch have a chip sealed surface and are smooth and in good condition. Parking spaces are not defined in the parking area but there is room for 18 vehicles with trailers. The one 4-unit restroom building is worn and in need of replacement.

The boat launch area has some deficiencies related to accessibility. The site has a ROS classification of Roded Natural. Changes to the site that would require major modifications that would alter the landscape character and experience level are not required by the accessibility guidelines. Actions identified by the ENF to improve accessibility that are consistent with this guiding principle are listed below.

- Install (replace) 1 accessible 1-unit vault. Pave a turnout in front of the restroom and provide a paved access route to the restroom entrance.
- Pave the surface in front and on the sides of the faucet
- Stripe the parking area. Designate and sign one of the 18 parking spaces for accessible parking.
- Construct a boarding ramp in the parking area designed for transferring visitors in wheel chairs to boats.

Wolf Creek Sanitation Station

This facility was opened in 1985. The access road, signs and service apparatus are in good condition and are not in need of replacement.

The facility has some deficiencies related to accessibility. The site has a ROS classification of Roaded Natural. Changes to the site that would require major modifications that would alter the landscape character and experience level are not required by the accessibility guidelines. Actions identified by the ENF to improve accessibility that are consistent with this guiding principle are listed below.

- Replace the control valve with a lever control.

Sunset Sanitation Station

This facility was opened in 1987. The access road, signs and service apparatus are in good condition and are not in need of replacement.

The facility has some deficiencies related to accessibility. The site has a ROS classification of Roaded Natural. Changes to the site that would require major modifications that would alter the landscape character and experience level are not required by the accessibility guidelines. Actions identified by the ENF to improve accessibility that are consistent with this guiding principle are listed below.

- Replace the control valve with a lever control.

Union Valley Bike Trailhead at Jones Fork Campground

This facility was opened in 1999. There are 13 parking spaces at this facility and it is in good condition. There are no spaces designated for ADA.

Union Valley Bike Trailhead at Big Silver Campground

This facility was opened in 1999. There are seven parking spaces at this facility, including one ADA space, and the trailhead is in good condition.

Union Valley Bike Trailhead at Wench Creek Campground

This facility was opened in 1999. There are six parking spaces at this facility, including one ADA space, and it is in good condition.

Union Valley Bike Trail (east segment)

This facility was opened in 1999. The paved trail is 5.1 miles long and 8' wide. It connects recreation facilities from Wench Creek Campground to Jones Fork Campground.

Union Valley Bike Trail (north segment)

This facility was opened in 2004. The paved trail is 1.1 miles long and eight feet wide. It connects the Yellowjacket Campground with the Wolf Creek Campground.

Ice House Reservoir

Figure 4.2-9 shows the locations of the developed recreation facilities at Ice House Reservoir. Details about the recreation facilities at Ice House Reservoir are provided in Table 4.2-5. Information about the future improvements that are planned at the reservoir is based on interviews with ENF staff, the AL&L Area Manager (ENF concessionaire operating the developed facilities in the Crystal Basin), and resort operators as well as information based on the ENF Quarterly Schedule of Actions and ENF projects funded through the Forest Service Capital Investment Program. The developments listed are Project-recreation facilities, unless otherwise noted.

**Figure 4.2-9
Developed Facilities at Ice House Reservoir**

- ▲ Campground
- ⌘ Day Use/Picnic Area
- Visitor Information
- ⚓ Boat Launch
- 🗑️ Sanitation Station
- 🏠 Resort
- ⊕ Vista Point
- 🚲 Bicycle Trail
- ⚡ Project Boundary



Scale 1:24,000

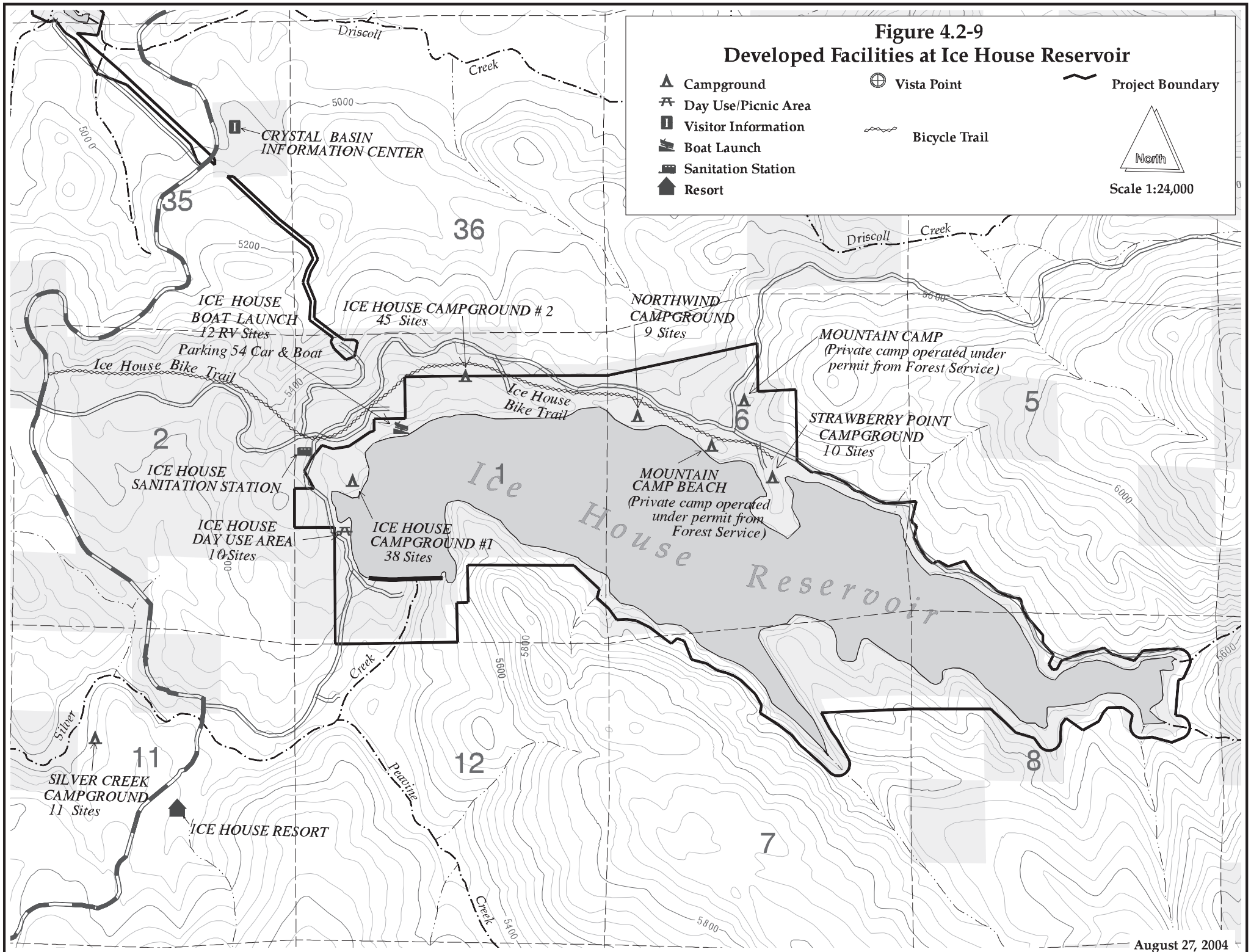


Table 4.2-5. Recreation facilities at Ice House Reservoir.							
	Capacity			Potable Water	Toilets (F=Flush, V=vault, P=Pit)	Reservations (# reservable/#total)	Comments
	# sites ¹	PAOT ²	Trail length (mi.)				
Campgrounds							
Ice House 1 & 2	83			Yes	V	35/83	
Northwind	9			No	V	0/9	
Silver Creek ³	11			No	V	0/10	No trailers permitted
Strawberry Point	10			No	V	0/10	
Organization Camp							
Mountain Camp ³		100					Private youth camp authorized under Special Use Permit from ENF
Day Use Areas							
Ice House	10			No	V		No fee.
Cleveland Corral	3			No	V		Picnic sites at the visitor information station. No fee.
Ice House Boat Launch	8			Yes	V		No fee. Includes 8 sites for RV camping (fee). Courtesy dock provided.
Sanitation Station							
Ice House Sanitation Station							RV sanitation station located near Ice House CG. No fee.
Trails (non-motorized)							
Ice House Bike Trail ³			3.1				Unpaved bike trail between Strawberry Point and Ice House Road
Information Centers							
Crystal Basin ³				Yes	F		Located on Ice House Road near Union Valley Reservoir. Staffed by ENF during the summer providing visitor information, permits and maps
Cleveland Corral				Yes	F		Located on Ice House Road near Highway 50. Staffed by ENF during the summer providing visitor information
Resort (Private)							
Ice House Resort	35 ⁴ 8 ⁵						Privately owned resort with campground (some RV sites), motel rooms, store, restaurant, bar, showers. Use generators for power supply.
Planned Development/Improvement							
Develop host site at Strawberry Point CG						Funded by fees collected under Fee Demo Project	
Install potable water at Strawberry Point CG (plan to connect to Mtn. Camp water system and install an independent tank to supply the CG)						Funded by fees collected under Fee Demo Project	
Construct trails accessible to persons with disabilities that connect the shoreline to the Strawberry Point and Northwind CG's						Funded by fees collected under Fee Demo Project	
Ice House Resort (privately owned) plans to increase overnight capacity in the form of additional RV campsites and motel rooms.						No planned date for implementation is set.	

	Capacity			Potable Water	Toilets (F=Flush, V=vault, P=Pit)	Reservations (# reservable/#total)	Comments
	# sites ¹	PAOT ²	Trail length (mi.)				
Considering staying open during the winter to accommodate overnight use.							

¹Fire ring or fire grill with a picnic table, potable water and trash collection unless otherwise noted

²People-at-one-time

³non-UARP facility

⁴Campsites (some have RV hook-ups)

⁵Motel rooms

Condition and Accessibility of Developed Recreation Facilities at Ice House Reservoir

The condition and accessibility of the UARP recreation facilities at Ice House Reservoir are discussed below. This report does not include facilities that are: 1) not within the study area; 2) located on private land; or 3) privately owned and authorized under Special Use Permit from the ENF.

Ice House Campground 1 & 2

The initial development of this campground in 1961 included 38 campsites. In 1980, 45 more units were constructed. The campground has a paved access road and spurs and in the lower loop are in good condition and are not currently in need of repaving. In the upper loop the roads are rough and need repaving. In 1988, some of the restrooms were replaced with six 2-unit vault restrooms; there are a total of nine 2-unit vault restrooms in the campground. The fire rings, tables, signs and traffic barriers are in good condition. The visitor information posted at the campground should be reviewed annually for relevancy and accuracy and consequently, the information provided at the site may be out of date.

The campground has some deficiencies related to accessibility. The site has a ROS classification of Roaded Natural. Changes to the site that would require major modifications that would alter the landscape character and experience level are not required by the accessibility guidelines. Actions identified by the ENF to improve accessibility that are consistent with this guiding principle are listed below.

- Replace the seats in 6 of the existing restroom with ones that are 18” in height.
- Install (replace) three 2-unit accessible vault restrooms. Relocate restrooms as necessary to avoid steep slopes.
- Replace 10 faucets in Campground 2 to meet accessible requirements (height, controls, surface flush with sumps). Provide a level and paved surface in front and on the sides of each faucet.

- Raise 11 faucets in Campground 1 and install accessible control valves.
- Remove protruding obstacles on all pathways within the site. Regrade, widen and compact the native surface on the pathways.
- Reconstruct all 83 spurs to 16 ft. width, pave and reposition the barrier rocks so they are 4 feet apart.
- Install (replace) 80 accessible tables (tables in sites 81-83 are accessible).
- Reset height of 80 fire grills (30"-36") to meet accessibility requirements (fire grills in sites 81-83 are accessible).
- Clear and level the ground surface (36") around the cooking grills, tables and fire rings at each site.

Three of the 83 sites have accessible paths of travel within the campground with a restroom that is accessible. ADAAG require that there be at least five accessible campsites at a campground with 76 to 100 campsites.

Northwind Campground

This 9-unit campground was opened in 1990. The campground has paved access roads and spurs which are in good condition. The one 2-unit CXT vault is also in good condition. The tables, fire rings, fire grills, traffic barriers and signs are also in good condition and are not in need of immediate replacement. The visitor information posted at the campground should be reviewed annually for relevancy and accuracy and consequently, the information provided at the site may be out of date.

The campground has some deficiencies related to accessibility. The site has a ROS classification of Roded Natural. Changes to the site that would require major modifications that would alter the landscape character and experience level are not required by the accessibility guidelines. Actions identified by the ENF to improve accessibility that are consistent with this guiding principle are listed below.

- Replace the seats in the existing restroom with ones that are 18" in height.
- Reconstruct spurs at site nos. 2, 7 and 8 to 16 ft. width, pave and reposition the barrier rocks so they are 4 feet apart.
- Retrofit all 9 tables to meet accessibility requirements (lengthen boards to 10 ft. and raise top boards to provide minimum 28" clearance).
- Clear and level the ground surface (36") around the cooking grills, tables and fire rings at each site.
- Level and compact the native surface in the tent areas.

ADAAG require that there be at least two accessible campsites at a campground with 2 to 25 campsites.

Strawberry Point Campground

This 10-unit campground was opened in 1990. The campground has paved access roads and spurs, which are in good condition. The one 2-unit CXT vault is also in good condition. The tables, fire rings, fire grills, traffic barriers and signs are also in good condition and are not in need of immediate replacement. The visitor information posted at the campground should be reviewed annually for relevancy and accuracy and consequently, the information provided at the site may be out of date.

The campground has some deficiencies related to accessibility. The site has a ROS classification of Roaded Natural. Changes to the site that would require major modifications that would alter the landscape character and experience level are not required by the accessibility guidelines. Actions identified by the ENF to improve accessibility that are consistent with this guiding principle are listed below.

- Replace the seats in the existing restroom with ones that are 18” in height.
- Reconstruct spurs at site nos. 3 and 8 to 16 ft. width, pave and reposition the barrier rocks so they are 4 feet apart.
- Retrofit all 10 tables to meet accessibility requirements (lengthen boards to 10 ft. and raise top boards to provide minimum 28” clearance).
- Clear and level the ground surface (36”) around the cooking grills, tables and fire rings at each site.
- Level and compact the native surface in the tent areas.

ADAAG require that there be at least two accessible campsites at a campground with 2 to 25 campsites.

Ice House Boat Launch

This facility was originally constructed in 1963 and it was rehabilitated in 1983 and 1999. The latest rehabilitation included widening the launch lane and adding a courtesy dock. The launch lanes are surfaced with concrete and the access road, curbs and parking area are paved, smooth and in good condition. The two 2-unit vault restrooms and signs are also in good condition and are not in need of immediate replacement. In 2003 an accessible boarding ramp was constructed in the parking lot which facilitates transferring visitors in wheelchairs to boats.

There are 61 spaces for vehicles with trailers, 8 spaces designated for overnight RV use, and one designated accessible space for a vehicle with a trailer. The accessible space has the symbol painted on the asphalt surface but there is no sign posted at the space.

The facility has some deficiencies related to accessibility. The site has a ROS classification of Roaded Natural. Changes to the site that would require major modifications that would alter the landscape character and experience level are not required by the accessibility guidelines. Actions identified by the ENF to improve accessibility that are consistent with this guiding principle are listed below.

- Replace the seats in the existing restroom with ones that are 18” in height. Post the restroom with signs indicating it is an accessible facility.
- Replace the control valve of the water faucets with a lever control. Pave the surface in front and on the sides of the faucet units.
- Designate and sign two additional sites for accessible parking (for a total of 3 accessible sites). One of the three sites should be designated to accommodate a van.

Ice House Day Use Area

This facility was opened in 1969. The access road, signs, restroom picnic sites and tables show signs of wear and the facility is not accessible to persons with disabilities. The water distribution system was not functioning in 2002. The site has a ROS classification of Roaded Natural. Changes to the site that would require major modifications that would alter the landscape character and experience level are not required by the accessibility guidelines. Actions identified by the ENF to improve accessibility that are consistent with this guiding principle are listed below.

- Install (replace) a 2-unit accessible vault restroom.
- Replace two faucets to meet accessible requirements (height, controls, surface flush with sump). Pave the surface in front and on the sides of each faucet.
- Reconstruct and relocate the path of travel between the parking area, picnic sites, restroom, and water faucets. Remove protruding obstacles on pathways within the site. Regrade and widen the paths to 6 ft. minimum width and surface with compacted aggregate base rock.
- Install (replace) 10 accessible picnic tables.
- Reset height of all 10 fire grills (30”-36”) to meet accessibility requirements (fire grills in sites 81-83 are accessible).
- Clear and level the ground surface (36”) around the cooking grills and tables and at each picnic site.
- Remove obstacles, level and compact the native surface in the picnic sites and enlarge them to a minimum of 600 sq. ft. with a 3 percent or less grade in all directions.
- Restripe and designate one of the 12 spaces in the parking area for accessible parking that can accommodate a van.

Ice House Sanitation Station

This facility was opened in 1969. The access road, signs and service apparatus show signs of wear and the facility is not accessible to persons with disabilities. The site has a ROS classification of Roaded Natural. Changes to the site that would require major modifications that would alter the landscape character and experience level are not required by the accessibility guidelines. Actions identified by the ENF to improve accessibility that are consistent with this guiding principle are listed below.

- Reconstruct the facility and design it to accessible standards.

Ice House Bike Trail (non-UARP recreation facility located within the UARP boundary)

This trail is not a UARP recreation facility but portions of the trail are within the UARP boundary. The trail is a dirt surfaced trail that extends from Strawberry Point along the north shore of Ice House Reservoir to the Ice House Road. Although the trail is not paved, it is in good condition. There is a wooden fence structure and sign at the trail adjacent to Ice House Road that were constructed within the last two years that are also in good condition. A site inspection revealed down trees had been recently removed from the path and no areas of erosion were found. There is little signage to direct visitors to the trail and it is difficult to locate the trail near the intersection of the access road to the boat launch and the Wrights Lake Road. It is also difficult to locate the trail in the vicinity of Northwind Campground.

Cleveland Corral Information Station

This facility was originally opened in 1969 and it was rehabilitated in 1992. The access road, gate and parking areas are paved and in good condition. The signs, information kiosk, educational displays, picnic site and 4-unit flush restroom are also in good condition and are not in need of immediate replacement. The visitor information posted at the facility should be reviewed annually for relevancy and accuracy and consequently, the information provided at the site may be out of date.

The facility has some deficiencies related to accessibility. The site has a ROS classification of Roaded Natural. Changes to the site that would require major modifications that would alter the landscape character and experience level are not required by the accessibility guidelines. Actions identified by the ENF to improve accessibility that are consistent with this guiding principle are listed below.

- Raise the control valve on the water faucet to 34". Raise, level (make the surface flush with sumps) and pave the surface in front and on the sides of each faucet.
- Reconstruct the existing gravel pathway to the picnic site and pave with asphalt.

Other Privately Owned Recreation Developments

There are recreation developments located on privately owned land within the Crystal Basin which provide services and facilities for visitors. Robbs Valley Resort and Ice House Resort (see tables 4.2-4 and 4.2-5, respectively) are commercial resorts that provide sites for tent and RV camping, motel and cabin accommodations, grocery items, restaurant and bar. Robbs Valley Resort is generally open May 15- Oct. 31 and Ice House Resort is generally open from the last week in April to the third week in November. Uncle Tom's Cabin, located west of the Crystal Basin on the Wentworth Springs Road, is another area with a commercial business where visitors on their way into the Crystal Basin can find food and grocery items.

Also, there is at least one private landowner in the Crystal Basin that reportedly allows recreational use on a parcel of land by groups and organizations such as churches. The

landowner provides the land but there are no formally developed facilities to support this use. This site is located off of Weber Mill Road between Ice House Reservoir and Highway 50.

4.2.2.3 Dispersed Sites-Crystal Basin

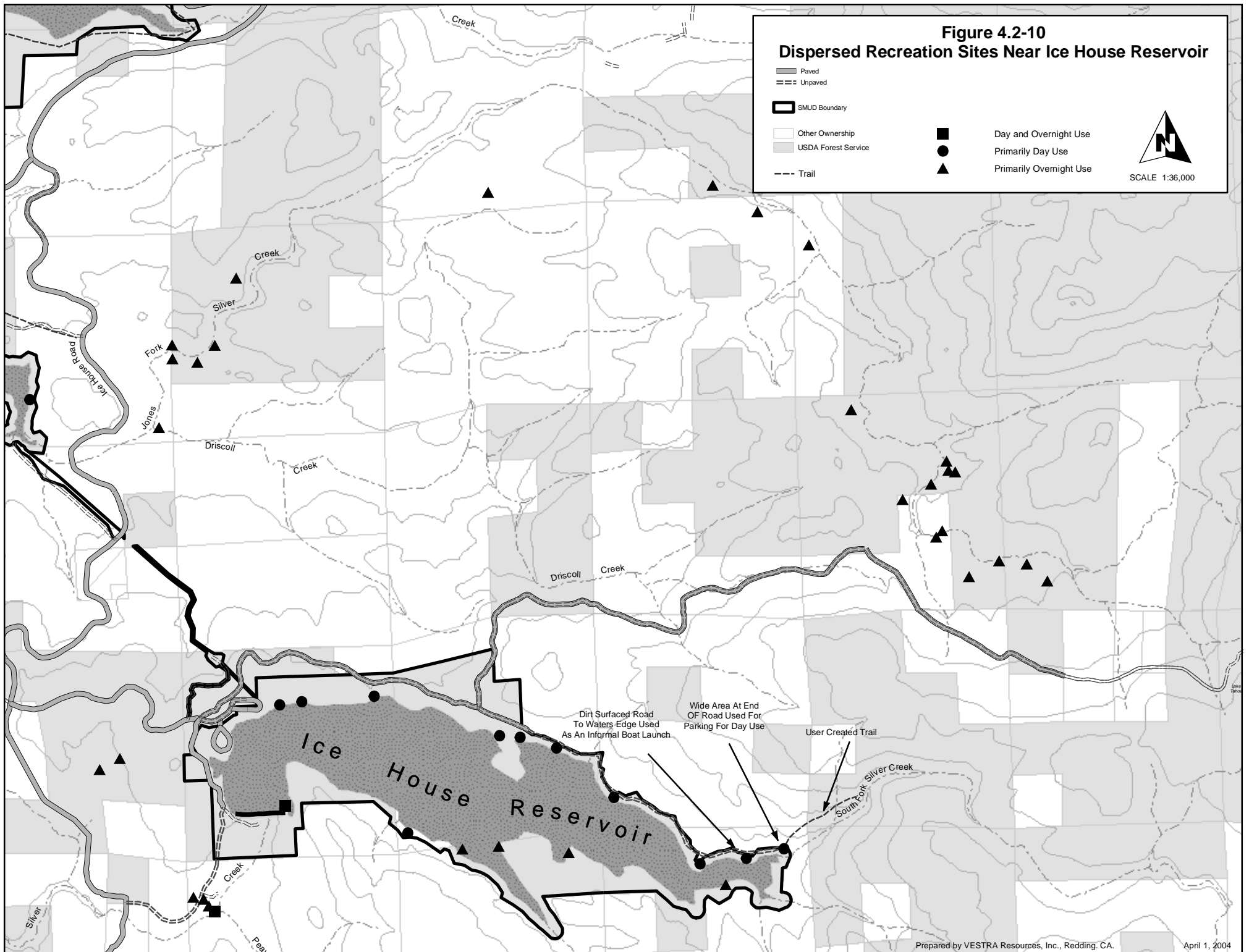
An inventory of dispersed recreation sites was completed in 2002 and 2003 using the methods described in Section 3.3. The dispersed recreation sites located during the inventory are shown in Figures 4.2-10 through 4.2-13.

Ice House Reservoir

At Ice House Reservoir overnight dispersed camping is not allowed at the reservoir outside of designated campgrounds (USDA 2003). Despite this restriction overnight camping was observed during site inspections on July 4 and 23, 2002. Along the north shore most of the dispersed recreation use is related to day use activities which occur between Strawberry Point Campground and the inlet of the SF Silver Creek. Resource damage associated with dispersed recreation use at this area includes soil compaction from vehicles driving off of the access road, improperly disposed human and animal waste, trash and vegetation damage. Vehicles driving below the high water mark were observed during the early spring 2003 when the reservoir was low. On the south side of the reservoir five dispersed overnight sites were observed during the site inspections. Resource damage observed at these sites included vehicles driving on roads that are closed to the public, lack of vegetative cover, soil compaction from vehicles traveling to the shoreline, and recently used fire rings in a location where overnight camping is prohibited. Visitors appear to access these sites by driving on roads that are not open to the public and by boat.

The access road along the north side of Ice House Reservoir is paved between Ice House Road and Strawberry Point Campground. The road is unpaved from the turnoff to Strawberry Point Campground to the end of the road where SF Silver Creek enters the reservoir. At this eastern end of the road there is an open area where vehicles may turnaround and vehicles were observed parked at this location. There is a user-created trail leading from this parking area that parallels the creek and passes through private and public land. Interviews with ENF personnel and whitewater boaters indicate that this route is used for whitewater boating and hiking access to SF Silver Creek. Since overnight use is not allowed, this route provides access for day use activities.

**Figure 4.2-10
Dispersed Recreation Sites Near Ice House Reservoir**



Union Valley Reservoir

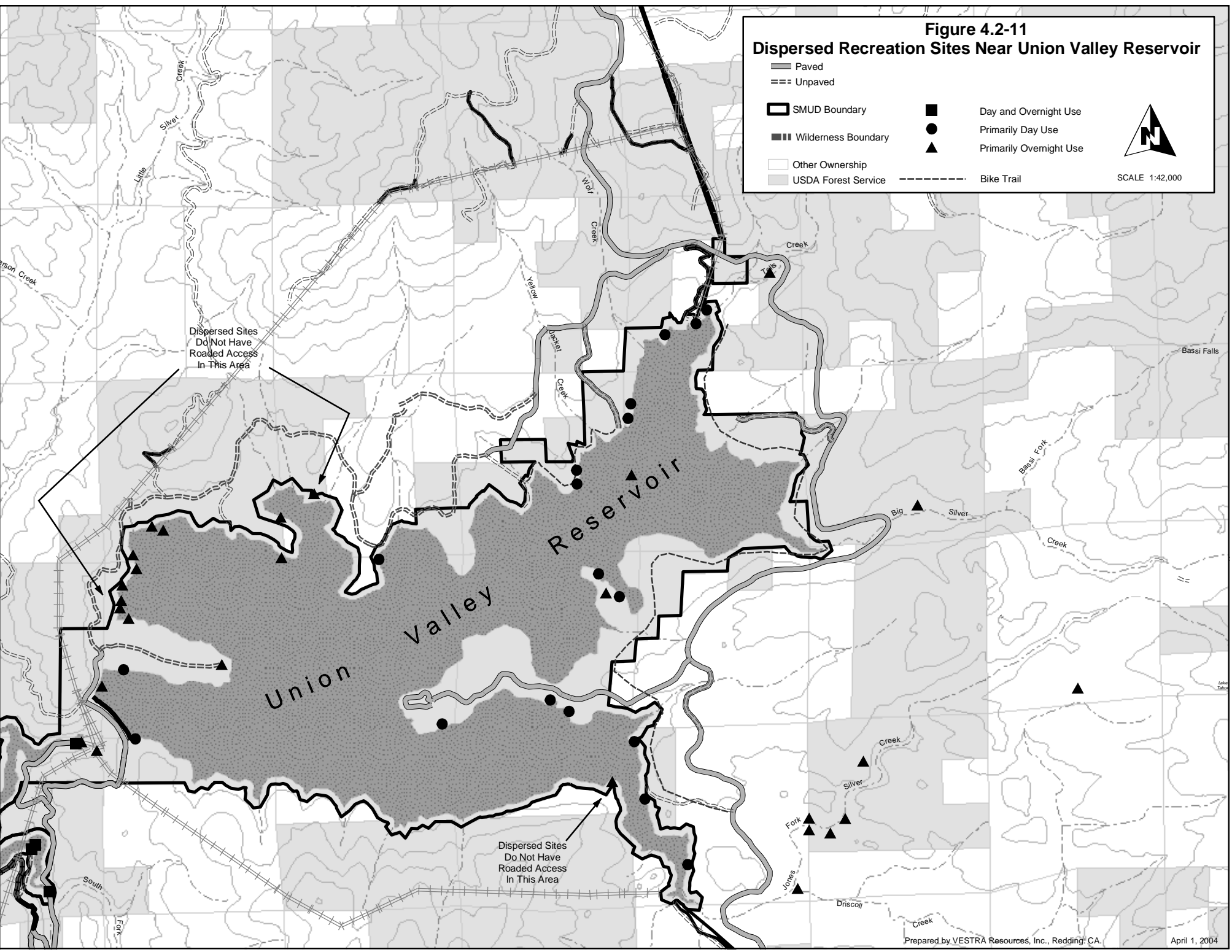
Dispersed use at Union Valley Reservoir includes overnight as well as day use. On the north side of the reservoir the shoreline west and adjacent to the Westpoint boat launch is regularly used during the summer for dispersed camping. This area is flat, compacted and has no vegetation. The access road on the peninsula known as Westpoint was closed to vehicles until 2003. During the field inspection in 2003 there were drivable waterbars and the road was very dusty. Dispersed camping activity was observed in 2003 but resource damage was not observed. Nine dispersed campsites were identified between Westpoint and Camino Cove Campground on the north shore of the reservoir during the 2002 and 2003 site inspections. At these sites it was common to see fire rings, cut and damaged vegetation, compacted soil, lack of vegetative cover, improperly disposed human and animal waste and trash. Vehicle tracks were also observed even though the area is closed to vehicle access. Most of the sites are located too close to the high water mark. Visitors were observed accessing these sites by boat but the appearance of vehicle tracks and vehicles observed at some of these sites indicates that some visitors are inappropriately accessing these sites from routes that are closed to vehicles. The field staff conducting surveys for the Visitor Use and Impact Study encountered both day users as well as overnight campers at these sites.

Along the shoreline in the vicinity of the Jones Fork and Sunset campgrounds, there are several user-created trails that visitors use for pedestrian access the shoreline. Some of the trails appeared steep and did not have waterbars to prevent erosion. OHV tracks were observed that lead to the shoreline in the Jones Fork arm of the reservoir and along the shoreline across from the Sunset boat launch. These are areas not open to vehicular access for the public but apparently some visitors access these areas by vehicle. The areas where there are foot trails leading to the reservoirs are mostly connected to the campgrounds, day use areas and boat launch locations where visitors travel to the waters edge from parking areas, campground or day use areas.

Dispersed overnight and day use was also observed along Tells Creek upstream of Union Valley Reservoir. Resource damage observed at this location on June 23, 2003, included trash, improperly disposed human and animal waste, graffiti on rocks and a user-made pit toilet. Visitors access this area with vehicles by a short, steep, and narrow unpaved road that intersects Ice House Road just west of Tells Creek.

Dispersed recreation use has also been popular on Big Silver Creek and Jones Fork Silver Creek, which are two tributaries to Union Valley Reservoir. These sites are not within the UARP boundary and they are located approximately one to five miles away from the reservoir. These sites were identified by the ENF as having recreational use potentially related to the UARP. The ENF has accomplished watershed restoration efforts at both of these locations including road closures, signage, barriers, ripping, and mulching. These watershed restoration projects were accomplished in 2002 and 2003 and these actions have been largely successful in reducing vehicle access near the creeks and on sensitive slopes. Visitors are allowed to access the sites by foot but restricting vehicle access has reduced dispersed overnight camping at these locations.

Figure 4.2-11
Dispersed Recreation Sites Near Union Valley Reservoir



Gerle Creek Reservoir

Dispersed overnight recreation use associated with the Gerle Creek Reservoir mainly occurs upstream of the reservoir along the east bank of Gerle Creek. There are signs informing visitors that overnight use is restricted to developed campgrounds along the shoreline of Gerle Reservoir (USDA 2003). Despite this restriction two dispersed overnight campsites were located between the Angel Creek Day Use Area and Angel Creek during the 2002 site inspections. One party occupying one of the sites during the site inspections had apparently accessed the site by boat. The proximity of one site to the parking area for the Angel Creek and indications of a footpath to the site indicate that visitors may access the site by foot from the parking area. The sites were identified by the presence of rock fire rings and they had been recently used. Although overnight use is not allowed at this location, resource damage was not observed at the overnight sites that were identified. A user-created trail extends from the Angel Creek Day Use Area to near the Loon Lake Tailrace where it enters Gerle Creek Reservoir. The trail does not appear to get much use; some areas were overgrown with vegetation and there were branches and duff observed on the trail. Although the trail is user-created, resource damage was not observed.





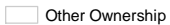





The area on the opposite side of Gerle Creek from Airport Flat Campground receives heavy overnight use and OHV use was regularly observed in this location during the 2002 and 2003. The area is flat and open and users drive and park their vehicles, trailers and OHV's throughout the area. This has resulted in considerable soil compaction, lack of vegetative cover at this site and there are numerous user-created fire rings. Some overnight dispersed campsites are located within 100 feet of the streamcourse. Trash and toilet paper were also obvious throughout the site. Visitors access this area by vehicle by way of Wentworth Springs Road.

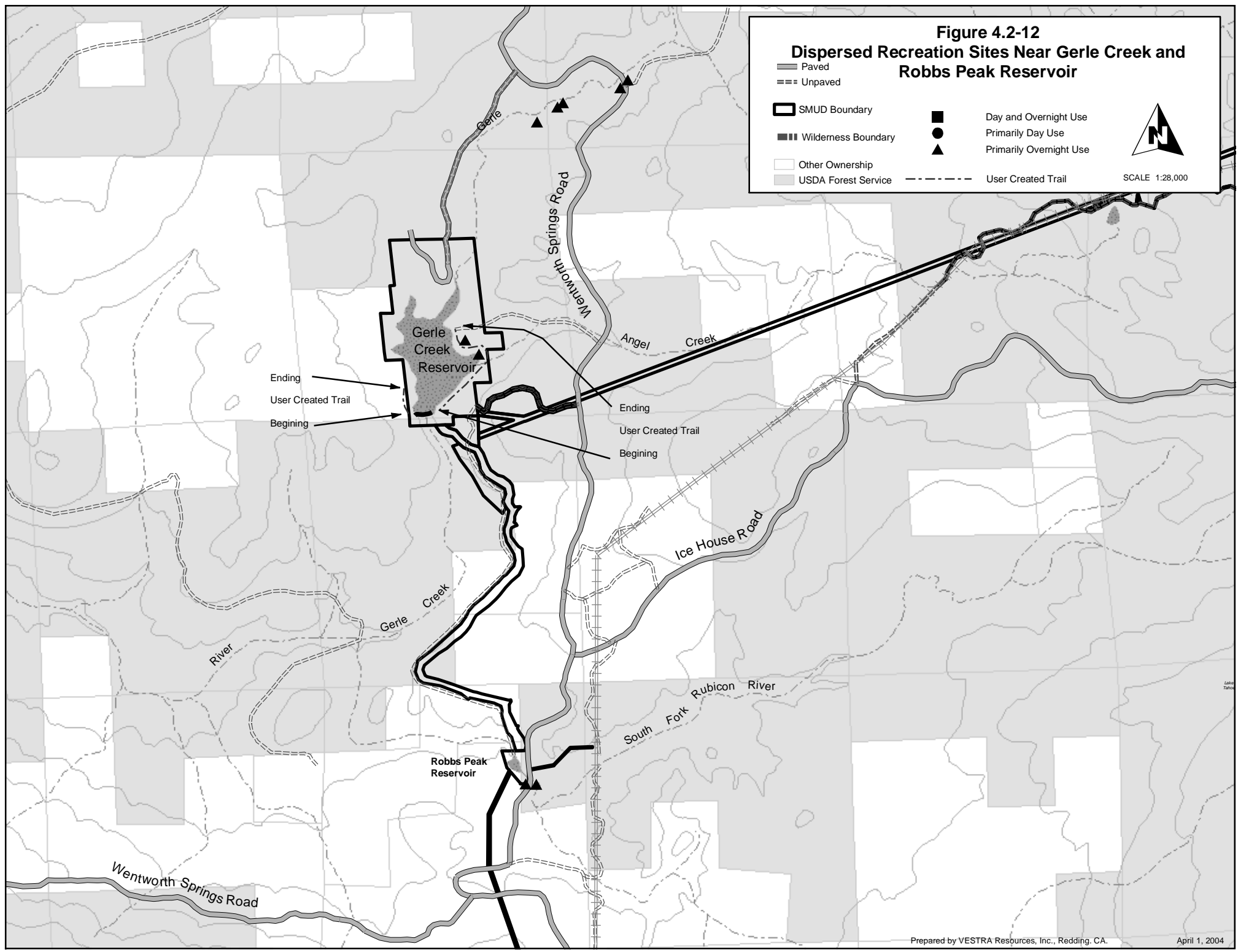
On Gerle Creek just downstream of Wentworth Springs Road the ENF has implemented a road closure and installed rock barriers to control dispersed overnight use along the east shore of Gerle Creek upstream of Gerle Reservoir. These measures have effectively eliminated overnight use in sensitive streamside areas and only minor amounts of trash were observed at the site visit during the summer of 2003. The areas that remain open for dispersed camping are accessed by an unpaved road that connects to Wentworth Springs Road.

Most of the day use activity at the reservoir occurs at or near the developed day use areas (Angel Creek and Gerle Creek) and along the shoreline where the Harvest Trail is located.

Dispersed recreation sites in this vicinity were also located at Robbs Peak Reservoir along Ice House Road. Anglers were observed at the reservoir during the study and overnight campers were observed at two nearby locations; one site on either side of Ice House Road where it crosses the SF Rubicon River. Fire rings and some trash were observed and the sites are located about 100 feet from the watercourse.

**Figure 4.2-12
Dispersed Recreation Sites Near Gerle Creek and
Robbs Peak Reservoir**

-  Paved
-  Unpaved
-  SMUD Boundary
-  Wilderness Boundary
-  Other Ownership
-  USDA Forest Service
-  Day and Overnight Use
-  Primarily Day Use
-  Primarily Overnight Use
-  User Created Trail



Loon Lake Reservoir

Dispersed overnight and day use occurs around most of the shoreline at Loon Lake. The most heavily used portion of the shoreline was observed between the two main dams, which includes about two miles of shoreline. This is a popular place for overnight dispersed camping, especially for groups of visitors. The types of resource damage observed along this portion of the shoreline includes fire rings too close to the highwater mark, trash, oil and transmission fluid on rocks and soil, trash, cut and damaged vegetation and improperly disposed human waste. The flat terrain allows visitors to drive their vehicles into many areas along the shoreline. The widespread use of vehicles along this portion of the shoreline has caused wide-spread soil compaction and a lack of ground cover. Visitors using these areas contribute to overflowing trash bins located at nearby campgrounds and at Robbs Valley Resort. Dispersed recreation visitors adjacent to the Northshore RV Campground also use the restrooms at the campground. There is also an unpaved road near the dam across Rocky Basin that visitors use to launch boats. This route allows visitors to drive their vehicles to the shoreline. No erosion was observed at this area but there is widespread compaction and lack of ground cover.

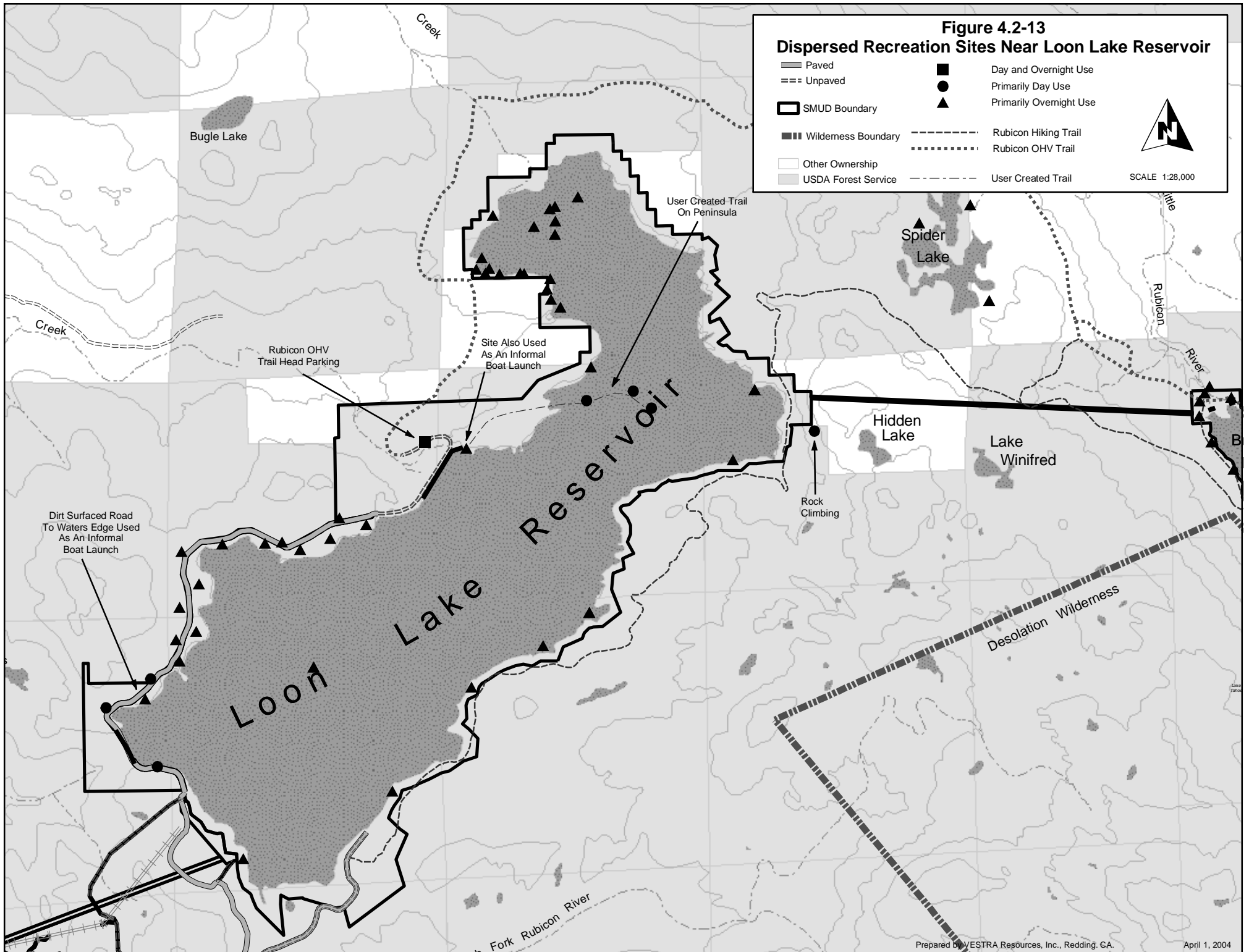
There are several islands on the reservoir that are also used for dispersed overnight and day use. It was common to find fire rings along the shorelines, trash and toilet paper scattered on the islands. In the south portion of the reservoir, as many as seven fire rings were observed on the largest island. The peninsula that extends along the south side of the area of the reservoir known as Pleasant Lake has approximately 10 dispersed overnight sites and there is a user-created trail between the end of the peninsula and the spillway. Some of the fire rings are too close to the shoreline. The user-created trail did not appear to be causing any resource damage. However, dirt bike tracks were observed along the peninsula and vehicle tracks were observed on the north side of the peninsula. Other resource damage noted in this area included painted graffiti on rocks, user-created tables and shelves nailed to trees, and large driftwood logs buried vertically along the shoreline to serve as tie-up points for boats. During the site inspections, visitors paddling flat water kayaks were also observed accessing this area; they appeared to be day users. The sites located on islands in the reservoir can only be accessed by boat. The sites on the peninsula appear to be accessed by boat and foot by way of the user-created trail; occasionally visitors appear to access this area inappropriately by vehicle.

Along the west shoreline of the area of the reservoir known as Pleasant Lake and the inlet of Ellis Creek, OHV use had been prevalent until the ENF constructed barriers and posted the area closed to OHV use in 2002. This watershed restoration project was implemented to reduce resource impacts at and near the shoreline. Restoration of the area was completed by obliterating user created trails, falling trees to block user created routes and mulching with straw. These efforts have curtailed OHV use that had caused widespread soil and vegetative damage in the past. A site inspection in 2003 revealed that the ENF measures have been largely successful in curtailing inappropriate recreation activities along this portion of the shoreline. A few areas with vehicle tracks and moved boulders were observed which indicates that some visitors are not complying with the closure. During the site inspection 18 dispersed overnight campsites were identified in this area of the reservoir shoreline. Most of these sites had evidence of vehicle tracks leading to them however, vehicular access seems to have been recently eliminated with

the ENF actions. These sites are also accessible by boat however since most of these sites are located upslope from the shoreline, it is uncertain whether boaters will now access these sites for overnight use.

Along the northern shoreline near the Pleasant Campground and the Loon Lake Tunnel there are a few sites that visitors apparently use for boat-in camping. Occasional trash and toilet paper was observed at these sites. There is also a large dispersed overnight use site just north of the Loon Lake Tunnel. This site has one fire ring that is too close to the shoreline and one fire ring adjacent to a wet, marshy area. There is also a user created sign nailed in a tree at the site. There are foot paths within the site that have been leveled and lined with rocks. It appears that the path in the site extends to the Rubicon Hiking Trail and that visitors may access this site by from the Rubicon Hiking Trail as well as by boat.

Between the Loon Lake Tunnel and the Loon Lake Campground five sites used for overnight dispersed camping were located. Most of the fire rings along this portion of the shoreline were within 100 feet of the high water mark. At least two of the sites with multiple fire rings have inadequate vegetative clearance that is necessary for a safe campfire. Some trash was observed at these sites. Visitors appear to be accessing these sites by boat. The Rubicon Hiking Trail is not far from this portion of the shoreline however foot paths leading from the sites were not found during the site inspections.



River Access

Access to the river reaches in the Crystal Basin is provided by paved and unpaved Forest Service and County roads, 4WD routes, and by foot from access roads near the reaches. On the Loon Lake reach visitors can drive below the Loon Lake Dam to access Gerle Creek. In addition, the Wentworth Springs Road (a county road and assigned Forest Road No. 14N34) provides 4WD access to within one-quarter of a mile of Gerle Creek for approximately five miles of the watercourse.

The Gerle Creek reach (downstream of Gerle Creek dam) has a gated UARP road that leads to the Gerle Creek dam. Although vehicles are restricted, visitors may walk approximately one-half mile to reach Gerle Creek. Additional vehicle access to the reach exists on Forest Road No. 13N28, a paved road, which leads to the South Fork Rubicon River in the vicinity of the South Fork Campground (a non-Project recreation facility). Forest Service Road No. 13N25, a dirt surfaced road, accesses the South Fork Rubicon River downstream of the South Fork Campground.

Below Robbs Peak Reservoir visitors can access the UARP reach by parking on the Ice House Road where it crosses the South Fork Rubicon River and hiking to the reach. There are no trails designated to access the reach near the Robbs Peak Forebay.

For the Ice House reach there are six points of access the South Fork Silver Creek. Immediately below the dam there is a 0.5-mile long, gated UARP road that visitors can walk down to access the reach. Approximately one-half mile downstream from the dam there is public access from Forest Road No. 11N37 on a 0.1-mile long road that SMUD maintains to access the gaging station. This point of access is located on privately owned land. The next point of access is where the Ice House Road crosses the South Fork Silver Creek. The Ice House Resort, a privately owned commercial business, owns much of the land at this access point. Approximately one-half mile below the Ice House Resort is the Silver Creek Campground (a non-UARP recreation facility) which is accessed from the Ice House Road on a 0.5-mile dirt surfaced road. Since the South Fork Silver Creek is adjacent to the campground, visitors can access the reach by foot from the campground. Downstream of the Silver Creek Campground the watercourse traverses NFS land and land owned by SPI. There are private roads that lead to points near the reach however they are gated to restrict public vehicular access. Within the last 1.5 miles of the reach there is access to the reach from the Ice House Road by Peavine Ridge and Bryant Springs roads, which are both paved roads and Forest Road No. 12N45 which is a dirt surfaced road that is best traveled with a high clearance vehicle. This point of access is located in T.12N., R.13E., SW quarter of section 32. The last point of access to the reach is located just upstream from Junction Reservoir where the Bryant Springs Road crosses the South Fork of Silver Creek. This is a paved road that connects to Peavine Ridge and Ice House roads.

Powerline Corridors

There are approximately 33.5 miles of transmission line powerline corridors located in the Crystal Basin and the Canyonlands that connect various UARP features between Loon Lake

Reservoir and White Rock Powerhouse. The general locations of the corridors are: (1) western shoreline of Loon Lake Reservoir to Union Valley Reservoir, (2) the north side of Union Valley Reservoir (3) the south side of Union Valley Reservoir (4) along the SF of Silver Creek and SFAR from Union Valley Dam to Camino Reservoir and continuing to Camino Powerhouse, and (5) the south side of the SFAR between Camino Powerhouse and White Rock Powerhouse. The vegetation within the corridors is regularly trimmed or removed to create cleared linear routes through forested landscapes. The goals of maintaining the right-of way are to prevent vegetation-caused fires, protect resources both inside and outside of the right-of-way, protect transmission system in the event of a fire and allow access for inspection and maintenance activities. SMUD regularly patrols the 230 kV transmission lines and maintains the 175-foot right-of-way using approximately 48.3 miles of UARP access roads. The corridors and roads used for access are shown on Figures 4.2-14 to 4.2-16.

SMUD assessed the access roads for erosion in the Sources of Sediment Study (*see Sources of Sediment Technical Report*). The study results indicated that there are some localized areas of erosion occurring on the transmission line access roads. Sediment generated on some of these roads is being transported a short distance to flat areas where the sediment settles out before it can be carried into a stream.

The access roads also provide access for OHV use. Recreationists use the access roads to drive along the corridor and they also create their own routes. There are environmental concerns with the activity on the user created routes such as erosion, damage to vegetation and soil compaction. There are also areas with environmental damage where user created trails cross through streams or wet areas. Currently, popular locations for OHV use along the powerline corridors include the section between Loon Lake and Gerle Creek reservoirs and along the north shore of Union Valley reservoir.

Dispersed Recreation on Privately Owned Land

Privately owned parcels of land are located within the Crystal Basin. The majority of this land is owned by Sierra Pacific Industries which manages its land primarily for timber production. Despite clearly marked boundary lines, posted 'No Trespassing' signs, and barbed wire fencing visitors are frequently observed camping on private land; most often at waterside settings. There are other small inholdings of private land where owners post and prevent unauthorized dispersed use on their property. Some of these small landowners camp on their land during the summer months with RVs or tents.

4.2.3 Canyonlands

The area designated as the Canyonlands includes Junction, Camino, Brush Creek and Slab Creek reservoirs and the SFAR between Slab Creek Dam and White Rock Powerhouse. The reservoirs are located on public land managed by the ENF as general forest. This area, shown on Figure 4.2-17, is generally accessible year-round and snow infrequently occurs in most of this area.

The main route of access to Junction and Camino reservoirs is by way of Peavine Ridge and Bryant Springs roads. Peavine Ridge Road connects to Ice House Road approximately five miles from Riverton. Approximately 2.7 miles from this intersection, Bryant Springs Road leads north towards Junction Reservoir (approximately four miles) and Peavine Ridge Road continues west toward Camino Reservoir (approximately 7 miles). These are paved roads.

The main route of access for Brush Creek Reservoir and the upper end of Slab Creek Reservoir is by way of Forebay Road that originates in Pollock Pines. This is a paved road and it is approximately fourteen and nine miles to Brush Creek and Slab Creek reservoirs, respectively from the community of Pollock Pines. The road becomes very narrow between the bridge across the SFAR and the Brush Creek Reservoir.

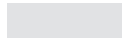

The main route of access for the lower end of Slab Creek Reservoir is from Camino on North Canyon Road on four miles of paved two-lane road. From North Canyon Road, the Chute Camp

Road (Forest Service Road No. 11N96) leads to Slab Creek Dam. The Chute Camp Road begins at North Canyon Road and leads to Slab Creek Dam; it is approximately 1.25 miles long with a dirt surface. This is a county road at least to the point where the road crosses Iowa Creek and SMUD has performed maintenance on the road in the past for access, but does not have any formal agreement to maintain the road. The road passes through privately owned land and then onto NFS land in the vicinity of Slab Creek Dam. Recently the Licensee and El Dorado County installed a gate to restrict public access between dusk and dawn. SMUD and landowners along the Chute Camp Road have keys to allow them access at any time.

The main route of access to the SFAR between Slab Creek Dam and White Rock Powerhouse is Mosquito Road which is located on the east side of Placerville. This road crosses the SFAR at about the mid-point between the dam and the powerhouse.

The White Rock Powerhouse is accessed by driving 1.5 miles north from Placerville on Mosquito Road and turning left on Meadow Lane, which subsequently turns into Holland Drive. Holland Drive is a 2-mile, paved road that passes through privately owned land with residences and terminates at White Rock Powerhouse, which is located on land owned by SMUD. There are two gates located on this road. One gate is approximately two miles from White Rock Powerhouse. This gate is most often found open however, the landowners who hold the rights to this road can and do close the gate to restrict public access. SMUD holds an easement on this road from the private landowners and has a key to this gate, which allows SMUD to access the powerhouse. The second gate is located approximately one mile from the White Rock Powerhouse. This is a SMUD road (within the FERC Project Boundary and listed in the existing license) leading to the White Rock Powerhouse and SMUD locks the gate, at all times to prevent vandalism and for public safety reasons.

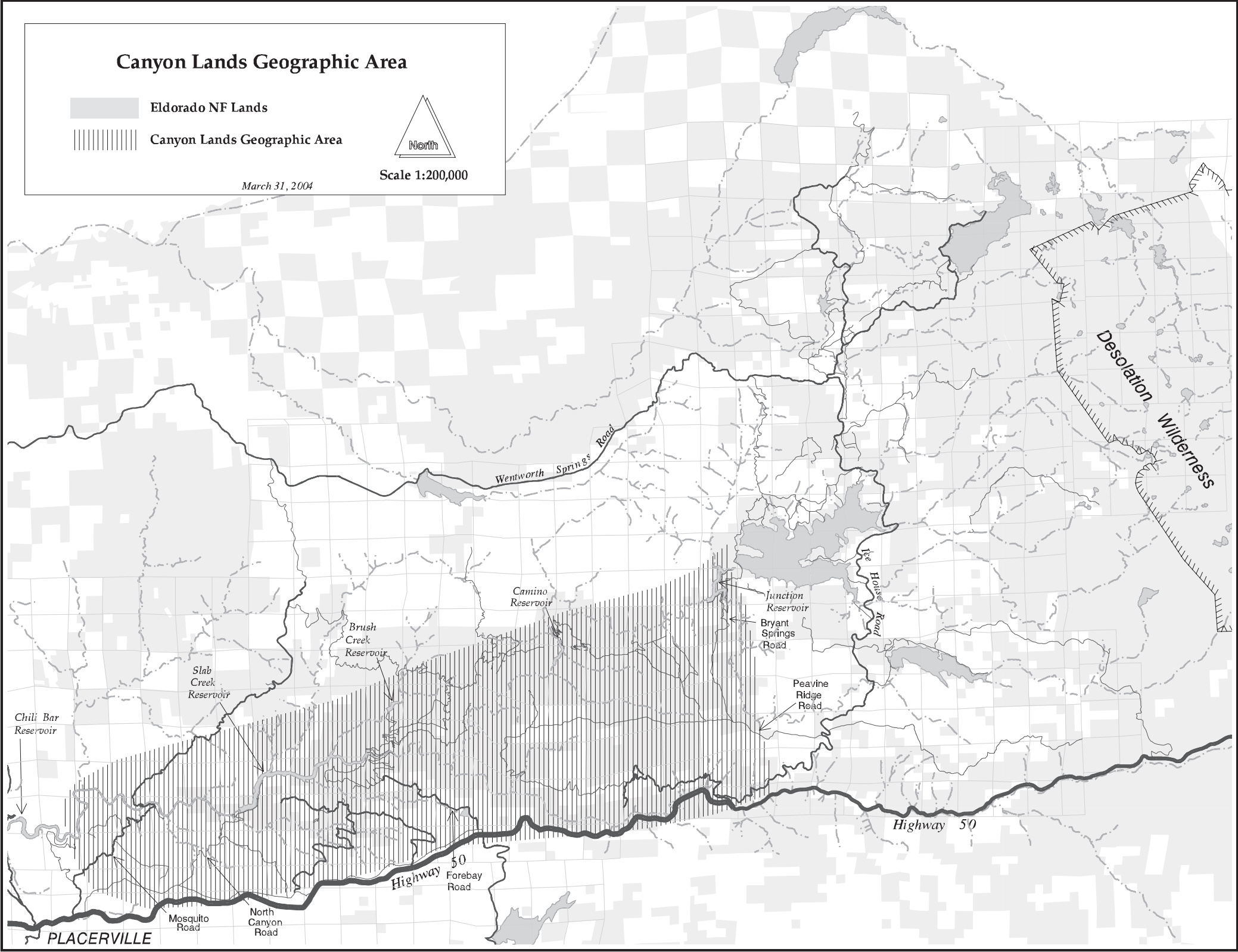
Canyon Lands Geographic Area

-  Eldorado NF Lands
-  Canyon Lands Geographic Area



Scale 1:200,000

March 31, 2004



4.2.3.1 Recreation Opportunities-Canyonlands

The Canyonlands host mainly dispersed forms of recreation activities. The reservoirs are located in steep walled canyons and access is generally limited to the area near the access roads. Small primitive boat launches exist at all but Camino Reservoir, where boating is not allowed because of safety concerns. The rough, narrow access roads and small, narrow reservoirs deter most visitors that want to go boating. For the few users that visit the Canyonlands, the reservoirs provide flat-water opportunities for motorized and non-motorized boating. Most of the existing motorized use is associated with fishing. Non-motorized boating opportunities may include anglers as well as those touring on the reservoirs for enjoyment. The UARP reaches and reservoir shoreline also provide angling opportunities. Other dispersed activities that were observed in the area include camping, picnicking, hiking, swimming, target shooting, OHV use and hunting. Because the area rarely receives snow in the winter months, opportunities for these activities are available to visitors year-round. The reader is referred to the *Visitor Use and Impact Technical Report* Study for additional information about visitors' activities.

Whitewater boating opportunities exist on the SFAR below Slab Creek Dam. This run is 7.5 miles long terminating at White Rock Powerhouse and it has a Class IV to V difficulty rating. *The Best Whitewater in California: The Guide to 180 Runs* (Holbek and Stanley 1998) describes a whitewater boating run between Camino Dam on Silver Creek. This run is a 9.2 miles long terminating at the upstream end of the Slab Creek Reservoir and it has a V difficulty rating. The reader is referred to the technical reports for the Whitewater Feasibility Study and the Slab Creek Controlled Flow Study for additional information on whitewater boating opportunities.

4.2.3.2 Developed Recreation Facilities - Canyonlands

The only recreation facilities present in the Canyonlands are four primitive boat launches at three of the reservoirs; these are UARP recreation facilities. There is one boat launch at each of Brush Creek and Junction reservoirs. At Brush Creek there is a paved, narrow, single-lane that allows limited access for launching boats on the southern shoreline. At Junction Reservoir there is a gravel-surfaced road that leads to the shoreline of the reservoir. The end of this road extends into the reservoir allowing it to be used to launch boats.

There are two informal launches at Slab Creek Reservoir. At the lower end of the reservoir on the southern shoreline there is a narrow one-lane boat launch. At the upper end of the reservoir near Forebay Road there is a narrow, unpaved surface that leads to the shoreline that people use to launch small boats.

These launches can be characterized as primitive for hand launching small boats. The launches are not accessible to persons with disabilities and major site modifications would be necessary to make accessibility improvements. Parking is very limited at all four sites due to steep topography.

4.2.3.3 Dispersed Sites-Canyonlands

An inventory of dispersed recreation sites was completed in 2002 and 2003 using the methods described in Section 3.3. The dispersed recreation sites located during the inventory are shown in Figures 4.2-18 and 4.2-19.

Slab Creek Reservoir

At the upper end of Slab Creek Reservoir near the bridge on the Forebay Road (a paved road) there are numerous fire rings along the north side of the reservoir. These sites are located along an unpaved access road that is approximately one-quarter to one-half mile long. The end of the access road terminates at the waters edge and allows access for visitors to launch small boats; this is the transition point between the SFAR and Slab Creek Reservoir. At the highest reservoir elevation the watercourse at this access point has a downstream current. Even at the highest reservoir levels, there is still a noticeable current present at the access point. As the reservoir level recedes, more of the river channel is exposed creating a longer distance of flowing river channel between the access site and the flatwater of the reservoir. This condition has created two types of problems for visitors who have launched boats from this site. First, flatwater paddlers have had difficulty paddling against the current to return to their vehicles after using this site to access the reservoir. This situation is exacerbated if the reservoir elevation lowers during the visitors' time on the reservoir and exposes more of the river channel. Lower reservoir elevations also expose more rocks and obstacles that are barriers to navigating the SFAR in this area. Boaters who launch while these features are inundated may have difficulty navigating back to the access site later in the day if the reservoir level lowers and these barriers become exposed.

Resource damage that was observed at this site included fire rings and vehicle use occurring too close to the shoreline, deep ruts caused by OHV or 4-wheel drive vehicles on steep slopes, user-created pit toilet at the waters edge, graffiti, trash, and damage to riparian vegetation. Visitors have repeatedly used one area, for target practice as evidenced by an accumulation of shell casings and various targets including an old microwave and a computer terminal. During the site inspection in 2002, one visitor had an active campfire during the fire season when a Forest Closure Order was in effect that prohibited campfires outside of developed recreation facilities.

At the lower end of Slab Creek Reservoir near the dam, there is an access road leading to the waters edge that allows access for launching small boats. The road is unpaved and narrow with a small area where vehicles can turn around. Vehicles would likely need to be unhitched from trailers in order to turn around at this location; long trailers could not be used at this access point. There is a fire ring at this location, an accumulation of shell casings, paint on rocks and a rope swing tied in the tree at the shoreline. Trash was also observed at this site. Near the dam at the intersection of the roads that lead to the dam and the informal boat launch, the presence of shell casings, a fire ring and trash indicate that dispersed recreation use also occurs at this location.

The ENF recently issued a permit for commercially guided paddling trips on Slab Creek Reservoir. The permit holder uses the upper end of the reservoir as a launch site and the group of paddlers traverses the reservoir to the informal boat launch near the dam where the visitors

end their trip. The permit holder provides a shuttle service for visitors so they do not need to paddle against the current at the upstream end of the reservoir. Ron Hancock, Placerville Recreation Officer for the ENF has paddled the reservoir and stated that there are few areas suitable along the shoreline for getting out of boats to hike, explore or camp; the limiting factor was steep slopes. One suitable area was identified where Brush Creek enters Slab Creek Reservoir.

Brush Creek Reservoir

Dispersed day and overnight recreation use occurs at the informal boat launch that is located near the dam. Evidence of past campfires was observed at this location and at a second site approximately 100 yards downstream of this location. Vandalism was also observed near the intake structure. Vehicles can access this reservoir by paved roads but the road between the SFAR and the reservoir is very narrow and there is a steep drop on the downhill side of the road. Access to the shoreline of this 20 acre reservoir is limited to the area near the informal boat launch because of steep slopes. There are reports of dispersed campsites on the north end of the reservoir which SMUD will review in 2004. The ENF reports that during routine patrols on July 4, 2003 that they observed all of the available area for parking at the access road to the reservoir was filled. In March 2004 the ENF also reported seeing two anglers in a small boat with an electric motor using the reservoir; they had apparently caught several fish. The visitors also stated that they resided in the Placerville area and have fished at Slab Creek Reservoir in the past.

Dispersed Recreation Sites Near Slab Creek, Brush Creek and Camino Reservoir

— Paved
 - - - Unpaved

▭ SMUD Boundary

▬ Wilderness Boundary

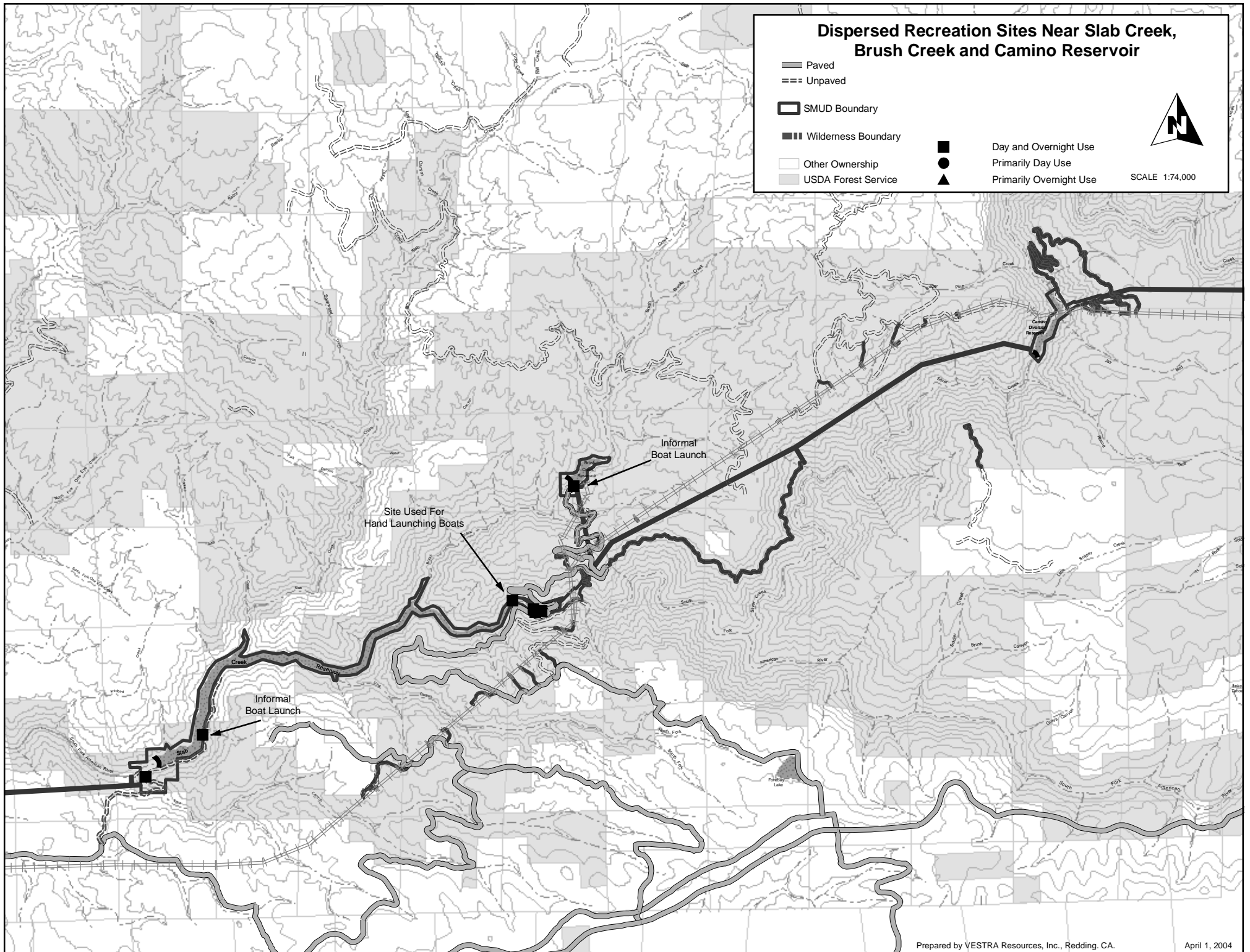
□ Other Ownership

■ USDA Forest Service

■ Day and Overnight Use
 ● Primarily Day Use
 ▲ Primarily Overnight Use



SCALE 1:74,000








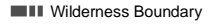
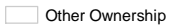


Junction Reservoir

Dispersed day and overnight recreation use occurs at the informal boat launch that is located near the inlet of the SF of Silver Creek. Three fire rings were located and trash was observed both in the fire rings and the surrounding area. Two of the fire rings are located close to the shoreline and the third is located on a bench more than 100 feet from the shoreline. The access road has an aggregate base, it is in good condition and erosion was not observed.

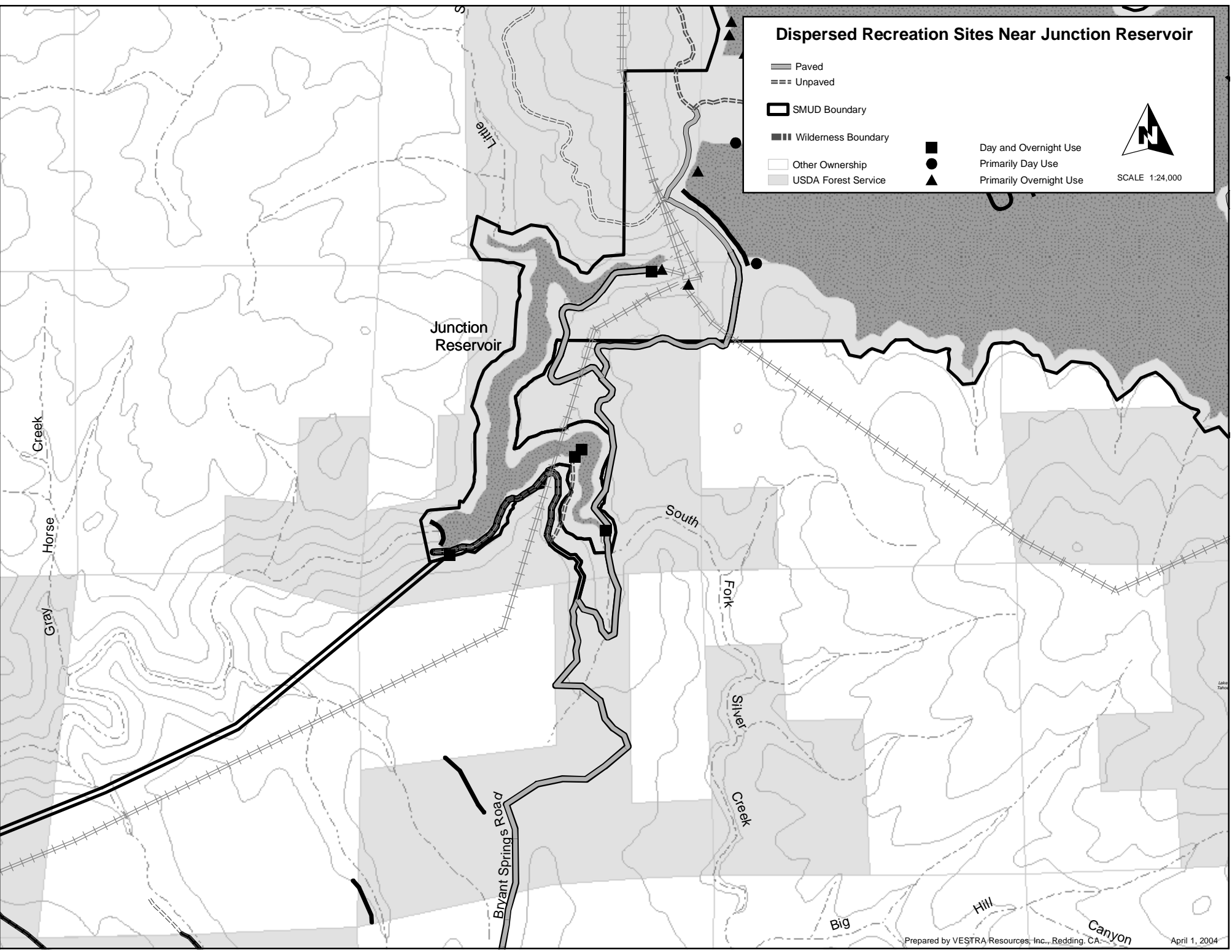
A second dispersed site is located at the end of the access road to the dam where evidence of campfires was observed. Visitors can access this area by vehicle on the aggregate surfaced road. There are anecdotal accounts from the ENF and SMUD's operations staff that visitors hike from this location to Silver Creek below the Junction Dam for day use activities such as swimming and fishing.

There is also a dispersed use site with fire rings located downstream from where Bryant Springs Road crosses SF Silver Creek. This is near where SF Silver Creek enters Junction Reservoir. The site has been accessed by vehicles in the past but the short access road to the site has been blocked with large granite boulders. Located adjacent to Bryant Springs Road this site is accessed by foot from the road by visitors for both day use activities such as picnicking and stream fishing as well as overnight use.

Dispersed Recreation Sites Near Junction Reservoir

 Paved	
 Unpaved	
 SMUD Boundary	 Day and Overnight Use Primarily Day Use
 Wilderness Boundary	
 Other Ownership	 Primarily Overnight Use
 USDA Forest Service	

SCALE 1:24,000



Camino Reservoir

Public vehicle access is not permitted beyond the gate near the Jaybird Powerhouse. A sign next to the gate informs visitors that boats are not allowed on Camino Reservoir due to safety reasons. SMUD's operations staff report that occasionally they have observed a car parked in the area and some anglers may walk past the gate and fish in the reservoir from the shoreline in the vicinity of the access road.

River Access Points

Access to the UARP reaches in the Canyonlands is limited by steep topography and consequently public access is mainly restricted to the few roads that lead to or cross the reaches. There are no formally designed and developed trails provided at any of these locations. These points of access are described below from the highest to lowest elevation in the Canyonlands.

Below Union Valley Dam visitors can access the upper most extent of Junction Reservoir from Ice House Road using Peavine Ridge Road, Bryant Springs Road and Forest Service Road No. 12N30E, which are all paved roads. The access to the reach is near the Union Valley Powerhouse where there is a steep slope between the road and reach. There did not appear to be any user created trails in the area however a few anglers were observed using the area during the Visitor Use and Impact Study. Although it is less than 50 feet to the waters edge, the steep rocky slope makes access difficult. A locked gate restricts public access to within about 200 feet of the powerhouse however visitors may park along the road at the gate and still access the reach from the road.

Visitors access Silver Creek below Junction Dam from Ice House Road using Peavine Ridge and Bryant Springs roads, which are paved roads, and a one mile aggregate surfaced road that leads to the dam. From the end of the road there is a foot trail that the Licensee uses to access the dam and visitors use to reach the waters edge. The canyon walls are steep and rocky and pedestrian access is difficult on this route.

At Camino Reservoir visitors can drive to within about one-half mile of Silver Creek below Camino Dam. Visitors access this point from Ice House Road using Peavine Ridge and Jaybird Canyon roads, which are both paved. The road is gated near the switchyard however visitors may park near the gate and continue on the road by foot to reach the south side of Camino Dam. From this point there is no defined route of access and the slopes are steep and rocky making access difficult.

The next point of access to Silver Creek is at Forebay Road, which is paved. This area is described in section 4.2.3.3 under the description of dispersed recreation at Slab Creek Reservoir.

Visitors can access Silver Creek below Slab Creek Dam from North Canyon Road, which is a paved county road, and the Chute Camp Road which is an unpaved road. The Chute Camp Road

begins at North Canyon Road and leads to Slab Creek Dam; it is approximately 1.25 miles long with a dirt surface. This is a county road at least to the point where the road crosses Iowa Creek and SMUD has performed maintenance on the road in the past for access, but does not have any formal agreement to maintain the road. The road passes through privately owned land and then onto NFS land in the vicinity of Slab Creek Dam. SMUD and El Dorado County have installed a gate on the Chute Camp road just below its intersection with North Canyon Road to restrict public access between dusk and dawn. SMUD and landowners along the Chute Camp Road have keys to allow them access at any time. Where the Chute Camp Road reaches the Slab Creek Dam there is an unpaved and gated road known as the Slab Creek Adit Access Road. This is a UARP road (within the FERC Project Boundary and listed in the existing license) located on NFS land and the gate is locked by SMUD at all times to prevent vandalism and for public safety reasons. This road is approximately one-quarter of a mile in length and it is a steep, partially paved, narrow, one-lane road that leads to waters edge. Visitors can park near the gate and walk down the road to access the reach. Although this is a steep quarter mile walk, the road affords a defined route for easy access to the reach.

Continuing downstream, the next point of access is where Mosquito Road crosses the SFAR. This is a paved county road that connects to Highway 50 in Placerville. As the road approaches the river it becomes windy and narrows to one lane making it difficult for vehicles traveling in opposite directions to pass. At the river there is a very narrow one lane bridge with no room for parking along the road. The only areas for parking are approximately one-quarter mile from the river; there is one area on either side of the river with room for only two or three vehicles, each. Visitors who park at one of these locations can walk on Mosquito Road to the bridge where there are steep user created trails on either side of the river to access the river.

In the SFAR between Mosquito Bridge and the White Rock Powerhouse there are three points to access the reach. The first location is at the Rock Creek Powerhouse (Sithe Industries). The access road to this location has a dirt surface and it begins at the Rock Creek Road where it is gated to restrict public vehicular access to the river. This gate is closed and locked by the UARP owner of the Rock Creek Powerhouse at all times however a sign explains to visitors that pedestrian access to the river is allowed for day use. The road is approximately one-quarter of a mile in length and it terminates very near the shoreline of the SFAR approximately two miles upstream of the White Rock Powerhouse. The road and the powerhouse appear to be located on public land managed by the Bureau of Land Management (BLM).

The second point of access is just upstream from the White Rock Powerhouse and it is also accessed by a road connecting to the Rock Creek Road. This access road has a gate at the Rock Creek Road. However, it has been observed routinely open to the public and the dirt-surfaced road has been recently graded by an unknown entity. This road appears to pass through privately owned land. The road is steep and narrow and vehicular access requires a vehicle with high clearance or even 4WD. It is approximately one-half mile from the Rock Creek Road to the end of this road at the river's edge. From this point there is open and level access to the waters edge for approximately 600 feet of shoreline. There are numerous dispersed campsites and evidence of recent public dispersed recreational use along the shoreline of the SFAR at this location.

The last point of access in this reach is by way of Mosquito Road, Meadow Lane and Holland Drive. Mosquito Road is a county road and Meadow Lane is a two-mile, paved road that passes through privately owned land with residences and terminates at White Rock Powerhouse, which is located on land owned by SMUD. There are two gates located on this road. One gate is approximately two miles from White Rock Powerhouse. This gate is most often found open however, the landowners who hold the rights to this road can and do close the gate to restrict public access. SMUD holds an easement on this road from the private landowners and has a key to this gate, which allows SMUD to access the powerhouse. The second gate is located approximately one mile from the White Rock Powerhouse. This is a UARP road (within the FERC Project Boundary and listed in the existing license) leading to the White Rock Powerhouse and SMUD locks the gate, at all times to prevent vandalism and for public safety reasons. Because of the private property rights on Meadow Lane and Holland Drive the public does not have a right to use these roads to access the river. Despite this condition, visitors would likely drive through the gates if they found them open. If the gates are found closed and locked (which is the case with the SMUD gate) visitors could walk around the gates and continue down the road leading to the White Rock Powerhouse. Just downstream of the tailrace the road is within 50 feet of the waters edge providing easy access to the water. This access point is at the point where the SFAR and water leaving the White Rock Powerhouse enter Chili Bar Reservoir (FERC Project No. 2155).

4.3 Flatwater Recreation Resources at UARP Reservoirs

The following section consists of summarized information about the flatwater recreation resources at the UARP reservoirs. The Recreation and Aesthetics TWG requested that the supply report include a table that shows information about reservoir size, range of reservoir fluctuation, boat launches and their usable elevations, visitor use restrictions, season and condition of access, important attributes of the reservoirs, boating difficulties, and shoreline facilities. Although some of this information is presented elsewhere in the report, it is summarized in Table 4.3-1(a) and 4.3-1(b).

UARP operations, water year type, snowmelt patterns and power generation needs influence how reservoir elevations change on a daily and seasonal basis. Plotting reservoir elevation data provides a historical snap shot of the reservoir levels for the period of 1992 to 2001. Whereas the large storage reservoirs of Loon Lake, Union Valley and Ice House reservoirs exhibit seasonal fluctuations, the remaining smaller impoundments experience weekly and daily fluctuations. Typically the storage reservoirs begin the water year in October at their lowest levels and slowly fill through approximately June. SMUD is required to make every reasonable effort to maintain reservoir levels as high as possible between May 1 and September 10 after which SMUD draws the reservoirs down to their lowest levels by October.

Appendix E includes two sets of plots for each reservoir except for Robbs Forebay and Camino Reservoir. These two reservoirs were not included because boating is not allowed on these impoundments. The first plot for each storage reservoir shows the 5, 50 and 95 percent and median exceedance curves for reservoir elevation. The first plot for each of the forebays and afterbays shows the 5 and 95 percent exceedance curves and the elevation data for one year with

the greatest elevation variance and one year with the least elevation variance. The minimum operable elevations for the boat launches are also shown on the plots for reference. At reservoirs where there are boat launch ramps, the minimum operable elevations for the boat launches are also shown on the plots for reference. The second plot for each reservoir shows the end-of-the-day reservoir elevation for all of the UARP reservoirs over the period 1992 through 2001.

In general, boat launches at the storage reservoirs are usually operable between June and August. The boat launch at Yellowjacket on Union Valley Reservoir is most sensitive to low reservoir elevation. This ramp is the first boat launch that becomes unusable as this reservoir drops in elevation however, the boat launches at Sunset and Westpoint still provide boating access to the reservoir when reservoir elevation drops below the end of the Yellowjacket ramp. The afterbays and forebays experience daily fluctuations, which can cause boat launches to become inoperable on a frequent basis with little predictability.

Table 4.3-1(a). Summarized information about flatwater and recreation resources at the UARP reservoirs.									
Reservoir	Reservoir Size (acres @ max. pool) ¹	Range of Reservoir Fluctuation (ft.) ²	Boat Launches Name/Paved, Aggregate or Unpaved Surface	Boat Launch Min. Operable Res. Elevation (ft.) ^{2,3}	Courtesy Dock Provided?	Snow Plowed During the Winter:		Condition of Vehicular Access/Parking (paved, unpaved)	Shoreline Overnight Use Conditions (i.e., dispersed camping allowed/not-allowed, developed facilities available?)
						To the Reservoir Vicinity	To Boat Launch		
Loon Lake (storage)	1,450	6,410 / 6,370 Typically peaks in late June	Loon Lake/Paved	6,373	No ⁴	Yes	No	Paved	Dispersed camping allowed on shoreline/ abundant sites available. One Boat-In developed campground available. Shoreline campsites available at the developed campgrounds.
Union Valley (storage)	2,860	4,870 / 4,800 Typically peaks in mid June	Sunset/Paved	4,802	Yes ⁴	Yes	No	Paved	Dispersed camping allowed on shoreline.
			West Point Lower/Paved	4,808	No		Yes	Paved	
			West Point Upper/Paved	4,848	No		Yes	Paved	Shoreline campsites available at the developed campgrounds.
			Yellowjacket/Aggregate	4,850	No		No	Aggregate	
Ice House (storage)	678	5,450/5,400 Typically peaks in mid June	Ice House/Paved	5,423	Yes ⁴	Yes	Yes	Paved	Dispersed camping not allowed on south side of reservoir and east of Strawberry Pt. CG. Shoreline campsites available at the developed campgrounds.
Gerle Creek (afterbay)	60	5,231 / 5,226 Narrow cycle range	Gerle Creek/Paved (Hand launching site)	N/A	N/A	No	N/A	Paved	Dispersed camping not allowed on shoreline. No shoreline campsites available at the developed campground.

Table 4.3-1(a). Summarized information about flatwater and recreation resources at the UARP reservoirs.									
Reservoir	Reservoir Size (acres @ max. pool) ¹	Range of Reservoir Fluctuation (ft.) ²	Boat Launches Name/Paved, Aggregate or Unpaved Surface	Boat Launch Min. Operable Res. Elevation (ft.) ^{2,3}	Courtesy Dock Provided?	Snow Plowed During the Winter:		Condition of Vehicular Access/Parking (paved, unpaved)	Shoreline Overnight Use Conditions (i.e., dispersed camping allowed/not-allowed, developed facilities available?)
						To the Reservoir Vicinity	To Boat Launch		
Junction (afterbay)	64	4,450 / 4,435 Cycles weekly, may cycle daily	Downstream of Bryant Springs Rd./Aggregate	4,435	No	Yes	No	Dirt/Aggregate	Dispersed camping allowed on shoreline/generally limited by steep slopes. Developed campgrounds not available.
Slab Creek (afterbay)	280	1,850 / 1,820 Cycles weekly, may cycle daily	Downstream of Forebay Rd. Bridge/Unpaved	1,830-Gravel Unimproved. Riverine below max Pool level	No	Yes ⁵	No ⁵	Dirt/River Gravel	Dispersed camping allowed on shoreline/generally limited by steep slopes.
			Near Slab Cr. Dam/Paved	1,820	No	Yes ⁵	No ⁵	Paved (small turnaround)	Developed campgrounds not available.
Camino (afterbay)	20	2,910 / 2,890 Cycles weekly, may cycle daily	None		No	Yes ⁵	No ⁵	Gated near switchyard	Dispersed camping is not restricted but no there is no public access for vehicles or boats.
Brush Creek (small reservoir)	20	2,910 / 2,890 Near full most of the year, can cycle daily	Near Brush Creek Dam/Paved	2,890	No	Yes ⁵	No ⁵	One Paved and One Aggregate Area	Dispersed camping allowed/generally limited by steep slopes. Developed campgrounds not available.

¹Source: SMUD 2001

²Source: Visual Assessment of Project Operations Technical Report (for Ice House, Loon Lake, and Union Valley reservoirs). Operations Staff (for Junction, Slab Cr., Camino and Brush Creek reservoirs).

³Minimum elevation at which the ramp can be used to safely launch boats. Does not represent the end of the ramp surfacing.

⁴Site has an accessible ramp for transferring people between boat and wheel chair.

⁵Lower elevation reservoir where it occasionally snows during the winter months.

Table 4.3-1(b). Summarized information about flatwater and recreation resources at the UARP reservoirs.					
Reservoir	Existing Types of Boating Activities¹	Boating Restrictions?	Designated Swimming Area?/Location	Potential Boating Difficulties	Amenities/Attractions/Conditions Provided at the Reservoir
Loon Lake (storage)	Power Boating Personal Watercraft Small Fishing Boats Non-Motorized Craft	None	None	Rocks are hazard at all water levels. Logs removed from Reservoir in spring. Windy afternoons are common during summer and can cause rough water surface.	Very high aesthetic value even at low water levels (views of Sierra Nevada peaks, pockets of snow, upper montane vegetation and granite features). Best suited for canoes/ kayaks and slow moving fishing boats due to numerous rock hazards. Boat-in camping opportunities are an attraction for flatwater boaters. Good fishing opportunities. Reservoir surface usually freezes in winter and is not accessible.
Union Valley (storage)	Power Boating Personal Watercraft Small Fishing Boats Non-Motorized Craft	None	Swimming Area designated with buoys/Fashoda Day Use Area	Rocks become hazard below full pool water level. Logs removed from Reservoir in spring.	Most popular Reservoir with power boaters and personal watercraft users. Large open flatwater surface suitable for high-speed boating. Use counts also show high numbers of non-motorized boaters. Large numbers of dispersed shoreline campsites mostly on north shore are an attraction for visitors. Good angling opportunities-known by anglers for kokanee fishery. Winter fishing opportunities afforded by plowing.

Table 4.3-1(b). Summarized information about flatwater and recreation resources at the UARP reservoirs.					
Reservoir	Existing Types of Boating Activities¹	Boating Restrictions?	Designated Swimming Area?/Location	Potential Boating Difficulties	Amenities/Attractions/Conditions Provided at the Reservoir
Ice House (storage)	Power Boating Personal Watercraft Small Fishing Boats Non-Motorized Craft	None	None	Logs removed from Reservoir in spring.	Use counts show higher numbers of non-motorized boaters and powerboats in the early season and increased numbers of fishing boats in the late season. Large open flatwater surface suitable for high-speed boating. Good angling opportunities. Winter fishing opportunities afforded by plowing.
Gerle Creek (afterbay)	Non-Motorized Craft	Non-Motorized only	None	Logs removed from Reservoir in spring.	Only non-motorized reservoir on the project. Minimal reservoir fluctuation. Provides good paddling and angling opportunities-known by anglers for German Brown fishery. Reservoir surface is not accessible during the winter.
Junction (afterbay)	Small Fishing Boats Non-Motorized Craft	None	None	Logs removed from Reservoir in spring.	Undeveloped boat launch limits use to car top launchable boats and small trailered fishing boats. Canyon scenery includes mostly mixed conifer forest transitioning to oak woodland with steep shorelines; reservoir surface has fingers extending up Silver Creek, SF Silver Creek and Little Silver Creek. Generally accessible year-round because of lower elevation.

Table 4.3-1(b). Summarized information about flatwater and recreation resources at the UARP reservoirs.					
Reservoir	Existing Types of Boating Activities¹	Boating Restrictions?	Designated Swimming Area?/Location	Potential Boating Difficulties	Amenities/Attractions/Conditions Provided at the Reservoir
Slab Creek (afterbay)	Small Fishing Boats Non-Motorized Craft	None	None	Logs removed from Reservoir in spring. River current at the launch site at the upper end of the reservoir can make paddling (returning to this site from the reservoir) difficult. Afternoon up-canyon winds that occur can cause difficulty for paddling.	Reservoir lends itself to non-motorized and small fishing boats due to its narrow character. Canyon scenery (mostly oak woodland with scattered mixed conifers) and historical sites are also attractions. Very steep shoreline. Generally accessible year-round because of lower elevation.
Camino (afterbay)	No Boating Allowed	Yes – no boating allowed	None	Boating not allowed on reservoir but logs are removed from Reservoir in spring.	Small reservoir with difficult access-would have limited boating appeal even if boating were allowed.
Brush Creek (small reservoir)	Small Fishing Boats Non-Motorized Craft	None	None	Logs removed from Reservoir in spring.	Small but scenic reservoir. Steep shoreline with oak woodland vegetation. Short 10 minute paddle to cross reservoir. Good angling opportunities. Generally accessible year-round because of lower elevation.

¹Based on responses to the visitor surveys (2002-03) and anecdotal accounts from the Licensee's operations staff.

4.4 Visitor Information, Education and Interpretation at the UARP

4.4.1 Visitor Information

Visitor information is provided at ENF offices and stations. Visitors to the UARP can obtain information about recreation opportunities at the ENF Supervisor's Office in Placerville, the ENF Placerville Ranger District Office in Camino, ENF Pacific Ranger District Office in Fresh Pond, Cleveland Corral Information Station on Ice House Road near Highway 50 and the Crystal Basin Information Station near Union Valley Reservoir on Ice House Road. Cleveland Corral and Crystal Basin Information Station are open during the summer months and the other locations are open year round.

The types of information available to visitors at these locations include maps of the ENF, campsite availability, campground and day use facility locations, campfire permits, and wilderness permits. Recreation Opportunity Guides which provide site specific information about developed recreation facilities, rules and regulations are also available at these locations. SMUD provides a recreation map of the Crystal Basin to the ENF which is distributed at the points of visitor contact. The map is printed on a color brochure that depicts the locations of developed recreation facilities, primary road and trail locations and provides general information about recreation opportunities, campground and day use site information in the Crystal Basin. SMUD periodically updates the map and provides 15,000 maps a year to the ENF for distribution at a cost of \$7,500 (2003 dollars). This brochure is an effective and valued instrument used by the ENF to provide visitors with information about recreation in the Crystal Basin.

4.4.2 Visitor Education and Interpretation

Visitor education and interpretation programs are provided by the ENF at the UARP, throughout the Forest and in the community. At Union Valley Reservoir during the summer months the ENF offers interpretive and education opportunities related to the bald eagles nesting at this reservoir. The programs consist of ranger talks, interpretive stations and opportunities to view nest sites through a spotting scope. Since 1986 the ENF has organized approximately six of these programs each summer at various developed recreation facilities, depending on the location of the nest sites. The ENF also offers two campfire programs per week between July 1 and Labor Day at locations across the Pacific Ranger District. Printed educational materials are prepared and distributed by the ENF at their offices and information stations. The ENF Interpretive Association prints a periodic newsletter that visitors can obtain at ENF points of visitor contact that provides interpretation of various subjects such as native plants, cultural resources and other environmental resources. Guidebooks that assist visitors with identifying and understanding environmental resources are offered for sale at the ENF offices and the Crystal Basin Information Station. In the community the ENF staff visits local schools to present approximately 10 to 15 environmental programs per year. The ENF also estimates that they participate in five additional interpretive events each year and they are requested to visit university classrooms to discuss environmental topics five times each year.

There is one interpretive trail available at Gerle Creek Reservoir. This trail informs visitors about Native American traditional forest uses and identifies some of the local trees and shrubs. The trail surface is accessible to persons with disabilities however the signage is worn making it difficult to read. Another interpretive site is at the Big Hill Lookout which overlooks Union Valley Reservoir and the surrounding landscape. This site has an accessible path of travel, parking and signage. The site has an overlook where visitors can use the interpretive sign to identify points of interest in the viewshed.

5.0 FINDINGS

The following section presents broad statements of findings organized by the three geographical areas as defined for the study. The findings primarily relate to the issue questions developed for the relicensing effort that are addressed by the Recreation Supply Study Plan. These issue questions are listed in Section 2.1 of this report.

5.1 High Country

The primary recreation activities that take place in the High Country include: dispersed camping, backpacking, rock climbing, picnicking, angling, hunting, swimming, hiking, OHV use, scenic viewing, mountain biking and equestrian use. The UARP reservoirs contribute flatwater settings for these activities and because of their ROS classification, developed recreation facilities for overnight and day use are not provided.

The only developed recreation facilities in the High Country are OHV routes and hiking trails. The motorized access provided by the Rubicon OHV route strongly influences the recreational use near the northern shoreline of Buck Island Reservoir. Heavy, recurrent and inappropriate dispersed motorized use in these areas has caused environmental damage near the shorelines of this reservoir.

There are three hiking trails near the UARP reservoirs in the High Country. The Rubicon Hiking Trail extends from the Loon Lake Wilderness Trailhead to Rubicon Reservoir where the trail continues to destinations in the Desolation Wilderness. There are dispersed campsites along the shorelines of Loon Lake, Buck Island and Rubicon reservoirs that are accessed from this trail which generally appear to be located an adequate distance from the reservoir, consistent with the ENF standards and guidelines. A portion of the Rubicon Hiking Trail is surfaced with spoil material generated during UARP construction which creates an uneven and rough surface for hiking and equestrian use on the trail. There is a trail connecting Pleasant Campground, a UARP recreation facility located on the shoreline of Loon Lake, to the Rubicon Hiking Trail. This trail has areas of erosion, vegetation encroachment and it is not clearly signed for visitors. The third trail is a primitive trail connecting the Rubicon Hiking Trail and the Rubicon OHV Route near the western shoreline of Buck Island Reservoir. This trail is used by SMUD to access UARP features at the reservoir as well as recreationists. The trail has emerged through recurrent use, it was not formally designed or constructed and the trail is not maintained by the ENF since it is not a designated trail in the ENF transportation system.

Whitewater boating opportunities that exist in the High Country can be described as expeditionary. Boaters engage in long hikes to access river and stream reaches and schedule their trips to coincide with melting snow in the spring since flows in these the reaches are not controlled by hydropower projects.

5.2 Crystal Basin

The primary recreation activities that take place in the Crystal Basin at the UARP during the summer include: developed and dispersed camping, motorized and non-motorized boating, watersports, rock climbing, picnicking, angling (lakes and streams), hunting, swimming, hiking, OHV use, scenic viewing, mountain biking and equestrian use. During the winter, SMUD plows the Ice House Road which allows public vehicular access at the UARP and the primary recreation activities at the UARP during the winter months include: cross-country skiing, snowshoeing, snowplay, snow camping, angling, scenic viewing, and lodging at chalets and huts. The UARP reservoirs provide flatwater settings for these activities and developed UARP recreation facilities for overnight and day use are provided. A brief summary of the number and type of facilities at each reservoir is provided in Table 5.2-1.

Reservoir	No. of Family Campgrounds	No. of Group Campgrounds	No. of Day Use Facilities	No. of Boat Launches	Trails/Other
Loon Lake	7/762 PAOT	3/125 PAOT Chalet/20 PAOT	2	1	OHV, hiking and cross-country ski trails
Gerle Creek	1/396 PAOT	0	2	1 (for non-motorized)	2 accessible trails and fishing platform
Union Valley	10/2,448 PAOT	3/250 PAOT	2	3	Paved bicycle trail
Ice House	4/732 PAOT	0	1	1	Information Station

The UARP recreation facilities were constructed by SMUD as part of the original UARP license and a subsequent license amendment to add the Jones Fork Powerhouse. After the facilities were constructed, ownership of the facilities was accepted by the Federal government and the ENF became the agency responsible for managing the facilities. Under the terms of an existing collection agreement SMUD contributes annual funding to the ENF to support operating and maintaining the facilities constructed after 1988; in 2004 SMUD contributed \$335,045 to the ENF. The ENF accomplishes operation and maintenance of most of the UARP recreation facilities through a permit to a third party concessionaire which operates the facilities, collects user fees, funds and accomplishes tenant types of facility maintenance and returns a portion of the gross receipts to the Federal government. A few of the UARP recreation facilities are operated under the Forest Service Fee Demonstration Project whereby the ENF collects user fees which it can use to fund operation, maintenance and replacement at these facilities.

Some of the developed UARP recreation facilities have been recently built or modified to comply with meeting ADA guidelines. However, at the time the study was conducted, ADA deficiencies were noted at every developed UARP recreation facility except for Camino Cove Campground, Lone Rock Campground, Westpoint Campground, Wolf Creek Campground, Big Silver Group Campground, Big Hill Overlook and Sunset Boat Launch. The types of

deficiencies relate to restrooms, parking, potable water delivery, trash containers and paths of travel. Facilities have been provided at the Project specifically to provide accessible opportunities such as the Harvest Trail and fishing platform at Gerle Creek Reservoir and accessible boat loading ramps at Loon Lake, Ice House and Sunset boat launches.

The UARP recreation facilities have been built over a broad period of time. Consequently some of the facilities are relatively new and in good condition while there are other facilities that have worn infrastructure and their design is outdated. The developed UARP recreation facilities that are in the latter category include Pleasant Campground, Loon Lake Campground (lower loop), Loon Lake Equestrian Group Campground, Gerle Creek Campground, Sunset Campground (all loops), Ice House Campground (upper loop) and the Ice House Day Use Area.

The three largest reservoirs, Loon Lake, Union Valley and Ice House reservoirs provide motorized boating opportunities. Union Valley and Ice House reservoirs appear to be well suited for motorized boating because of their large surface area and configuration. Loon Lake provides motorized boating opportunities however this reservoir has shallow areas and there are many rocks at and just below the reservoir surface that deter most high speed watercraft users. Gerle Creek Reservoir, provides a high quality non-motorized boating opportunity since motorized watercraft are not allowed on this reservoir.

Dispersed day and overnight use opportunities are plentiful at Union Valley and Loon Lake reservoirs however there are areas where inappropriate dispersed recreational use appears to be harming natural resources. Loon Lake Reservoir has many sites near the shoreline suitable for boat-in camping. Union Valley Reservoir also has boat-in camping opportunities along the northern shoreline of the reservoir. Dispersed day use opportunities exist at the shorelines of Gerle Creek and Ice House reservoirs however dispersed overnight use is not permitted at these reservoirs.

During the relicensing studies, water quality impacts potentially related to dispersed recreation use were identified at Union Valley Reservoir. The north shoreline of Union Valley has been recently closed to OHV use however the impacts from dispersed motorized recreational use in prior years is still evident near the shoreline. Additionally, the boat-in sites located in this area, most of which are located too close to the shoreline, receive frequent use and sanitation problems associated with the existing level of use were observed.

Concerns related to the recreational impacts on natural resources were identified at the Loon Lake shoreline between the two main dams and in the area of the reservoir known as Pleasant Lake. Most of the resource damage observed at these locations includes erosion, trash and improper disposal of human waste and appears to be associated with inappropriate dispersed motorized recreation use.

At Ice House Reservoir, the gated roads leading to the southern shoreline are not an effective barrier to motorized access. Although overnight dispersed camping is not allowed, recreationists who apparently accessed the area by vehicle were observed camping along the shoreline during SMUD's study. Resource impacts from recurrent dispersed day and motorized use were also

noted along the northern shoreline of Ice House Reservoir between Strawberry Point and the inlet to the reservoir. Typically the type of impacts observed were fire rings, user created routes, erosion and vegetation removal and damage.

At Gerle Creek Reservoir there were a few areas where resource impacts related to recreation use were identified. Although overnight dispersed camping is not allowed, evidence of this activity was observed. Upstream from the reservoir along Gerle Creek in the vicinity of Airport Flat Campground, resource impacts were noted and these mostly related to dispersed motorized use.

The UARP powerline corridors and the associated access roads receive OHV use. Specific high-use areas include the sections of the powerline corridors between Loon Lake and Gerle Creek reservoirs and along the north side of Union Valley Reservoir. Resource impacts associated with OHV use occur where this activity takes place off of designated routes.

Whitewater boating opportunities currently exist in the South Fork Silver Creek above Ice House Reservoir (a non-UARP reach); this reach has a Class V difficulty rating and is typically accessible for boating in the spring near peak runoff. The SFSC below Ice House Dam was also investigated during the relicensing studies and it was determined that this run has a Class IV difficulty rating. The reader is referred to the *Ice House Whitewater Boating Flow Technical Report* for additional information about this whitewater boating resource.

The Crystal Basin and Cleveland Corral information stations are the most readily available sources for visitor information at the UARP. The information map printed and provided by SMUD is an important source of information for visitors to the Crystal Basin. Visitor education and interpretive opportunities are available in the Crystal Basin however these are limited to one trail, one overlook and a few ENF-guided interpretive walks during the summer.

To the north and west of the Crystal Basin there is one designated Wild and Scenic River and one candidate river that is on the National Park Service list of inventoried rivers. The North Fork of the American River is a designated Wild and Scenic River and it is located in a drainage that is not affected by the UARP. The segment of the Rubicon River that is a candidate for listing is located between Hell Hole Dam and Oxbow Reservoir, which are both non-UARP features. Although the UARP diverts flow from the Rubicon River at Rubicon Reservoir, this diversion occurs more than ten miles upstream of the candidate reach and flows into this candidate reach are controlled by releases from Hell Hole Dam.

5.3 Canyonlands

The steep topography strongly influences the recreation opportunities in the Canyonlands. As compared to reservoirs the Crystal Basin, the reservoirs in the Canyonlands are smaller with steeper shorelines and access roads that have a low level of development (e.g. native surfaces and narrow road widths). Unlike the Crystal Basin, this geographic area is mostly free of snow during the winter months. The primary recreation activities in the Canyonlands at the UARP include dispersed overnight and day use, angling (lake and stream), hunting, swimming, motorized and non-motorized boating hiking, OHV use, scenic viewing, target shooting and

whitewater boating. The UARP reservoirs provide flatwater settings for these activities and whitewater boating and stream angling occur in the streams and rivers near the reservoirs. Boating access, in the form of one-lane paved or graveled surfaces that extend into the reservoirs, are provided at all of the Canyonland reservoirs except for Camino Reservoir where boating is not allowed for public safety reasons. Because steep topography in the Canyonlands causes there to be few suitable sites for recreational activities, there are no other developed UARP recreation facilities for overnight and day use. The existing boat launches are small developments that can accommodate only a few vehicles at a time. Accommodations for ADA at these boat launches would require major site modifications.

Many resource impacts related to recreation use were noted at the upper end of Slab Creek Reservoir. Examples of the types of resource impacts include erosion, improperly disposed human waste, graffiti, and trash. Typically, the sites used for dispersed overnight camping are located too close to the waters edge. To a lesser degree, similar impacts were noted at Slab Creek boat launch near the dam, Brush Creek and Junction reservoirs.

The small, remote reservoirs are well suited for small fishing boats and flatwater paddling. These reservoirs can fluctuate on a daily basis which can affect boating access at times. The most sensitive location is at the upstream end of Slab Creek Reservoir.

Whitewater boating opportunities in the Canyonlands exist in SFSC and SFAR below Camino Dam and SFAR below Slab Creek Dam. The SFAR below Camino has a Class V difficulty rating and the SFAR below Slab Creek Dam has a Class IV to V rating. Any existing boating opportunities on these reaches typically occur in the spring during peak runoff.

6.0 LITERATURE CITED

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APPENDIX A

RECREATION OPPORTUNITY GUIDES

- Airport Flat Campground A1
- Big Silver Group Campground A3
- Fashoda Tent Campground A5
- Gerle Creek Campground A7
- Ice House Campground A9
- Jones Fork Campground A11
- Loon Lake Boat Ramp A13
- Loon Lake Campground A15
- Loon Lake Group Campground A17
- Northshore Campground A19
- Northwind Campground A21
- Pleasant Campground A23
- Red Fir Group Campground A25
- Strawberry Point Campground A27
- Sunset Campground A29
- Wench Creek Campground A31
- Wolf Creek Campground A33
- Yellow Jacket Campground A35

AIRPORT FLAT CAMPGROUND

ELDORADO NATIONAL FOREST



DISTRICT: Pacific Ranger District

LOCATION: 23 miles east of Placerville on Highway 50 then 24 miles north on Forest Road 3 (Ice House Road), and 3 miles north on Forest Road 33. (See map back side).

CAMPGROUND INFORMATION							
TOTAL NUMBER OF UNITS	TENT, TRAILER OR R.V. UNITS				ACCESSIBILITY		FEE
					UNITS	TOILETS	
16	All				See Map	See Map	No
CAMPGROUND FACILITIES							
VAULT OR FLUSH TOILETS	DUMP STATION NEARBY	SHOWERS	PIPED WATER	HOOK-UPS	PICNIC TABLES	GRILLS	FIRE RINGS
Vault	On Loon Lake Rd.	No	No	No	Yes	Yes	Yes

ACTIVITIES/FACILITIES WITHIN 5 MILES

- Rubicon 4WD Trail
- OHV trails
- Fishing

AT GERLE CREEK RESERVOIR

- Swimming
- Accessible fishing platform
- Boating (no motors allowed)
- Picnic Area (4 sites all accessible)
- Wheelchair accessible interpretive trail

THINGS YOU SHOULD KNOW

- The campground is generally open between May 15 and Oct. 15. These dates are affected by snowfall.
- The campground is at about 5300' elevation.
- Sites are available on a first-come, first-served basis.
- Sites are arranged into pods to accommodate groups of 15 – 25 people.

- There is no piped water at the campground. Water from the creek is available but should be boiled before using. Water quality testing is not performed on open water sources.
- Please keep family pets on a leash at all times.
- Please use the stove or fire ring provided.
- Use only dead and down wood for your campfires.
- Make sure your fire is dead out before leaving.
- Please limit OHV use within the campground to entering and exiting for access to local trails.
- Any person operating an ATV on public lands must wear a proper safety helmet. (CVC 38505).
- No operator of an ATV shall carry a passenger when operating on public lands. (CVC 38506).
- No person shall operate, transport, or leave standing any off-highway vehicle without proper Green Sticker registration. (CVC 38020).

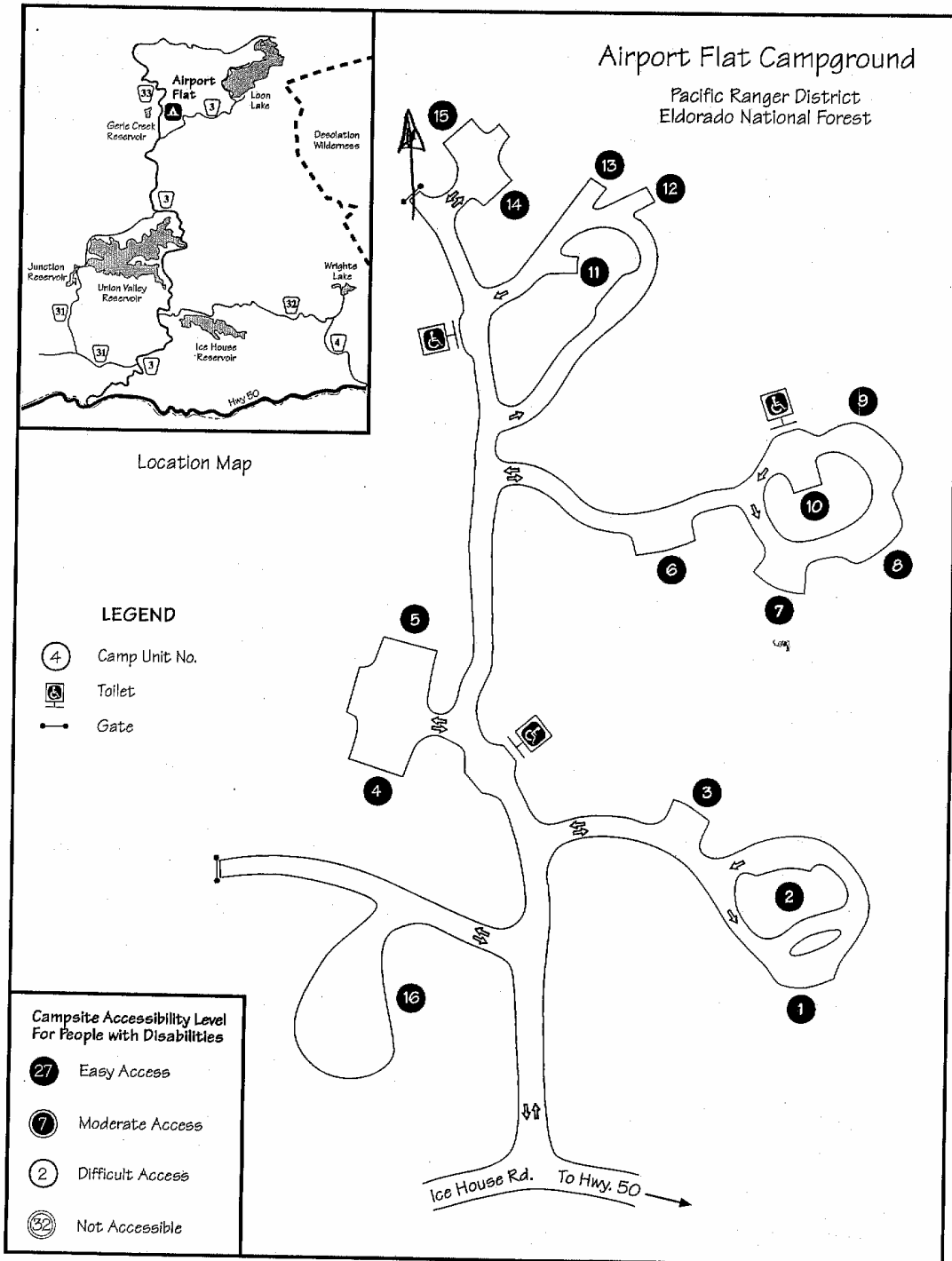
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Forest Service
 Pacific Southwest Region

Eldorado National Forest
 Pacific Ranger District



BIG SILVER GROUP CAMPGROUND



ELDORADO NATIONAL FOREST

DISTRICT: Pacific Ranger District

LOCATION: 23 miles east of Placerville on Highway 50 and 16 miles north on Forest Road 3 (Ice House Road). See map on back side.

CAMPGROUND INFORMATION							
TOTAL NUMBER OF PEOPLE	TENT SPACES Spur length 30' – 35'	TENT, TRAILER OR R.V. SPACES Spur Length 35' – 50'	WALK-IN TENT SPACES	ACCESSIBILITY		RESERVATION REQUIRED	FEE
				UNITS	TOILETS		
50	3 units See map	4 units See map	3 units See map	See Map	All	Yes	Yes
CAMPGROUND FACILITIES							
VAULT OR FLUSH TOILETS	DUMP STATION NEARBY	SHOWERS	PIPED WATER	HOOK-UPS	PICNIC TABLES	GROUP GRILLS	FIRE RINGS
Vault	Near Sunset Campground	No	No	No	Yes	Yes (In kitchen area only)	Yes

RESERVATION INFORMATION

- CALL 1-877-444-6777
- WEBSITE: www.ReserveUSA.com
- Visa, MasterCard, American Express, and Discover accepted.
- Golden Age/Access Passports **do not apply** to Group facilities.

ACTIVITIES/FACILITIES WITHIN 5 MILES

- Swimming
- Fishing
- Picnic Area at Fashoda Tent campground
- Boat Ramp near Sunset and Yellowjacket campgrounds
- Water-skiing
- Groceries and Cafe at Ice House Resort
- Bicycle trail (no motor vehicles allowed)

THINGS YOU SHOULD KNOW

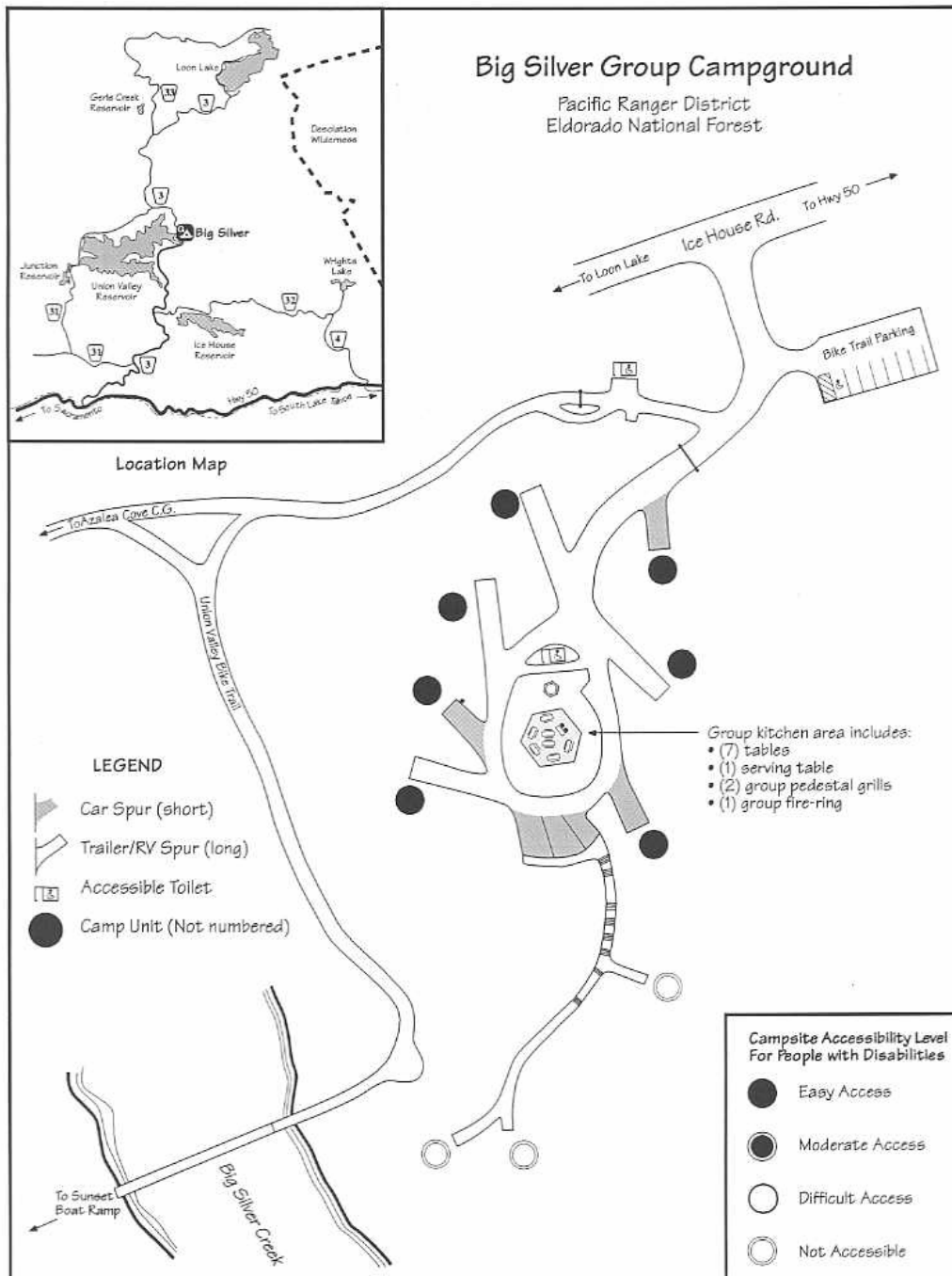
- The campground is generally open between Memorial Day weekend and Oct. 15. These dates are affected by snowfall.
- The campground is at about 4,900' elevation.
- Sites are available on a first-come, first-served basis.
- There is no piped water available at the campground. Stream water is available close by but should be boiled before using. Water quality testing is not performed on open water sources. Piped water is available at Sunset Boat Ramp.
- Keep your vehicles on the pavement.
- Riding OHV's in campground is not allowed.
- Please keep family pets on a leash at all times.
- Please use the stove or fire ring provided.
- Use only dead and down wood for your campfires.
- Make sure your fire is dead out before leaving.
- Check out time is 1:00 p.m.

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**Forest Service
 Pacific Southwest Region**

Eldorado National Forest
 Pacific Ranger District



FASHODA TENT CAMPGROUND



ELDORADO NATIONAL FOREST

DISTRICT: Pacific Ranger District

LOCATION: 23 miles east of Placerville and 15 miles north on Forest Road 3 (Ice House Road). (See map on back side).

CAMPGROUND INFORMATION							
TOTAL NUMBER OF UNITS	TENT UNITS	TENT, TRAILER OR R.V. UNITS	2 - FAMILY UNITS	ACCESSIBILITY		FEE	
				UNITS	TOILETS		
30	All	None	None	See Map	See Map	Yes	
CAMPGROUND FACILITIES							
VAULT OR FLUSH TOILETS	DUMP STATION NEARBY	SHOWERS	PIPED WATER	HOOK-UPS	PICNIC TABLES	GRILLS	FIRE RINGS
Vault	Yes	Yes	Yes	No	Yes	Yes	Yes

ACTIVITIES/FACILITIES WITHIN 5 MILES

- Swimming Beach
- Fishing
- Picnic Area (5 sites) at the campground on the beach
- Boat launch
- Groceries and cafe at Ice House Resort

THINGS YOU SHOULD KNOW

- The campground is generally open between May 15th and Sept. 15th. These dates are affected by snowfall.
- Golden Age/Access Passports are accepted.
- The campground is at about 4,900' elevation.

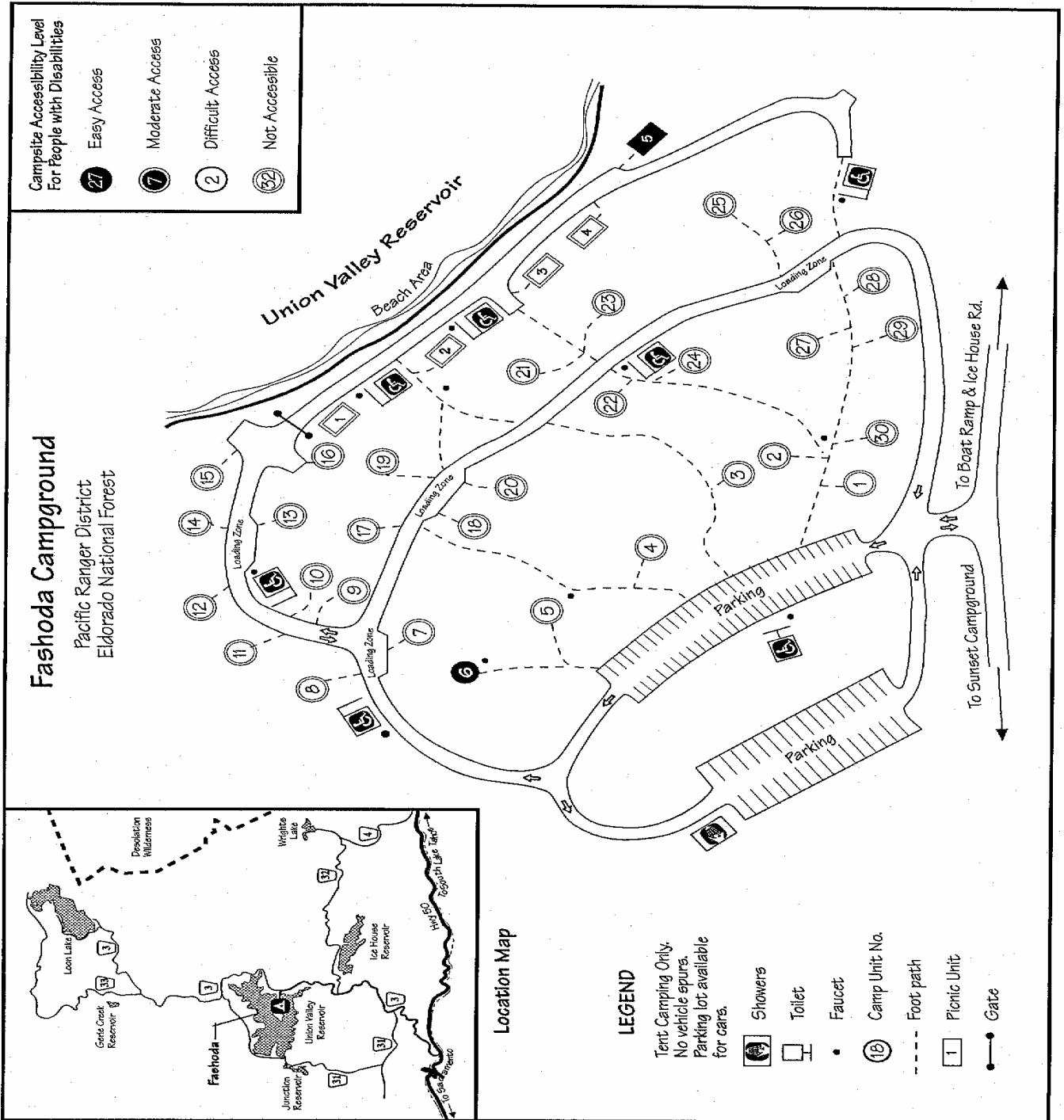
- Sites are available on a first-come, first-served basis.
- All sites are walk-in tent camping.
- All vehicles must park in the parking lot. Loading zones near campsites are available. Please limit unloading/loading time to 15 minutes.
- Please check with the campground attendant or entrance board before setting up your camp.
- Please keep family pets on a leash at all times.
- Please use the stove or fire ring provided.
- Use only dead and down wood for your campfires.
- Make sure your fire is dead out before leaving.
- Check out time is 1:00 p.m.

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Forest Service
 Pacific Southwest Region

Eldorado National Forest
 Pacific Ranger District



GERLE CREEK CAMPGROUND

ELDORADO NATIONAL FOREST



DISTRICT: Pacific Ranger District

LOCATION: 23 miles east of Placerville on Highway 50 then 24 miles north on Forest Road 3 and 3 miles north on Forest Road 33. (See map on back side.)

CAMPGROUND INFORMATION							
TOTAL NUMBER OF UNITS	TENT UNITS Spur Length 25' - 40'	TENT, TRAILER OR R.V. UNITS Spur Length 40' - 45'	2 - FAMILY UNITS	ACCESSIBILITY		FEE	
				UNITS	TOILETS		
49	3, 5, 6, 8, 9, 11, 16-23, 25, 27, 28, 32, 39, 41, 43, 45, 48, 49	1, 4, 7, 10, 12-15, 24, 26, 29-31, 33-38, 40, 42, 44, 46, 47, 50	None	See Map	1 at day use area	Yes	
CAMPGROUND FACILITIES							
VAULT OR FLUSH TOILETS	DUMP STATION NEARBY	SHOWERS	PIPED WATER	HOOK- UPS	PICNIC TABLES	GRILLS	FIRE- RINGS
Vault	On Loon Lake Rd.	No	Yes	No	Yes	Yes	Yes

RESERVATION INFORMATION

- CALL 1-877-444-6777
- Visa or Mastercard accepted.
- Some sites are available through reservation. All other sites are available on a first-come first-served basis.
- Give your Golden Age/Access Passport number when making a reservation.

ACTIVITIES/FACILITIES WITHIN 5 MILES

- Swimming
- Fishing
- Accessible fishing platform
- Boating (no motors allowed)
- Picnic Area (4 sites all accessible)
- Wheelchair accessible interpretive trail

THINGS YOU SHOULD KNOW

- The campground is generally open between May 15 and Oct. 15. These dates are affected by snowfall.
- The campground is at about 5,300' elevation.
- The fee includes 2 vehicles and 6 people per site. An additional fee will be charged for a third vehicle if the parking spur will accommodate it.
- Golden Age/Access Passports are accepted.
- Please check with the campground attendant or entrance board before setting up your camp.
- Please keep family pets on a leash at all times.
- Please use the stove or fire ring provided.
- Use only dead and down wood for your campfires.
- Make sure your fire is dead out before leaving.
- Check out time is 1:00.

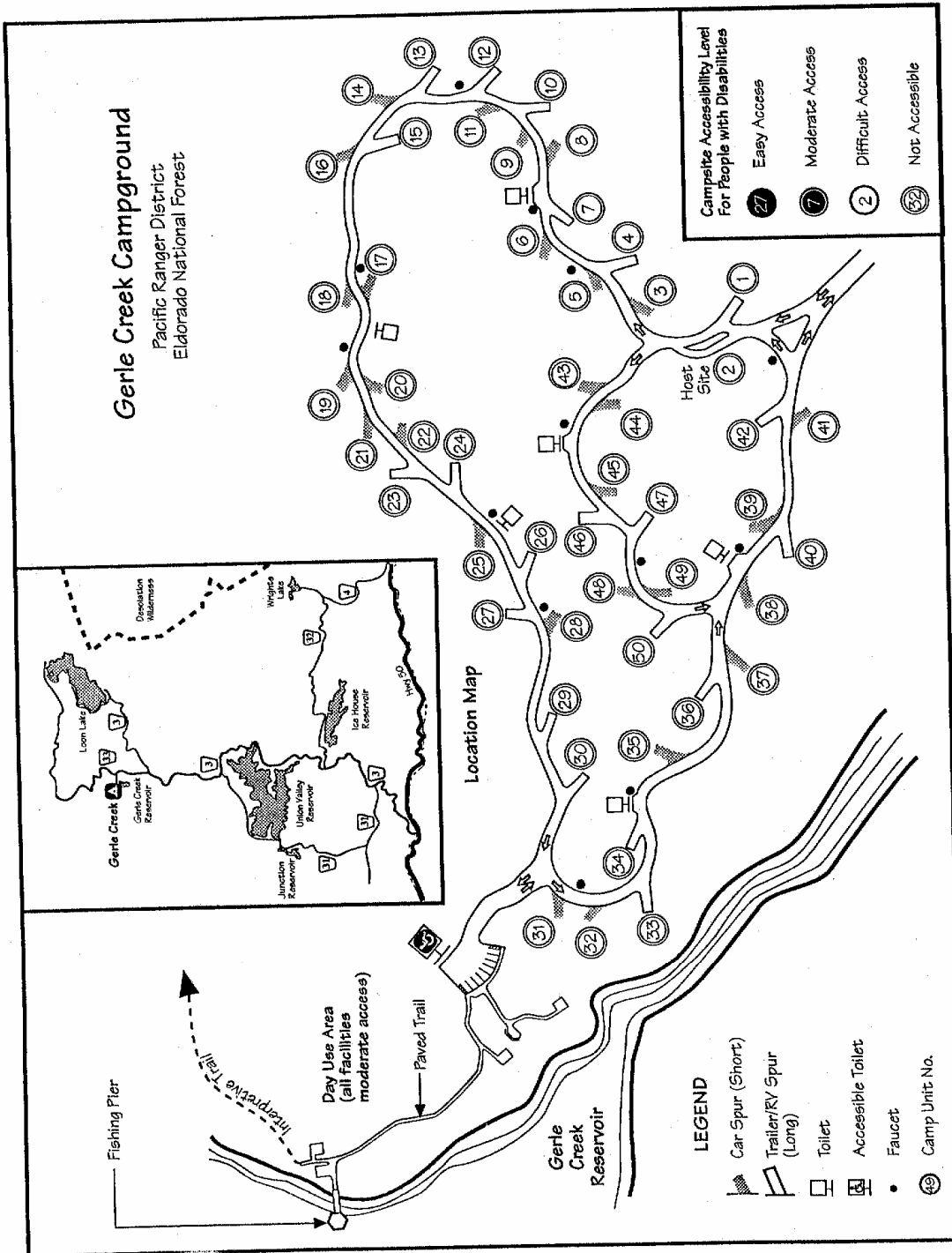
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Forest Service
 Pacific Southwest Region

Eldorado National Forest
 Pacific Ranger District



ICE HOUSE CAMPGROUND



ELDORADO NATIONAL FOREST

DISTRICT: Pacific Ranger District

LOCATION: 23 miles east of Placerville on Highway 50 then 12 miles north on Forest Road 3 (Ice House Road) then 1.5 miles east on Forest Road 32. (See map on back side).

CAMPGROUND INFORMATION							
TOTAL NUMBER OF UNITS	TENT UNITS Spur Length 25' - 40'	TENT, TRAILER OR R.V. UNITS Spur Length 40' - 50'	WALK-IN TENT UNITS	2-FAMILY UNITS	ACCESSIBILITY		FEE
					UNITS	TOILETS	
83	Sites 3, 4, 8-9, 13, 15- 17, 19, 22, 23, 25, 26, 32, 34- 37, 47, 49, 54, 56, 57, 60, 65, 66, 68, 69	Sites 2, 5-7, 10-12, 14, 18, 20, 21, 24, 27-31, 33, 38, 48, 50-53, 55, 58, 59, 61-64, 67, 70-83	Sites 39-46	Sites 51, 53, 58, 64, 73, 74	See Map	Some - See Map	Yes
CAMPGROUND FACILITIES							
VAULT OR FLUSH TOILETS	DUMP STATION NEARBY	SHOWERS	PIPED WATER	HOOK-UPS	PICNIC TABLES	GRILLS	FIRE RINGS
Vault	Yes	No	Yes	No	Yes	Yes	Yes

RESERVATION INFORMATION

- CALL 1-877-444-6777
- WEBSITE: www.reserveusa.com
- Visa, Mastercard, American Express, and Discover accepted.
- Give your Golden Age/Access Passport number when making a reservation.
- Some sites are available through reservations. All other sites are available on a first-come, first-served basis.

ACTIVITIES/FACILITIES WITHIN 5 MILES

- Swimming
- Fishing
- Boat Ramp/Boarding Dock at facility
- Picnic Area at facility
- Groceries, and cafe at Ice House Resort
- Ice House Bike Trail

THINGS YOU SHOULD KNOW

- The campground is generally open between May 1st and Nov 1st. These dates are affected by snowfall.
- Golden Age/Access Passports are accepted.
- The campground is at about 5,500' elevation.
- Sites are available on a first-come, first-served basis.
- The fee includes 2 vehicles and 6 people per site. An additional fee will be charged for a third vehicle if the parking spur will accommodate it.
- Please check with the campground attendant or entrance board before setting up your camp.
- Please keep family pets on a leash at all times.
- Please use the stove or fire ring provided.
- Use only dead and down wood for your campfires.
- Make sure your fire is dead out before leaving.
- Check out time is 1:00 p.m.

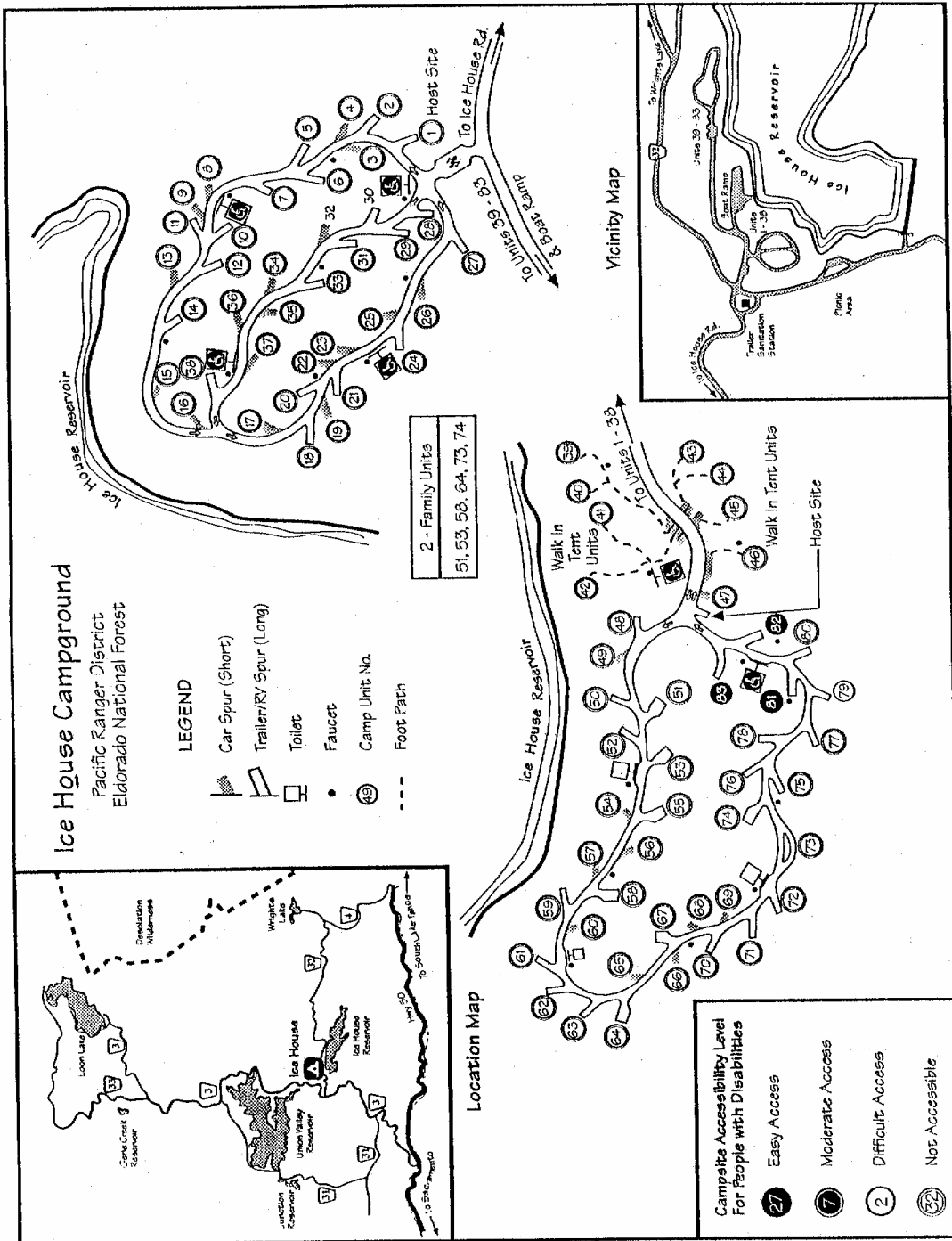
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Forest Service
 Pacific Southwest Region

Eldorado National Forest
 Pacific Ranger District



JONES FORK CAMPGROUND



ELDORADO NATIONAL FOREST

DISTRICT: Pacific Ranger District

LOCATION: 23 miles east of Placerville on Highway 50 and 13.5 miles north on Forest Road 3 (Ice House Road), near Jones Fork of Silver Creek. (See map on back side).

CAMPGROUND INFORMATION							
TOTAL NUMBER OF UNITS	TENT UNITS Spur Length 25'	TENT, TRAILER OR R.V. UNITS Max. Spur Length - 50'	2 - FAMILY UNITS	ACCESSIBILITY		FEE	
				UNITS	TOILETS		
10	7	1-6, 8-10	None	See Map	All	Yes	
CAMPGROUND FACILITIES							
VAULT OR FLUSH TOILETS	DUMP STATION NEARBY	SHOWERS	PIPED WATER	HOOK-UPS	PICNIC TABLES	GRILLS	FIRE RINGS
Vault	Near Sunset & Ice House Campgrounds	No	No	No	Yes	No	Yes

ACTIVITIES/FACILITIES WITHIN 5 MILES

- Swimming at Union Valley Reservoir
- Fishing
- Boating at Union Valley Reservoir (closest boat ramp is near Sunset Campground)
- Water-skiing at Union Valley Reservoir
- Union Valley Bike Trail (non-motorized use)
- Closest boatramp is at Sunset Campground.
- Groceries and cafe at Ice House Resort

- Sites are available on a first-come, first-served basis.
- The fee includes 2 vehicles and 6 people per site. An additional fee will be charged for a third vehicle if the parking spur will accommodate it.
- There is no piped water at the campground. Water from the reservoir is available but should be boiled before using. Water quality testing is not performed on open water sources.
- Please keep family pets on a leash at all times.
- Please use the stove or fire ring provided.
- Use only dead and down wood for your campfires.
- Make sure your fire is dead out before leaving.
- Check out time is 1:00 p.m.

THINGS YOU SHOULD KNOW

- The campground is generally open between May 15th and Oct. 15th. These dates are affected by snowfall.
- Golden Age/Access Passports are accepted.
- The campground is at about 4,900' elevation.

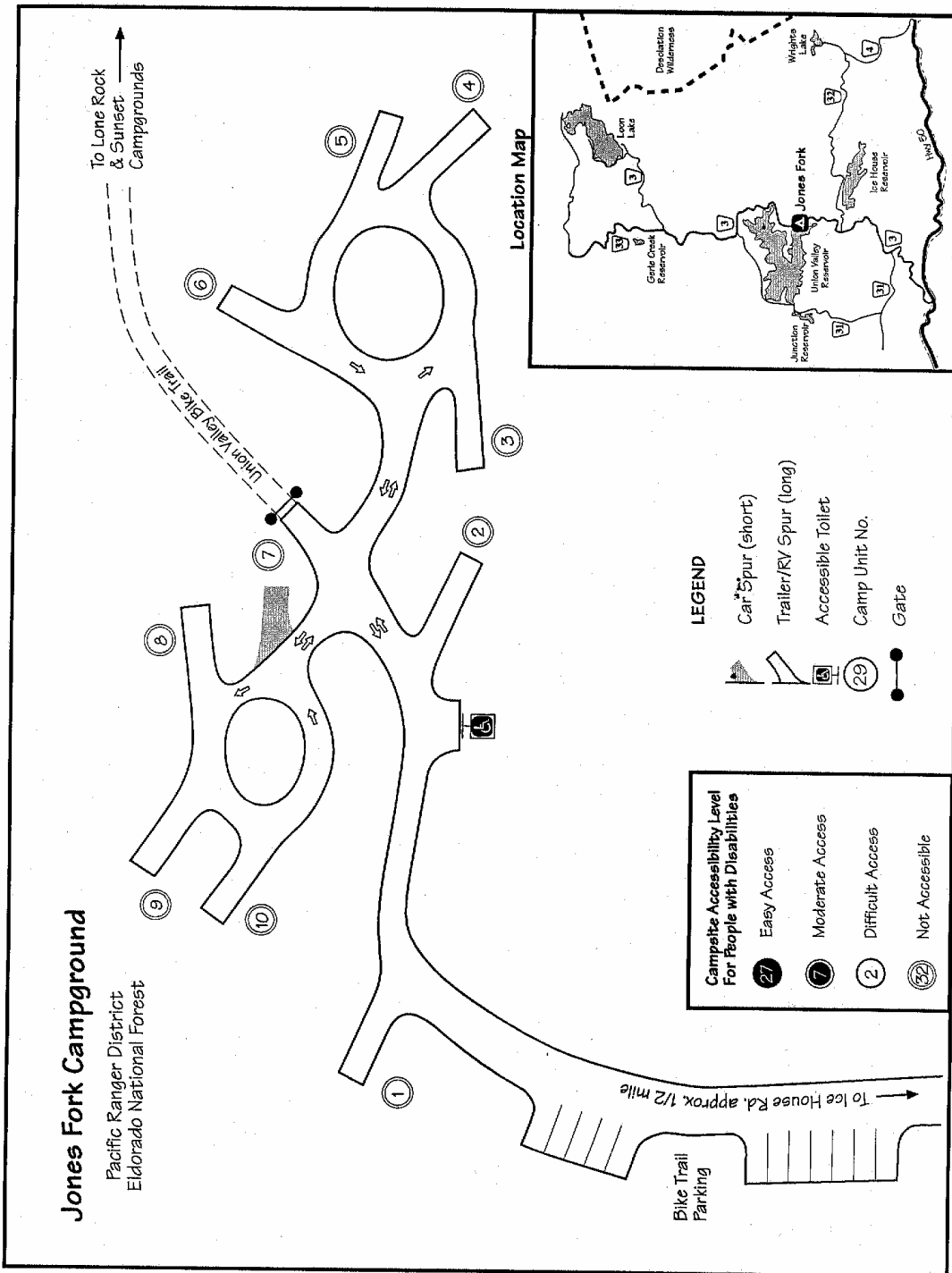
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Forest Service
 Pacific Southwest Region

Eldorado National Forest
 Pacific Ranger District



LOON LAKE BOAT RAMP

ELDORADO NATIONAL FOREST



DISTRICT: Pacific Ranger District

LOCATION: 23 miles east of Placerville on Highway 50 and 29 miles north on Forest Road 3 (Ice House Road). (See map on back side).

CAMPGROUND INFORMATION							
TOTAL NUMBER OF UNITS	TENT UNITS	R.V. UNITS			ACCESSIBILITY		FEE
					UNITS	TOILETS	
15	None	All			See Map	All	Yes
CAMPGROUND FACILITIES							
VAULT OR FLUSH TOILETS	DUMP STATION NEARBY	SHOWERS	PIPED WATER	HOOK-UPS	PICNIC TABLES	GRILLS	FIRE RINGS
Vault	Yes	No	Yes	No	No	No	No

ACTIVITIES/FACILITIES WITHIN 5 MILES

- Swimming
- Fishing
- Boat Ramp/Loading Dock
- Picnic Area (5 Sites) at facility
- Hiking in Desolation Wildemess (**permits required for both day use and overnight use. Overnight permits are only available at the Eldorado Information Center on Highway 50, 5 ½ miles east of Placerville.**)

THINGS YOU SHOULD KNOW

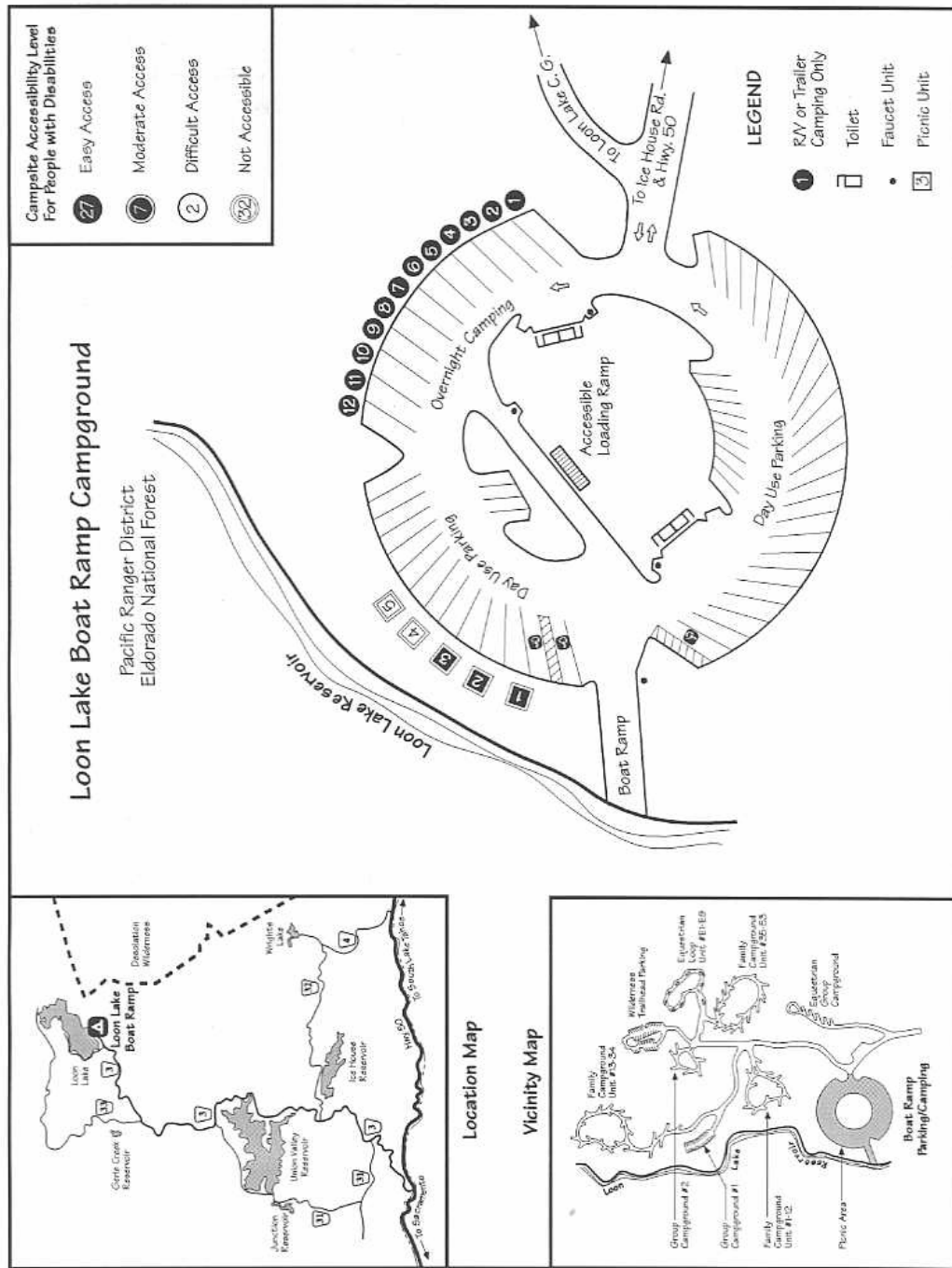
- No launch fee.
- The campground is generally open between June 15th and Oct. 15th. These dates are affected by snowfall.
- Golden Age/Access Passports are accepted for camping.
- The campground is at about 6,500' elevation.
- Sites are available on a first-come, first-served basis.
- No campfires are allowed. Barbeques are O.K.
- Piped water is available from a central hydrant.
- Please check with the campground attendant or entrance board before setting up your camp.
- Please keep family pets on a leash at all times.
- Check out time is 1:00 p.m.

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**Forest Service
 Pacific Southwest Region**

Eldorado National Forest
 Pacific Ranger District



LOON LAKE CAMPGROUND

ELDORADO NATIONAL FOREST



DISTRICT: Pacific Ranger District

LOCATION: 23 miles east of Placerville on Highway 50 and 29 miles north on Forest Road 3. (See map on back side.)

CAMPGROUND INFORMATION							
TOTAL NUMBER OF UNITS	TENT UNITS Spur Length 25' - 40'	TENT, TRAILER OR R.V. UNITS Spur Length 40' - 50'	2 - FAMILY UNITS	EQUES- TRIAN UNITS	ACCESSIBILITY		FEE
					UNITS	TOILETS	
53	3, 5, 6, 9, 12, 14, 18, 20, 23, 24, 26, 27, 31-34, 37, 45-47, 50, 53	(1, 2, 4, 7, 8, 10, 11, 13, 15-17, 19, 21, 22, 25, 28-30)**, 35, 36, 38-44, 48, 49, 51, 52 **Max. Spur Length 40'	43	E1 - E9	See Map	Some	Yes
CAMPGROUND FACILITIES							
VAULT OR FLUSH TOILETS	DUMP STATION NEARBY	SHOWERS	PIPED WATER	HOOK-UPS	PICNIC TABLES	GRILLS	FIRE-RINGS
Vault	Yes	No	Yes	No	Yes	Yes	Yes

RESERVATION INFORMATION

- CALL 1-877-444-6777
- Visa or Mastercard accepted.
- Some sites are available through reservation. All other sites are available on a first-come first-served basis.
- Give your Golden Age/Access Passport number when making a reservation.

ACTIVITIES/FACILITIES WITHIN 5 MILES

- Swimming
- Fishing
- Boat ramp
- Picnic Area (5 sites)
- Hiking in Desolation Wilderness (permits required for both day use and overnight use).

THINGS YOU SHOULD KNOW

- The campground is generally open between June 15 and Oct. 15. These dates are affected by snowfall.
- The campground is at about 6,500' elevation.
- The fee includes 2 vehicles and 6 people per site. An additional fee will be charged for a third vehicle if the parking spur will accommodate it.
- Golden Age/Access Passports are accepted.
- Please check with the campground attendant or entrance board before setting up your camp.
- Please keep family pets on a leash at all times.
- Please use the stove or fire ring provided.
- Use only dead and down wood for your campfires.
- Make sure your fire is dead out before leaving.
- Check out time is 1:00.

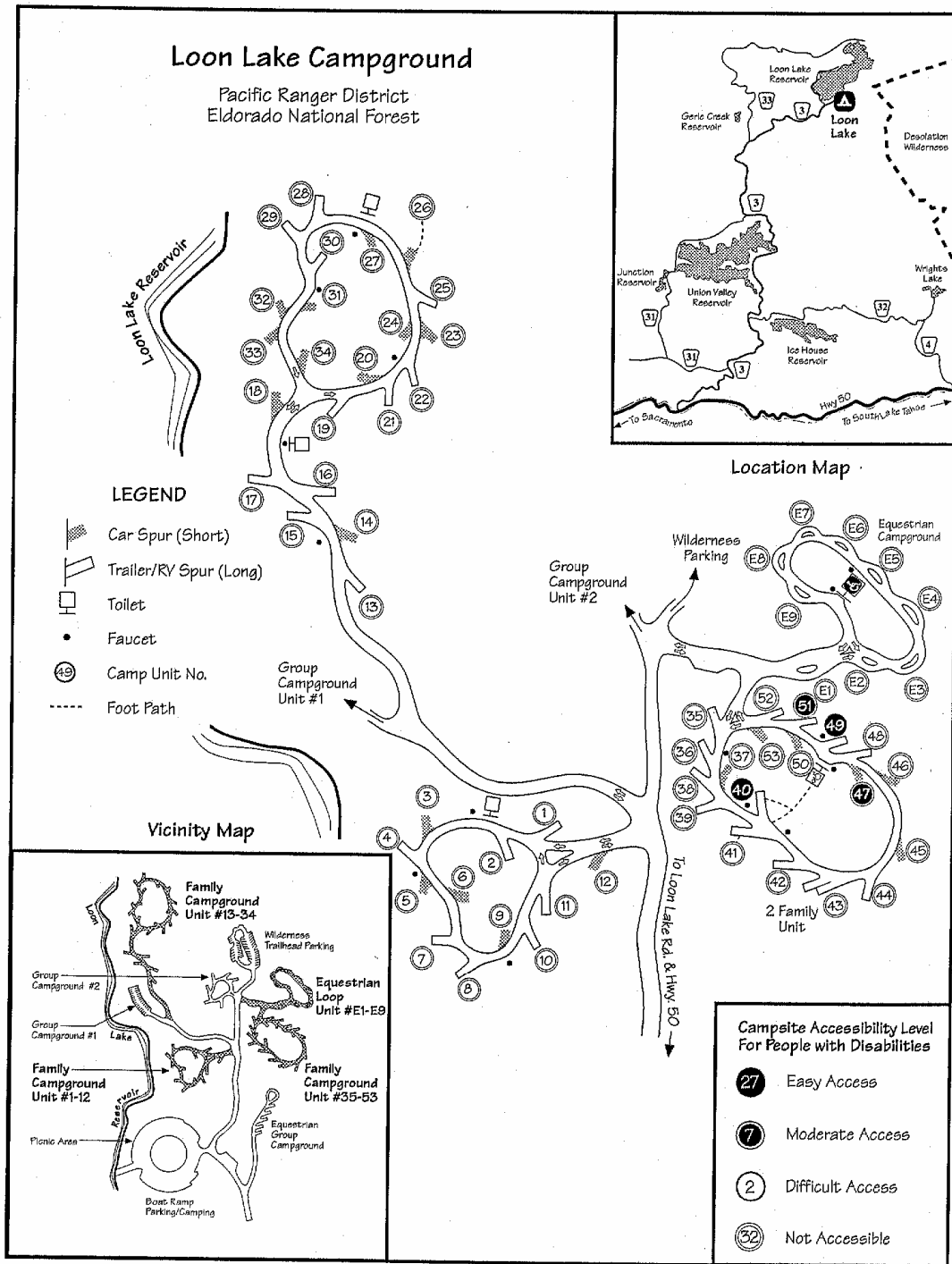
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Forest Service
 Pacific Southwest Region

Eldorado National Forest
 Pacific Ranger District



LOON LAKE GROUP CAMPGROUND

ELDORADO NATIONAL FOREST



DISTRICT: Pacific Ranger District
LOCATION: 23 miles east of Placerville on Highway 50 and 29 miles north on Forest Road 3 (Ice House Road). See map on back side.

CAMPGROUND INFORMATION							
GROUP CAMPGROUND #1	GROUP CAMPGROUND #2	ACCESSIBILITY		RESERVATION REQUIRED	FEE		
		UNITS	TOILETS				
10 Walk-In Tent Units 50 People Maximum	6 Tent, Trailer or R.V. Units 35 People Maximum	See Map	All	Yes	Yes		
CAMPGROUND FACILITIES							
VAULT OR FLUSH TOILETS	DUMP STATION NEARBY	SHOWERS	PIPED WATER	HOOK-UPS	PICNIC TABLES	GROUP GRILLS	FIRE RINGS
Vault	Yes	No	Yes	No	Yes	Yes	Yes

RESERVATION INFORMATION

- CALL 1-877-444-6777
- Web site: www.reserveUSA.com
- Visa, MasterCard, American Express, and Discover accepted
- Golden Age/Access Passports **do not apply** to Group facilities.

ACTIVITIES/FACILITIES WITHIN 5 MILES

- Swimming
- Fishing
- Picnic Area (5 sites)
- Boat Ramp/Boarding Dock
- Hiking
- Horseback Riding

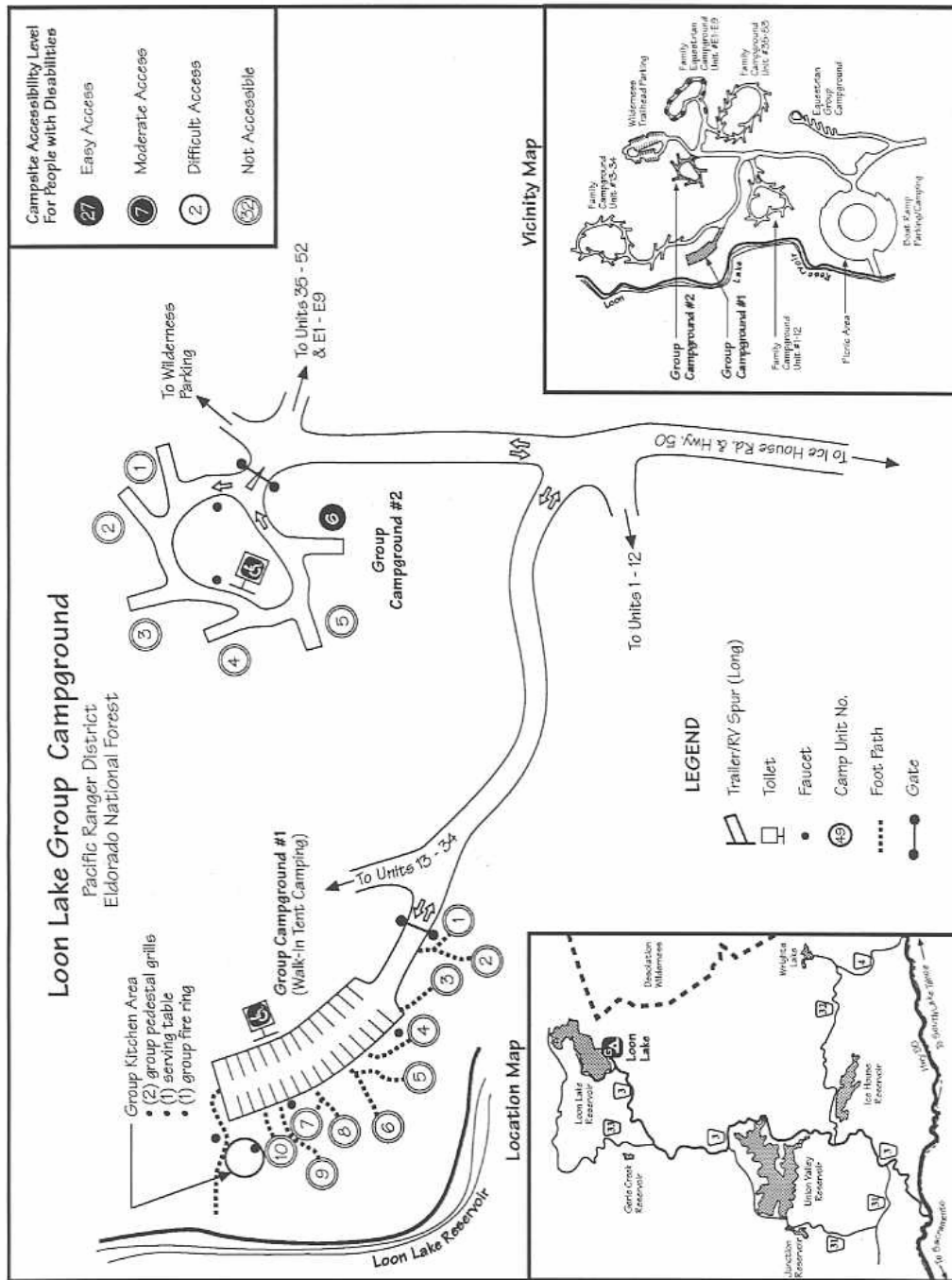
THINGS YOU SHOULD KNOW

- The campground is generally open between June 15th and Oct. 15th. These dates are affected by snowfall.
- The campground is at about 6,500' elevation.
- Please keep family pets on a leash at all times.
- Please use the stove or fire ring provided.
- Use only dead and down wood for your campfires.
- Make sure your fire is dead out before leaving.
- Check out time is 1:00 p.m.
- Desolation Wilderness (**Permits required for both day use and overnight use. Overnight permits are available only at the Eldorado Information Center on Highway 50, 5 ½ miles east of Placerville.**)

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Eldorado National Forest
 Pacific Ranger District



NORTHSHORE CAMPGROUND



ELDORADO NATIONAL FOREST

DISTRICT: Pacific Ranger District

LOCATION: 23 miles east of Placerville on Highway 50 and 31 miles north on Forest Road 3 (Ice House Road). (See map on back side).

CAMPGROUND INFORMATION							
TOTAL NUMBER OF UNITS	TENT, TRAILER OR R.V. UNITS	2 – FAMILY UNITS	ACCESSIBILITY		FEE		
			UNITS	TOILETS			
15	Sites 1 – 15	None	See Map	See Map	Yes		
CAMPGROUND FACILITIES							
VAULT OR FLUSH TOILETS	DUMP STATION NEARBY	SHOWERS	PIPED WATER	HOOK-UPS	PICNIC TABLES	GRILLS	FIRE RINGS
Vault	Yes	No	No	No	Yes	Yes	Yes

ACTIVITIES/FACILITIES WITHIN 5 MILES

- Swimming
- Fishing
- Boat Ramp near Loon Lake Campground
- Picnic Area (5 sites) at the Loon Lake Boat Ramp
- Hiking in Desolation Wilderness (**permits required for both day use and overnight use. Overnight permits are only available at the Eldorado Information Center on Highway 50, 5 ½ miles east of Placerville.**)

THINGS YOU SHOULD KNOW

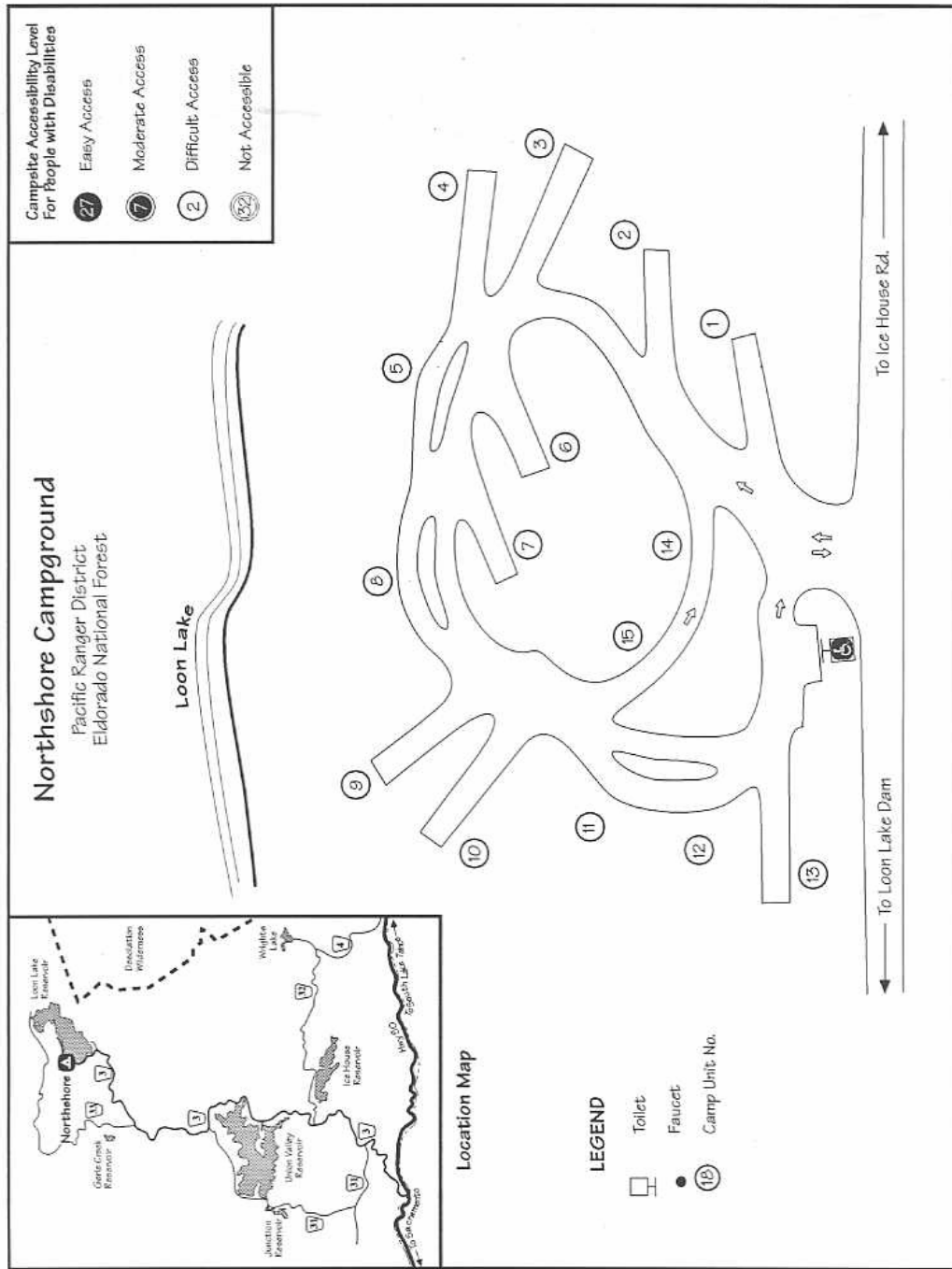
- The campground is generally open between June 15th and Oct. 15th. These dates are affected by snowfall.
- Golden Age/Access Passports are accepted.

- The campground is at about 6,400' elevation.
- Sites are available on a first-come, first-served basis.
- The fee includes 2 vehicles and 6 people per site. An additional fee will be charged for a third vehicle if the parking spur will accommodate it.
- There is no piped water available at the campground. Lake water is available close by but should be boiled before using. Water quality testing is not performed on open water sources.
- Please keep family pets on a leash at all times.
- Please use the stove or fire ring provided.
- Use only dead and down wood for your campfires.
- Make sure your fire is dead out before leaving.
- Check out time is 1:00 PM.

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Eldorado National Forest
 Pacific Ranger District



NORTHWIND CAMPGROUND



ELDORADO NATIONAL FOREST

DISTRICT: Pacific Ranger District

LOCATION: 23 miles east of Placerville on Highway 50 then 11 miles north on Forest Road 3 (Ice House Road), then 2 miles east on Forest Road 32. (See map on back side).

CAMPGROUND INFORMATION							
TOTAL NUMBER OF UNITS	TENT, TRAILER OR R.V. UNITS Spur Length 40' – 50'	2 – FAMILY UNITS	ACCESSIBILITY		FEE		
			UNITS	TOILETS			
9	Sites 1 - 9	Sites 1 & 2	See Map	All	Yes		
CAMPGROUND FACILITIES							
VAULT OR FLUSH TOILETS	DUMP STATION NEARBY	SHOWERS	PIPED WATER	HOOK-UPS	PICNIC TABLES	GRILLS	FIRE RINGS
Vault	Near Ice House C.G.	No	No	No	Yes	Yes	Yes

ACTIVITIES/FACILITIES WITHIN 5 MILES

- Swimming
- Fishing
- Picnic Area near Ice House Campground
- Boat Ramp near Ice House Campground
- Ice House Bike Trail
- Groceries and cafe at Ice House Resort

THINGS YOU SHOULD KNOW

- The campground is generally open between may 15th and Nov 1st. These dates are affected by snowfall.
- Golden Age/Access Passports are accepted.
- The campground is at about 5,500' elevation.

- Sites are available on a first-come, first-served basis.
- The fee includes 2 vehicles and 6 people per site. An additional fee will be charged for a third vehicle if the parking spur will accommodate it.
- There is no piped water available at the campground. Lake water is available close by but should be boiled before using. Water quality testing is not performed on open water sources.
- Please keep family pets on a leash at all times.
- Please use the stove or fire ring provided.
- Use only dead and down wood for your campfires.
- Make sure your fire is dead out before leaving.
- Check out time is 1:00 p.m.

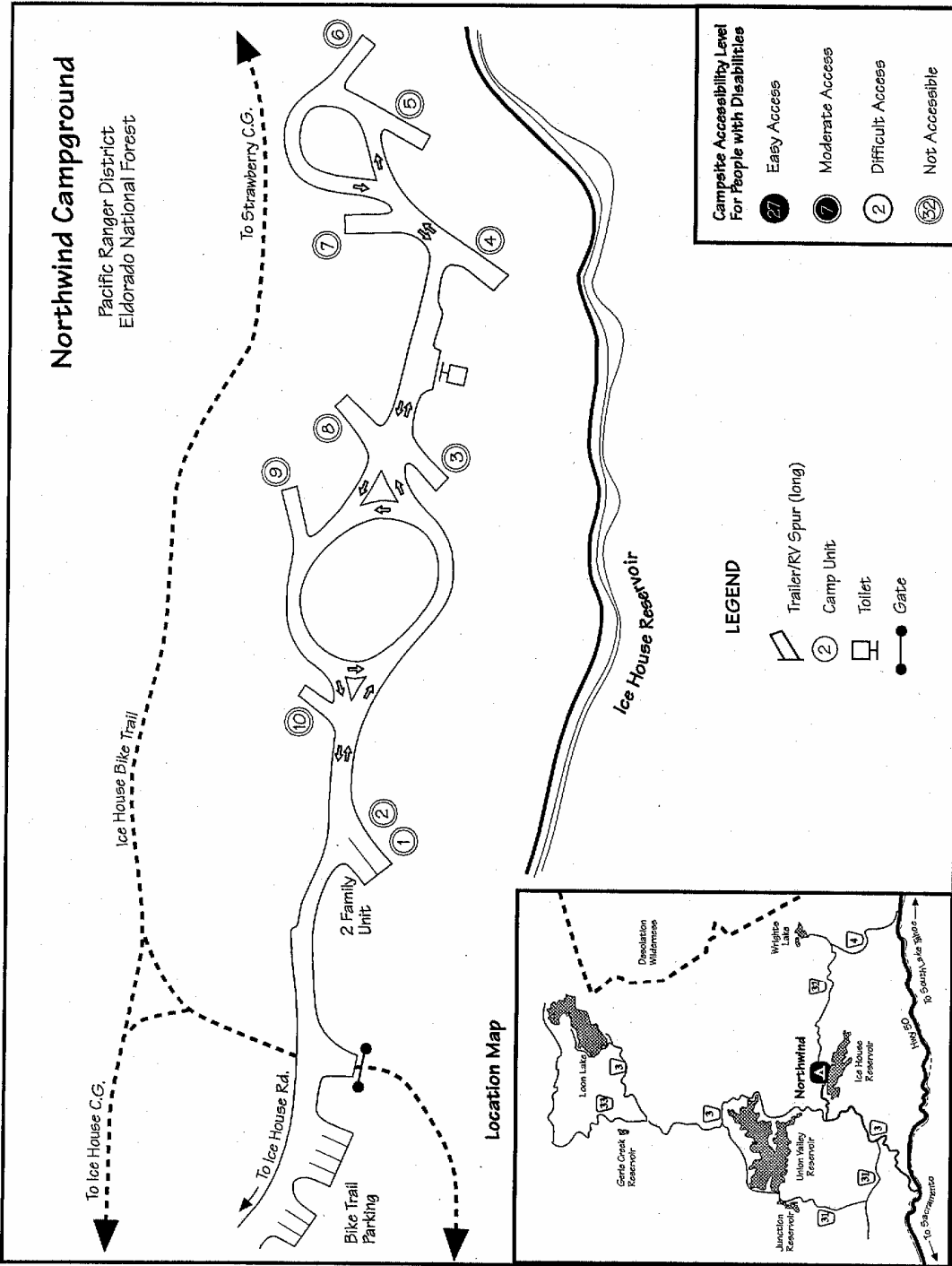
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Forest Service
 Pacific Southwest Region

Eldorado National Forest
 Pacific Ranger District



PLEASANT CAMPGROUND

ELDORADO NATIONAL FOREST



DISTRICT: Pacific Ranger District

LOCATION: 23 miles east of Placerville on Highway 50 then 29 miles north on Forest road 3 (Ice House Road), and 4 miles east by foot trail or 3 miles by boat across Loon Lake. (See map on back side).

CAMPGROUND INFORMATION							
TOTAL NUMBER OF UNITS	TENT UNITS		2 – FAMILY UNITS	ACCESSIBILITY		FEE	
				UNITS	TOILETS		
10	Sites 1 - 10		Sites None	See Map	None	No	
CAMPGROUND FACILITIES							
VAULT OR FLUSH TOILETS	DUMP STATION NEARBY	SHOWERS	PIPED WATER	HOOK-UPS	PICNIC TABLES	GRILLS	FIRE RINGS
Vault	Yes	No	No	No	Yes	Yes	Yes

ACTIVITIES/FACILITIES WITHIN 5 MILES

- Swimming
- Fishing
- Picnic Area at Loon Lake Boat Ramp
- Hiking in Desolation Wilderness (permits required for both day use and overnight use. Overnight permits are only available at the Eldorado Information Center on Highway 50, 5 ½ miles east of Placerville).

THINGS YOU SHOULD KNOW

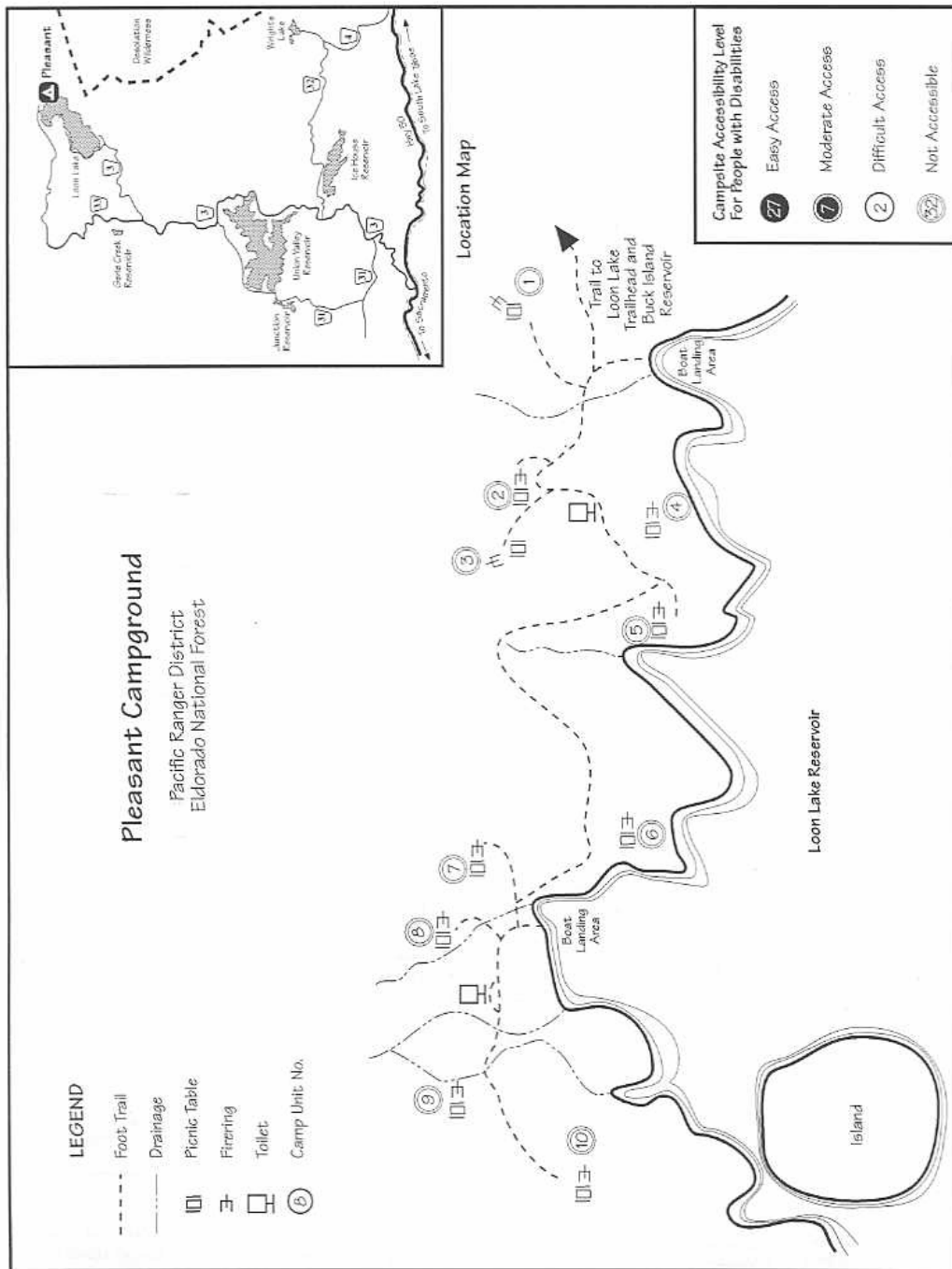
- The campground is only accessible by boat or trail.
- The campground is generally open between June 15th and Oct. 15th. These dates are affected by snowfall.

- The campground is at about 6,400' elevation.
- Sites are available on a first-come, first-served basis.
- There is no piped water available at the campground. Lake and stream water are available close by but should be boiled before using. Water quality testing is not performed on open water sources.
- Please keep family pets on a leash at all times.
- Please use the stove or fire ring provided.
- Use only dead and down wood for your campfires.
- Make sure your fire is dead out before leaving.

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Eldorado National Forest
 Pacific Ranger District



RED FIR GROUP CAMPGROUND



ELDORADO NATIONAL FOREST

DISTRICT: Pacific Ranger District

LOCATION: 23 miles east of Placerville on Highway 50 and 29 miles north on Forest Road 3 (Ice House Road). See map on back side.

CAMPGROUND INFORMATION							
TENT UNIT (No trailers)	PARKING	ACCESSIBILITY		RESERVATION REQUIRED	FEE		
		UNITS	TOILETS				
25 People Maximum	6 Cars Maximum	See Map	All	Yes	Yes		
CAMPGROUND FACILITIES							
VAULT OR FLUSH TOILETS	DUMP STATION NEARBY	SHOWERS	PIPED WATER	HOOK-UPS	PICNIC TABLES	GROUP GRILLS	FIRE RINGS
Vault	Yes	No	Yes	No	Yes	Yes	Yes

RESERVATION INFORMATION

- CALL 1-877-444-6777
- WEBSITE: www.reserveusa.com
- Visa, MasterCard, American Express, and Discover accepted
- Golden Age/Access Passports do not apply to Group facilities.

- OHV Use (the campground is located near the Rubicon Jeep Trail, which is a popular 4-WD run. If you intend to go "off road", please consult the Eldorado National Forest Vehicle Travel Plan.

ACTIVITIES/FACILITIES WITHIN 5 MILES

- Swimming
- Fishing
- Boat Ramp near Loon Lake Campground
- Hiking in Desolation Wilderness (permits required for both day use and overnight use. Overnight permits are only available at the Eldorado Information Center on Highway 50, 5 ½ miles east of Placerville).

THINGS YOU SHOULD KNOW

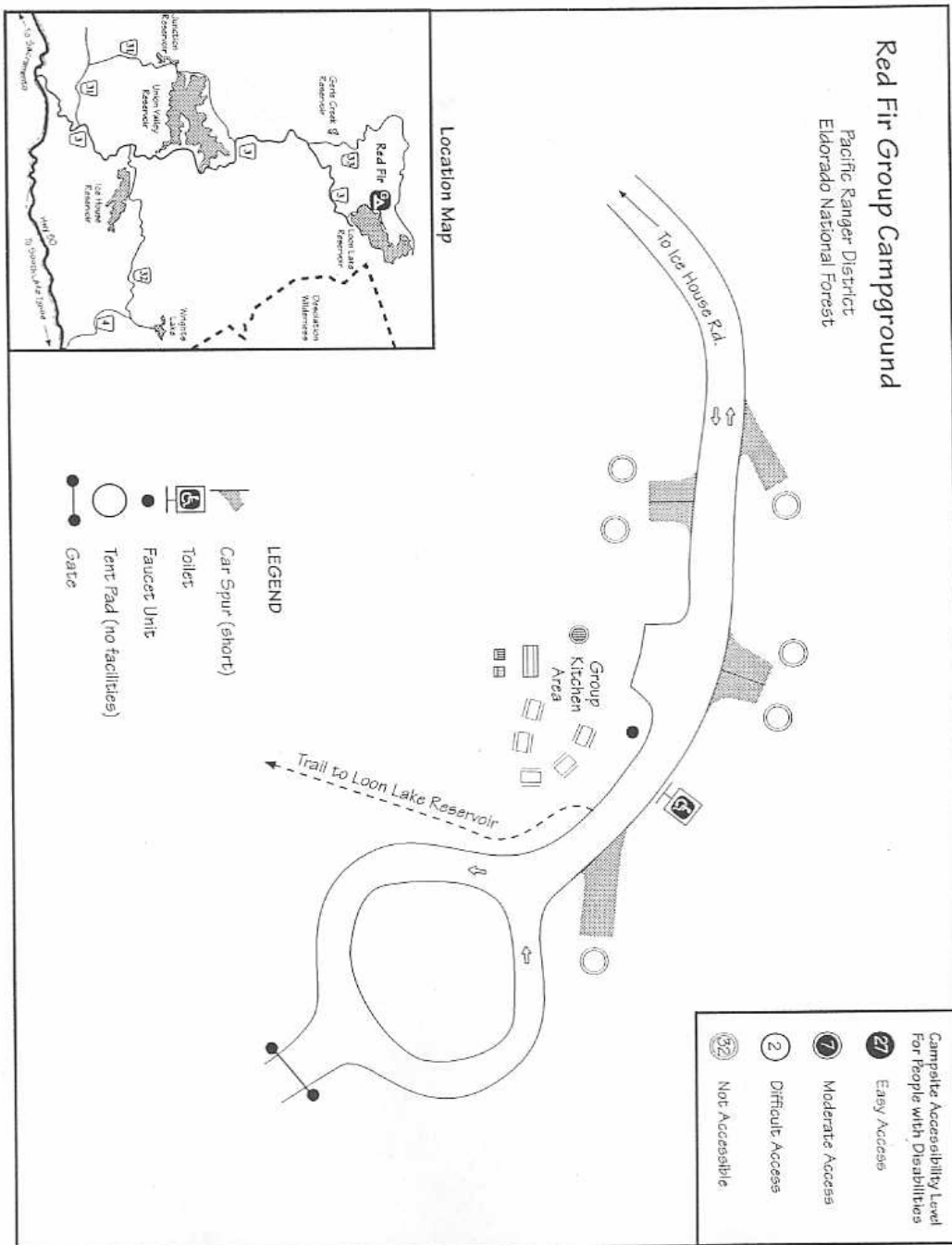
- Tents only – No trailers or motor homes.
- The campground is generally open between June 15th and Oct. 15. These dates are affected by snowfall.
- The campground is at about 6,400' elevation.
- Please keep family pets on a leash at all times.
- Please use the stove or fire ring provided.
- Use only dead and down wood for your campfires.
- Make sure your fire is dead out before leaving.
- Check out time is 1:00 p.m.

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**Forest Service
 Pacific Southwest Region**

Eldorado National Forest
 Pacific Ranger District



STRAWBERRY POINT CAMPGROUND



ELDORADO NATIONAL FOREST

DISTRICT: Pacific Ranger District

LOCATION: 23 miles east of Placerville on Highway 50 then 11 miles north on Forest Road 3 (Ice House Road) and 3 miles east on Forest Road 32. (See map on back side).

CAMPGROUND INFORMATION							
TOTAL NUMBER OF UNITS	TENT, TRAILER OR R.V. UNITS Maximum Spur Length 50'		2 - FAMILY UNITS	ACCESSIBILITY		FEE	
				UNITS	TOILETS		
10	Sites 1 - 10		None	See Map	All	Yes	
CAMPGROUND FACILITIES							
VAULT OR FLUSH TOILETS	DUMP STATION NEARBY	SHOWERS	PIPED WATER	HOOK-UPS	PICNIC TABLES	GRILLS	FIRE RINGS
Vault	Near Ice House C.G.	No	No	No	Yes	Yes	Yes

ACTIVITIES/FACILITIES WITHIN 5 MILES

- Swimming
- Fishing
- Picnic Area near Ice House Campground
- Ice House Bike Trail
- Boat Ramp near Ice House Campground
- Groceries and cafe at Ice House Resort

THINGS YOU SHOULD KNOW

- The campground is generally open between may 1st and Nov. 1st. These dates are affected by snowfall.
- Golden Age/Access Passports are accepted.
- The campground is at about 5,500' elevation.

- Sites are available on a first-come, first-served basis.
- The fee includes 2 vehicles and 6 people per site. An additional fee will be charged for a third vehicle if the parking spur will accommodate it.
- There is no piped water available at the campground. Lake water is available close by but should be boiled before using. Water quality testing is not performed on open water sources.
- Please keep family pets on a leash at all times.
- Please use the stove or fire ring provided.
- Use only dead and down wood for your campfires.
- Make sure your fire is dead out before leaving.
- Check out time is 1:00 p.m.

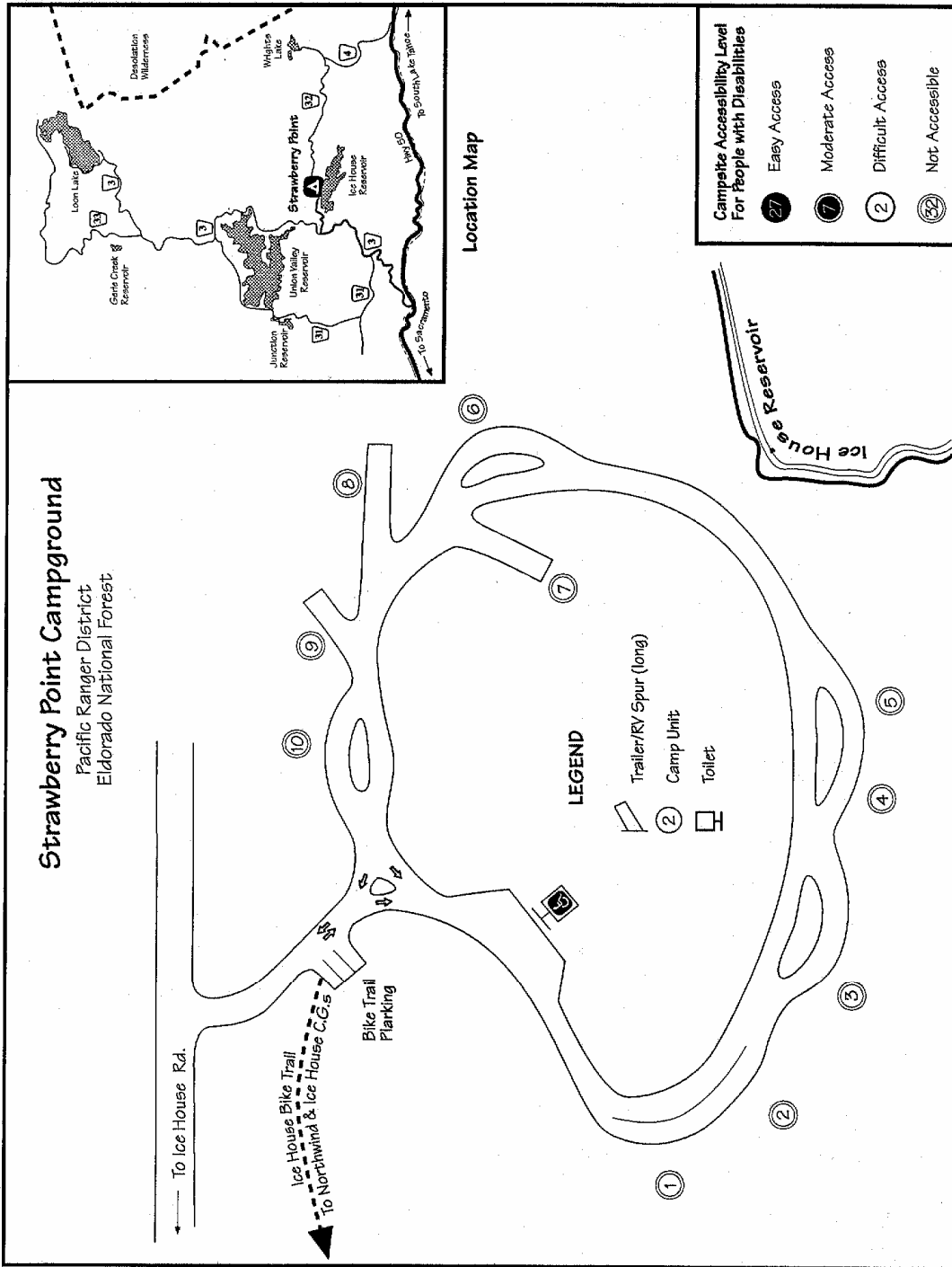
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Forest Service
 Pacific Southwest Region

Eldorado National Forest
 Pacific Ranger District



SUNSET CAMPGROUND

ELDORADO NATIONAL FOREST



DISTRICT: Pacific Ranger District

LOCATION: 23 miles east of Placerville on Highway 50 then 16 miles north on Forest Road 3 (Ice House Road). (See map on back side).

CAMPGROUND INFORMATION							
TOTAL NUMBER OF UNITS	TENT UNITS Spur Length 25' - 40'	TENT, TRAILER OR R.V. UNITS Spur Length 40' - 50'	2 FAMILY UNITS	ACCESSIBILITY		FEE	
				UNITS	TOILETS		
131	Sites 11, 13, 17, 18, 20, 22, 23, 25, 28, 33, 35-37, 39, 41, 49, 50, 52, 55, 57, 59, 61-63, 67, 68, 71, 78, 81, 83-85, 87, 88, 90, 91, 93, 96, 99-101, 103, 105- 107, 111, 112, 114, 116, 118, 121-123, 125, 127, 129	Sites 1-10, 12, 14-16, 19, 21, 24, 26, 27, 29-32, 34, 38, 40, 42-48, 51, 53, 54, 56, 58, 60, 64-66, 69, 70, 72-77, 79, 80, 82, 86, 89, 92, 94, 95, 97, 98, 102, 104, 108-110, 113, 115, 117, 119, 120, 124, 126, 128, 130, 131	None	See Map	None	Yes	
CAMPGROUND FACILITIES							
VAULT OR FLUSH TOILETS	DUMP STATION NEARBY	SHOWERS	PIPED WATER	HOOK-UPS	PICNIC TABLES	GRILLS	FIRE RINGS
Vault	Yes	No	Yes	No	Yes	Yes	Yes

RESERVATION INFORMATION

- CALL 1-877-444-6777
- WEBSITE: www.reserveUSA.com
- Visa, Mastercard, American Express, and Discover accepted
- Some sites are available through reservation. All other sites are available on a first-come, first-served basis.
- Give your Golden Age/Access Passport number when making a reservation.

ACTIVITIES/FACILITIES WITHIN 5 MILES

- Swimming
- Fishing
- Water-skiing
- Union Valley Bike Trail
- Picnic/Beach Area at Fashoda Tent Campground
- Boat Ramp/Loading Dock at facility

- Groceries, cafe, and gas available at Ice House Resort and Robbs Resort

THINGS YOU SHOULD KNOW

- The campground is generally open between May 15th and Nov. 1st. These dates are affected by snowfall.
- Golden Age/Access Passports are accepted.
- The campground is at about 4,900' elevation.
- The fee includes 2 vehicles and 6 people per site. An additional fee will be charged for a third vehicle if the parking spur will accommodate it..
- Please check with the campground attendant or entrance board before setting up your camp.
- Please keep family pets on a leash at all times.
- Please use the stove or fire ring provided.
- Use only dead and down wood for your campfires.
- Make sure your fire is dead out before leaving.
- Check out time is 1:00 p.m.

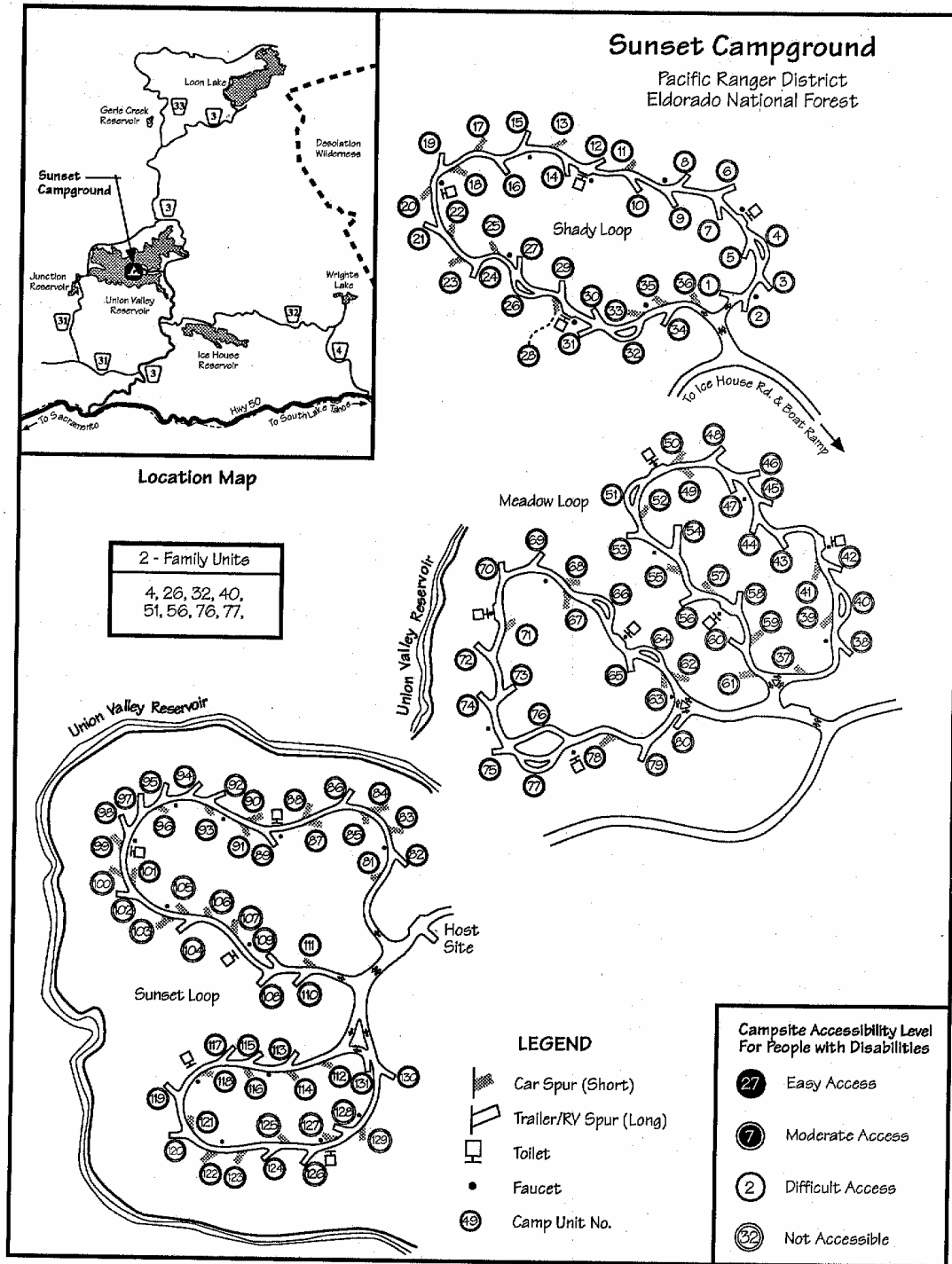
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Forest Service
 Pacific Southwest Region

Eldorado National Forest
 Pacific Ranger District



WENCH CREEK CAMPGROUND

ELDORADO NATIONAL FOREST



DISTRICT: Pacific Ranger District

LOCATION: 23 miles east of Placerville on Highway 50 and 18 miles north on Forest Road 3 (Ice House Road). (See map on back side).

CAMPGROUND INFORMATION							
TOTAL NUMBER OF UNITS	TENT UNITS Spur Length 25' - 40'	TENT, TRAILER OR R.V. UNITS Spur Length 40' - 55'	2 FAMILY UNITS	ACCESSIBILITY		FEE	
				UNITS	TOILETS		
100	Sites 3, 10, 12, 16, 23, 33, 45, 74, 75, 81, 84, 85, 90	Sites 1, 2, 4-9, 11, 13-15, 17- 22, 24-32, 34-44, 46- 73, 76-80, 82, 83, 86- 89, 91-100	None	See Map	None	Yes	
CAMPGROUND FACILITIES							
VAULT OR FLUSH TOILETS	DUMP STATION NEARBY	SHOWERS	PIPED WATER	HOOK-UPS	PICNIC TABLES	GRILLS	FIRE RINGS
Both See map	Near Yellowjacket & Sunset Campgrounds	No	Yes	No	Yes	Yes	Yes

ACTIVITIES/FACILITIES WITHIN 5 MILES

- Swimming
- Fishing
- Water-skiing
- Union Valley Bike Trail
- Picnic/Beach Area at Fashoda Tent Campground
- Boat Ramp/Loading Docks near Sunset & Yellowjacket Campgrounds
- Groceries and cafe at Ice House Resort

- The campground is at about 4,900' elevation.
- Sites are available on a first-come, first-served basis.
- The fee includes 2 vehicles and 6 people per site. An additional fee will be charged for a third vehicle if the parking spur will accommodate it.
- Please check with the campground attendant or entrance board before setting up your camp.
- Please keep family pets on a leash at all times.
- Please use the stove or fire ring provided.
- Use only dead and down wood for your campfires.
- Make sure your fire is dead out before leaving.
- Check out time is 1:00 p.m.

THINGS YOU SHOULD KNOW

- The campground is generally open between May 15th and Oct. 15th. These dates are affected by snowfall.
- Golden Age/Access Passports are accepted.

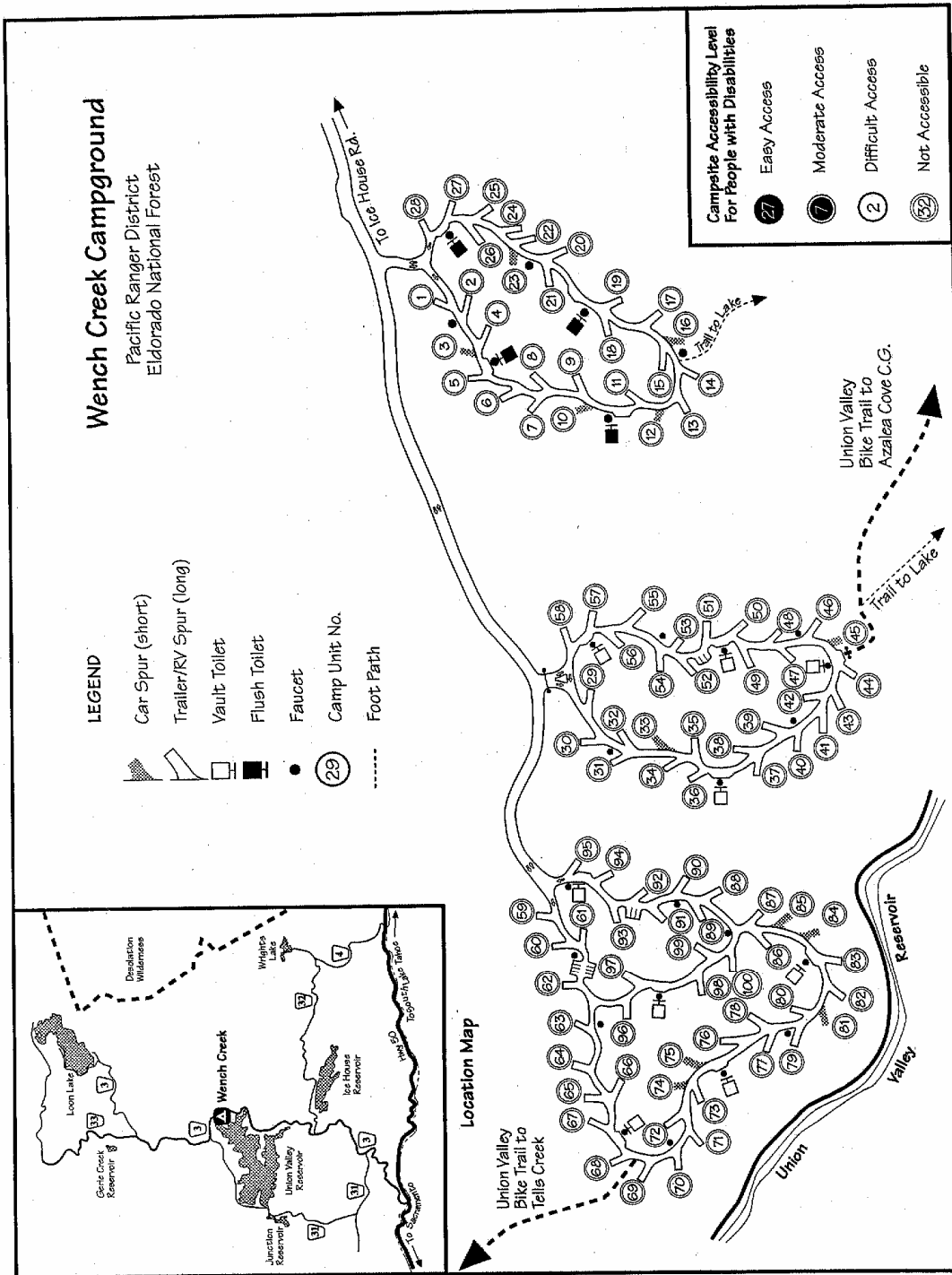
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Forest Service
 Pacific Southwest Region

Eldorado National Forest
 Pacific Ranger District



WOLF CREEK CAMPGROUND



ELDORADO NATIONAL FOREST

DISTRICT: Pacific Ranger District

LOCATION: 23 miles east of Placerville on Highway 50, then 21 miles north on Forest Road 3, and 2 miles west on Forest Road 12N78. (See map on back side.)

CAMPGROUND INFORMATION							
TOTAL NUMBER OF UNITS	TENT UNITS Spur Length - 25'	TENT/TRAILER OR R.V. UNITS Spur Length - 50'	2 - FAMILY UNITS	ACCESSIBILITY		FEE	
				UNITS	TOILETS		
41	1, 4, 6-11, 13-21, 23-27, 29-35, 37, 41	2, 3, 5, 12, 22, 28, 36, 38 - 40	33, 36, 38, 41	See Map	All	Yes	
CAMPGROUND FACILITIES							
VAULT OR FLUSH TOILETS	DUMP STATION NEARBY	SHOWERS	PIPED WATER	HOOK-UPS	PICNIC TABLES	GRILLS	FIRE-RINGS
Vault	Yes	No	No	No	Yes	Yes	Yes

RESERVATION INFORMATION

- CALL 1-877-444-6777
- Visa or Mastercard accepted.
- Some sites are available through reservation. All other sites are available on a first-come first-served basis
- Give your Golden Age/Access Passport number when making a reservation.

ACTIVITIES/FACILITIES WITHIN 5 MILES

- Swimming
- Fishing
- Picnicking
- Boat ramp
- Water-skiing
- Groceries available at Robb's Resort

THINGS YOU SHOULD KNOW

- The campground is generally open between May 15 and Oct. 15. These dates are affected by snowfall.
- The campground is at about 4,900' elevation.
- The fee includes 2 vehicles and 6 people per site. An additional fee will be charged for a third vehicle if the parking spur will accommodate it.
- Golden Age/Access Passports are accepted.
- Please check with the campground attendant or entrance board before setting up your camp.
- Please keep family pets on a leash at all times.
- Please use the stove or fire ring provided.
- Use only dead and down wood for your campfires.
- Make sure your fire is dead out before leaving.
- Check out time is 1:00.

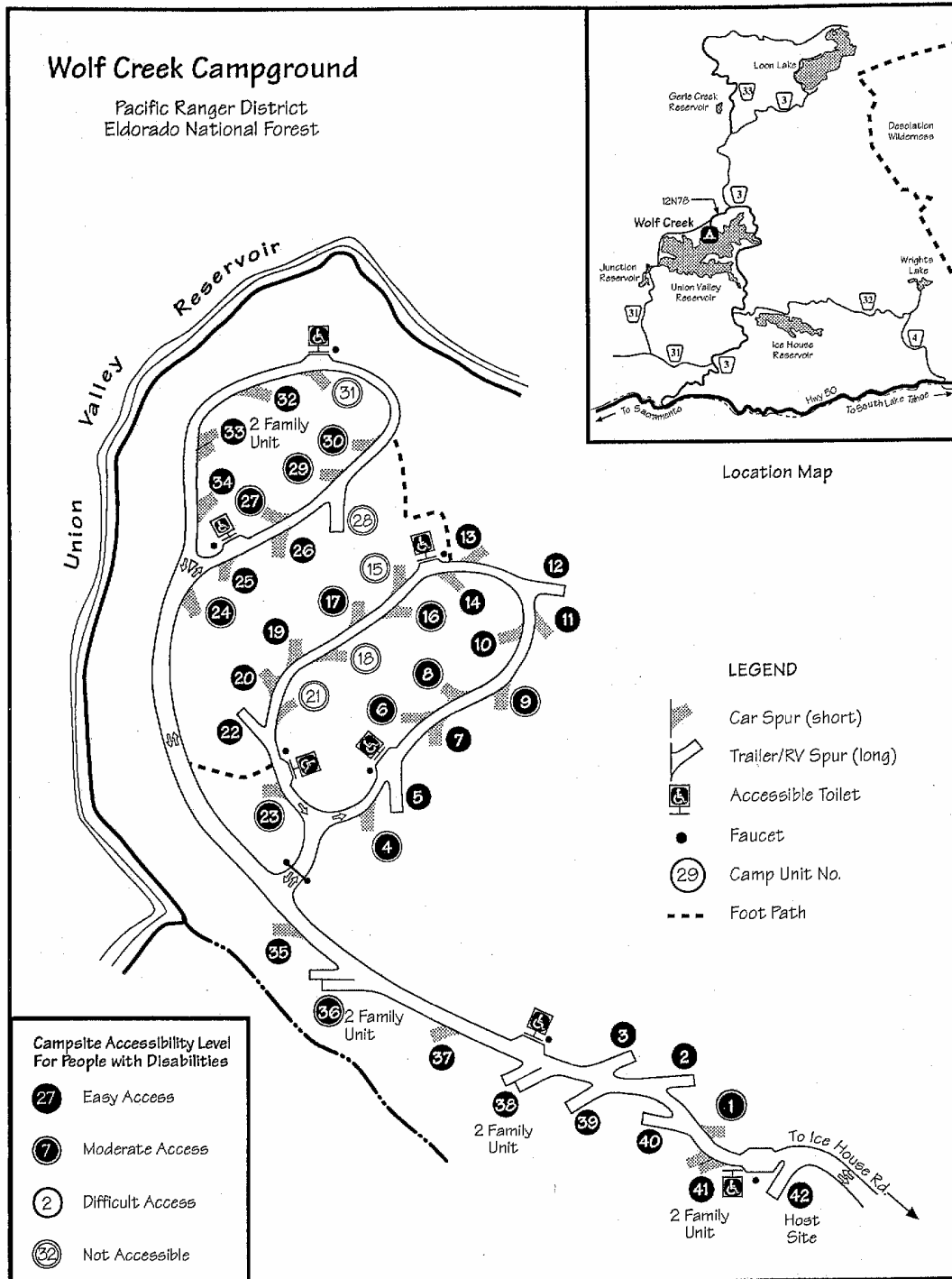
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Forest Service
 Pacific Southwest Region

Eldorado National Forest
 Pacific Ranger District



YELLOWJACKET CAMPGROUND



ELDORADO NATIONAL FOREST

DISTRICT: Pacific Ranger District

LOCATION: 23 miles east of Placerville on Highway 50, then 21 miles north on Forest Road 3, then 1 mile west on Forest Road 12N78 and 0.5 mile south on Forest Road 12N33. (See map on back side.)

CAMPGROUND INFORMATION							
TOTAL NUMBER OF UNITS	TENT UNITS Spur Length 25' - 40'	TENT, TRAILER OR R.V. UNITS Spur Length 40' - 45'	2 - FAMILY UNITS	ACCESSIBILITY		FEE	
				UNITS	TOILETS		
39	1, 7-9, 14, 20, 22, 24, 25, 33, 36	2-6, 10-13, 15-19, 21, 23, 26-32, 34, 35, 37-39	None	See Map	None	Yes	
CAMPGROUND FACILITIES							
VAULT OR FLUSH TOILETS	DUMP STATION NEARBY	SHOWERS	PIPED WATER	HOOK-UPS	PICNIC TABLES	GRILLS	FIRE-RINGS
Both See Map	Yes	No	Yes	No	Yes	Yes	Yes

RESERVATION INFORMATION

- CALL 1-877-444-6777
- Visa or Mastercard accepted.
- Some sites are available through reservation. All other sites are available on a first-come first-served basis.
- Give your Golden Age/Access Passport number when making a reservation.

ACTIVITIES/FACILITIES WITHIN 5 MILES

- Swimming
- Fishing
- Picnicking
- Boat ramp
- Water-skiing
- Groceries available at Robb's Resort

THINGS YOU SHOULD KNOW

- The campground is generally open between May 15 and Oct. 15. These dates are affected by snowfall.
- The campground is at about 4,900' elevation.
- The fee includes 2 vehicles and 6 people per site. An additional fee will be charged for a third vehicle if the parking spur will accommodate it.
- Golden Age/Access Passports are accepted.
- Please check with the campground attendant or entrance board before setting up your camp.
- Please keep family pets on a leash at all times.
- Please use the stove or fire ring provided.
- Use only dead and down wood for your campfires.
- Make sure your fire is dead out before leaving.
- Check out time is 1:00.

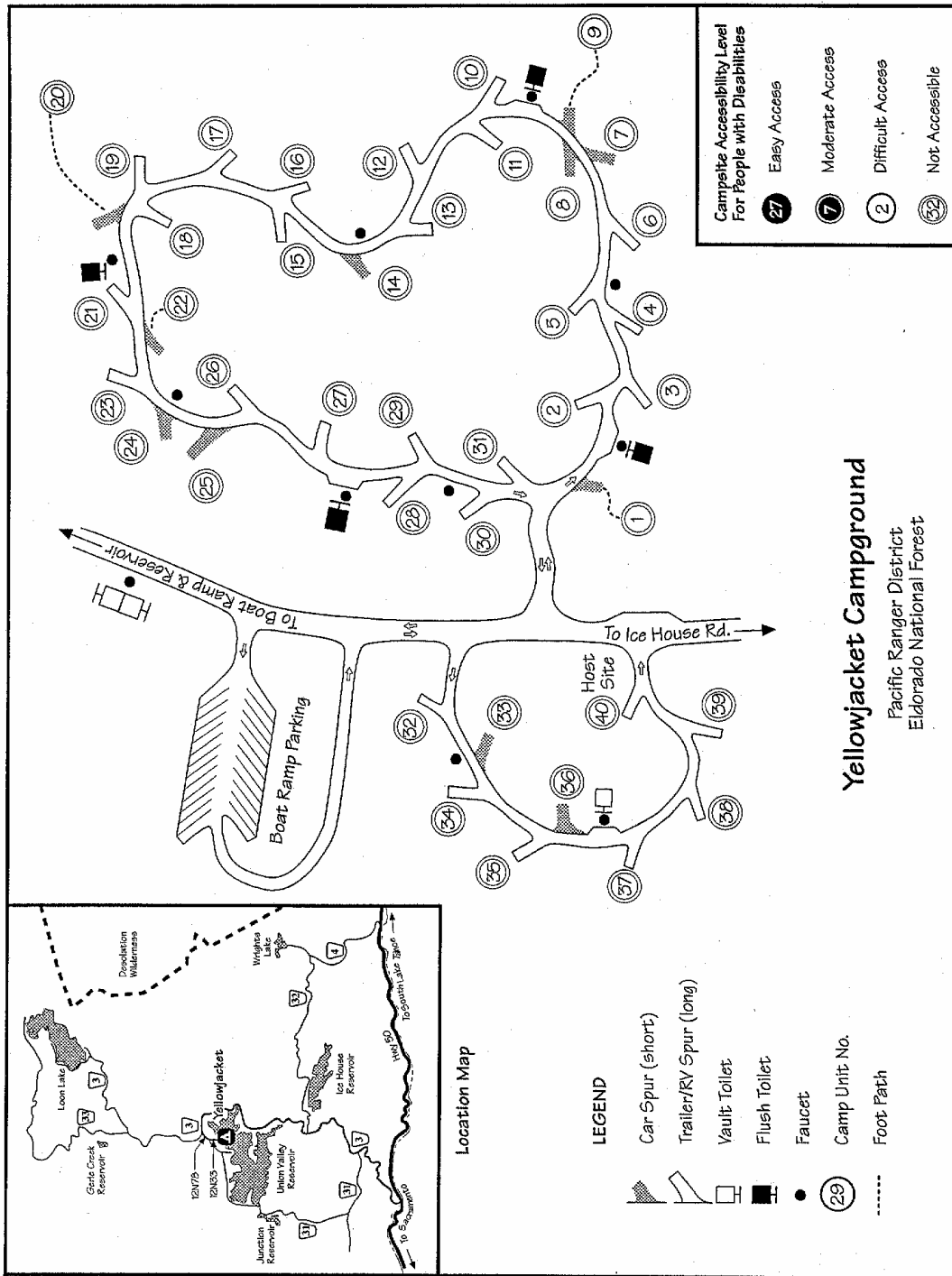
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Forest Service
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APPENDIX B

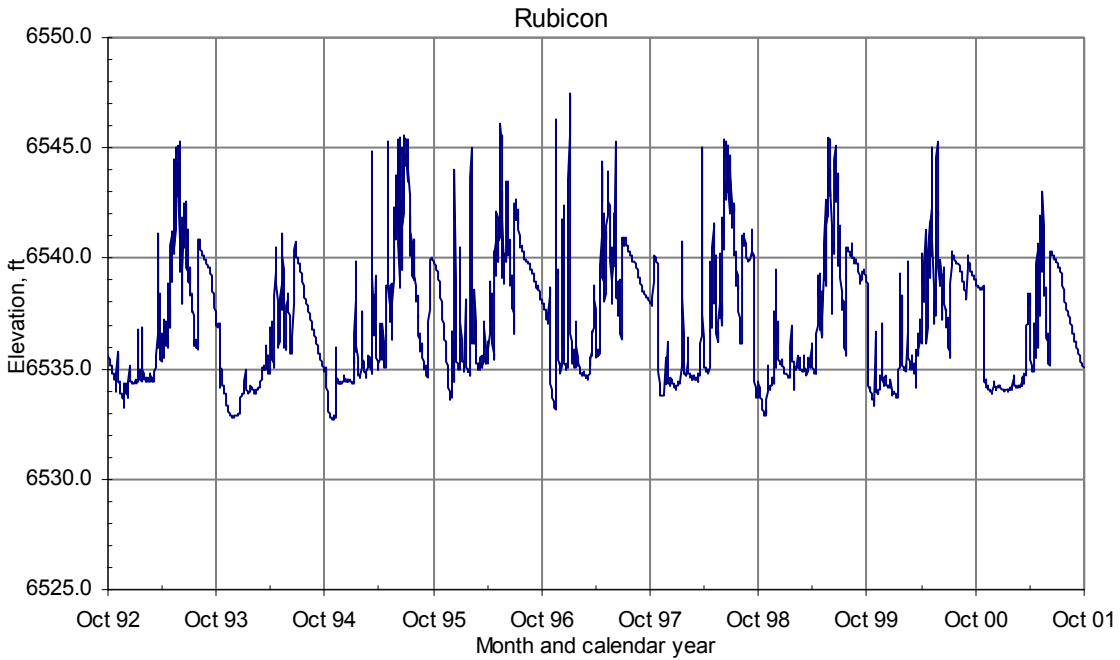
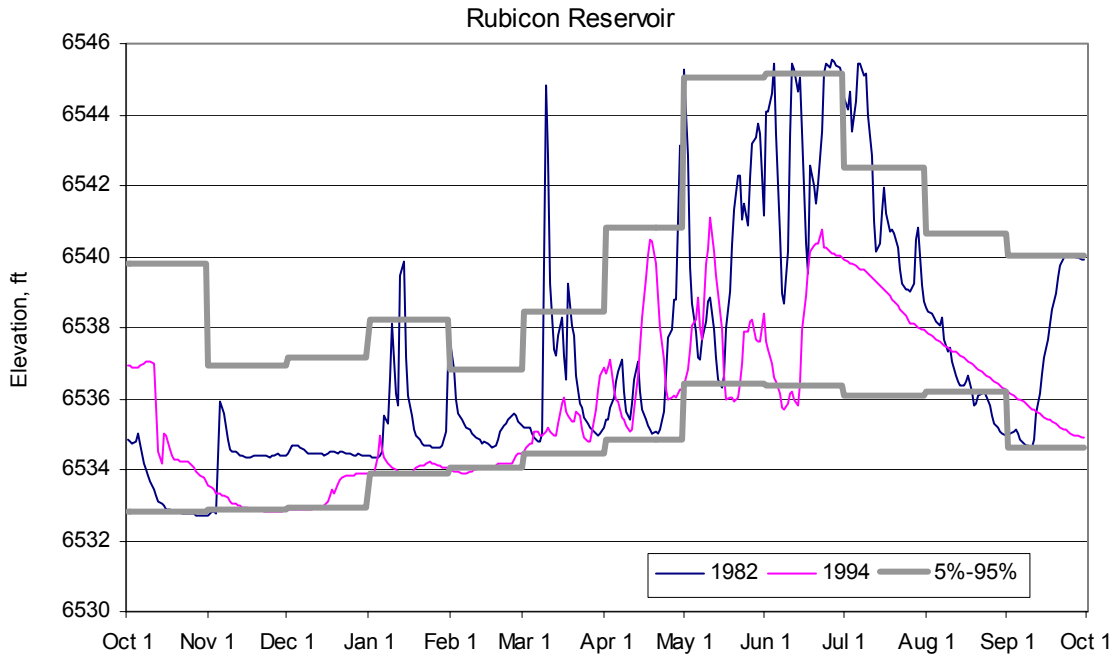
DEVELOPED AND DISPERSED RECREATION SITE PHOTOGRAPHS

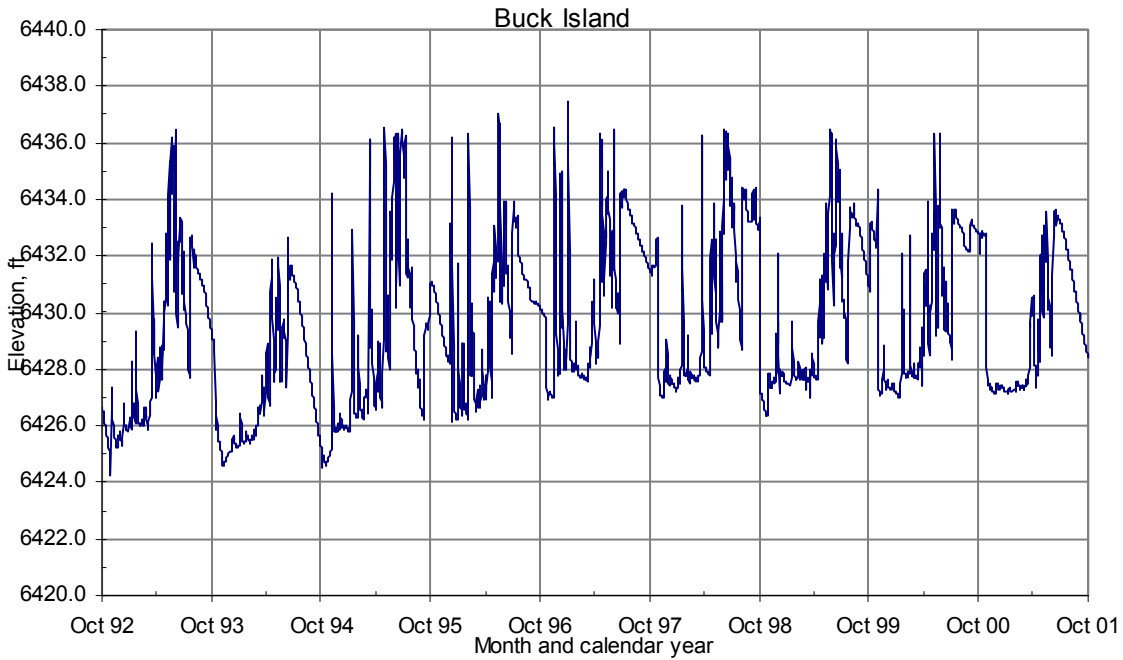
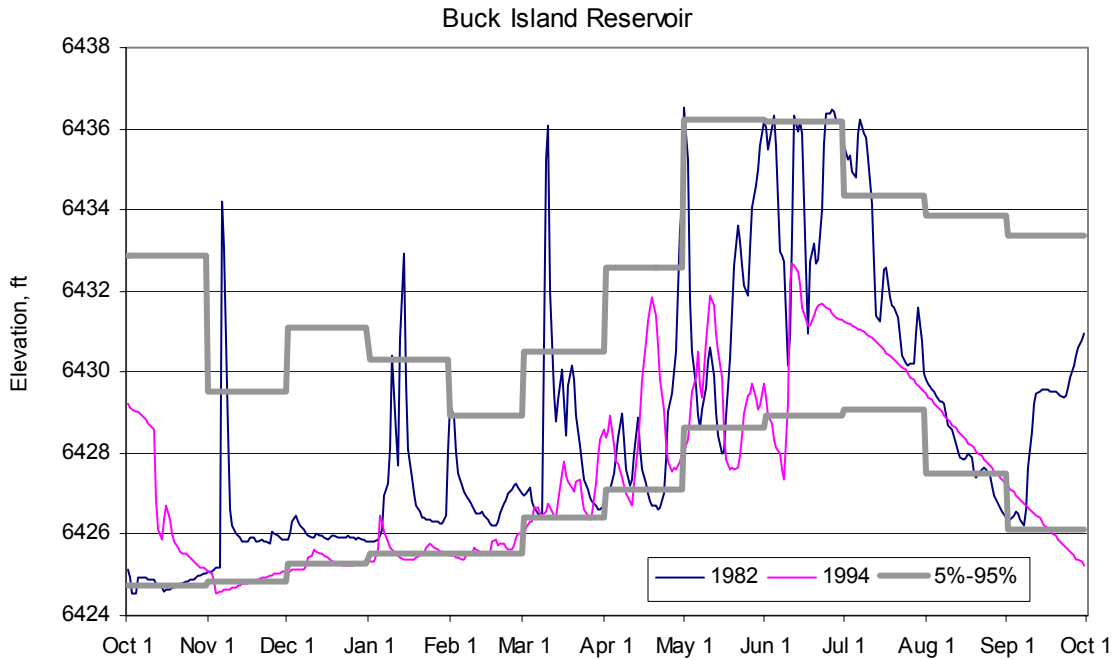
- Gerle Creek Reservoir B1
- Ice House Reservoir B10
- Loon Lake Reservoir B26
- Union Valley Reservoir B46
- Junction Reservoir B72
- Robbs Peak and Tells Creek Dispersed B73
- Rubicon/Buck Island Dispersed B75
- Slab Creek Reservoir Dispersed B82

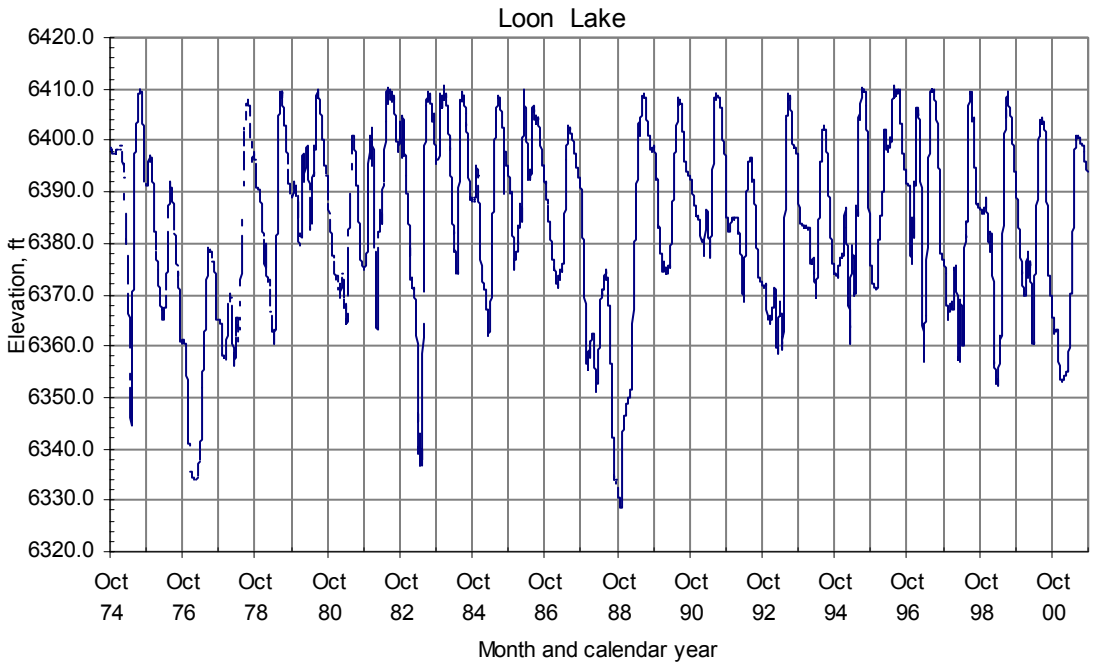
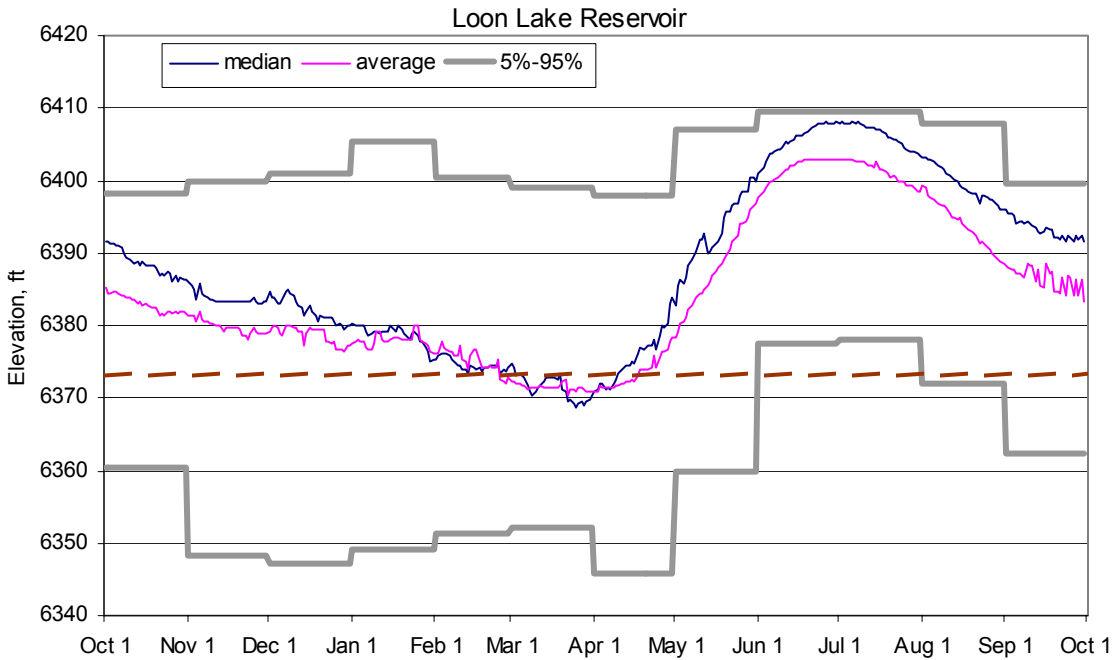
APPENDIX C

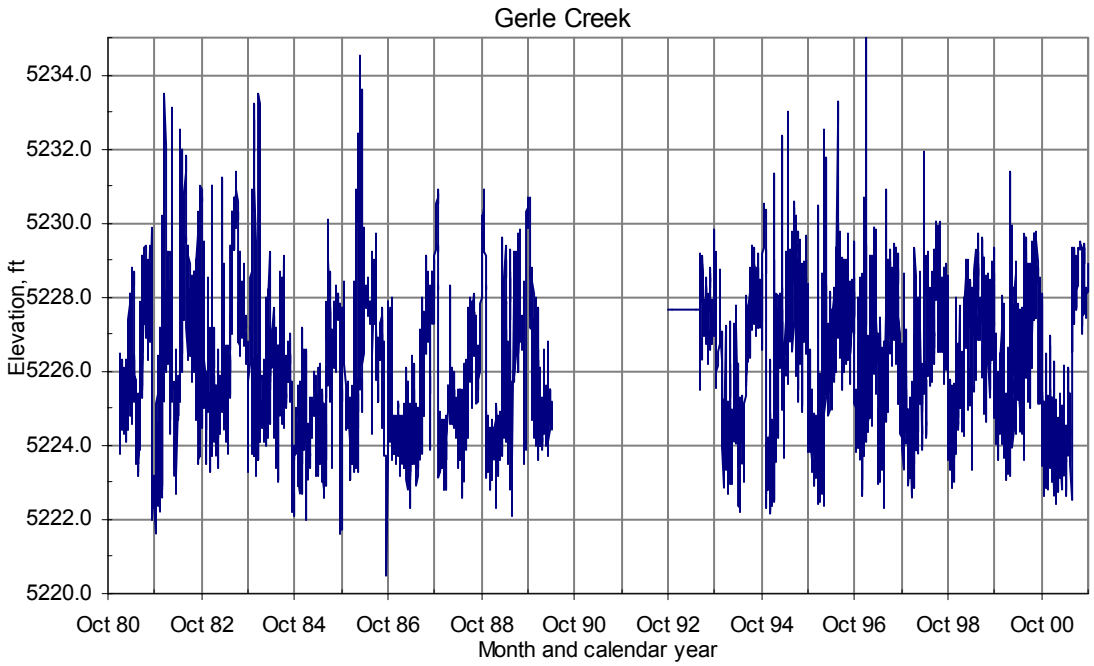
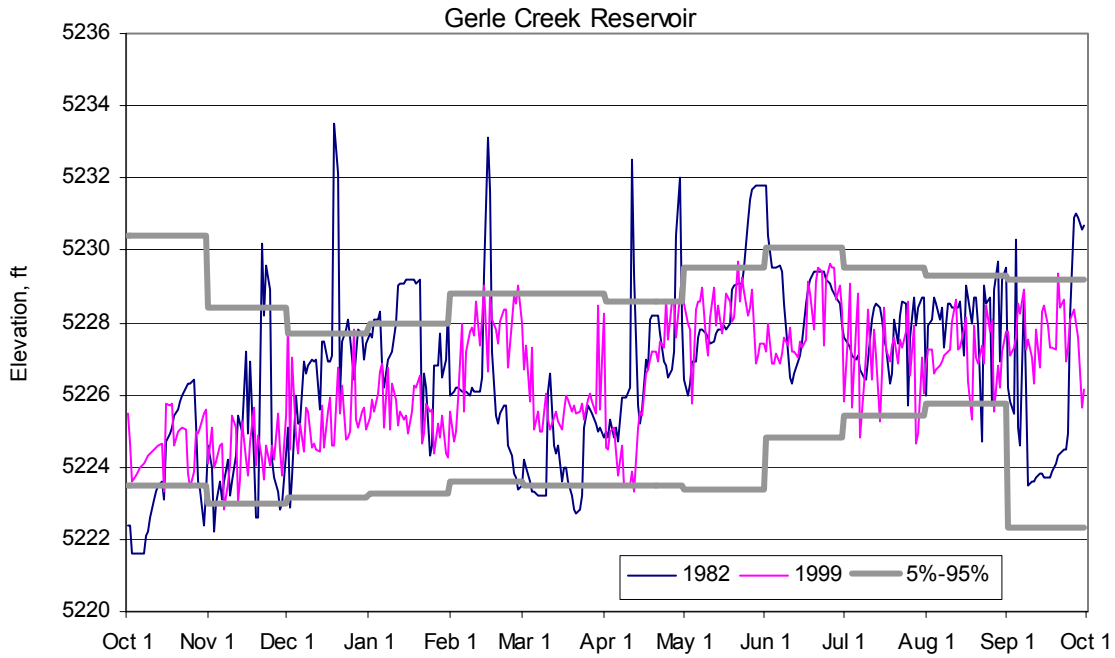
RESERVOIR ELEVATION PLOTS

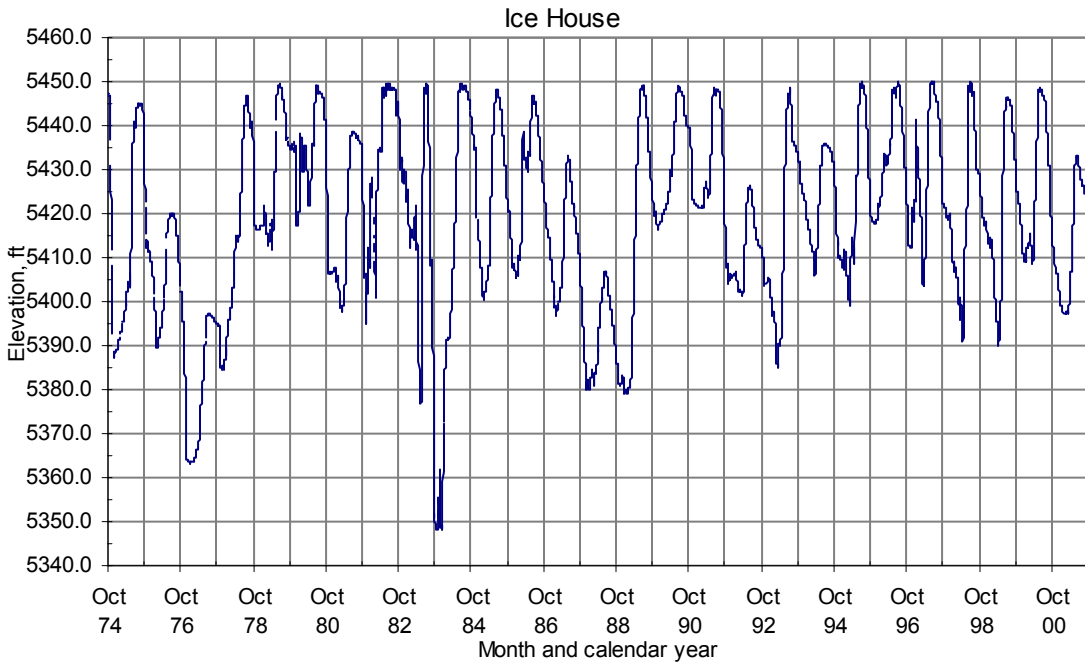
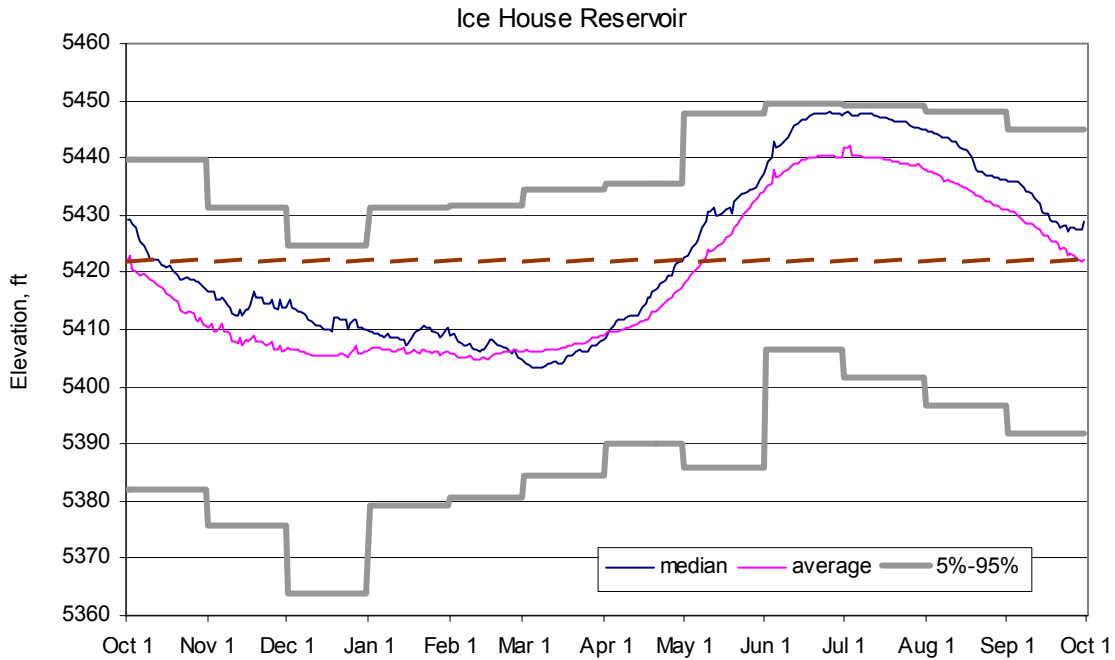
- 1992-2001 – End-of-day Reservoir Elevation Plots
- Annual Percent Exceedence Reservoir Elevation Plots

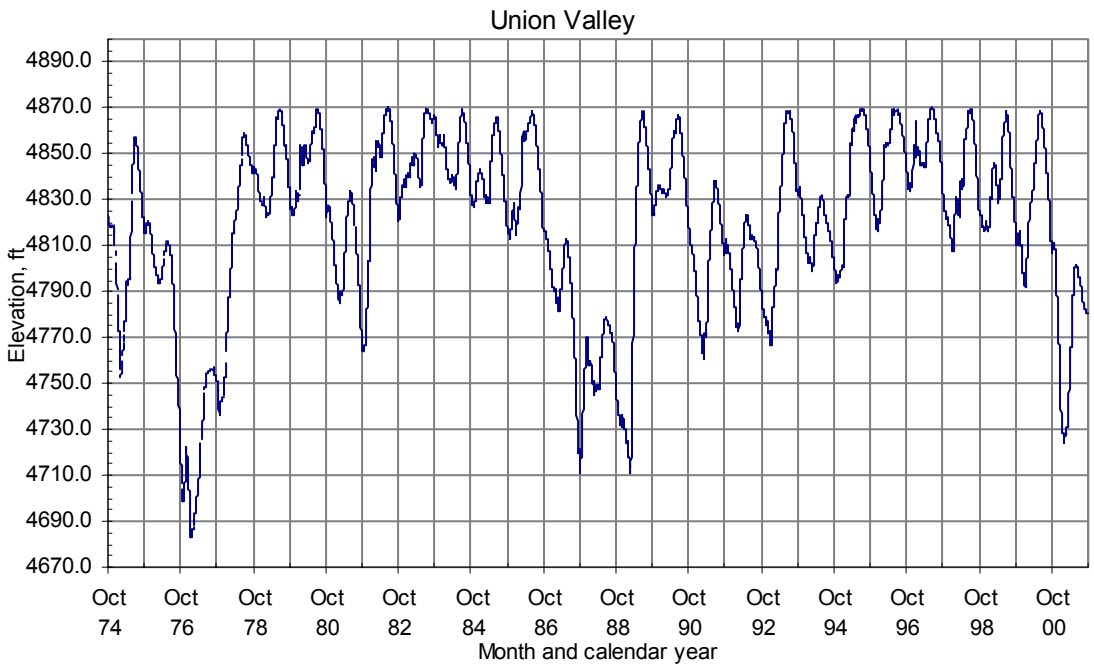
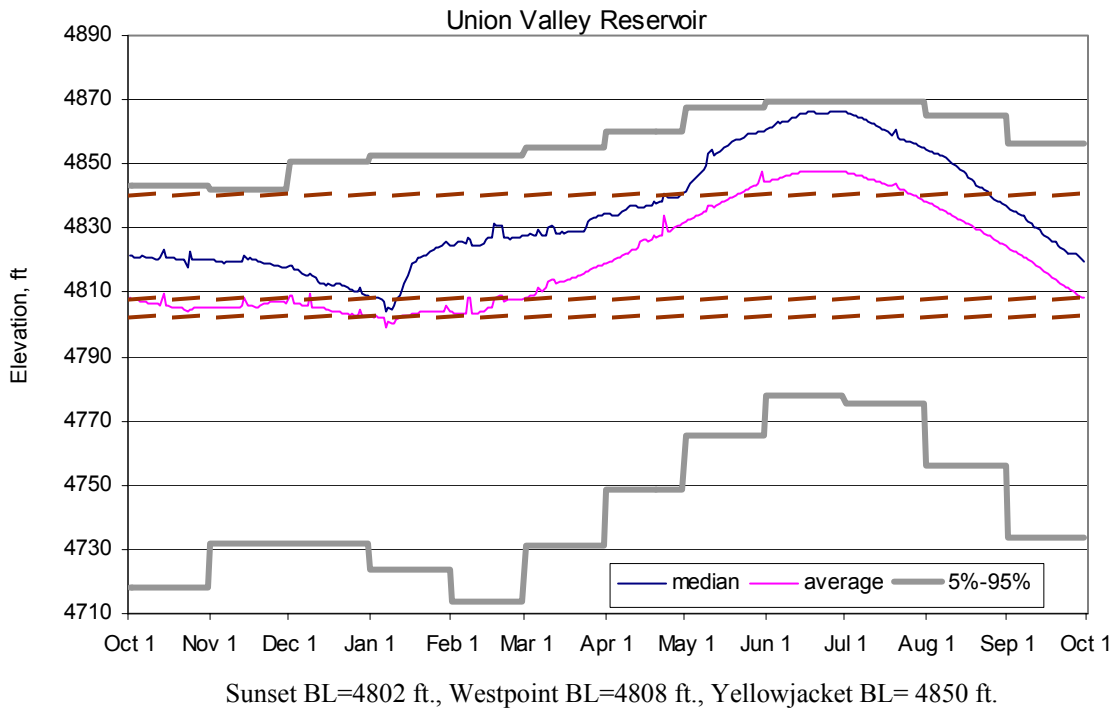


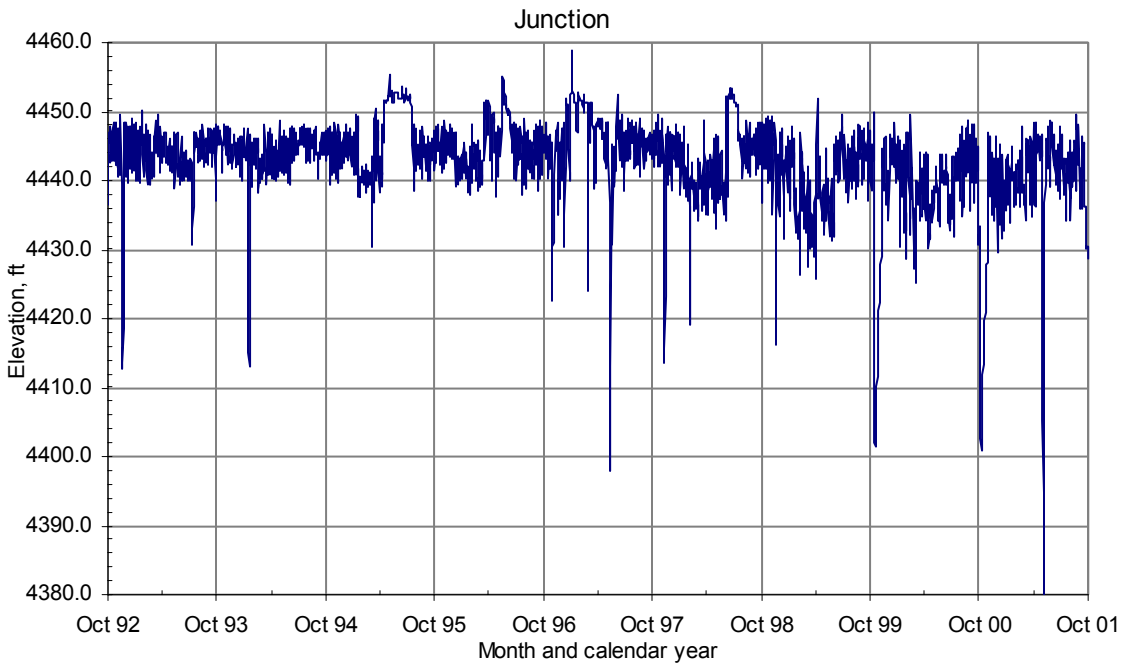
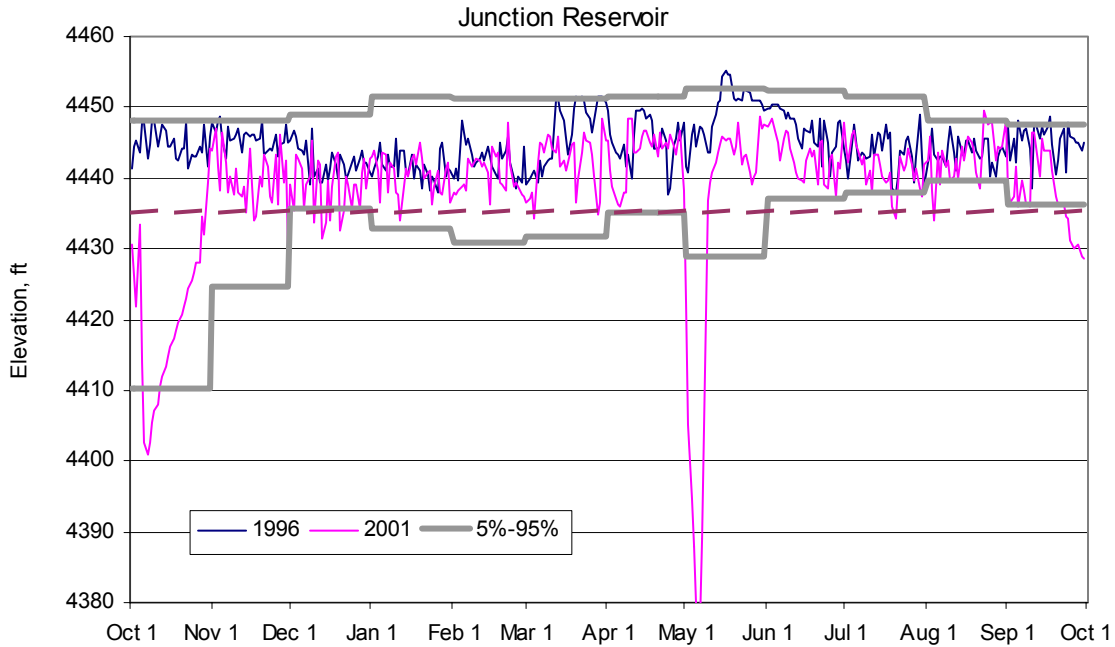


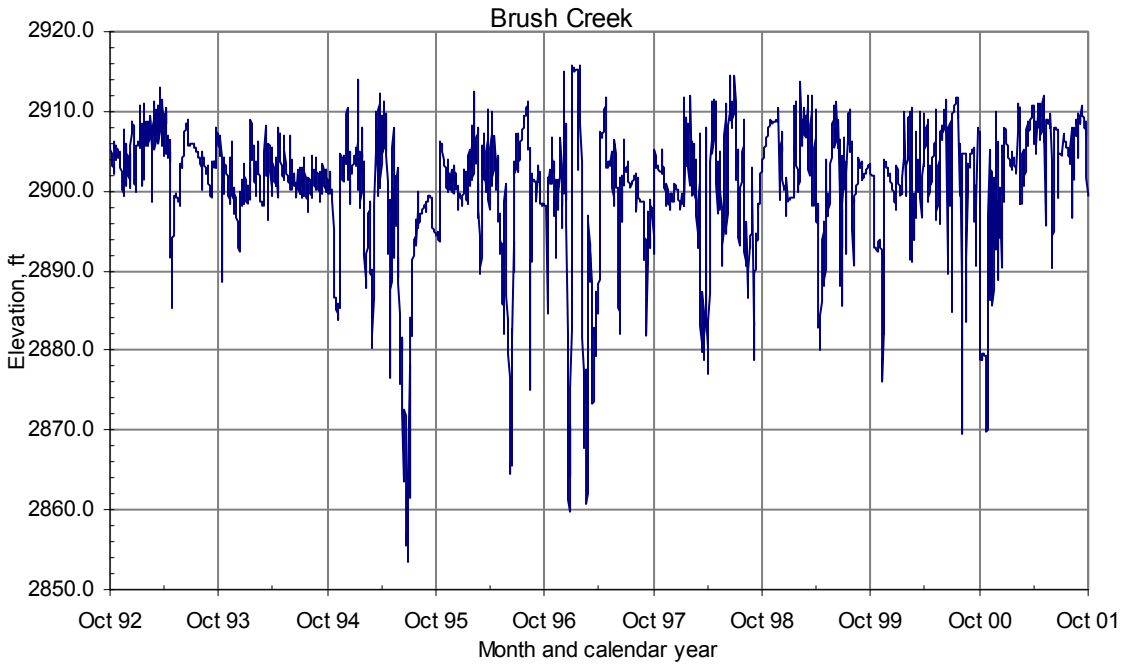
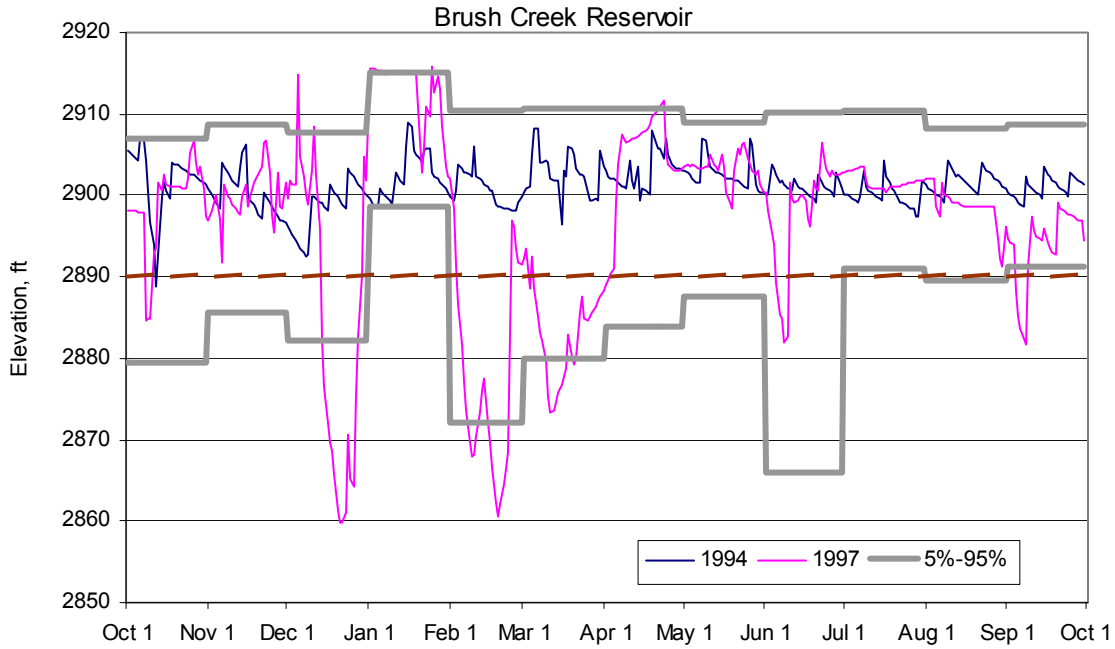


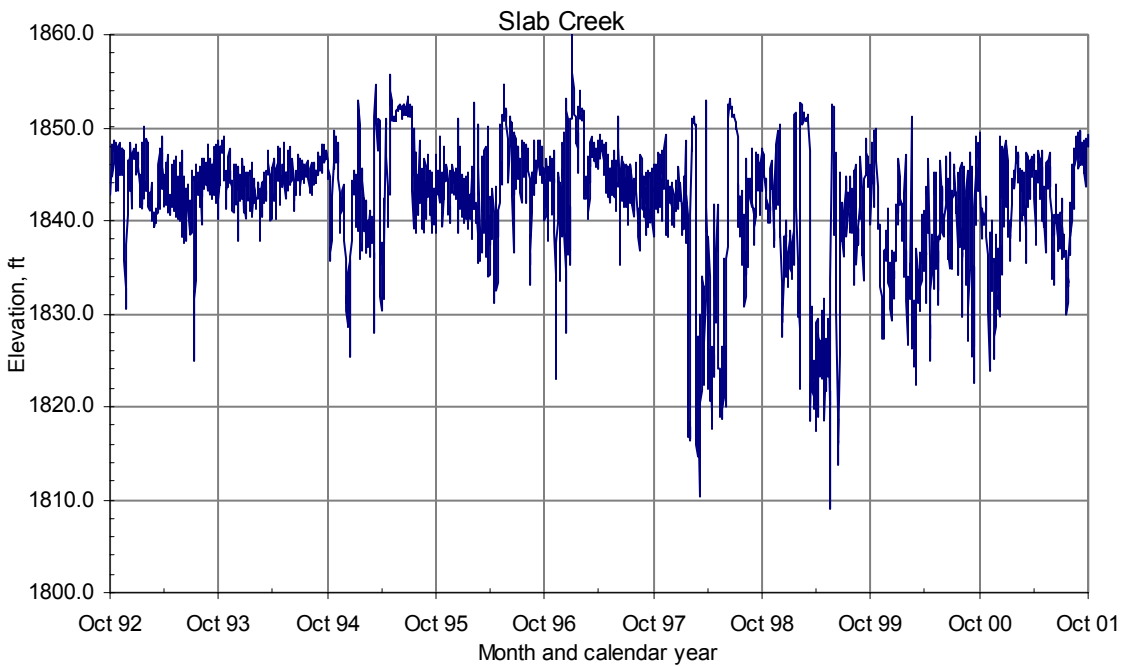
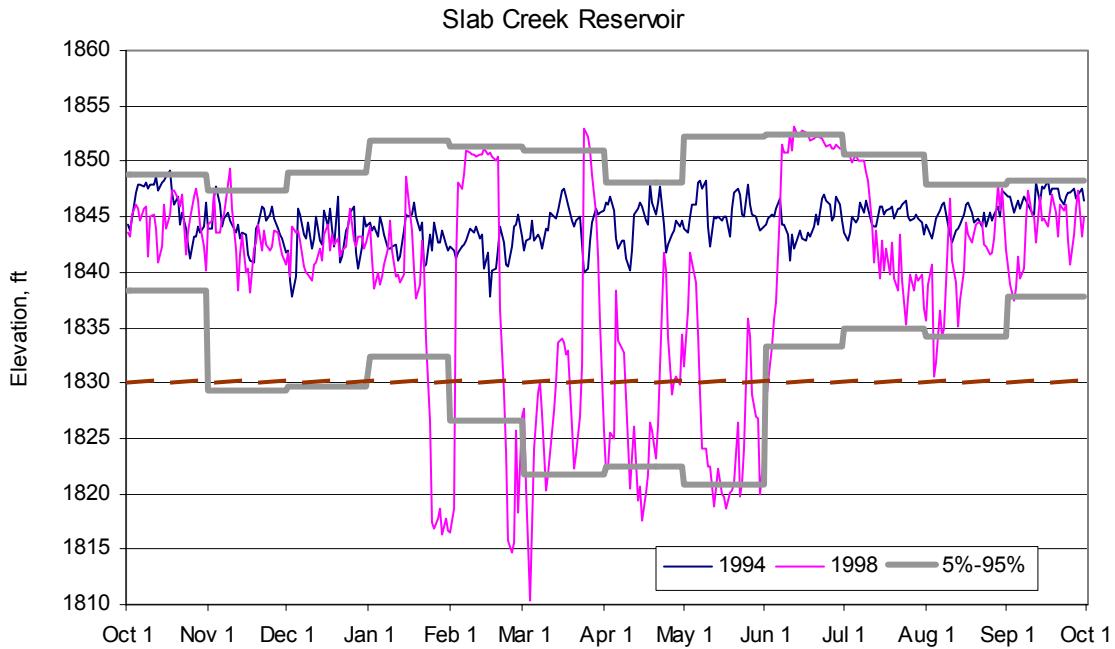












APPENDIX D

RESPONSE TO RECREATION TWG COMMENTS ON RECREATION SUPPLY TECHNICAL REPORT, APRIL 2004

**Comments and References:
Recreation Supply Technical Report (Revision 1)**

Tim-I took out the underlining in the table text.

At the July 28, 2004, Recreation TWG meeting, the Recreation TWG determined that the *Recreation Supply Technical Report* is adequate subject to all comments submitted by the TWG participants and items 1 through 11 listed below being incorporated into a new version of the report and reviewed by the Recreation TWG.

In preparing the revised reports, SMUD agreed to highlight how or specifically define where the additional needs are addressed in the report (e.g., response to comments format). This document provides that summary to assist the Recreation TWG in its review.

The May 13, 2004, resource agency comment letter did not include comments on this technical report. However, the Recreation TWG developed specific comments and actions items for this report at its July 28, 29 and August 9, 2004 meetings, as referenced below in parentheses.

Comment	Reference
1. Leave in report survey results that are also being reported on in the <i>Visitor Use and Impact Technical Report</i> (July 29).	All survey results included in the original version of the report have been retained.
2. Reference the graphs in the <i>Visual Assessment of Project Operations Technical Report</i> that show reservoir level exceedences (July 29 and Aug. 9).	Reservoir elevation plots have been developed with the information identified by the ENF. These plots are included in Appendix E.
3. For paragraph 2 on page 8, expand on methodology followed. (July 28).	Text has been added to Section 3.3 to further explain the methodology used to identify dispersed recreation sites.
4. Section 4.1.2, modify Wild and Scenic designation for Rubion River as so directed by ENF staff at (July 29).	Description has been changed as directed by the ENF to state the potential classification for the upstream segment is 'Wild' and the downstream segment is 'Scenic'.
5. Minor edits were provided by the ENF (July 29).	These have been incorporated into the various sections of the report.
6. ENF will provide track changes for: paragraph 2, page 14, concerning the Rubicon OHV Trail, ski trail mileage and section 4.2 of the report (July 28).	Changes suggested by the ENF to section 4.2 were reviewed by SMUD and incorporated in the report, as appropriate. The ENF did not provide any changes to the ski trail mileage presented in the original report.

7. Modify 1 st paragraph in section 3.3 to update (remove) references to ‘Appraisal Sites’ (July 29)	The text has been modified to remove reference to the ‘Appraisal Sites’ and add a reference to the Zone 3 Survey effort taking place in 2004.
8. Add powerline corridors to appropriate dispersed figures (July 29).	Powerline corridor maps have been added to the report (Figures 4.2-14 through 16).
9. Add section before ‘river access’ on overview of powerline roads highlighting areas where key areas of dispersed use occurs (July 29). Use existing base map of powerlines and show the corridors (shaded) and all access roads (Aug. 9).	Maps showing the powerline corridor and access roads have been included in the report. Text describing access, recreational uses and the types of associated environmental harm associated with recreational use in the powerline corridors has been added to the report.
10. Modify characterization of boating opportunities on Canyonland reservoirs, section 4.2.3.1 (i.e. ‘limited’) (July 29).	The word ‘limited’ has been deleted from the text.
11. Add more on what the three resorts (Ice House, Robbs and Uncle Toms) provide (July 29).	A section titled ‘Other Privately Owned Recreation Developments’ has been added to Section 4.2.2.2 where this information is discussed.
12. Add short paragraph on recreation associated with private lands in the Crystal Basin (e.g. Sugarloaf) (July 29).	A section titled ‘Dispersed Recreation on Privately Owned Land’ has been added to Section 4.2.2.3 where this information is discussed.
13. Add Mountain Camp to Figure 4.2-9 (July 29).	This site has been added to the figure.
14. Add section on types of information supplied to the public in the Crystal Basin.	A section titled ‘4.4 Visitor Information, Education and Interpretation’ has been added to the report where this information is discussed.