

E - ENVIRONMENTAL RESOURCES

8.0 RECREATIONAL RESOURCES

8.1 Applicable Laws, Ordinances, Regulations, Statutes and Plans

Recreational resources in California are protected by a variety of federal, state, and local laws, ordinances, regulations and statutes. In addition, numerous comprehensive plans and programs have been developed that include detailed policies and guidelines for management of recreational resources present in the vicinity of the Project. These laws, ordinances, regulations, statutes, programs, and plans and their application to recreation resources in the Project area are summarized below.

8.1.1 Eldorado National Forest Land and Resource Management Plan, as Amended

The Eldorado National Forest (ENF) Land and Resource Management Plan (LRMP) as amended by the Sierra Nevada Forest Plan Amendment (SNFPA) is discussed in Section E1.1.1. The analysis of recreation use in the LRMP concludes that the existing and planned recreation facilities are expected to meet future recreation demand. The LRMP identifies additional facilities to be built in the Crystal Basin and other lakes associated with power projects. An objective of the plan is to furnish a standard level of maintenance to all recreation sites including those operated and maintained by concessionaires and licensees. The plan identifies areas for potential downhill ski areas, allows private and commercial uses such as recreation residences, organization camps and resorts through special use permits, emphasizes trailhead development for equestrian and cross-country ski activities and almost exclusively restricts off-highway vehicle to designated roads and trails. The LRMP categorizes the forest land base using the recreation opportunity spectrum system. This system provides a means of classifying and managing recreation opportunities based on physical, social, and managerial settings.

8.1.2 Desolation Wilderness Management Guidelines

The United States Forest Service (USFS) Desolation Wilderness Management Guidelines are described in Section E4.1.2. The general management direction related to power projects located in the wilderness is to protect wilderness values while operating and maintaining existing power projects and related facilities. The standards and guidelines pertaining to the Rubicon Reservoir, which is located inside the Desolation Wilderness are: 1) use foot and horseback access and require materials that harmonize with the environment to maintain existing facilities; and 2) when not reasonably accessible by horseback, SMUD is limited to four authorized flights per year to maintain the Project facilities at Rubicon Reservoir (USDA 1998a). The Project facilities at Rubicon Reservoir predate the establishment of the wilderness and are managed in a manner consistent with the management of the surrounding wilderness (USDA 1998b).

8.1.3 Americans with Disabilities Act

The accessibility of outdoor recreation facilities to persons with disabilities (PWD) has received great attention in recent years. In 1993, the USFS policy on accessibility to comply with ADA was provided in the *Universal Access to Outdoor Recreation: A Design Guide* (PLAE Inc. 1993). In 1997, in an attempt to provide consistent regulatory standards for accessible outdoor recreation, the US Architectural and Transportation Barriers Compliance Board (Access Board) convened a committee to develop the *Regulatory Negotiation Committee on Accessibility Guidelines for Outdoor Developed Areas* (Guidelines), (Architectural and Transportation, Barriers Compliance Board 1999). These Guidelines are only proposed at this time but it is anticipated that they will be adopted as part of the ADA in 2001 and although termed "guidelines", once they are adopted, they will be enforced as federal regulations. Even though these guidelines are not final, the USFS has established an interim policy to use the proposed guidelines for new facility construction and alterations to existing facilities (USDA 2000). Additionally, these guidelines are used to determine accessibility levels for existing facilities.

8.1.4 California State Outdoor Recreation Plan

The objectives of the 1993 California State Comprehensive Outdoor Recreation Plan (SCORP) are to determine outdoor recreation problems and opportunities most critical in California, and to explore the most appropriate actions by which state, federal, and local agencies might address these issues. The plan also provides valuable information on the State's recreation policy, code of ethics and statewide recreation demand, demographic, economic, political, and environmental condition. The plan lists the following major issues: 1) improving resource stewardship; 2) serving a changing population; 3) responding to limited funding; 4) building strong leadership; 5) improving recreation opportunities through planning and research; 8) responding to the demand for trails; and 9) halting the loss of wetlands. The SCORP is not directly applicable to United States-owned lands, thus it does not directly apply the portions of the Project on ENF land.

8.1.5 California Public Opinions and Attitude in Outdoor Recreational Survey

The 1992 California Public Opinion and Attitudes in Outdoor Recreation (POAOR) survey provides information used in the development of the 1993 SCORP. The POAOR survey identifies: 1) California's attitudes, opinions, and values with respect to outdoor recreation; and 2) demand for and participation in 42 selected outdoor recreation activities. As with the SCORP, the portions of the Project on ENF land are not directly subject to the POAOR survey.

8.1.6 El Dorado County General Plan

The El Dorado County (EDC) General Plan is discussed in Section E3.1.11. The plan includes the element of parks and recreation and recognizes the economic importance of tourism to the county. Most of the Project land is zoned natural resources by the General Plan. Objectives stated in the plan that potentially relate to the Project regarding recreation include: 1) development of new and expansion of existing trail systems for hiking, biking, and equestrian; use 2) conservation and promotion of the waterways, particularly the SFAR as recreational and

economic assets; 3) protection and maintenance of existing recreational and tourist based assets; 4) protection and preservation of resources that attract tourism; 5) expansion of the skiing industry; and 6) expansion and development of additional camping facilities including recreational vehicles and tent camping.

8.1.7 El Dorado County River Management Plan Update

The EDC River Management Plan is discussed in Section E7.1.16. The reach of the South Fork of the American River (SFAR) affected by this plan is downstream of the Project between the PG&E Company's Chili Bar Project (FERC Project No. 2155) and Folsom Lake. While the UARP is not directly subject to this plan, this information is presented because it relates to the whitewater opportunities available in the region. The plan addresses whitewater use and establishes the goal to protect the rural character of the area as well as the appreciation experiences of river users and property owners. The major issues identified in this plan center around access to the river and carrying capacity.

8.1.8 Upper American River Project Recreation Plan

SMUD has completed three of the four phases of the Upper American River Project Recreation Plan (SMUD 1985), as approved by the Federal Energy Regulatory Commission (FERC) in 1987. Planning is underway for construction of the facilities that are to be developed as part of the fourth phase. During the development of the Project Recreation Plan, recreation developments were considered at all Project reservoirs, but found to be appropriate only at reservoirs in the Crystal Basin. These reservoirs are Ice House, Union Valley, Gerle Creek, and Loon Lake. The Project Recreation Plan lays out a schedule for modification and new construction of recreation facilities under the existing license. All recreation facilities addressed in this plan are located on public land administered by the ENF. Prior to implementation of the Project Recreation Plan, the capacity of Crystal Basin was 4,439 people at one time (PAOT). The developments under this plan are almost complete and when finished will represent a 38 percent increase in developed recreation facility PAOT capacity in the Crystal Basin.

The Project Recreation Plan also addresses the ownership, operation and maintenance of the recreation facilities. Once the facilities are constructed and approved by the ENF, SMUD transfers title of the facilities to the ENF, which then assumes operation and maintenance responsibilities for the facilities.

SMUD contributes financially to the construction and maintenance of the recreation facilities in two ways. First, SMUD provides an annual operational cost fee to ENF which amounts to three percent of the entire construction cost of the recreation facility for all phases (adjusted to current consumer price indices). This amounted to \$279,000 for 2000. Second, SMUD contributes a five percent design and construction fee to ENF for each of the four phases of the recreation facility. This fee is paid prior to construction and is also adjusted to the current consumer price index. Both fees provide not only for design, construction and maintenance of the facilities, but also any administrative and maintenance for any future replacement of facilities necessary during the life of the Project. The payments to the ENF associated with the recreation facilities are

covered under collection agreements between SMUD and the ENF dated August 3, 1988 and October 27, 1988. Both of these agreements expire concurrent with the existing Project license.

The Project Recreation Plan outlines that the ENF would have daily responsibilities in the campgrounds and other facilities that include providing persons at the entrance station, garbage pickup, sanitation maintenance, and collection of fees. In addition, ENF maintenance personnel would be responsible for collecting and recording use data and accomplishing a cyclic monitoring and evaluation task. The ENF reports that funds provided by SMUD are used to maintain signs and provide up to six seasonal recreation field staff, law enforcement personnel, and one information center receptionist assigned to the Crystal Basin Information Station. The funding is also used to partially finance the ENF resource officer at the Pacific Ranger District that is responsible for planning and administration of the recreation program in the Crystal Basin.

8.1.9 Federal Power Act

The Federal Power Act, in particular sections 4(e), 10(j) and 18 of the act, are described in Section E1.1.4.

8.2 Overview

8.2.1 Historical Trends

The ENF was established in 1910. In the early years, the forest landscape was largely valued for resources such as timber, range, and minerals rather than for its recreational resources. As the U.S. population grew, the federal government promoted the national forests as places for the public to come to for recreation and to take pleasure in the natural beauty of the mountains. The UARP was constructed in the late 1950s and early 1960s, during the same time the USFS was beginning to construct campgrounds to accommodate forest visitors and offering permits to private citizens to construct recreation residences on public land. The growing number of roads constructed for timber harvest in the ENF also facilitated the public's use of the ENF and recreational use increased.

As California's population continued to grow, the public became concerned with preserving natural areas, which led to the establishment of the Desolation Wilderness in 1969. In the 1970s, the public began to enjoy non-motorized forms of travel to explore and enjoy natural areas, and trail systems were established and expanded. During the last two decades whitewater boating, off-highway vehicle (OHV) use, snowmobile use, mountain biking, and cross-country ski touring have grown in popularity. The ENF strives to accommodate these uses while minimizing their impact on other resource values. Today, the variety of recreation uses that has developed over the years continues with minor shifts in the percentage of users participating in different uses. However, the most important aspect of this evolution of recreation use is the continual increase in population growth and the growing popularity of outdoor recreation.

8.2.2 Current Conditions

California's population centers are today much closer to the ENF than they were 50 years ago. Consequently, the number of users is much greater now and continues to increase every year. The ENF hosts recreation opportunities for a broad spectrum of users, many of whom live locally in El Dorado County and in the nearby metropolitan areas of Sacramento (1 to 2 hours drive) and the San Francisco Bay Area (3 to 4 hours drive). The latter two population centers account for over five million residents, which have been growing at 1 to 1.9 percent per year (U.S. Dept. of Commerce, Census Bureau 2001). Visitors continue to enjoy the variety of recreation uses that have evolved since the ENF was first established. Lakes, rivers, streams, and land features ranging from foothills to high mountain peaks are attractions that account for more than three million recreation visitor days each year. Regional attractions for these residents include Project reservoirs, streams and trails in the Crystal Basin Recreation Area, the Rubicon OHV Route, Desolation Wilderness (including a portion of the Pacific Crest Trail), and several scenic points of interest along the Highway 50 corridor leading to Lake Tahoe.

Recreation opportunities in the ENF are provided in developed areas, at both private and public facilities, as well as in undeveloped or dispersed areas. Facilities developed and operated by the private sector include resorts, lodges, organization camps, recreation residences, and ski resorts. Public facilities include, picnic areas, bike and hiking trails, campgrounds, lodges, sanitation sites, boat ramps, vista points, information centers, and interpretive sites. The public recreation facilities across the ENF are operated and maintained by the USFS and managed by contract concessionaires or other commercial businesses under special use permits with the ENF. Many of the public recreation facilities in the Crystal Basin are Project recreation facilities that were constructed with funding from SMUD under the Davis-Grunsky Act. After construction, ownership of these facilities was deeded to the USFS along with the responsibility for operation and maintenance of the facilities. SMUD assists with operation and maintenance of the Crystal Basin facilities by providing funding to the ENF (see Section E8.1.8).

The undeveloped areas of the ENF provide opportunities for dispersed activities such as scenic driving, camping, hiking, mountain biking, whitewater boating, prospecting, climbing, ski touring, snowmobiling, snow play, horseback riding, hunting, fishing, and OHV use. According to the ENF LRMP, 55 percent of the recreation activity occurring on the Forest takes place in dispersed areas (USDA 1988). The ENF Recreation Opportunity Guide on dispersed camping requests visitors make sure their campsites are at least 100 feet away from streams and lakes to help protect streamside vegetation and prevent pollution. Dispersed camping is restricted around Ice House Reservoir and Gerle Creek Reservoir because of heavy visitor use.

Recreation use data for the ENF displays a growing trend in the number of recreation users in Crystal Basin over the past decade (Table E8.2-1). The use statistics for the developed sites in the second column of the table are based on actual occupancy data at the facilities (pers. comm. K. Schroeder, ENF, Nov. 1999). The dispersed recreation use statistics in the third column are based on the ENF assumption that the number of dispersed users is 120 percent of the number of visitors to developed sites in the Crystal Basin (pers. comm. K. Schroeder, ENF, Nov. 1999). This method of estimating dispersed use may require field validation to yield accurate estimates. A letter dated November 1, 1993 from the ENF to SMUD also contains developed and

undeveloped recreation data from 1989 to 1993 and these estimates are also included in the last column of the table below. The ENF methodology of estimating dispersed use as 120 percent of developed use may over-estimate actual use considering the ENF LRMP states that dispersed recreation accounts for 55 percent of the total recreation use forest-wide. Additionally, the American River Watershed Sanitary Survey (Archibald and Wallberg 1998) states that USFS staff estimate dispersed use to be half the amount of total visitor-days in the developed areas of the ENF. Consequently, there may be questions regarding the estimates below because of the assumptions and methodology historically used by the ENF to estimate dispersed use.

Table E8.2-1. Recreation Use Data for the Crystal Basin recreation area in the ENF.

Year	Developed Sites (RVD's) ^{1/}	Dispersed Use- Estimated as 120% of developed use (RVD's) ^{1/}	Total Estimated Use in Crystal Basin (RVD's) ^{1/}	Total Estimated Use in Crystal Basin (RVD's) ^{2/}
1987	263,100	315,700	578,800	
1988	225,800	271,100	496,900	
1989	269,300	323,200	592,500	500,771
1990	283,200	341,100	624,300	532,781
1991	319,000	382,800	701,800	616,154
1992	311,800	374,200	686,000	598,638
1993	306,300	367,700	674,000	585,881
1994	338,100	465,700	852,800	
1995	311,900	374,200	686,100	
1996	387,400	465,400	852,800	
1997	391,000	468,900	859,900	
1998	374,400	449,200	823,600	

^{1/}Source: pers. comm. K. Schroeder, ENF, Nov. 1999

^{2/}Source: Letter dated November 1, 1993 from ENF to SMUD

8.2.3 Accessibility to Persons with Disabilities

The developed recreation facilities associated with the Project were constructed between the 1960s and 2000. During this time the construction standards for recreation facilities have changed but the most notable change involves the accessibility of facilities to persons with disabilities. Because many of the facilities were constructed prior to the establishment of accessibility standards, some of the recreation facilities in the Crystal Basin do not currently meet these new standards. The ENF has inventoried the recreation facilities in the Crystal Basin and developed a transition plan that lays out a forest-wide schedule of improvements and modifications necessary to make these facilities accessible. The ENF has completed some of the improvements and modifications and is in the process of updating their plan to reflect this work.

8.2.4 Whitewater Boating

Whitewater boating is a growing recreational activity in California. A review of “California Whitewater: A Guide to the Rivers” (Cassady and Calhoun, 1995), “The Best Whitewater in California: a Guide to 180 Runs” (Holbeck and Stanley, 1998), and “California Boating and Water Sports” (Stienstra 1996) identifies 19 runs in the American River (including the Rubicon

River) watershed with a total distance of over 168 miles. There continues to be an increase in the demand for whitewater boating opportunities and of particular interest is the increase in number of boaters participating in freestyle and extreme types of paddling. This trend has resulted in a demand for “park and play” boating areas where boaters enter and exit the river at the same location, in addition to challenging scenic and travel oriented whitewater runs (USDA 2001). Table E8.2-2 summarizes the information on the whitewater runs in the American River watershed.

One of the most popular whitewater areas in California is located on the SFAR downstream of the PG&E Chili Bar Project (see figure A1.0-1). This popular 20-mile section of class II-IV whitewater boating attracts between 95,000 and 155,000 boaters each year (USDA 2001) and is managed by El Dorado County. This segment of river is attractive for commercial rafting because it’s easily accessible from major population centers and the level of difficulty is generally moderate. PG&E’s daily regulation of the SFAR flows and SMUD’s seasonal regulation of the flow regime contribute to the popularity of this reach of the SFAR. On July 15, 1982, the District entered into an agreement with the California Department of Boating and Waterways (CDBW) for the duration of the existing license for the Slab Creek Development to enhance whitewater boating. The primary provisions of this agreement are:

- When the California Department of Water Resources (CDWR) forecasts that the total unimpaired runoff into Folsom Reservoir will be greater than 50 percent of the long-term average, SMUD will attempt to make sufficient releases through its White Rock Powerhouse so that PG&E can operate Chili Bar Reservoir as it has in the past to meet adequate downstream recreational rafting needs between 8:00 am and 3:00 pm from April through September, as long as such releases are not inconsistent with SMUD’s primary purpose of generating electrical power with economic efficiency.
- SMUD is not required to reduce or otherwise modify its current storage operations, including but not limited to refill, throughout the entire project.
- To address potential safety concerns, SMUD will also notify the CDWR by telephone when Slab Creek Dam begins to spill in excess of 1,000 cfs. This requirement is based on claims by two expert boaters who have navigated the SFAR between Slab Creek Dam and Chili Bar Reservoir during high flows in 1982.

Table E8.2-2. Whitewater boating opportunities in the American River watershed						
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	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	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+ III-IV 0 portages	700 -1,500 1,500-10,000 (2,000)	Year-round

Table E8.2-2 (Continued)						
Name of Run	Put-In & Take Out	Length (miles)	Gradient (feet per mile)	Class	Boating Range¹ and (Optimum Flow)	Boating Season
South Fork American River (continued)						
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

¹ Boatable range and optimum flow from Holbeck and Stanley (1995)

8.3 Recreational Resources in the Project Area

The Project is located in the high mountain setting of the Sierra Nevada, mostly on public land administered by the ENF. The Project reservoirs are important sites of recreation activity and most of the shoreline is public land. Consequently, public access to the lake surface and shoreline of Project reservoirs is largely unrestricted. The Project reservoirs can be grouped in three general locales, from highest to lowest in elevation. The highest in elevation are Buck Island Reservoir and Rubicon Reservoir (6,436 to 6,545 ft respectively). The recreation activity at these reservoirs occurs mostly in the summer months and visitation is limited because there is no paved access. The most popular and visited Project reservoirs occur in the mid-elevation range of the Crystal Basin (4,870 to 6,410 ft). This area includes the largest Project reservoirs of Loon Lake, Gerle Creek, Union Valley, and Ice House. Annual estimated use at these areas is over 300,000 recreation visitor days in the developed recreation sites. The lowermost Project reservoirs are Slab Creek, Camino, Brush Creek, and Junction (1,850 to 4,450 ft). These Project reservoirs are generally smaller than the upper elevation reservoirs and are located in steep, narrow canyons. This situation, combined with low standard road access, results in low visitation to these reservoirs. The information in the following section includes a discussion of recreation resources at each Project reservoir beginning at the highest elevation.

8.3.1 Rubicon Reservoir

Rubicon Reservoir is located inside the northern portion of the Desolation Wilderness approximately 10 miles downstream of the river's headwaters, Clyde Lake. Other lakes such as Horseshoe, Lois, Schmidell, Zitella and Middle Velma lakes also contribute to the Rubicon River above Rubicon Reservoir. Although there are no developed recreation facilities at Rubicon Reservoir, the ENF Rubicon Trail (No. 16E30) runs along the west shore of the reservoir. This trail accommodates foot and pack stock travel. Because Rubicon Reservoir is above 6,500 feet elevation, summer is the primary season of recreation activity. Recreation use at Rubicon Reservoir is managed by the ENF, which controls the number of overnight wilderness users each year by issuing permits under a quota system between the Friday before Memorial Day and September 30. Day users must also obtain a permit, but this use is not subject to a quota. A maximum party size of 12 and the prohibition of campfires in the Desolation Wilderness are two

additional measures the ENF employs to protect wilderness values. Recreation activities at Rubicon Reservoir include dispersed camping, hiking, horseback riding, and fishing.

Maintenance of the Project facilities at Rubicon Reservoir is limited by restrictions on motorized uses inside the Desolation Wilderness. In the past, SMUD accomplished much of the Project maintenance by transporting necessary personnel and equipment by helicopter to the site. As a designated wilderness, the area is managed by the ENF to protect solitude and maintain the primitive setting. Any motorized vehicle use can conflict with this management direction by disturbing recreation visitors in the area. However, SMUD has the responsibility to operate and maintain the facility that was constructed prior to the wilderness designation and strives to operate in a manner compatible with ENF wilderness management guidelines. Currently, SMUD is authorized to access the site by helicopter four times a year under the Wilderness Management Guidelines for the Desolation Wilderness.

8.3.2 Buck Island Reservoir

Located immediately north and outside of the northern boundary of the Desolation Wilderness, Buck Island Reservoir has no developed recreation facilities, however there are three nearby trails. The Rubicon OHV Route passes along the northern shore and the Rubicon Trail (foot and pack stock trail) passes near the southern shore of the reservoir. The Rubicon OHV Route is a popular attraction with estimated use on a summer weekend between 200 and 500 OHVs (pers. comm. R. Platt, USFS, March 2001). Many of the OHV recreationalists camp at dispersed sites along the route along the reservoir's northern shore, adjacent to Buck Island Dam. A third trail along the western shore connects these two trails. Motorized access makes this a popular location for dispersed camping, OHV use, hiking and fishing.

8.3.3 Loon Lake Reservoir

The complex of recreation sites at Loon Lake is located approximately 30 miles north of Highway 50 at the end of Loon Lake Road off Ice House Road. Loon Lake Reservoir has several types of facilities for a variety of recreation uses. They include four campgrounds, an equestrian campground, RV campground, boat launch, wilderness trailhead and a chalet (see facilities map in Appendix E8-1). Operation and maintenance of the facilities is performed by the ENF through a combination of funding from SMUD, concessionaire management and funding from the USFS fee demonstration project (Red Fir and Northshore RV campgrounds only). The USFS fee demonstration project allows the ENF to maintain facilities with the funds generated by user fees from the site.

Loon Lake Reservoir is also the general location for the beginning of the Rubicon OHV Route and a trailhead for Desolation Wilderness. In addition to summer recreation, Loon Lake Reservoir is popular for winter sports activities. Ice House Road and Loon Lake Road are plowed by SMUD during the winter months and visitors to the area enjoy cross-country skiing, snowmobiling, snow play and snow camping. The Loon Lake Chalet, which is available by reservation only, provides group overnight lodging for visitors. The elevation at Loon Lake is 6,410 feet. Table E8.3-1 describes the facilities available at Loon Lake Reservoir; all are Project recreation facilities unless otherwise noted.

Table E8.3-1. Recreation facilities at Loon Lake.			
Facility	Name	Capacity	Comments
Campgrounds	Pleasant	10 campsites	Access by foot, bicycle or boat only. Pit toilets, picnic tables, no water/garbage service.
	Wentworth Springs*	8 campsites	Vault toilet, no water, fire rings, picnic tables. 4WD or motorcycle recommended for access.
	Northshore RV	15 campsites	Vault toilets, no water, picnic tables, fire rings and grills.
	Loon Lake	53 campsites	Vault toilets, water, picnic tables, fire rings and grills. Reservations.
	Loon Lake Equestrian	9 campsites	Vault toilets, water, picnic tables, fire rings and grills. Reservations.
Group Campgrounds	Loon Lake Group #1 Loon Lake Group #2	75 PAOT	Vault toilet, water, picnic tables, fire rings and grills. Site #1 is a walk-in site that will accommodate up to 50 people at 10 units. Site #2 will accommodate up to 25 people at 6 units. Reservations.
	Loon Lake Equestrian	25 PAOT	5 units, vault toilets, water, picnic tables, fire rings and grills. Reservations.
	Red Fir	25 PAOT	Tent camping only. Vault toilets, water, picnic tables, fire rings and grills. Reservations.
Day Use Areas	Loon Lake Chalet		Rented at night but available during the day to visitors.
	Loon Lake Day Use	5 picnic sites	
Boat Launch	Loon Lake Boat Launch	15 campsites	Vault toilets, water. Campsites available for self-contained RV overflow camping. No campfires.
Lodge	Loon Lake Chalet	20 PAOT	Year-round rental available by reservation. Heat, kitchen, sleeping loft and restrooms.
Sanitation Station	Loon Lake Sanitation Station		
Trailhead	Loon Lake Wilderness Trailhead		
Trails	Rubicon OHV Route*		OHV Trail
	Rubicon Hiking Trail* (Desolation Wilderness)		Wilderness foot and pack stock trail.
	Loon Lake Trail*		Foot and pack stock trail (non-wilderness).

*non-Project facility

Based on SMUD’s FERC Form 80 filings for the 1990 recreation season, the campgrounds, day use areas and boat launch were at 80, 25 and 50 percent capacity, respectively. SMUD’s 1996 Form 80 filings suggested that in 1996 these facilities were at 65, 30, and 25 percent capacity, respectively. These percentages compare non-holiday weekend use with the facility’s capacity.

These figures do not indicate use trend but do reflect the capacity of existing facilities to handle the existing demand for recreation facilities.

8.3.4 Gerle Creek Reservoir

Gerle Creek Reservoir is located approximately 27 miles north of Highway 50, adjacent to Ice House Road. This reservoir has campgrounds, day use area, an interpretive trail, and a fishing pier accessible to disabled persons (see facilities map in Appendix E8-1). As a wild trout fishery, Gerle Creek Reservoir is popular with anglers, however motor boats are not permitted on the lake. Camping is only allowed in developed sites around this reservoir. Operation and maintenance of the facilities is performed by the ENF through a combination of funding from SMUD and concessionaire management. Table E8.3-2 describes the facilities available at Gerle Creek Reservoir. All are Project recreation facilities unless otherwise noted.

Facility	Name	Capacity	Comments
	Airport Flat	16 campsites	Vault toilets, no water available, picnic tables and fire rings.
Day Use Areas	Angel Creek	4 picnic sites	
	Gerle Creek	4 picnic sites	
Trails	Summer Harvest Trail		Fishing pier and interpretive trail. Accessible to PWD.
Recreation Residences	Gerle Creek Tract*		Privately owned residences for seasonal occupancy on public land under Special Use Permit from the Forest Service.

*non-Project facility

The facilities planned for development under the Project Recreation Plan include parking facilities and a 0.69-mile of foot trail.

Based on SMUD’s FERC Form 80 filings for 1990 and 1996, the campgrounds at Gerle Creek were used at 60 percent capacity in 1990 and 41 percent capacity in 1996. The day use area was used at 35 percent in 1996. These percentages compare non-holiday weekend use with the facility’s capacity. These figures do not indicate use trend but do reflect the capacity of existing facilities to handle the existing demand for recreation facilities.

8.3.5 Robbs Peak Reservoir

Robbs Peak Reservoir is located approximately 25 miles north of Highway 50 along Ice House Road. There are no developed recreation facilities located at this small (30 ac-ft) reservoir.

8.3.6 Ice House Reservoir

Ice House Reservoir is the first reservoir visitors encounter along the main road leading to Crystal Basin from Highway 50. It lies approximately 12 miles north of Highway 50, and contains three campgrounds, a day use area, boat launch, trail and sanitation station (see facilities

map in Appendix E8-1). Camping is only allowed in developed sites around this reservoir. Operation and maintenance of the facilities is performed by the ENF through a combination of funding from SMUD, concessionaire management, and funding from the USFS fee demonstration project (Strawberry and Northwind Campgrounds). Table E8.3-3 describes the facilities available at Ice House Reservoir. All are Project recreation facilities unless otherwise noted.

Based on SMUD’s FERC Form 80 filings for 1990, the campgrounds, day use areas and boat launch were at 75, 30 and 65 percent capacity, respectively. SMUD’s 1996 Form 80 Filings suggested that in 1996 these facilities were at 75, 20, and 15 percent capacity, respectively. These percentages compare non-holiday weekend use with the facility’s capacity. These figures do not indicate use trend but do reflect the capacity of existing facilities to handle the existing demand for recreation facilities.

Table E8.3-3. Recreation facilities at Ice House Reservoir.			
Facility	Name	Capacity	Comments
Campgrounds	Ice House 1 & 2	83 campsites	Vault toilets, water, picnic tables, fire rings and grills. Swimming area. Reservations for some of the sites, first come-first serve for the remainder of the sites.
	Northwind	9 campsites	Vault toilets, no water, picnic tables, fire rings and grills.
	Strawberry Point	10 campsites	Vault toilets, no water available, picnic tables, fire rings and grills.
Day Use Areas	Ice House	10 picnic sites	Vault toilets, picnic tables. Located just north of the dam.
Boat Launches	Ice House Boat Launch	49 car/trailer parking spaces	Vault toilets. Also available for self-contained RV overflow camping. No campfires.
Visitor Information	Crystal Basin Information Station		Located on Ice House Road.
	Cleveland Corral Information Station		Located on Ice House Road near Highway 50.
Trails	Ice House Bike Trail	approx. 3.1 miles	Unpaved bike trail between the launch and Strawberry Pt. Campground.
Organization Camp	Mountain Camp 2*		Private camp operated under Special Use Permit from the Forest Service.
Sanitation Station	Ice House Sanitation Station		RV sanitation station located near Ice House CG.

*non-Project facility

8.3.7 Union Valley Reservoir

Located approximately 15 miles north of Highway 50, Union Valley Reservoir is the largest reservoir of the UARP and the site of the greatest concentration of the developed recreation facilities in the Crystal Basin. There are 12 campgrounds, a day use area, three boat launches, and two sanitation stations (see facilities map in Appendix E8-1). In addition to the above

Table E8.3-4. Recreation facilities at Union Valley Reservoir.			
Facility	Name	Capacity	Comments
Campgrounds	Azalea Cove	10 campsites	Access by foot, boat or bicycle only. Vault toilets, picnic tables, fire rings, bike rack, no water/garbage service.
	Camino Cove	32 campsites	Vault toilets, fire rings, no water.
	Fashoda	30 campsites	Walk-in CG, vault toilets, water available. picnic tables, fire rings, grills.
	Jones Fork	10 campsites	Vault toilets, picnic tables, fire rings. No water.
	Lone Rock	5 campsites	Access by foot or bicycle only. Vault toilets, picnic tables, fire rings, bike rack. No water/garbage service.
	Sunset	131 campsites	Vault and flush toilets, water available, picnic tables, fire rings and grills. Picnic area and swimming beach nearby. Reservations.
	Wench Creek	100 campsites	Vault and flush toilets, water available, picnic tables, fire rings and grills. Reservations.
	Westpoint	8 campsites	Vault toilets, no water, fire rings.
	Wolf Creek	42 campsites	Vault toilets, water, picnic tables, fire rings and grills. Reservations.
	Yellowjacket	40 campsites	Vault and flush toilets, water available, picnic tables, fire rings, grills. Reservations.
Group Campgrounds	Big Silver	1 site, 50 PAOT	Vault toilets, no water, picnic tables, fire rings and grills. Reservations.
	Wench Creek	2 sites, 50 PAOT	Vault and flush toilets, water available, picnic tables, fire rings and grills. Some sites by reservation and some on first come-first served basis.
Day Use Areas	Fashoda	5 picnic sites	Vault toilets, water, picnic tables, fire rings and grills. Swimming beach.
Boat Launch	Sunset Boat Ramp	93 car/trailer parking spaces	Vault toilets, water available. Also available for self-contained RV overflow camping. No campfires.
	West Point Boat Launch	25 car/trailer parking spaces	Vault toilet
	Yellowjacket Boat Launch	18 car/trailer parking spaces	Vault toilet
Trails	Union Valley Bike Trail	5.2 miles	Paved path between Wench Cr. CG and Jones Fork CG.
Trailhead	Jones Fork Trailhead	12 parking spaces	
Organization Camp	SMUD Employee Association Camp*		Private camp on private land
Lodging	Robbs Hut*		Year-round rental available by reservation. Max. 6 people
	Van Vleck Bunkhouse*		Year-round rental available by reservation. Max. 6 people
Sanitation Station	Wolf Creek		RV Sanitation Station near Yellowjacket CG.
	Sunset		RV Sanitation Station between Sunset CG and boat launch

*non-Project facility

campgrounds that have vehicle access, visitors also enjoy two boat-in and hike-in campgrounds at Union Valley Reservoir. An additional feature of the recreation complex at Union Valley Reservoir is a 5.2-mile-long paved bike trail around the lake perimeter between Wench Creek Campground and Jones Fork Campground. Operation and maintenance of the recreation facilities is performed by the ENF through a combination of funding from SMUD, concessionaire management, and funding from the USFS fee demonstration project (Jones Fork Campground only). Table E8.3-4 describes the recreation facilities available at Union Valley Reservoir, all of which are Project recreation facilities.

The facilities planned for the last phase of development under the Project Recreation Plan include: 1) a 0.95-mile-long bike path between Yellowjacket and Wolf Creek Campgrounds, 2) showers at Fashoda Campground, 3) toilet replacement at Fashoda Campground, 4) Big Hill Vista Point interpretive improvements, and 5) Wolf Creek Group Campground improvements.

Based on SMUD's FERC Form 80 filings for 1990, the campgrounds, day use areas, and boat launch were at 60, 25, and 50 percent capacity, respectively. SMUD's 1996 Form 80 Filings suggested that in 1996 these facilities were at 50, 25, and 20 percent capacity, respectively. These percentages compare non-holiday weekend use with the facility's capacity. These figures do not indicate use trend but do reflect the capacity of existing facilities to handle the existing demand for recreation facilities.

8.3.8 Junction Reservoir

Junction Reservoir is approximately 16 miles north of Highway 50 (Ice House Road to Peavine Ridge Road and then to Bryant Springs Road). The reservoir is located in a steep canyon at the confluence of Silver Creek and South Fork of the Silver Creek (SFSC), immediately downstream of Union Valley Dam. The elevation is 4,450 feet and there are no developed recreation facilities located at this reservoir. There are at least three areas along the reservoir shoreline, however, that are occasionally used for dispersed camping. One of these sites located on the southern shoreline, about halfway up the SFSC arm of the reservoir, provides undeveloped access for launching boats on the reservoir.

8.3.9 Camino Reservoir

Camino Reservoir is located in a steep canyon approximately 7 miles northeast of the Ice House Road/Peavine Road intersection. Public vehicle access is not permitted beyond the gate near the Jaybird Powerhouse and boats are not permitted on the surface of the reservoir. The elevation is 2,915 feet and this area receives infrequent use by visitors that are fishing, hunting and using OHVs. There are no developed recreation facilities at this reservoir.

8.3.10 Brush Creek Reservoir

Brush Creek Reservoir is located approximately 12 miles north of Highway 50 (Sly Park Road to Poho Road to Brush Creek Access Road). This reservoir is located in a steep, forested area at 2,915 feet elevation. There are no developed recreation facilities at this site, however, there are areas that are occasionally used as dispersed camping sites by the public and there is evidence of

vandalism. There is a paved, narrow, single-lane ramp that allows limited access for the launching boats on the southern shoreline. There is also a dispersed campsite near this area and dispersed camping occurs about 100 yards downstream of the boat launch along the shoreline.

8.3.11 Slab Creek Reservoir

Slab Creek Reservoir is located approximately 8 miles from Highway 50 (Camino, Sly Park Road exit). This reservoir is located at 1,850 feet. Except for a primitive boat launching site on the south side of the reservoir near the dam, there are no developed recreation facilities at this site. The boat launch is a project recreation facility constructed by SMUD under license article 55. One other area along the lakeshore at the upstream end of the reservoir allows limited access for boat launching on a narrow, unpaved surface and dispersed camping occurs along the shoreline.

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