

#### THE FINAL REPORT ON THE FACE-TO-FACE INTERVIEWS CONDUCTED FOR THE EL DORADO IRRIGATION DISTRICT, SUMMER 2002

#### Prepared for the El Dorado Irrigation District

10/17/2002

Jon S. Ebeling, Ph.D. Frederica Shockley, Ph.D. James Fletcher, Ph.D.

Regional and Economic Sciences

1786 Estates Way, Chico, Ca 95928 (530) 895-3338 or 342-9043 • Fax: (530) 343-9981



## **Table of Contents**

### Section

1	Sample Characteristics	1
	Face-to-Face Data Collection	1
2	Demographic Characteristics of the Sample	4
	Household Composition	4
	Disabilities	6
	Age	6
	Ethnicity	6
	Education	8
	Household Income	11
	Gender	12
3	Site Use Characteristics	14
	Participation in Recreation Activities	14
	Importance of Facilities and Services	15
	Reasons for Choosing the Recreation Location	15
4	Activities at the Lake	25
	State of Residence	25
	Party Composition	27
5	Site Characteristics	29
	Repeat Visitation	29
	Satisfaction with Features	31
	Crowding	32
6	Conclusions	34

# SECTION 1 🗇 SAMPLING CHARACTERISTICS

This is a draft summary of the sampling activities and findings for the 2002 El Dorado Irrigation District (EID) Project 184 area on-site recreation users' survey conducted July 4, 2002 through September 9, 2002. Table 1.1 shows the number of interviews completed for each month of the survey. The number of interviews completed during the month of September was small because field interviewing ended on September 2. Table 1.2 shows the allocation of interviewers to the sites during the survey period. We had ten different interviewers in the field during July 4 through September 2. Some worked the entire period, and some left the work for various reasons.

#### Table 1.1. Number of on-site interviews completed by month, summer 2002.

Month	Number of Interviews	Percent of Total
July 2002	512	40.4%
August 2002	648	51.1%
September 2002	107	8.4%
Total	1267	99.9%

\*Error due to rounding.

Site	Number of Interviewers	Total Hours
Silver Lake	5 persons	346
Caples Lake	7 persons	324
Echo Lake	2 persons	359
Aloha Lake	1 person	123
Total		1152

#### Table 1. 2.Interviewer assignments, by lake, summer of 2002.

#### Face-to-Face Data Collection

Regional and Economic Sciences (RES) briefed seven interviewers in Chico, California, on June 23 and at the Kirkwood Resort Conference Room on July 3. After three interviewers quit, we hired four more in order to have enough to cover the busy Labor Day weekend (August 30 through September 2). We briefed those interviewers in Chico at various dates during August. When they began working, we paired the newly hired interviewers with experienced interviewers.

We used 1,152 interviewer hours to collect 1,267 interviews between July 3 and September 2, 2002, around Aloha, Caples, Echo, and Silver Lakes. About two-thirds (67.1%) or 837 of those interviewed agreed to follow-up telephone interviews. On average, interviewers collected one interview every 1

hour and 5 minutes. This estimated interview length included walking to random locations around two of the lakes as requested by the United States Forestry Service (USFS).

We randomized the days we collected interviews between the two holidays: the Fourth of July and Labor Day weekend. Interviewers collected data from 10 A.M. until 6 P.M. We randomized the time we collected interviews at five different areas around Caples Lake and at ten different areas around Silver Lake.

The number of completed interviews presented by lake indicates the data is reasonably representative of visitation to each lake (Table 1.3). The number of completed interviews for Lake Aloha is low because there are fewer persons who go to that lake than the other three lakes. Because of the low levels of recreation use at Lake Aloha, only one person was assigned to conduct interviews there.

The major reason for the differences in sample sizes between Echo, Caples, and Silver Lake is that the USFS requested that interviewers be randomly assigned to five locations at Caples Lake and ten locations at Silver Lake. The individual sampling locations for Caples Lake are presented in Table 1.4, and Silver Lake sub locations are shown in Table 1.5.

Table 1.3.	Individual interviews	completed by lake.
------------	-----------------------	--------------------

Lake	Frequencies	Percent of Total Sample
Aloha	89	7.0
Caples	341	27.0
Echo	476	37.7
Silver	357	28.3
Total	1263	100.0

Table 1.4.	Numbers of interviews completed at Caples Lake sub-locations.
------------	---

Sub-Locations	Frequencies	Percent of Total Caples Sample
Caples Lake angler access and adjacent access	95	28.2
Turnout east of Caples Dam angler access	53	15.7
Caples Lake Resort angler access	71	21.1
Woods Creek angler access	46	13.6
Caples Lake Resort boat launch	72	21.4
Total	337	100.0

Sub-Locations	Frequencies	Percent of Total Silver Sample
Sandy Cove picnic area	36	10.4
Ferguson Point picnic area	40	11.5
South Silver Lake picnic area	21	6.1
Plasses Resort area	48	13.8
Dam & adjacent shoreline	37	10.7
Kay's Resort	42	12.1
Angler access near Silverado	29	8.4
Kay's Resort boat launch	44	12.7
Stream bisecting Plasses boat launch	16	4.6
Boat launch east of Ferguson Point	34	9.8
Total	347	100.1*

#### Table 1.5. Numbers of interviews completed at Silver Lake sub-locations.

\*Error due to rounding.

Recreation visitors who participated in the on-site survey during the summer of 2002 were asked if they were willing to participate in a follow-up telephone interview after they returned home. They were informed that they would be paid \$10 for completing the interview. As shown in Table 1.6, 837 (67.1%) of the 1,247 who answered Q26 said "yes," and 410 (32.9%) said "no." Some did not know (20 or 1.5% of those interviewed).

# Table 1. 6.Willingness of on-site EID recreation users to participate in the follow-up<br/>telephone survey, summer 2002.

Willing to Participate	Number of Interviewees	Percent of Total
Yes	837	67.1
No	410	32.9
Total	1247	100.1*

\*Error due to rounding.

### SECTION 2 SAMPLES SECTION 2

The overall demographic characteristics of the 2002 on-site sample suggest some similarities to the earlier intercept samples in the On-Site Survey Report of 1999. The following is presented in the form of overall summary averages. The data includes means and standard deviations along with maximums and minimums. In those cases where the data are nominal, the tables will not produce means, but percentages of frequencies.

Comparisons of recreation visitors who agreed to participate in the follow-up telephone interview to those who did not agree to be followed-up by telephone are presented. There are some instances where there are no significant differences using the standard professional criterion of a 95% confidence interval, and there are other cases where there are significant differences.

### **Household Composition**

Table 2.1 shows household sizes among respondents who were sampled in the EID Project 184 area during summer 2002. The 2002 distribution is almost identical to the household size distribution reported for the 1999 survey (Table 2.2). Almost 50% of the respondents in the 2002 sample indicated they were in a one- or two-person household, and the average household size was 2.9 persons (Table 2.3).

Table 2.4 shows the distribution of the number of respondents with persons under the age of 18 in the households that are represented in the 2002 sample. As shown in Table 2.5, the distribution for the 1999 sample is very similar. In Table 2.4, 50.9% of the sample indicated they had no one in the household who was under the age of 18, and in the sample of 1999, there were 55.7% who had no one under the age of 18 in the household (Table 2.5).

Table 2.1. D	Distribution of household sizes of recreation visitors, summer 20	)02.
--------------	---	------

Number of Household Members	Number	Percent
1	131	10.3
2	472	37.3
3	245	19.3
4	283	22.3
5	90	7.1
6	22	1.7
7 or more	24	1.9
Total	1267	99.9*

\*Error due to rounding.

#### Table 2.2. Household size reported by recreation visitors, summer 1999.

Number of Household Members	Number	Percent
1	174	8.2
2	801	37.5
3	400	18.7
4	462	21.6
5	222	10.4
6	52	2.4
7 or more	23	1.1
Total	2134	99.9*

\*Error due to rounding.

#### Table 2.3.Average household size for recreation visitors, summer 2002.

Variable	Obs	Mean	Std. Dev.	Min	Мах
Household Size	1267	2.9	1.45	1	20

#### Table 2.4.Number of household members under the age of 18, summer 2002.

Number of Household Members Under Age 18	Number	Percent
None	578	50.9
1	205	18.0
2	259	22.8
3	66	5.8
4 or more	28	2.5
Total	1136	100.0

Note: Only respondents who said their household had two or more persons were asked this question.

#### Table 2.5.Number of household members under the age of 18, summer 1999.

Number of Household Members Under Age 18	Number	Percent
None	1169	55.7
1	335	16.0
2	397	18.9
3	154	7.3
4 or more	44	2.1
Total	2099	100.0

### Disabilities

The number of persons in the 2002 survey who indicated they were disabled is not different from the 1999 sample. In the 2002 sample, 5.0% indicated that they are disabled. In the 1999 survey, 5.3% of the survey respondents reported they had some type of disability. There is little reason to examine the relationship between those who responded to this question and their willingness to participate in the follow-up telephone interview since the samples are so small.

### Age

The average age of the respondents in the 2002 sample indicates that it is consistent with the average age found in the 1999 survey. The 1999 survey found that the average age was 46.6 years, and the 2002 data found the average age to be 43.95. These estimates are slightly outside the confidence intervals at 95% confidence level for the 1999 data, where c.i. = 45.9 to 47.3. The 2002 on-site intercept sample is slightly younger than the sample taken in 1999.

Table 2.6 shows the average and standard deviation of the age measure for the 2002 sample. The average age of all the respondents is slightly more than 44 years. The standard deviation is 12.3 years. This suggests that 68% of the sample is between 56.6 and 32.0 years of age. Table 2.7 shows the 't" test for the differences between ages among those who agree and those who do not.

There is a significant difference in average age between those who agreed to participate in the follow-up telephone interview and those who did not agree. Table 2.7 shows that difference using a "t" test. Those who have agreed to be interviewed by telephone are slightly older than those who will not participate: 46 years of age compared to 42 years of age. Table 2.8 shows the age distribution of recreation visitors interviewees.

### Ethnicity

Table 2.9 shows the overall ethnic distribution of the respondents, and it fits with what we know from prior data. The 2002 sample is primarily Caucasian (86.7%) (Table 2.10). The 1999 sample was 82.7% Caucasian (Table 2.11).

Table 2.6.	Average (mean) age of the 2002 survey respondents.
	······································

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
Age	1235	44.3	12.3	18	89

Table 2.7."t" test of differences in age of 2002 survey respondents who agreed to<br/>participate in the follow-up telephone survey (two-sample "t" test with unequal<br/>variances).

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Cor	nf. Interval]
Yes	826	45.7	.444	12.77	45.87	46.61
No	391	41.5	.534	10.567	40.50	42.60
Combined	1217	44.39	.351	12.257	43.71	45.08
Diff.		4.19	.694		2.83	5.55

Satterthwaite's degrees of freedom: 909.774 RESULTS OF TESTS OF SIGNIFICANT DIFFERENCES BY THE "t" test.

Ho: mear	n(1. yes) - mean(2. no)	= diff = 0	
Ha: diff < 0	Ha: diff ~= 0	Ha: diff > 0	
t = 6.0362	t = 6.0362	t =   6.0362	
P < t = 1.0000	P >  t  = 0.0000	P > t =   0.0000	

Table 2.8.	Age distribution of recreation visitors interviewed in the Project 184 areas in the
	El Dorado National Forest, summer 2002.

Age Category	Number	Percent
18 - 29	135	10.9
30 - 39	312	25.3
40 - 49	404	32.7
50 - 59	242	19.6
60 and older	142	11.5
Total	1235	100.0

Note: Some recreation visitors declined to state their age.

#### Table 2.9.Cross tabulation of the samples for 1999 and 2002 by ethnicity.

Year	Caucasian	Other Ethnic	Total
2002	1073	165	1238
	86.7%	13.3%	100.0%
1999	1684	353	2037
	82.7%	17.3%	100.0%
Total	2757	518	3275

Table 2.10.	Ethnicity of recreation visitors. sum	ner 2002.

Ethnicity	Number	Percent
Asian-Pacific Islander	34	2.7
Black	5	0.4
Hispanic	51	4.1
Native American	21	1.7
White	1073	86.7
Other	54	4.4
Total	1238	100.0

Note: Some recreation users refused to state their ethnicity.

#### Table 2.11. Ethnicity of recreation visitors, summer 1999.

Ethnicity of Recreation Visitors	Number	Percent
Asian or Pacific Islander	87	4.3
Black or African American	14	0.7
Hispanic	133	6.5
Native American or Alaska Native	41	2.0
White	1684	82.7
Other	78	3.8
Total	2037	100.0

We used cross tabulated analysis to find out if there are significant differences between the percentages of Caucasians in the 2002 sample compared to the 1999 sample. We found that there were relatively fewer numbers of Caucasians in the 1999 sample compared to the 2002 sample. Table 2.9 shows those results. We found that there is a significant difference in the percentages of Caucasians in the current sample compared to the prior sample. This test has a Chi Square value of 9.26 with 1 degree of freedom and a probability of .002 occurring by chance alone. Cramer's V is equal to .05, which has an upper limit of 1.0. These results, while significant, are not strong.

The drop in the percentage of ethnic minorities visiting the Project 184 area in 2002 compared to 1999 may be explained by differences in the California economy. In 1999, the economy was growing rapidly with record low unemployment, while the economy in 2002 is in a recession. The impacts of the current recession on discretionary spending are most likely greater for ethnic minorities due to lower salaries and wages, and higher unemployment.

Table 2.12 shows ethnic distribution broken down by those who agreed to participate in the follow-up telephone interview and those who did not from the 2002 survey sample. There are no significant differences in agreeing to be interviewed by telephone broken down by ethnic characteristics.

#### Education

Levels of formal education amid the 2002 survey respondents were examined. These are not much different from the 1999 sample. For example, 37.1% of the 2002 sample were college graduates and 24.0% held graduate or professional degrees (Table 2.13). This is similar to the 1999 sample with 32.5% college graduates and 17.8% with a graduate or professional degree (Table 2.14).

Q23-Which group do you identify with?	Q26-Will you let us call you?		
	Yes	No	Total
Asian/Pacific Islander	22	12	34
	64.71%	35.29%	100.00%
Black	4	1	5
	80.00%	20.00%	100.00%
Hispanic	31	19	50
	62.00%	38.00%	100.00%
Native American	15	6	21
	71.43%	28.57%	100.00%
White, not Hispanic	718	339	1057
	67.93%	32.07%	100.00%
Other	38	15	53
	71.70%	28.30%	100.00
Total	828	392	1220
	67.87%	32.13%	100.00%

# Table 2.12.Cross tabulation of respondents, by ethnicity, who agreed to the follow-up<br/>telephone survey and those who did not. (column percentages)

#### Table 2.13.Education of recreation visitors, summer 2002.

Education Levels of Recreation Visitors	Number	Percent
High School Not Completed	8	0.6
High School Graduate	151	12. 1
Some College	326	26.1
College Graduate	464	37.1
Graduate School or Professional Degree	300	24.0
Total	1249	99.9*

\*Error due to rounding.

#### Table 2.14.Education of recreation visitors, summer 1999.

Education Levels of Recreation Visitors	Number	Percent
High School Not Completed	40	1.9
High School Graduate	370	17.2
Some College	616	28.6
College Graduate	701	32.5
Graduate School or Professional Degree	384	17.8
Refused to answer	40	1.9
Total	2151	99.9*

\*Error due to rounding.

There is a significant difference between those who have a college degree and those who did not when comparing the two samples from 1999 and 2002. The Chi square value for this test is 30.3 with 1 degree of freedom. The probability of this value occurring by chance alone is less than 1 out of 1000 times. However, the relationship is not a strong one; Cramer's V is only 0.09 on a scale ranging from 0.0 to 0.99. Table 2.15 shows the distributions of the two samples broken down by completed college degree and no completed degree. Those who have a college degree are represented in the face-to-face sample more frequently in 2002 than those in the 1999 sample (61.2% and 51.4% respectively).

In Table 2.16, we examined the differences between the 2002 survey respondents' formal education and if they were willing to participate in the follow-up telephone interview. We find that refusal to participate decreases as the level of formal education increases. While this pattern is not clear in the lower levels of formal education, it becomes quite apparent among those with graduate or professional degrees. The relationship is a significant relationship in that Chi square is 46.8 with 4 degrees of freedom. By chance, this would occur less than 1 out of 1000 times. Gamma indicates that the relationship is one in which as the degree completion rate increases there is a tendency to agree to be called up as a follow up to the interview in the field. Gamma is -0.2814 ASE = 0.046.

Table 2.15.Cross Tabulation of degree completion across two samples in the El Dorado<br/>Forest: 2002 and 1999. (In row percentages)

Sample	Degree completed	No degree completed	Total
Sample from 2002	764	485	1249
	61.2%	38.8%	100.0%
Sample from 1999	1085	1026	2111
	51.4%	48.6%	100.0%
Total	1849	1511	3360
			100.0%

Table 2.16.	Cross tabulation of formal education and agreeing to be followed-up by
	telephone.

Education Levels	Willing to Participate	Not Willing to Participate	Total
High School or Less	86	70	156
	10.3%	17.5%	12.7%
Some College	203	118	321
	24.4%	29.6%	26.1%
College Graduate	299	160	459
	35.9%	40.1%	37.3%
Graduate School or Professional	244	51	295
Degree	29.3%	12.8%	24.0%
Total	832	399	1231
	100.0%	100.0%	100.0%

### Household Income

Table 2.17 shows the average household income of all respondents in the face-to-face interviews. It suggests that the income level of the visitors is above the average for California. The average annual income for the 2002 sample is \$60,000. This is consistent with the findings of the 1999 survey that found the median household income ranged from \$60,000 to \$79,999. Though the average income range is slightly higher for 1999 than 2002, it should be noted that the California economy was much more robust in terms of income and employment of white-collar professionals in 1999 than in 2002. This may largely explain the differences. Table 2.18 indicates the income distribution of the respondents.

#### Table 2.17. Average household income of recreation visitors, summer 2002.

Variable	Obs	Mean	Std. Dev.	Min	Мах
Income	1170	6.9	2.1	1	10

#### Table 2.18. Annual household income of recreation visitors, summer 2002.

Annual Household Incomes	Frequency	Percent
Less \$10,000	19	1.6
\$10,000 to 19,999	27	2.3
\$20,000 to 29,999	38	3.2
30,000 to 39,999	73	6.2
40,000 to 49,999	108	9.2
50,000 to 59,999	171	14.6
60,000 to 79,999	226	19.3
80,000 to 99,999	189	16.2
100,000 to 200,000	252	21.5
More than \$200,000	67	5.7
Total	1170	99.8*

\*Error due to rounding.

Note: Some respondents refused to provide information concerning their annual household incomes.

Table 2.19 illustrates the significant relationship between the willingness to participate in a follow-up telephone interview and income. The relationship is significant at a Chi square value of 58.0 with 9 degrees of freedom. Gamma indicates that there is a moderate relationship between willingness and income at -.24. Those who agreed to participate have higher incomes (between \$60,000 and \$79,999) compared to those who did not agree to participate in the follow-up (\$50,000 to \$59,999).

What is your annual household income?	Yes	No	Total
Less than \$10,000	11	7	18
	1.4%	1.9%	1.6%
\$10,000 to 19,999	19	7	26
	2.4%	1.9%	2.3%
\$20,000 to 29,999	25	13	38
	3.2%	3.5%	3.3%
\$30,000 to 39,999	46	27	73
	5.9%	7.3%	6.3%
\$40,000 to 49,999	59	46	105
	7.5%	12.4%	9.1%
\$50,000 to 59,999	89	79	168
	11.3%	21.3%	14.5%
\$60,000 to 79,999	157	65	222
	20.0%	17.5%	19.2%
\$80,000 to 99,999	120	69	189
	15.3%	18.6%	16.4%
\$100,000 to 200,000	199	51	250
	25.4%	13.8%	21.6%
More than \$200,000	60	7	67
	7.6%	1.9%	5.8%
Total	785	371	1156
	100.0%	100.1%*	100.1%*

Table 2.19.	Cross tabulation of income	and agreeing to a	follow-up telephone call.

\*Error due to rounding.

To interpret income data that was collected by income category, note the scale starts with code 1 (less than \$10,000) and proceeds to code 10 (more than \$200,000). Thus, an average income of 6.9 indicates an income close to \$59,999. Table 2.19 shows the differences in average incomes between those who agreed to be telephoned and those who did not. Table 2.20 shows the overall average income for those interviewed assuming a continuous scale of measurement.

Table 2.20.	Average income reported in face-to-face sample.
-------------	---

Variable	Observation	Mean	Standard Deviation	Minimum	Maximum
Income	1170	6.9	2.1	1	10

#### Gender

As shown in Table 2.21, 61.0% of the survey respondents for the 2002 on-site survey were male and 39.0% were female. This distribution of respondents is almost identical to that found in the survey conducted during the summer of 1999 (Table 2.22).

# Table 2.21. Gender of recreation visitors to the Project 184 areas in the El Dorado NationalForest, summer 2002.

Gender of Recreation Visitors	Number	Percent
Male	715	61.0
Female	459	39.0
Total	1174	100.0

## Table 2.22. Gender of recreation visitors to the Project 184 areas in the El Dorado National Forest, summer 1999.

Gender of Recreation Visitors	Number	Percent
Male	1297	61.9
Female	797	38.1
Total	2094	100.0

#### SECTION 3 Recreation Activities and Motivations Profiles

The recreation visitors interviewed at the four lakes in the EID Project 184 area during the summer of 2002 were asked a series of questions regarding their recreation activities and motivations. The following is a summary discussion of findings for these questions.

#### **Participation in Recreation Activities**

During the 2002 on-site survey, recreation visitors were presented a list of recreation activities and asked if they had participated in any of them during their visit at the location where they were interviewed (Q16). As shown in Table 3.1, hiking, relaxing, fishing, swimming, picnicking, and wildlife observation were the six activities with the highest participation rates in 2002. Though participation rates were different in 1999 due to the inclusion of stream corridor, these same activities were also the six with the highest participation rates from recreation visitors in the 1999 survey (Table 3.2).

Recreation Activities	Number	Percent based on 1,264 respondents
Hiking	922	72.9
Relaxing	878	69.5
Fishing	722	57.1
Swimming	681	53.9
Picnicking	544	43.0
Wildlife Observation	470	37.2
Sunbathing	431	34.1
Landscape Photography	326	25.8
Camping (Primitive)	311	24.6
Backpacking	294	23.3
Kayaking/Canoeing	288	22.8
Camping (Developed)	266	21.0
Motor Boating	234	18.5
Other Nature Study	206	16.3
Bicycling	123	9.7
Other Boating	116	9.2
Running/Jogging	97	6.9
Tubing	56	4.4
Sailing	68	5.4
Horseback Riding	62	4.9
Tubing	56	4.4
Off-Highway Vehicles (OHV)	48	3.8
Water Skiing	44	3.5

### Table 3.1.Recreational activities participated in by visitors at the locations where they<br/>were interviewed, summer 2002.

Note: Table 3.1 has the percentages of activities based on the sample of respondents. The total number of responses to those questions is over 7,000.

Recreation Activities	Number	Percent based on 2167 respondents
Relaxing	1568	72.4
Hiking	1244	57.4
Fishing	1103	50.9
Wildlife Observation	929	42.9
Picnicking	791	36.5
Swimming	547	25.2
Landscape Photography	512	23.6
Sunbathing	490	22.6
Other Nature Study	311	14.4
Camping (Developed)	289	13.3
Camping (Primitive)	236	10.9
Motor Boating	157	7.2
Kayaking/Canoeing	113	5.2
Bicycling	99	4.6
Off-Highway Vehicles (OHV)	66	3.0
Running/Jogging	46	2.1
Other Boating	44	2.0
Horseback Riding	18	0.8
Tubing	16	0.7
Winter Play	10	0.5

 Table 3.2.
 Recreational activities participated by visitors, summer 1999. (n = 2167)

Note: Table 3.2 has the percentages of activities based on the sample of respondents. The total number of responses to those questions is over 8,000

#### **Importance of Facilities and Services**

In the 2002 on-site survey, recreation visitors were asked to rate the importance of eight types of facilities and services (Q18). A four-point rating scale ranging from 1 meaning "not at all important" to 4 meaning "extremely important" was used. As shown in Table 3.3, "constant water level" received the highest importance rating (3.2) with "2-wheel-drive vehicle access" receiving the second highest importance rating (2.5). Items receiving lower importance ratings were picnic facilities, developed campgrounds, developed swimming/beach areas, boat launch ramps, and off-highway vehicle trails.

The semi-open-ended question about other facilities and services is presented in Table 3.4. There are 299 comments that are useable in this part of the survey. These represent other items not thought to be part of the choices available in Table 3.3. The five most frequently mentioned facilities or services included bathrooms, stores, trails, chalet, and restaurant-snack bar. Table 3.5 shows the importance ratings given by recreation visitors for facilities and services.

#### **Reasons for Choosing the Recreation Location**

In Q12 of the 2002 on-site survey, recreation visitors were asked to agree or disagree with 12 possible reasons for their decisions to visit the locations where they were interviewed. Responses were collapsed from strongly disagreed and disagreed to one response category (disagreed), and

# Table 3.3Means and standard deviations of importance ratings given by recreation visitors<br/>for facilities and services in Project 184 area of the El Dorado National Forest,<br/>summer 2002.

Facility or Service	Obs.	Mean	Std. Dev.	Min	Мах
Developed campgrounds	1254	2.2	1.2	1	4
2-wheel-drive vehicle access	1256	2.5	1.2	1	4
Developed swimming/beach areas	1255	2.2	1.2	1	4
Picnic facilities	1253	2.3	1.1	1	4
Boat launch ramps	1253	2.2	1.2	1	4
Off-highway vehicle (OHV) trails	1254	1.6	.99	1	4
Constant water level in lakes	1247	3.2	1.0	1	4
Other facilities and services	327	2.9	1.2	1	4

#### Table 3.4.Other facilities and services mentioned in Question 18.

Other facilities and services	Frequencies	Percent
Bathrooms	67	29.3
Store	36	15.7
Trails	19	8.30
Chalet	17	7.4
Restaurant/snack bar	10	4.4
Gas Station	10	4.37
Showers	8	3.5
Cleaner Bathrooms	8	3.5
Water taxi	8	3.5
Resort Lodge	7	3.1
Parking	7	3.1
Boat ramps	4	1.8
Boat rental	4	1.8
Cabins	4	1.8
Running water	3	1.3
The dam	2	0.9
Trash Cans	2	0.9
Telephone	2	0.9
Higher water levels	2	0.9
Boating too fast	1	0.4
Post Office	1	0.4
Wilderness access	1	0.4
Marina	1	0.4
Rental spaces	1	0.4
Bar	1	0.4
Camp sites	1	0.4
Horse trails	1	0.4
Shuttle	1	0.4
Missing values	88	

	Importance Ratings					
Types of Facilities and	Not At All	Somewhat	Moderately	Extremely		
Services	Important	Important	Important	Important	Total	
Developed Campgrounds	542	153	298	261	1254	
	43.2%	12.2%	23.8%	20.8%	100.0%	
2-Wheel Drive Vehicle	418	159	288	391	1256	
Access	33.3%	12.7%	22.9%	31.1%	100.0%	
Developed	519	207	301	228	1255	
Swimming/Beach Areas	41.4%	16.5%	24.0%	18.2%	100.0%	
Picnic Facilities	425	224	390	214	1253	
	33.9%	17.9%	31.1%	17.1%	100.0%	
Boat Launch Ramps	538	182	289	224	1253	
	42.9%	14.5%	23.1%	19.5%	100.0%	
Off-Highway Vehicle	855	134	165	100	1254	
(OHV) Trails	68.2%	10.7%	13.2%	8.0%	100.0%	
Constant Water Level in	128	169	330	620	1247	
Lakes	10.3%	13.6%	26.5%	49.7%	100.0%	
Other Facility or Service	73	29	82	143	327	
	22.3%	8.9%	25.1%	43.7%	100.0%	

Table 3.5. Importance ratings given by recreation visitors for facilities and services in Project184 area of the El Dorado National Forest, summer of 2002.

from strongly agreed and agreed to a second response category (agreed). Table 3.6 shows the numbers and percentages of visitors who agreed, were neutral, and disagreed with each possible reason for choosing the recreation location where they were interviewed.

During the 2002 on-site interviews, recreation visitors were asked how many nights they planned to stay at the lake they were visiting during their trip (Q4). Answers varied from day use only (36.5%) to more than 8 nights (Table 3.7). The average (mean) length of stay was 4.7 nights (Table 3.8).

There were six questions included in the survey relating to the importance or non-importance of several types of locations in the forest with their decisions to visit the four lakes in the Project 184 area (Question 19). Table 3.9 shows the means and standard deviations for the importance ratings expressed on a four-point scale from 1 meaning "not at all important" to 4 meaning "extremely important." Three of the six questions have means that are above 3 on the scale, suggesting high levels of importance compared to the other questions. These included: (1) reservoirs, lakes, and ponds; (2) rivers or streams; and, (3) the Desolation Wilderness Area. Those with lower scores are below the three-point scale. Two sites have low response rates ("Mokelumne Wilderness Area" and "Other Areas"). They are open-ended questions and not forced choices that all survey respondents had to answer. The three areas that did not have high levels of importance were "non-forested wilderness areas," "Mokelumne Wilderness Area," and "Other Locations." Tables 3.10 through 3.15 show the importance ratings given by visitors for each type of location.

Each one of these measures was tested for differences using the "t" test for significance of differences, and the results are shown in Table 3.16. With respect to the reservoirs, lakes, and ponds (reslake) measure, we find there is a significant difference beyond the chance of 2 out of 100. Those who agreed to participate in the follow-up telephone interview gave a mean rating of 3.6 on this scale compared to those who did not agree to be followed-up and who gave a mean of 3.5.

# Table 3.6.The reasons cited by recreation visitors for choosing the particular location in<br/>the Project 184 area of the El Dorado National Forest to visit, summer 2002. (in<br/>frequencies and percentages)

Reasons for Choosing the Location	Agreed	Disagreed	Neutral
I come here to this place to enjoy the water.	992	119	225
	72.8%	9.4%	17.8%
Most of the activities I do here relate to the water.	856	192	218
	67.6%	15.2%	17.2%
This place is very special to me.	1035	33	197
	81.8%	2.6%	15.6%
This place brings back memories of time spent with	912	150	198
friends.	72.4%	11.9%	15.7%
Being near the water is necessary for me to do the things that I enjoy at this place.	1035	97	135
	81.7%	7.7%	10.7%
I get more satisfaction out of visiting this place than	593	216	452
any other.	47.3%	17.1%	35.8%
I associate special people in my life with this place.	867	157	238
	68.7%	12.4%	18.9%
I am very attached to this place.	830	139	291
	65.9%	11.0%	23.1%
Doing what I do at this place is more important to me than doing it in any other place.	534	261	466
	42.4%	20.7%	37.0%
I wouldn't substitute any other area for doing the types of things I do at this place.	553	305	409
	43.7%	24.1%	32.3%
This place means a lot to me.	968	75	216
	76.9%	6.0%	17.2%
My family regularly visited this place.	732	366	163
	58.1%	29.0%	12.9%

Note: Some percentages may total less than or more than 100.0% due to rounding error.

#### Table 3.7. Lengths of stay distribution for recreation visitors, summer 2002.

Number of Nights Planned at the Lake	Number	Percent
0	462	36.5
1	138	10.9
2	183	14.4
3	181	14.3
4	101	8.0
5	43	3.4
6	25	2.0
7	40	3.2
8 or more	94	7.4
Total	1267	100.1*

\*Error due to rounding.

### Table 3.8. Average number of nights recreation visitors planned to stay at the lake where they were interviewed, summer 2002.

Variable	Obs	Mean	Std. Dev.	Min	Мах
Number of nights	1267	4.7	15.0	0	200

#### Table 3.9. Means and standard deviations of importance ratings given by recreation visitors for locations in Project 184 area of the El Dorado National Forest, summer 2002.

Variable	Obs.	Mean	Std. Dev.	Min	Мах
Reservoirs, Lakes, and Ponds	1255	3.5	.77	1	4
Non-forested wilderness areas	1256	2.9	1.0	1	4
Rivers or streams	1259	3.1	.94	1	4
Desolation Wilderness Area	1240	3.1	1.1	1	4
Mokelumne Wilderness Area	294	1.7	1.2	1	4
Other areas	178	2.3	1.4	1	4

### Table 3.10. Importance ratings given by recreation visitors for reservoirs, lakes and ponds in their decisions to visit the four lakes, summer 2002.

Importance Ratings For Reservoirs, Lakes, and Ponds	Number	Percent
Not at all important	44	3.5
Somewhat important	85	6.7
Moderately important	298	23.8
Extremely important	829	66.1
Total	1255	100.1*

\*Error due to rounding.

## Table 3.11.Importance ratings given by recreation visitors for non-forested wilderness<br/>areas in their decisions to visit the four lakes, summer 2002.

Importance Ratings For Non-Forested Wilderness Areas	Number	Percent
Not at all important	174	13.9
Somewhat important	230	18.3
Moderately important	418	33.3
Extremely important	434	34.6
Total	1256	100.1*

\*Error due to rounding.

### Table 3.12.Importance ratings given by recreation visitors for rivers and streams in their<br/>decisions to visit the four lakes, summer 2002.

Importance Ratings For Rivers and Streams	Number	Percent
Not at all important	106	8.4
Somewhat important	174	13.8
Moderately important	439	34.9
Extremely important	540	42.9
Total	1259	100.0

### Table 3.13.Importance ratings given by recreation visitors for the Desolation WildernessArea in their decisions to visit the four lakes, summer 2002.

Importance Ratings For Desolation Wilderness Area	Number	Percent
Not at all important	169	13.6
Somewhat important	178	14.4
Moderately important	304	24.5
Extremely important	589	47.5
Total	1240	100.0

### Table 3.14.Importance ratings given by recreation visitors for the Mokelumne Wilderness<br/>Area in their decisions to visit the four lakes, summer 2002.

Importance Ratings	Number	Percent
Not at all important	214	72.8
Somewhat important	10	3.4
Moderately important	18	6.1
Extremely important	52	17.7
Total	294	100.0

# Table 3.15.Importance ratings given by recreation visitors for other areas to their<br/>decisions to visit the four lakes in the Project 184 area of the El Dorado<br/>National Forest, summer 2002.

Importance Ratings For Other Locations in the Area	Number	Percent
Not at all important	89	50.0
Somewhat important	11	6.2
Moderately important	18	10.1
Extremely important	60	33.7
Total	178	100.0

### Table 3.16."t" test of differences between those who agreed to be followed-up and those<br/>who would not on the importance of reservoirs and lakes.

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
Yes	831	3.6	.03	.796	3.5	3.6
No	404	3.5	.04	.722	3.4	3.5
Combined	1235	3.55	.03	.773	3.3	3.5
Diff.		.10	.045		.007	.185

Satterthwaite's degrees of freedom: 871.67

Ho: mean(1. yes) - mean(2. no) = diff = $0$				
Ha: diff < 0	Ha: diff ~= 0	Ha: diff > 0		
t = 2.1120	t = 2.1120	t = 2.1120		
P < t = 0.9825	P >  t  = 0.0350	P > t = 0.0175		

The test about differences between those who would be called and those who would not be called on non-wilderness areas (nonwild) was not significant. The mean importance ratings by respondents who agreed to participate in the follow-up telephone interview and those who did not are almost the same for this dimension (Table 3.17).

The direction of the test in Table 3.18 indicates that those who did not agree to participate in the follow-up telephone interview view the importance of rivers or streams (rivstrem) slightly higher than those who agreed to participate in the follow-up. This level of significance is .008, indicating, that on a chance basis, this difference would occur 8 out of 1000 times. Notice further that those who did not want to participate in the follow-up telephone interview rated the importance of the rivers and streams more highly than did those who agreed to participate.

Table 3.17."t" test of differences between those who agreed to be followed-up and those<br/>who would not on the importance of non-wilderness areas.

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Co	onf. Interval]
Yes	832	2.88	.036	1.052	2.81	2.95
No	404	2.85	.049	1.000	2.75	2.94
Combined	1236	2.87	.029	1.035	2.81	2.93
Diff.		.03	.0617		0903	.1518

Satterthwaite's degrees of freedom: 835.745

Ho: mean(1. yes) - mean(2. no) = diff = $0$					
Ha: diff < 0	Ha: diff ~= 0	Ha: diff > 0			
t = 0.4980	t = 0.4980	t = 0.4980			
P < t = 0.6907	P >  t  = 0.6186	P > t = 0.3093			

### Table 3.18."t" test of differences between those who agree to be followed-up and those<br/>who would not on the importance of rivers or streams.

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
Yes	833	3.08	.0337	.9745	3.009	3.141
No	406	3.19	.0435	.8774	3.101	3.272
Combined	1239	3.11	.0268	.9449	3.059	3.165
Diff.		11	.0551		2197	0034

Satterthwaite's degrees of freedom: 883.101

Ho: mean(1. yes) - mean(2. no) = diff = $0$					
Ha: diff < 0	Ha: diff ~= 0	Ha: diff > 0			
t = -2.0246	t = -2.0246	t = -2.0246			
P < t = 0.0216	P >  t  = 0.0432	P > t = 0.9784			

In contrast to the other "t" tests we have presented, the next one indicates that those who are not willing to participate in the follow-up telephone interview rate the importance on the issue of rivers and streams slightly higher. Table 3.18 shows those results. There is significant difference between those who agreed to participate and those who did not agree. The direction of the difference indicates that those who agreed place less importance on the rivers and streams than those who stated they did not want to participate in the follow-up.

Table 3.19 indicates that there are significant differences between those willing to participate in the follow-up telephone interview and those who do not want to participate regarding the importance of the Desolation Wilderness Area (desowild). Those who are willing to participate see that area as more important than do those who are not. This difference is significant at 1 out of 100 times.

Table 3.19."t" test of differences between those who agree to be followed-up and those<br/>who would not on the importance of the Desolation Wilderness Area.

Group	Obs	Mean	Std. Err.	Std. Dev.	[95%	Conf. Interval]
Yes	824	3.09	.0379	1.089	3.022	3.172
No	396	2.95	.0528	1.052	2.851	3.058
Combined	1220	3.05	.0309	1.079	2.990	3.111
Diff.		.143	.065		.0148	.2703

Satterthwaite's degrees of freedom: 804.28

Ho: mear	n(1. yes) - mean(2. no)	= diff = 0	
Ha: diff < 0 t = 2.1905 P < t = 0.9856	Ha: diff ~= 0 t = 2.1905 P >  t  = 0.0288	Ha: diff > 0 t = 2.1905 P > t = 0.0144	

Table 3.20 shows that respondents who were willing to participate in the follow-up telephone interview and those who were not gave quite similar ratings for the importance of the Mokelumne Wilderness Area (mokewild). There is no significant difference.

Question 15 asks respondents to rate their overall satisfaction with their experiences at the lake they were visiting at the time of the on-site interview. A rating scale from 1 to 5, with 1 as very dissatisfied and 5 as very satisfied, was utilized. We find an extremely high rating. The mean rating was 4.5 with a quite narrow variance of .79 (Table 3.21). This suggests that the sample respondents of 2002 were consistently quite positive about their experiences at the lake they were visiting. The scale indicates high levels of satisfaction with their recreational experience with the lakes. The scale is very dissatisfied at a value of 1 and very satisfied at a value of 5.

It is important to note that there is no significant difference in the mean overall ratings between those who agreed to participate in the follow-up telephone interview and those who did not. Table 3.22 shows the results of that "t" test. These results suggest that the differences will occur by chance slightly less than 1 out of 1000 times.

# Table 3.20."t" test of differences between those who agreed to be followed-up and those<br/>who would not on the Mokelumne Wilderness Area.

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Co	onf. Interval]
Yes	227	1.64	.0765	1.153	1.49	1.789
No	63	1.76	.1547	1.228	1.45	2.071
Combined	290	1.665	.0686	1.168	1.53	1.80
Diff.		.143	.173		466	.2194

Satterthwaite's degrees of freedom: 94.5149

	Ho: mean(1. yes) - mean(2. no) = diff = 0				
Р	Ha: diff < 0 t = -0.7136 < t = 0.2386	Ha: diff ~= 0 t = -0.7136 P >  t  = 0.4772	Ha: diff > 0 t = -0.7136 P > t = 0.7614		

#### Table 3.21. Overall satisfaction with visiting the four lakes.

Variable	Observations	Mean	Std. Dev.	Min	Мах
Overall Satisfaction	1240	4.5	.793	1	5

# Table 3.22."t" test of differences between those who are willing to be followed-up and<br/>those who are not willing to be called regarding their assessment of the overall<br/>satisfaction with the four lakes.

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
Yes	831	4.495	.0271	.7806	4.44	4.55
No	391	4.343	.0415	.8197	4.26	4.42
Combined	1222	4.446	.0228	.7961	4.40	4.49
Diff.		.1519	.0495		.055	.2491

Satterthwaite's degrees of freedom: 731.218

Ho: mean(1. yes) - mean(2. no) = diff = $0$				
Ha: diff < 0 t = 3.0671	Ha: diff ~= 0 t = 3.0671	Ha: diff > 0 t = 3.0671		
P < t = 0.998	9 P >  t  = 0.0022	P > t = 0.0011		

### SECTION 4 🚸 TRIP PROFILES

Recreation visitors were asked a series of questions to profile their trips to the Project 184 area of the El Dorado National Forest.

As shown in Table 4.1, 85.1% of the recreation visitors said they were from California and 11.1% were from Nevada. The remaining 3.8% were from other states.

### Table 4..1. States of permanent residence of recreation visitors interviewed in the Project 184 areas of the El Dorado National Forest, summer of 2002. (Five most often mentioned)

Place of Residence of Recreation Visitors	Number	Percent
California	1078	85.1
Nevada	141	11.1
Arizona	8	.6
Washington	8	.6
New York	6	.5
Other States	26	2.1
Total	1267	100.0

#### State of Residence • Trip Origin and Destination

When the 2002 recreation visitors were asked if they started their trip from their permanent residence (Q6), 84.9% answered "yes" (Table 4.2). This is very similar to the results of the 1999 onsite survey (Table 4.3). Visitors were asked if the lake where they were interviewed was the primary destination of their trip (Q7). As shown in Table 4.4, three-fourths (75.0%) said "yes."

#### Table 4.2. Points of departure for recreation visitors to Project 184 area, summer 2002.

Points of Departure of Recreation Visitors	Number	Percent
Permanent Residence	1074	84.9
Other	191	15.1
Total	1265	100.0

#### Table 4.3. Points of departure for recreation visitors to Project 184 area, summer 1999.

Points of Departure of Recreation Visitors	Number	Percent
Home	1901	91.5
Other	177	8.5
Total	2078	100.0

### Table 4.4.Was the lake where recreation visitors were interviewed the primary<br/>destination of their trip, summer 2002.

Was this lake the primary destination of your trip?	Number	Percent
Yes	949	75.0
No	316	25.0
Total	1265	100.0

Three-fourths (75.0%) of the visitors said they had visited the lake where they were interviewed on a prior trip (Q9) (Table 4.5).

Table 4.6 indicates the significant relationship between the responses on the primary destination question and the location where the interview took place. This relationship is significant at less than 1 out of 10,000 times by chance alone. The measures of the strength of the relationship, Cramer's V, indicate that the relationship is weak. Cramer's V is .24.

## Table 4.5.Have recreation visitors made prior visits to the lake where they were<br/>interviewed, summer 2002?

Have you visited this lake before this trip?	Number	Percent
Yes	949	75.0
No	316	25.0
Total	1265	100.0

### Table 4.6.Was the lake where recreation visitors were interviewed their primary<br/>destination on their trip, summer 2002?

Was this lake your	Lakes Where Interviews Were Conducted					
primary destination?	Lake Aloha	Caples	Echo	Silver		
		Lake	Lake	Lake	Total	
Yes	67	292	293	293	945	
	75.3%	85.6%	61.7%	82.3%	74.9%	
No	22	49	182	63	316	
	24.7%	14.4%	38.3%	17.7%	25.1%	
Total	89	341	475	391	1261	
	100.0%	100.0%	100.0%	100.0%	100.0%	

Pearson chi-square significance = .000.

There is a significant difference in the starting points of those in the 2002 sample compared to those in the 1999 sample. Table 4.7 shows those differences. There appears to be a higher proportion of persons entering the forest from intermediate points in 2002 in comparison with the 1999 survey. Notice that the percentage of persons stating they made intermediate stops on the way to the Forest was 15.1% in the 2002 survey and 8.5% in the 1999. This behavior might be due to changes in U.S. travel patterns by vacationers after the September 11, 2001 strike. This relationship is significant; Chi square is 34.8 with 1 degree of freedom. Gamma is a more moderate value of -.31 suggesting, in this correlation, that the respondents in 1999 tend to have lower frequencies of intermediate stops than those in 2002.

Year of the Sample	No intermediate stops	Intermediate stops	Total
2002	1074 84.9%	191 15.1%	1265 100.0%
1999	1901 91.5%	177 8.5%	2078 100.0%
Total both samples	2975	368	3343

# Table 4.7.Cross tabulation of intermediate starting points and two samples of El Dorado<br/>Forest Visitors.

### Party Composition

When recreation visitors were asked how many people were in their party, the average was 4.3 persons (Table 4.8), which is very similar to the 4.5 persons per party reported during the 1999 survey. Table 4.9 shows the number of people in the recreation party.

#### Table 4.8Average number of persons in the party of the person being interviewed.

Variable	Obs	Mean	Std. Dev.	Min	Мах
How many in the party?	1267	4.3	5.8	1	100

Number of People in the Recreation Party	Number	Percent
1	107	8.4
2	413	32.6
3	186	14.7
4	238	18.8
5	89	7.0
6	64	5.1
7	44	3.5
8	31	2.4
9	9	0.7
10	20	1.6
11	10	0.8
12	12	1.0
13	6	0.5
14	4	.3
15	7	.6
16 or more	27	2.1
Total	1267	100.1*

### Table 4.9.Party sizes of recreation visitors, summer 2002.

\*Error due to rounding.

## SECTION 5 🚸 SITE CHARACTERISTICS

### **Repeat Visitation**

Recreation visitors were asked if they had visited the particular location where they were interviewed at other times prior to the interview.

#### Table 5.1.Have you visited this lake before?

Visited this Lake Before?	Frequencies	Percent
Yes	968	76.8
No	293	23.2
Total	1261	100.0

More than three-fourths (76.8%) of the recreation visitors interviewed during the summer of 2002 said they had visited the lake where they were interviewed on a prior trip (Q9) (Table 5.1). A cross tabulation of responses to Q9 by the four lakes revealed that visitors to Lake Aloha and Echo Lake were significantly more likely to say the trip they were on when interviewed was their first visit to that lake (Pearson chi-square significance = .000) (Table 5.2).

# Table 5.2.Have recreation visitors made prior visits to the lake where they were<br/>interviewed, summer 2002? (in column percentages)

Have you visited		Lakes Where Interviews Were Conducted				
this lake before	Lake Aloha	Caples	Echo	Silver		
this trip?		Lake	Lake	Lake	Total	
Yes	57	285	336	287	965	
	64.8%	84.8%	70.6%	80.4%	76.8%	
No	31	51	140	70	292	
	35.2%	15.2%	29.4%	19.6%	23.2%	
Total	88	336	476	357	1257	
	100.0%	100.0%	100.0%	100.0%	100.0%	

Those who had made prior visits were asked how many trips they had made to the location during the past 12 months. As shown in Table 5.3, most (91.2%) had made six or fewer trips. The average number of trips was 2.8. When visitors were asked how many of those trips had been made during the past five years, 27.4% said "none" (Table 5.4). Pearson chi2(3) = 32.1423 Pr = 0.000 Cramer's V = 0.1599

Number of Trips During the Past 12 Months	Number	Percent
0	545	43.0
1	223	17.6
2	149	11.8
3	102	8.1
4	59	4.7
5	41	3.2
6	36	2.8
7	13	1.0
8	12	.9
9	5	0.4
10	26	2.1
12	14	1.1
14	1	0.1
15	8	0.6
16 or more	33	2.6
Total	1267	99.9*

# Table 5.3.Number of trips made by recreation visitors to the locations where they were<br/>interviewed during the 12 months before the interviews, summer 2002.

\*Error due to rounding.

# Table 5.4.Number of trips made by recreation visitors to the locations where they were<br/>interviewed during the five years before their interviews, summer 2002.

Number of Trips During the Past 5 Years	Number	Percent
0	348	27.4
1	71	5.6
2	64	5.0
3	86	6.8
4	56	4.4
5	100	7.9
6	48	3.8
7	30	2.4
8	26	2.0
9	2	0.2
10	89	7.0
11	3	0.2
12	27	2.1
13	1	0.08
14	6	0.5
15	45	3.5
16	1	0.08
18	3	0.2
20	78	6.1
21 or more	186	14.6
Total	1270	99.9*

\*Error due to rounding.

Table 5.5 shows the average number of trips made by recreation visitors during the 12 months before their interviews, and Table 5.6 shows the number of trips made during the five years preceding the interviews.

# Table 5.5. Average number of trips made by recreation visitors to the locations where they were interviewed during the 12 months before their interviews, summer of 2002.

Variable	Obs	Mean	Std. Dev.	Min	Max
Number of trips in the last 12 months	1267	2.8200	9.47371	0	200

# Table 5.6.Average number trips made by recreation visitors to the locations where they<br/>were interviewed during the five years before their interviews, summer of 2002.

Variable	Obs	Mean	Std. Dev.	Min	Max
Number of trips in the last 5 years	1267	14.6464	45.89248	0	900

#### Satisfaction with Features

Visitors were asked to rate their satisfaction with six features at the location they were visiting. These features were water levels, visual quality (landscape), hiking trails, human impacts on vegetation, campsite condition, and amount of litter. As shown in Table 5.7, ratings for four of the features were above 4.0 or above on a five-point scale. Visual quality (4.6) received a particularly high rating.

Table 5.7.	Satisfaction ratings for features at locations where recreation visitors to the EI
	Dorado National Forest Project 184 area were interviewed, 1999.

	Quality Ratings					
	1	2	3	4	5	Mean
Type of Feature	(Very				(Very	Rating
	Dissatisfied)				Satisfied)	_
Water Level	13	67	116	473	596	4.2
(n=1267)	1.0%	5.3%	9.2%	37.4%	47.1%	
Visual Quality	5	17	43	342	860	4.6
(n=1267)	0.4%	1.3%	3.4%	27.0%	67.9%	
Hiking Trails	4	14	276	377	589	4.2
(n=1260)	0.3%	1.1%	21.9%	29.9%	46.8%	
Human Impacts on	16	75	322	540	313	3.8
Vegetation (1266)	1.3%	5.9%	25.4%	42.7%	24.7%	
Campsite Conditions	5	45	560	364	274	3.7
(1246)	0.4%	3.5%	44.9%	29.2%	21.9%	
Amount of Litter	26	101	154	509	476	4.0
(n=1266)	2.1%	8.0%	12.2%	40.2%	37.6%	

### Crowding

Visitors were asked if they saw about as many people as they would have expected to see on the day they were interviewed, more people than they expected to see, or fewer people than they expected to see at the location where they were interviewed. As shown in Table 5.8, 32.4% saw more than they expected, 52.3% said they saw about as many they expected, and 15.3% said they saw fewer than expected. A cross tabulation of responses to this question by the months that visits were made revealed that a significantly larger percentage of visitors in July and August said they saw more people than they expected to see than visitors interviewed in early September (through Labor Day) (Table 5.9).

# Table 5.8.Number of other people recreation visitors expected to see during their visits<br/>to locations in the Project 184 area of the El Dorado National Forest, summer<br/>2002.

Number of People Expected to See	Number	Percent
More	408	32.4
About as Many	660	52.3
Fewer	193	15.3
Total	1261	100.0

## Table 5.9.Cross tabulation by month of interview regarding the expectations in the<br/>number of people they expected to see.

Number Expected	July	August	September	Total
More than I expected	160	219	29	408
	31.4%	33.9%	27.4%	32.4%
About as Many as expected	250	347	63	660
	49.1%	53.7%	59.4%	52.3%
Fewer than expected	99	80	14	193
	19.5%	12.4%	13.2%	15.3%
Total	509	646	106	1261
	100.0%	100.0%	100.0%	100.0%

When visitors were asked if they saw about as many people as they would liked to see, more people than they would have liked to see, or fewer people than they would have liked to see, a majority (58.6%) said they saw about as many as they would have liked to see, 30.2% said they saw more than they would have like to see, and 11.2% said they saw fewer than they would have liked (Table 5.10). A cross tabulation of responses by the months that visits were made revealed that a significantly larger percentage of visitors in August and early September (through Labor Day) said they saw more people than they would have liked to see than visitors in July (Table 5.11).

### Table 5.10.Number of people recreation visitors would have liked to see during their visits<br/>to locations in the Project 184 area, summer 2002.

Number of People Visitors Would Have Liked To See	Number	Percent
More	381	30.2
About as Many	739	58.6
Fewer	141	11.2
Total	1261	100.0 *

#### Table 5.11. Cross tabulation of month of interview by preferences to see in the lake areas.

Number Expected	July	August	September	Total
More than I preferred	136	211	34	381
	26.7%	32 7%	32 1%	30.2%
About as Many as I preferred	299	375	65	739
	58.7%	58.1%	61.3%	58.6%
Fewer than I preferred	74	60	7	141
	14.5%	9.3%	6.6%	11.2%
Total	509	646	106	1261
	100.0%	100.0%	100.0%	100.0%

When we cross tabulated the responses to the number of persons preferred to be seen at the lake on the day of the interview, we find a relationship there (Table 5.11). This relationship was significant at a Chi square value of 12.8 with four degrees of freedom. Cramer's V was a very weak 0.07. In August and September, respondents tended to express the highest level of seeing more than they preferred to see, 32.7% and 32.1% respectively. The pattern of preferences for seeing people across the months is similar to the patterns found in the 1999 study. In general, however, respondents felt they saw about as many persons as they preferred to see across the three months of sampling. Those three percentages were 58.7%, 58.1%, and 61.3%. This suggests that a majority of respondents were satisfied in their preferences for seeing others.

# SECTION 6 🚸 CONCLUSIONS

We find that there are differences between those who agreed to participate in a follow-up telephone interview and those who did not agree. The differences tend to be in the following form:

- > Those who agreed to be called tend to be slightly older.
- > Those who agreed to be called tend to have higher incomes.
- > Those who agreed to be called are not different in ethnicity from those who did not agree.
- > Those who agreed to be called tend to have a higher formal educational experience.
- Those who agreed to be called tend to feel that the reservoirs and lakes are more important than those who did not agree.
- Those who agreed to be called tend not to be different from those who did not agree regarding the importance of non-wilderness areas.
- Those who stated they would not agree to be called tend to place higher importance on rivers and streams than did those who agreed to be followed-up.
- Those who agreed to be called tend to place higher importance on the Desolation Wilderness Area than those who did not agree to be followed-up.
- Those who agreed to be called placed the same level of importance on the Mokelumne Wilderness Area as those who did not want to be called.
- Overall, the respondents were no different between those who were willing to be called and those who were not willing in their evaluation of the total area, and they placed an extremely high satisfaction rating on a scale of 1-5 with a small standard deviation.
- With respect to the importance of facilities and services, respondents felt that off-road vehicle services were the least important and that maintaining water levels were the most important.
- When asked about other facilities and services in a semi-open-ended question, bathrooms, stores, trails, a chalet, and restaurant snack bar as the most frequent responses from the 299 respondents who had suggestions.

These findings on a sample of 1,267 respondents in the on-site survey suggest that the locale is highly rated. The differences between those who are willing to be called and those not willing to be called suggest that the responses of those not willing to be called would rate the area the same as those willing to be called except for ratings about reservoirs and lakes, and rivers and streams.

There are some differences between the 1999 and 2002 samples. The primary differences are:

- Ethnic composition: The current sample has a slightly higher percentage of Caucasians than the 1999 sample.
- The persons in the current sample are slightly younger, by one year on average, than those in the earlier sample.