

1.0 EXECUTIVE SUMMARY

This study focuses on recreational use associated with four designated Wilderness areas in the Southern California Edison (SCE) Big Creek Alternative Licensing Project (ALP) study area, including the John Muir, Dinkey Lakes, Kaiser, and Ansel Adams Wilderness areas. Information developed through this study was used to: 1) identify dispersed recreation activities originating at Project reservoirs; 2) estimate Wilderness use levels, and 3) characterize Wilderness use and overall visitor satisfaction. The study was accomplished by conducting interviews with local outfitters and business owners, examining United States Forest Service (USDA-FS) permit information, and evaluating recreation use and satisfaction information obtained through visitor surveys conducted during the summer of 2002.

Information obtained through interviews with local outfitters and business owners indicate Wilderness visitors typically participate in hiking, photography, fishing, hunting, and horseback riding. Horseback riding from Huntington Lake into the Kaiser Wilderness Area is a popular day trip as are fishing trips from Florence Lake to Crater Lake, located in the John Muir Wilderness. Overnight use of all of the Wilderness areas is common.

Overnight Wilderness users are required to obtain a permit from the USDA-FS. According to USDA-FS records, the High Sierra Ranger District issued a total of 2,875 permits for overnight stays in the Kaiser, Dinkey Lakes, John Muir, and Ansel Adams Wilderness areas (from April 1 to October 31, 2002). The permit details indicate a combined total of 10,945 people were permitted overnight stays within the four Wilderness areas.

USDA-FS records indicate the most popular Wilderness area during 2002 was the John Muir Wilderness Area. A total of 6,352 people in 1,873 groups obtained permits to enter the area in 2002. The least used Wilderness area during 2002 was the Ansel Adams Wilderness Area. A total of 180 people in 54 groups obtained permits to enter the area in 2002.

A total of 131 groups used stock (horses and/or mules) for their Wilderness trip. The 131 groups represent 4.6% of the total number of permits issued by the High Sierra Ranger District. The highest use of stock was in the John Muir Wilderness Area and the lowest use of stock was in the Ansel Adams Wilderness Area.

A total of 2,019 visitors responded to recreation surveys conducted by SCE in the Big Creek ALP study area during the summer of 2002. Of these, a total of 366 (18%) indicated they had visited at least one of the four nearby Wilderness areas during their stay. Of the 366 who indicated they visited a Wilderness area during their stay, 82 responded that they only visited a Wilderness area. The remainder engaged in recreation activities at developed and/or undeveloped recreation areas in addition to

visiting a Wilderness area. The majority of survey respondents gave a high satisfaction rating for their Wilderness experience.

2.0 STUDY OBJECTIVE

The study objective was identified in the REC 22 Wilderness areas Work Plan, as follows:

- Evaluate the recreational use and character of Wilderness areas to determine if Project-related dispersed recreation activities adversely affect the quality of the Wilderness experience and character.

2.1 STUDY ELEMENTS COMPLETED

The Work Plan identified four elements to be completed as part of this study. Three of the study elements have been completed, as follows:

- Identified dispersed recreation opportunities at Project reservoirs that extend into adjacent Wilderness recreation areas.
- Reviewed the Wilderness use permits issued by the USDA-FS, including a review of access points into the Wilderness and the length of stay.
- Developed and conducted a user survey at developed recreational facilities located adjacent to Wilderness areas to characterize the types and geographical range of dispersed recreational activities that originate from developed sites and extend into Wilderness areas.

2.2 OUTSTANDING STUDY ELEMENTS

The Work Plan identified a fourth study element, which has not been completed, as follows:

- Assess the potential for effects on the character of the Wilderness areas from nearby Project facilities, Project-related recreation facilities, or from modifications or enhancements to existing facilities.

3.0 STUDY IMPLEMENTATION

3.1 STUDY AREA

This study focuses on five ALP Project reservoirs and four adjacent Wilderness areas, identified as follows:

Reservoirs

- Lake Thomas A. Edison
- Florence Lake
- Mono Diversion and Forebay

- Portal Forebay
- Huntington Lake

Designated Wilderness Areas

- Ansel Adams Wilderness
- John Muir Wilderness
- Dinkey Lakes Wilderness
- Kaiser Wilderness

In addition, this study addresses the use of trails connecting these five project reservoirs to the nearby Wilderness areas.

4.0 STUDY METHODOLOGY

Several of the Big Creek ALP reservoirs are surrounded by or are situated adjacent to designated Wilderness Areas. Trails originating at the Project reservoirs provide recreation visitors access to the Wilderness areas. Similarly, trails diverging from the Wilderness areas provide Wilderness users access to the Project reservoirs, and their associated facilities. For example, access to the Pacific Crest Trail is provided by trails originating from Lake Thomas A. Edison and Florence Lake.

This study characterizes dispersed recreation use originating from Project-related trailheads into adjacent Wilderness areas. This study was accomplished by:

- Conducting interviews with local outfitters who provide guided trips into the Wilderness areas.
- Conducting interviews with commercial business owners at Florence Lake and at Lake Thomas A. Edison.
- Reviewing USDA-FS Wilderness permits to determine Wilderness area use levels, trailhead use, first night destinations, and length of stay.
- Reviewing the results of recreation use surveys conducted during the summer of 2002 to evaluate Wilderness use associated with Project reservoirs, length of stay, and visitor satisfaction.

Each of these steps is discussed further in the following.

4.1 INTERVIEWS

Two commercial outfitters provide guided trips into the four Wilderness areas surrounding the Project reservoirs, D&F Pack Station and the High Sierra Pack Station. These outfitters provide both day and overnight trips and were consulted to assess the types of recreation activities commercial visitors participate in and trip destinations.

Representatives of the three following commercial businesses were also interviewed: Vermilion Valley Resort, the Florence Lake Store, and John Muir Ranch. The Vermilion Valley Resort is located at Lake Thomas A. Edison and the Florence Lake Store and John Muir Ranch are located at Florence Lake.

4.1.1 PERMITTED WILDERNESS USE

Visitors who plan to stay overnight in one of the four designated Wilderness areas in the Big Creek ALP study area must obtain a permit from the USDA-FS, Sierra National Forest (SNF), High Sierra Ranger District (District). The District uses permit information to estimate Wilderness use and to track destination, length of stay and other types of information. SCE reviewed the USDA-FS permits and database to assess Wilderness use and to evaluate the following:

- trailhead trip origin;
- first night stay destination;
- exit location;
- length of stay; and
- group size.

In addition, SCE used the permit information to determine method of travel, and to evaluate how much stock use occurs in the Wilderness areas.

4.1.2 VISITOR SURVEYS

SCE conducted comprehensive recreation visitor surveys as part of the REC 10/17 Recreation Opportunities and Needs Assessment study. The surveys were conducted from May 25 through September 2, 2002 and were administered at 51 recreation sites and 12 businesses throughout the Big Creek ALP study area. The surveys were conducted through interviews and through self-administered surveys. A detailed description of the survey methods and results is available in the REC 10/17 Recreation Opportunities and Needs Assessment report (SCE 2003).

The data obtained through the 2002 survey effort was reevaluated with respect to Wilderness use and visitor satisfaction. Pertinent information is included in this study report.

5.0 STUDY RESULTS AND ANALYSIS

5.1 INTERVIEWS

Relevant specific information obtained through interviews is discussed in the following.

5.1.1 D&F PACK STATION

The D&F Pack Station is based in the Huntington Lake area with two satellite corrals located at Badger Flat and Lake Thomas A. Edison. All three D&F Pack Stations have parking areas for customers.

D&F offer trips into the Kaiser, Dinkey Lakes, John Muir, and Ansel Adams Wilderness areas, utilizing the following trailheads:

- Huntington Lake - Kaiser Loop, Potter Pass, Huntington Lake access trail, and Billy Creek (occasional).
- Florence Lake - Main Florence access trail (Dutch/Crater).
- Badger Flat - Twin Lakes, California riding and hiking trail.
- Lake Thomas A. Edison - Onion Springs, Cold Creek, Mono Creek, Bear Ridge, Bear Creek, Bear Diversion, and Mono Hot Springs.

D&F Pack Station offers both day and overnight trips. The most popular destination for D&F's day ride customers is the Kaiser Wilderness Area. In addition to Wilderness trips, trail rides around Huntington and Shaver lakes are also popular. The overnight trip destinations are numerous and dependent upon various factors such as snow level, insects, and time of departure. All parts of the John Muir, Ansel Adams, Dinkey Lakes, and Kaiser Wilderness areas are used for extended trips.

5.1.2 HIGH SIERRA PACK STATION

The High Sierra Pack Station has locations at Florence and Edison Lakes and offers trips into the John Muir and Ansel Adams Wilderness areas, and Kings Canyon National Park. Customer parking facilities are available at both the Lake Edison and Florence Lake locations.

The High Sierra Pack Station offers both day and overnight trips. Popular day ride and guided hike destinations from Lake Edison include Devil's Bathtub, Graveyard Meadows, Arrowhead Lake, and the headwaters of Lake Edison. The most popular day trip from Florence Lake is to Crater Lake for fishing.

The High Sierra Pack Station guides overnight trips to destinations throughout the John Muir and Ansel Adams Wilderness areas. In order to prevent high disturbance to specific areas, trip destinations are varied and dependent on a number of factors such as snow level, insects, and time of departure. The most popular overnight destination out of Florence Lake is up Piute Creek through the San Joaquin River. Popular overnight destinations out of Lake Edison include Frog Lake, Graveyard Lakes, Bear Creek, and Kip Camp.

At Florence Lake, the Dutch/Crater trailhead is the primary trailhead into the Wilderness. At Edison Lake, several trailheads are available and all are used equally.

5.1.3 VERMILION VALLEY RESORT

Vermilion Valley Resort is located on the Lake Thomas A. Edison shoreline. The resort is a popular destination for visitors interested in fishing and other recreation pursuits, and accessing the Ansel Adams and John Muir Wilderness areas. In addition, Vermilion Valley Resort is the primary re-supply stop for Wilderness backpackers using the Pacific Crest National Scenic Trail and the John Muir Trail, which traverse the John Muir Wilderness area near Lake Thomas A. Edison. Backpackers commonly stay at least one day at the resort to shower and have hot meals. They often use the ferry that operates from the resort to get to and from the Wilderness Area boundary.

During the main recreation season (Memorial Day to Labor Day) the ferry runs twice a day. During the peak season there are twenty to thirty people on each ferry trip.

The resort owner estimates that about 50% of the visitors at Vermilion Valley Resort use the ferry to access the Wilderness for day trips. Fishing and hiking are the primary recreation activities for the Wilderness day trips.

5.1.4 FLORENCE LAKE STORE AND MUIR RANCH

The Florence Lake Store and Muir Ranch are located at Florence Lake. The John Muir and Dinkey Lakes Wilderness areas are accessible from Florence Lake. The Wilderness areas can be accessed via a trail which traverses the southwest side of the lake or from a trailhead located at the southeast end of Florence Lake. In addition, Kings Canyon National Park can be accessed from a trail originating at Florence Lake. A ferry station is located on the northwest end of the lake and the ferry provides rides across the lake. Visitors who want to use the ferry make arrangements through the Florence Lake Store, which is adjacent to the ferry departure area.

During the peak recreation season, the ferry makes five trips per day. Almost all of the ferry use is associated with travel to the Wilderness areas. About 80% of the Wilderness users hike a "loop" back to the ferry "pick-up" dock at the east end of the lake. The remaining users depart the Wilderness at other locations.

The Jackass Meadows campground is located at the northeast end of Florence Lake and is a short distance from the ferry departure area. Though the campground is relatively close, there is very little use of the ferry to access the Wilderness by campers staying in Jackass Meadows campground.

The most popular destination for those entering the wilderness from Florence Lake is Evolution Valley, located in Kings Canyon National Park. Other popular destinations are the Edison Loop and the John Muir Trail. Almost all of the Wilderness use originating in the Florence Lake area is associated with Wilderness camping. Most of the Wilderness users are backpackers, though some will engage in angling activities. The majority of Wilderness use originating for Florence Lake takes place between July 15 and August 15.

5.2 PERMITTED WILDERNESS USE

Overnight Wilderness users are required to obtain a permit from the USDA-FS. According to USDA-FS records, the High Sierra Ranger Station issued a total of 2,875 permits for overnight stays in the Kaiser, Dinkey Lakes, John Muir, and Ansel Adams Wilderness areas. The permit specifics indicate a combined total of 10,945 people were permitted overnight stays within the four Wilderness areas.

Table REC 22-1 shows the number of permits issued in 2002 for each Wilderness Area by month. As indicated, the John Muir Wilderness Area is the most popular overnight Wilderness destination in the Big Creek ALP area. A total of 1,873 permits were issued for the John Muir Wilderness Area. By comparison, a total of 627 overnight permits were issued for the Dinkey Lakes Wilderness, 320 for the Kaiser Wilderness and 54 for the Ansel Adams Wilderness areas.

Table REC 22-1. Wilderness Use Permits by Area and Month.

Wilderness Area	Total 2002 Permits	Permits by Month						
		April	May	June	July	Aug.	Sept.	Oct.
John Muir	1873	0	34	191	593	749	269	37
Dinkey Lakes	627	1	11	105	176	235	77	22
Kaiser	320	0	22	52	81	110	37	18
Ansel Adams	54	0	2	5	17	22	8	0
Total	2874	1	69	353	867	1116	391	136

Overnight Wilderness users sometimes utilize stock animals. The number of stock animals used by each group, organized by Wilderness Area is summarized in Table REC 22-2.

Table REC 22-2. Use of Stock in the Wilderness Areas.

Wilderness Area	Groups with Stock	Number of stock animals used by each group					
		1	2	3	4	5	>5
John Muir	98	1	5	20	22	10	40
Dinkey Lakes	24	2	4	3	3	3	9
Kaiser	6	0	3	0	1	1	1
Ansel Adams	3	0	1	0	1	0	1
Total	131	3	13	23	26	14	51

Use in each of the four Wilderness areas is described in more detail in the following subsections.

5.2.1 JOHN MUIR WILDERNESS AREA

The most popular Wilderness Area in the Big Creek ALP Project area during 2002 was the John Muir Wilderness Area. A total of 6,352 people in 1,873 groups obtained permits to enter the area in 2002. The average group size was just over three people and the most frequent group size was two people. Ninety-eight groups that used the area traveled with stock. The average length of stay in the wilderness area was five days (mode=3 days). The majority of wilderness users used the area during the months of July and August (refer to Table REC 22-1).

Thirteen trailheads provide access to the John Muir Wilderness Area from the SNF. Six of these trailheads are located in the Big Creek ALP Area, including the Florence, Mono Creek, Bear Diversion, Bear Ridge, Dutch and Hooper trailheads. Over half (1,029 of the 1,873) permits issued for the John Muir Wilderness Area indicated one of these six trailheads as the point of access. Most John Muir Wilderness Area parties exited the area at the same trailhead where they entered. Table REC 22-3 summarizes the permitted use of the John Muir Wilderness Area from Big Creek ALP study area trailheads.

Table REC 22-3. John Muir Wilderness Use Originating in the Project Study Area.

Project Area Trailhead	Parties Entering from this Trailhead	Parties Exiting at Same Trailhead
Florence	483	425
Mono Creek	276	214
Bear Diversion	216	194
Bear Ridge	43	31
Dutch	28	26
Hooper	13	13
Total	1059	903

The USDA-FS permit database contains information about where John Muir Wilderness Area visitors spent their first night. Table REC 22-4 identifies the nine most popular first night locations for parties entering the John Muir Wilderness via one of the six trailheads originating in the Big Creek ALP area.

Table REC 22-4. John Muir Wilderness Destination Locations.

Destination Location	Number of parties spending 1st night at this location	Percentage ¹
Blayne Meadow and Hot Springs	200	18.9
Bear Creek	78	7.4
Twin Falls	64	6.0
Kip Camp	58	5.5
Evolution Valley	44	4.2
Mott Lake	43	4.1
Quail Meadow	39	3.7
Sallie Keyes	31	2.9
Pocket Meadow	28	2.6

¹Percentage based on 1029 total John Muir Wilderness Area parties accessing the area from trailheads in the Big Creek ALP Project area.

5.2.2 DINKEY LAKES WILDERNESS AREA

A total of 2,889 people in 627 groups obtained permits to enter the Dinkey Lakes Wilderness Area in 2002. The average group size was four and a half people and the most frequent group size was two people. Twenty-four groups that used the area traveled with stock. The average length of stay in the Wilderness area was approximately 3 days (mode=2 days).

Six trailheads provide access to the Dinkey Lakes Wilderness Area from the SNF. Only one of these trailheads is located near the Big Creek ALP study area, the Badger Trailhead, located off Kaiser Pass Road, east of Huntington Lake. Sixteen of the Dinkey Lakes Wilderness parties accessed the area from this trailhead. Twelve of these parties also exited the area at the same trailhead.

The USDA-FS permit database contains information about where Dinkey Lakes Wilderness Area visitors spent their first night. Table REC 22-5 identifies the two most popular first night locations for parties entering the Dinkey Lakes Wilderness via the Badger Trailhead.

Table REC 22-5. Dinkey Lakes Wilderness Destination Locations.

Destination Location	Number of parties spending 1st night at this location	Percentage ¹
Rock Lake	5	31.3
Rock Meadow	3	18.8

¹Percentage based on 8 total Dinkey Lakes Wilderness Area parties accessing the area from the Badger Trailhead.

5.2.3 KAISER WILDERNESS AREA

A total of 1,537 people in 319 user groups obtained permits to enter the Kaiser Wilderness area in 2002. The average group size was nearly five people and the most frequent group size was two people. Six groups that used the area traveled with stock. The average length of stay in the Kaiser Wilderness area was two days (mode=2 days). Most of the permitted wilderness users used the area during the months of July and August (refer to Table REC 22-1).

Eight trailheads provide access to the Kaiser Wilderness Area from the SNF (USDA-FS 2003). Five of these trailheads are located in the Big Creek ALP study area, including the Potter Pass, Potter Cutoff, Deer Creek, Billy Creek, and Coarsegrass trailheads. None of the visitors indicated that they used the Coarsegrass trailhead. Over half of the permits (219 permits, 69%) issued for the Kaiser Wilderness indicated one of the four other trailheads as their point of entry into the Wilderness Area. Most Kaiser Wilderness Area users exited the area at the same trailhead where they entered. Table REC 22-6 summarizes the permitted use of the Kaiser Wilderness Area from the Big Creek ALP area trailheads.

Table REC 22-6. Kaiser Wilderness Use Originating in the Project Area.

Project Area Trailhead	Users Entering from this Trailhead	Users Exiting at Same Trailhead
Potter Pass	125	124
Billy Creek	56	47
Deer Creek	25	25
Potter Cutoff	13	12
Coarsegrass	0	0
Total	219	208

The USDA-FS permit database contains information about where Kaiser Wilderness Area visitors spent their first night. Table REC 22-7 identifies the five most popular first night locations for visitors entering the Dinkey Lakes Wilderness via the trailheads originating in the Big Creek ALP area.

Table REC 22-7. Kaiser Wilderness Destination Locations.

Destination Location	Number of parties spending 1 st night at this location	Percentage ¹
Upper Twin Lake	76	34.7
Nellie Lake	56	25.5
George Lake	27	12.3
Lower Twin Lake	15	6.8
Idaho Lake	12	5.5

¹Percentage based on 219 total Kaiser Wilderness Area parties accessing the area from trailheads in the Big Creek ALP Project area.

5.2.4 ANSEL ADAMS WILDERNESS AREA

The least used Wilderness area in the High Sierra Ranger District during 2002 was the Ansel Adams Wilderness Area. A total of 158 people in 54 groups obtained permits to enter the area in 2002. The average group size was three people and the most frequent group size was two people. Three groups that used the area traveled with stock. The average length of stay in the Wilderness area was three days (mode=2 days). Most of the permitted Wilderness visitors used the area during the month of August (refer to Tables REC 22-1 and REC 22-2).

Seven trailheads provide access to the Ansel Adams Wilderness Area from the SNF. Five of these trailheads are located in the Big Creek ALP study area, including the Onion Springs, Mono Meadow, Doris/Tule, Mono Hot Springs, and Portal Forebay (also known as Mono Crossing) trailheads. All but six (48 permits, 89%) of the Ansel Adams Wilderness parties accessed the area from one of these five Project Area trailheads. Most wilderness parties exited the area at the same trailhead where they entered. Table REC 22-8 summarizes the permitted use of the Ansel Adams Wilderness Area from the Big Creek ALP Project area trailheads.

Table REC 22-8. Ansel Adams Wilderness Use Originating in the Project Area.

Project Area Trailhead	Users Entering from this Trailhead	Users Exiting at Same Trailhead
Doris/Tule	15	13
Portal Forebay	14	14
Mono Hot Springs	10	10
Onion Springs	7	7
Mono Meadow	2	1
Total	48	45

The USDA-FS permit database contains information about where Ansel Adams Wilderness Area visitors spent their first night. Table REC 22-9 identifies the eight most popular first night location for visitors entering the Ansel Adams Wilderness via the trailheads originating in the Big Creek ALP area.

Table REC 22-9. Ansel Adams Wilderness Destination Locations.

Destination Location	Number of users spending 1st night at this location	Percentage ¹
Mono Crossing	10	20.8
Doris Lake	9	18.5
Tule Lake	9	18.5
South Fork San Joaquin	4	8.3
Mono Creek	3	6.3
Hedricks Meadow	2	4.2
Mono Hot Springs	2	4.2
Rattlesnake Crossing	2	4.2

¹Percentage based on 48 total Ansel Adams Wilderness Area users accessing the area from trailheads in the Big Creek ALP Project area.

5.3 VISITOR SURVEYS

Comprehensive recreation visitor surveys were conducted during the summer of 2002 in association with other recreation studies related to the Big Creek ALP. The survey instrument did not focus specifically on Wilderness use. However, the Background and General Recreation Use portions of the survey instrument contained several questions that are useful in examining overall Wilderness use, length of stay and user satisfaction.

A total of 2,019 visitors responded to the surveys conducted in the Big Creek ALP study area during the summer of 2002. Of these, 366 (18%) indicated they had visited at least one nearby Wilderness area during their stay. Many of the respondents indicated they had visited more than one Wilderness area during their trip.

Of the 366 respondents who indicated they visited a Wilderness area during their stay, 82 responded that they only visited a Wilderness area. The remainder engaged in other recreation activities at developed and/or undeveloped recreation areas in addition to visiting a Wilderness area. The mean group size of Wilderness area users was five people but the most frequent response (mode) was two people.

Table REC 22-10 summarizes the number of surveys conducted during each month of the survey period. This data provides an indication of when the Wilderness areas are typically used. As indicated, during 2002 the majority of Wilderness use occurred in July and August. The USDA-FS permit data (which is necessarily biased toward overnight users) indicates Wilderness use is heaviest in August, followed by June then July.

Table REC 22-10. Date of Survey for Wilderness Users.

Month	Count	Percent
March	1	0.3
April	1	0.3
May	35	9.6
June	55	15.0
July	139	38.0
August	101	27.6
September	26	7.1
October	0	0.0
None	8	2.2
Total	366	

Table REC 22-11 summarizes the number of survey responses by Wilderness Area combined with information about length of stay (Note many of the survey respondents indicated they used more than one Wilderness area, resulting in a total of 502 visits).

With the exception of the John Muir Wilderness, the data indicate the majority of Wilderness users stay for one day or less, and typically stay for just ½ a day. The majority (46.1%) of John Muir Wilderness visitors stay for two days or more.

Table REC 22-11. Wilderness Areas Used and Length of Stay.

Wilderness Area	Survey Responses ¹	Length of Stay			
		<0.5 day	0.5-1 day	2 days	>2 days
Kaiser Wilderness Area	172 (%) ²	69 (40.1)	59 (34.3)	20 (11.6)	24 (14.0)
John Muir Wilderness Area	115 (%) ²	35 (30.4)	17 (14.8)	10 (8.7)	53 (46.1)
Dinkey Lakes Wilderness Area	114 (%) ²	46 (40.4)	41 (36.0)	11 (9.6)	16 (14.0)
Ansel Adams Wilderness Area	101 (%) ²	40 (39.6)	31 (30.7)	8 (7.9)	22 (21.8)
Total	502 (%) ³	190 (37.8)	148 (29.5)	49 (9.8)	115 (22.9)

¹366 total wilderness user survey responses. Some surveys indicated multiple wilderness areas used.

²Percentages are based on the total survey responses for each individual Wilderness Area.

³Percentages are based on the total amount of survey responses.

Table REC 22-12 summarizes Wilderness Area visitor satisfaction for day and overnight use. Overall visitor satisfaction was tabulated using the following scale:

- 1 = highly unacceptable
- 2 = moderately unacceptable
- 3 = neutral
- 4 = moderately acceptable
- 5 = highly acceptable

A total of 82 survey respondents indicated that they only visited a Wilderness area on their trip. Of these, 65 respondents answered the survey question that rated user satisfaction. A total of 31 of the respondents were day users and 34 were overnight users. The majority of respondents, whether day or overnight users, indicated a high level of satisfaction.

Table REC 22-12. Wilderness Area Satisfaction for Day and Overnight Use.

Activity	Survey Responses ¹	Mean Satisfaction ²	St. Dev.
Wilderness Day Use	31	4.8	0.6
Wilderness Overnight Use	34	4.7	0.6

¹82 total wilderness user survey responses. Some surveys indicated participation in multiple recreation activities.

²Mean and standard deviation for satisfaction are calculated for each Wilderness Area activity. For purposes of this calculation, steps in the rating scale were assigned values of 1 to 5. 1=Highly Unacceptable, 2=Moderately Unacceptable, 3=Neutral, 4=Moderately Acceptable, 5=Highly Acceptable.

5.4 USDA-FS WILDERNESS AREA DATA

The USDA-FS June 2004 draft report titled, “Mandatory Selected Conditions Related to Wilderness Character: A National Framework,” is the current guidance document that will be used by the USDA-FS when determining effects on the character of the wilderness. The report was prepared by the USDA-FS Wilderness Monitoring Committee and is not a component of the Wilderness Act. The report includes four terms describing the qualities of wilderness character: (1) Untrammelled; (2) Natural; (3) Undeveloped; and (4) Outstanding opportunities for solitude or a primitive and unconfined type of recreation. The USDA-FS has indicated that they will be using the following definitions for these four wilderness qualities when conducting analyses to determine project effects on wilderness character.

- *Untrammelled* – wilderness is unhindered and free from human control or manipulation.
- *Natural* – wilderness ecological systems are substantially free from the effects of modern civilization.

- *Undeveloped* – wilderness is substantially without permanent improvements or modern human occupation.
- *Outstanding opportunities for solitude or a primitive and unconfined type of recreation* – Wilderness provides opportunities for people to experience solitude or a primitive and unconfined recreation, including the values of inspiration and physical and mental challenge.

The USDA-FS states that day users are generally considered to be the largest Wilderness user group and that in California, day use makes up 63% of all use in USDA-FS Wilderness areas. While day use has not been directly measured on the Sierra NF, the USDA-FS believes that Sierra NF Wilderness areas' use patterns are similar to other Wilderness areas around the state. The USDA-FS has indicated that they will be using these statistics to estimate the number of day users in the wilderness areas.

6.0 LITERATURE CITED

Southern California Edison. 2003. 2002 Technical Study Report Package for the Big Creek Hydroelectric System Alternative Licensing Process prepared by Southern California Edison. October 10, 2003.

US Forest Service (USDA-FS), Region 5. 2003. Wilderness Recreation Use Monitoring Progress Report. March 2003. Presentation at Regional Recreation-Engineering Conference in Folsom, CA, by Robert Mason, Regional Coordinator of Wilderness Recreation Use Monitoring project.

US Forest Service (USDA-FS), Sierra National Forest (SNF). 2003. Wilderness Quotas Sierra National Forest. Date unknown. Provided through consultation with Cindy Whelan, Assistant Lands Officer, Sierra National Forest.

US Forest Service (USDA-FS), Washington Office. 2004. Monitoring Selected Conditions Related to Wilderness Character: A National Framework – DRAFT. June 2004. Forest Service Wilderness Monitoring Committee.

6.1 CONSULTATION

Brad Meyers, D&F Pack Station. August 18, 2003.

Jenise Cunningham, High Sierra Pack Station. August 19, 2003.

Jim Clements, Vermilion Valley Resort. June, 30 2004

Carla Hurley, Florence Lake Store and Muir Trail Ranch. July 9, 2004