

Whiskeytown--An Overview of the Visitor  
and the Recreation Resource

M. E. Lee  
D.R. Field

K. Martinson  
A. Gross



NATIONAL PARK SERVICE  
Cooperative Park Studies Unit  
College of Forestry  
Oregon State University  
Corvallis, OR 97331

CPSU/OSU 86-8

DL  
719  
.A19  
C77  
no. 86-8  
c. 1

Whiskeytown--An Overview of the Visitor and Recreation Resource

Marty E. Lee

Donald R. Field

Kristen Martinson

Alan Gross

Cooperative Agreement CA-9000-3-0003  
Subagreement No. 5

National Park Service  
Cooperative Park Studies Unit  
Oregon State University  
Corvallis, OR 97331-5704

CPSU/OSU 86-8

December 1986

## Whiskeytown Reports

Rather than prepare a single volume covering the full range of topics presented within the Whiskeytown research program, individual reports focusing on specific research objectives will be completed.

- The first report is a bibliography of water-based recreation completed in 1985 entitled "People, Human Behavior and Water-based Recreation: A Working Bibliography," CPSU/OSU 85-5.

- The second report is entitled "Recreation Places: A Description of Recreation Sites at Whiskeytown," and was completed in 1986, CPSU/OSU 86-3.

- This, the third report is a description of the visitors to Whiskeytown and is entitled "Whiskeytown--An Overview of the Visitor and the Recreation Resource," CPSU/OSU 86-8.

- The fourth report is an analysis of carrying capacity issues and social conflict among user groups at Whiskeytown, scheduled for completion in winter 1987.

- The fifth report will focus on visitor response to park management issues, and will be completed spring 1987.

- The sixth report will address interpretation at a National Recreation Area, anticipated completion date in spring 1987.

## Executive Summary

The goal of this report is to provide an overview of the Whiskeytown Unit as a recreation resource in northern California. Specific objectives include 1) brief descriptions of the Shasta County population served by the Whiskeytown-Shasta-Trinity NRA, 2) the water-based recreation opportunities available in northern California including public (Federal, State and local recreation resources) and private water resources and 3.) descriptions of the people who use Whiskeytown and the recreation activities chosen by them.

### Key Findings

- \* 90% of the visitors to Whiskeytown were residents of California with half of the California visitors living within 20 miles of the recreation area.
- \* 65% of the visitors were day users with half the day users spending 4 hours or less on a given visit.
- \* 55% were repeat visitors.
- \* 60% were younger than 30 years old.
- \* 55% visited the area as part of a family group.
- \* Swimming was the most popular single activity, but "activity sets" comprising a combination of swimming, relaxing sunbathing and food preparation-picnicking reflect the dominant orientation of all users.
- \* Over 1/2 of Whiskeytown's visitors also used Shasta Lake and Trinity Lake.
- \* 36% and 21% Whiskeytown's visitors, respectively, had visited Lassen Volcanic and Redwood National Parks (Whiskeytown's closest NPS neighbors).
- \* Whiskeytown serves a diversity of visitors and different recreation expectations experiences are noted between the recreation sites at Whiskeytown.

(Whiskeytown's closest NPS neighbors).

- \* Whiskeytown serves a diversity of visitors and different recreation expectations experiences are noted between the recreation sites at Whiskeytown.

## Table of Contents

	<u>Page</u>
INTRODUCTION. . . . .	1
WHISKEYTOWN'S HUMAN RESOURCE AREA: SHASTA COUNTY, CALIFORNIA . . . . .	5
WATER-BASED RECREATION PARTICIPATION. . . . .	9
WHISKEYTOWN VISITORS. . . . .	19
Methods. . . . .	18
Results. . . . .	21
Who Are They? . . . . .	21
Where Do They Come From?. . . . .	24
How Long Do They Stay?. . . . .	26
What Do They Do?. . . . .	28
Where Else Do They Go?. . . . .	31
In Summary. . . . .	33
DESCRIPTIONS OF VISITORS BY SITE. . . . .	34
Site 1 - Tower House. . . . .	35
Site 2 - Powerhouse . . . . .	35
Site 3 - Highway 299 Shoreline. . . . .	38
Site 4 - Whiskey Creek Road Shoreline . . . . .	41
Site 5 - Whiskey Creek Boat Launch. . . . .	46
Site 6 - Highway 299 Shoreline from Whiskey Creek Arm to Information Center . . . . .	46
Site 7 - Shoreline from the Information Center to Whiskeytown Dam. . . . .	49
Site 8 - Shoreline from Whiskeytown Dam to Brandy Creek Area . . . . .	54
Site 9 - Brandy Creek Boat Launch. . . . .	57
Site 10 - Brandy Creek "Teen" Beach . . . . .	60
Site 11 - Brandy Creek "Lifeguard" Beach. . . . .	63
Site 12 - Brandy Creek RV Area. . . . .	66
Site 13 - Oak Bottom RV Area. . . . .	69
Site 14 - Oak Bottom Tent Camping . . . . .	72
Site 15 - Oak Bottom Beach. . . . .	75
Site 16 - Oak Bottom Boat Launch. . . . .	78
Summary . . . . .	81
DISCUSSION: THE NEXT STEP. . . . .	84
LITERATURE CITED . . . . .	87

APPENDIX: NORTHERN CALIFORNIA  
RESOURCE LANDS . . . . . 91

## INTRODUCTION

This is the third in a series of reports resulting from research undertaken by the National Park Service and Oregon State University at the Whiskeytown Unit of the Whiskeytown-Shasta-Trinity National Recreation Area. Research at Whiskeytown began 1984 as a result of needs and concerns expressed by Park Service staff. The two primary objectives of the project are to

1. provide managers of the Whiskeytown Unit with a description of current recreation use patterns on the lake; and
2. describe areas of conflict among distinct user groups and between recreation activities.

Data collection took place during the summer of 1985, with close to 3200 Whiskeytown visitors contacted. Results are being presented in a series of six reports based on project objectives.

The first report, "People, Human Behavior and Water-based Recreation: A Working Bibliography," focuses on human behavior related to water resource systems accommodating water-based recreation. Papers referenced in the bibliography discuss who water recreationists are, where water recreation occurs, how visitors perceive water resources, and the management of water-based recreation areas.

The second report, "Recreation Places: A Description of Recreation Sites at Whiskeytown," provides a description of 16 recreation places at Whiskeytown around which the present research effort was organized. These sites were chosen to reflect the variety of physical settings, activities, and levels of management and development found around Whiskeytown Lake. Descriptions of the physical, social, and managerial characteristics of each site are reported.

The primary objective of this, the third, report is to provide an overview of the Whiskeytown Unit of the Whiskeytown-Shasta-Trinity National Recreation Area as a water-based recreation resource. Subsequent reports will address carrying capacity and crowding issues, interpretation activities at Whiskeytown, and visitor response to NPS management issues.

The present report is organized into four main sections. First, because approximately 50 percent of visitors to Whiskeytown reside in that County, a brief overview of the population structure of Shasta County California is presented. Second, a brief review and synthesis of water-based recreation participation is presented to compare recreation patterns at Whiskeytown with water-based recreation use patterns and research findings from other studies in the water field. Finally, a profile of visitors to Whiskeytown is presented. Attention is given to demographic characteristics of the recreation population--who are the visitors to Whiskeytown, their origin, type of recreation group

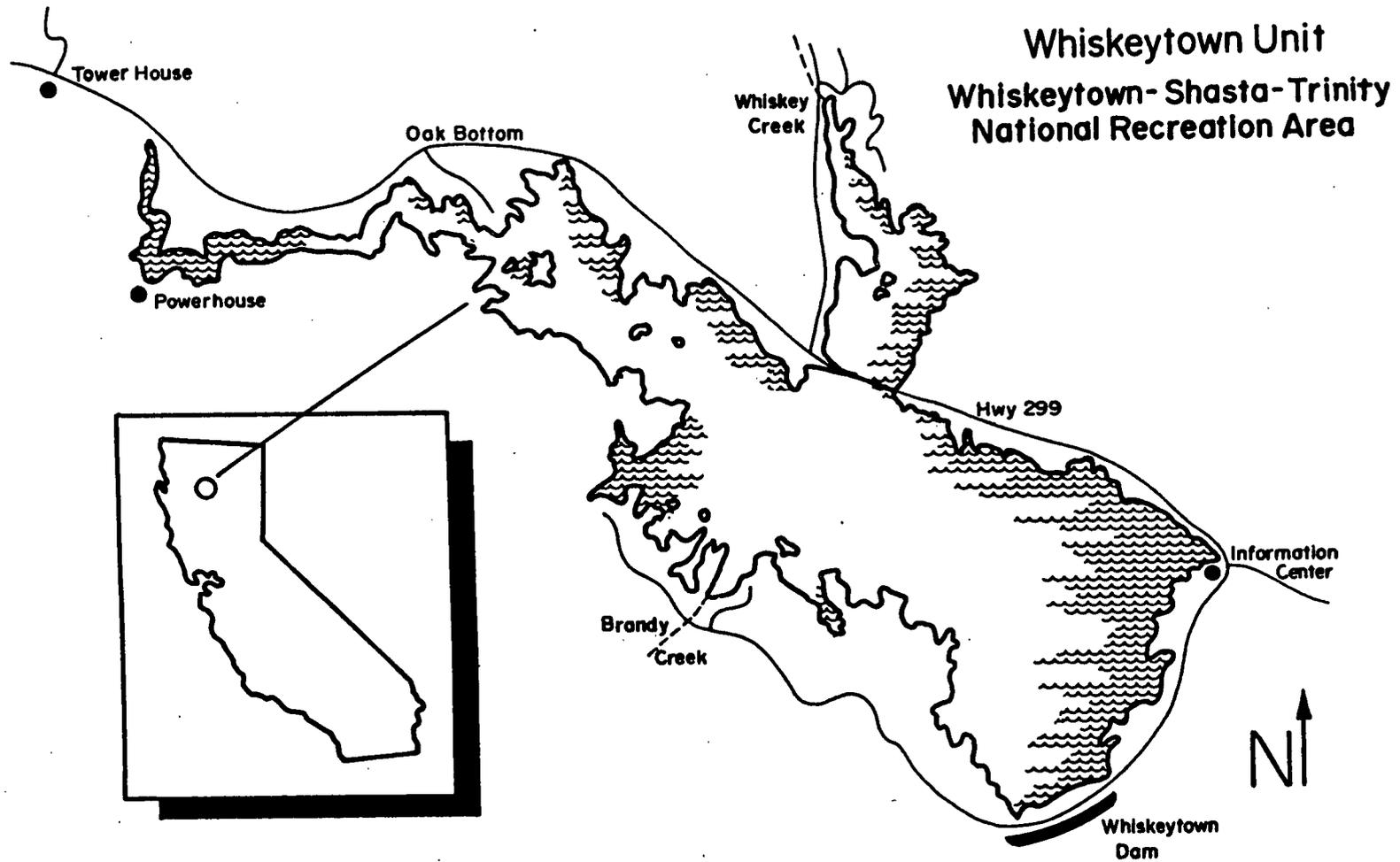
using the resource, nature and kind of recreation activities occurring, and sites chosen for recreation participation.

Supplemental information on other water-based resources within the Shasta County area is provided in an Appendix. This information is useful for comparing the Whiskeytown resource to other Northern California water-based recreation resources.

WHISKEYTOWN'S HUMAN RESOURCE AREA:  
SHASTA COUNTY, CALIFORNIA

National Recreation Areas (NRAs) were created for the purpose of providing recreation areas close to population centers, to "put parks where the people are" (Knudson 1984). NRAs were to be established in areas where there was a lack of outdoor recreation opportunities combined with a large population center within easy driving distance. Examples of NRAs include the Cuyahoga NRA located near Akron and Cleveland, Ohio; the Gateway NRA located near New York City; and the Santa Monica Mountains NRA close to Los Angeles. The growing popularity of outdoor recreation areas, combined with the proximity of most NRAs to population centers assures them a growing clientele and role in the provision of outdoor recreation (Mott 1985).

Reflecting the growing trend in popularity of water based recreation, almost all NRAs include an accessible body of water. The Whiskeytown Unit of the Whiskeytown-Shasta-Trinity NRA fits this model, offering high quality, water-based outdoor recreation. Although not as close to major population centers as some NRAs, Whiskeytown is centrally located in northern California and is within a three hour drive of several million people, including those of Redding, Red Bluff, Sacramento, Eureka, and Yreka. (Figure 1.)



**FIGURE 1. LOCATION OF WHISKEYTOWN UNIT, WHISKEYTOWN-SHASTA-TRINITY NATIONAL RECREATION AREA.**

Research has indicated that visitors at water impoundments come primarily from the local population. Whiskeytown Lake is no exception--47 percent of visitors to the lake during the summer of 1985 lived within 20 miles of the Unit and two-thirds of all visitors came from northern California. Following is a description of those people who live in the area surrounding Whiskeytown, who live within Shasta County and in Redding, the county's seat and largest city, located 8 miles east of Whiskeytown Lake.

A 1980 census reported the following information about Shasta County:

There were	115,715 people
	43,357 households
	32,662 families

89 percent of the county's population spoke English

Median household income: \$14,699

Recreation and tourism are major industries in Shasta County and generate an estimated 48 million dollars in revenues annually. With more than 2,000 motel rooms, scores of private and public campgrounds, and a large amount of public land available for outdoor recreation, the area is heavily dependent upon the influx of visitors.

Redding has experienced a steady growth in population, averaging a 3.5% annual growth since 1970. In 1980 Redding had 41,995 residents, and it was estimated that in 1983 this total increased to 46,100. Factors such as a comparatively low cost of living, low crime rates, abundant recreational opportunities, and warm climate may contribute to this rise in population.

The 1980 census reported the following information about people living in Redding:

There were: - 41,995 people

26% one person households

54% married couple households

$\bar{x}$  size household = 2.5 persons

Sex: 48% male  
52% female

Age: male  $\bar{x}$  = 29 years  
female  $\bar{x}$  = 31 years

Race: 94% White  
1% Black  
2% Asian  
3% Spanish

The primary employment in Redding is service-related, as opposed to agriculture or industrial production. Much of this industry is located in the North Redding Industrial Park. There are 160 manufacturing plants in Shasta County; major firms are related to forest products, mining-oriented products, paper, cement, steel fabrication, plastics, boats, and electronics.

Redding and surrounding Shasta County are growing in population and the availability of recreation opportunities provided in areas such as Whiskeytown is contributing to that growth and to an increasing emphasis on tourism and recreation as a means of economic growth in the area.

## WATER BASED RECREATION PARTICIPATION

There are essentially three types of water resource settings based on their characteristics: rivers and streams (running water), lakes, ponds and reservoirs (standing fresh water), and beaches adjacent to oceans or large lakes. A variety of activities take place at all water environments though some are unique to a particular setting (e.g., surfing at the ocean) and obviously some water resources are more conducive to particular activities than others. Differences and similarities in activities are examined for each of the three water resource types.

### Water-based Recreation Places

Common activities on rivers and streams include boating, fishing, tubing, river running, and swimming. The definition of any one of these activities, as with most recreation activities, may vary considerably depending on the degree of individual involvement. A single activity such as fishing can actually consist of a continuum of involvement levels ranging from generalized participation to specialized style (Bryan 1977). Blue gill

---

<sup>1</sup> Taken from "Water-Based Recreation Participation," by D. R. Field and K. Martinson for the President's Commission on Americans Outdoors.

fishing on the back water eddy of a river, bass fishing on a lake, fly fishing for trout in a high mountain stream and bait fishing for salmon in a coastal river are all very different activities. This variation within any one type of activity must be kept in mind when generalizing about river or any water resource use.

In general, because of the secluded nature of riverways, many users prefer and expect few encounters with other groups while traveling on the river, particularly in wilderness areas (Schreyer et al. 1976, Shelby and Nielsen 1975, Heberlein and Vaske 1977, Tarbet et al. 1977). Most river systems provide considerable screening from other river users due to winding channels, thick bank vegetation, and often steep, narrow corridors. There may be several groups floating a particular waterway who would not see each other all day if they were traveling at the same speed and sufficiently separated for the particular setting. However, for a visitor who is stationary, such as a fisherman on the bank, contacts with floaters could be numerous because the river would continually bring groups into and out of view (Heberlein and Vaske 1977). The more developed the resource becomes, however, the more acceptable higher contact levels appear to be (Knopp et al. 1979).

Lakes and reservoirs do not provide as much screening from other users as do riverways. Thick vegetation may provide seclusion from other groups around the shoreline but the nature and shape of lakes provide prime exposure of most users on the water and on opposite shores. Lakes and reservoirs can often provide opportunities for a wider variety of activities than

rivers or ocean beaches. Common activities include swimming, fishing, waterskiing, powerboating, sailing and canoeing although McDonough (1980) found that the primary reasons for visitors choosing to recreate at a lake resource were presence of friends, proximity to residence, solitude, and water quality, the pursuit of specific activities being less important.

Beaches are water oriented recreation places often with irregular shorelines and open spaces that accommodate a wide variety of use. Beaches are popular environments for both water and non-water recreation activities, with many users spending the majority of their visit out of the water. Common recreation activities of beach users include surfing, sail boarding, swimming, boating, sunbathing, team sports (e.g., volleyball or football), kite flying, and beach combing.

People visiting beaches often expect to encounter others, and, in fact, some social groups depend on density of use to secure privacy, while others seek the outside contacts that beaches may provide (Hecock 1970). A wide variety of social groups visit beach areas, and of the three water settings, beaches are the place one would most likely find individuals recreating alone.

Cheek and Field (1977) note some general trends in use at water recreation places in the West. Lakes receive considerably more use than any other water resource type. Reservoirs, followed by rivers, are the next most often used areas. A small percentage of outings occur at ocean beaches. The most common activities occurring at each of these areas are also identified.

Swimming, powerboating, sailing, canoeing, and fishing all occur primarily at lakes, followed in order by reservoirs and river systems. Beachcombing also occur most often at lakes, followed closely by the ocean beaches. Urban beaches also serve as an environment for walking for pleasure, swimming, and general relaxation.

#### Frequency and Distribution of Use

Water-based recreation is primarily a summertime activity with the majority of use occurring between the Memorial Day and Labor Day weekends. Some whitewater river running is more popular in the early to late spring because of better water conditions (Shelby and Colvin 1981). Fishing tends to be the only activity with year-round participation, much of it occurring in the spring and fall (Shelby and Stein 1984). As can be expected, most studies found that recreational use occurs more heavily on weekends with holidays and 3-day weekends receiving the most use. Studies have found some variations in this pattern depending on the character of the resource (e.g., Shelby and Colvin 1979 and 1981).

The majority of participation in water-based recreation occurs on daily cycles although variation by activity throughout the daily cycle is apparent. Fishing occurs primarily in the early morning and late afternoon. Most river runners float from mid-morning to late afternoon depending on the length of the trip. Water activities, such as inner-tubing, will commonly occur in late morning and early afternoons (Heberlein and Vaske 1977; Shelby and Stein 1984). Other activities such as swimming

and sunbathing follow the seasons and temperatures. But during the day, use of beaches and swimming pools often cycle on a 4-hour basis, with the replacement of recreationists occurring two or three times a day.

#### The People and Their Activities

People who pursue outdoor recreation come from all walks of life. A wide variety of incomes, occupations, and age groups are portrayed. All age groups participate in water-based recreation with the teen to young adult group predominating in the more rigorous activities (e.g., waterskiing), while children and older adults participate more in less demanding pursuits. Roughly one-half of the participants are male and one-half are female.

Visitors to remote wilderness areas tend to have somewhat higher income and education levels and are more likely to have professional or technical occupations than visitors to local water resources areas. They likewise come from urban or metropolitan areas and are more likely to travel farther to visit unique, wilderness water resources than public reservoirs or beaches. This is in contrast to the dominant visitation at water impoundments which is primarily from the local population, both urban and rural (Nielsen and Shelby, 1977; Schreyer, et al., 1976).

When visitors are examined by activity type, specific differences emerge. The most uniform group of users is probably

the whitewater river runners. The average age of river runners is from late twenties to early thirties. Floaters are more likely to be males. Most users have relatively high incomes at least some college education, and generally high occupational status. A large portion of river runners are in commercial organized groups which are also unique to the activity (Schreyer et al. 1976, Merriam and Knopp 1977, Nielsen and Shelby 1977, Shelby and Colvin 1979 and 1981).

Users participating in other water-based recreation did not have such uniform characteristics as river runners but some attributes are more common in certain user groups than others. McDonough and Field (1979) found that waterskiers at Coulee Dam in Washington are most commonly young adults from 18 to 29. Waterskiers at Lake Mead tended to travel farther to get to the area than other user groups did. They often traveled in large family and friendship groups and usually stayed for one or several nights. About 1/3 were working professionals (USDI 1980).

Fishing is an activity participated in by most age groups, but a large percent are older adults, often retired (USDI 1980). Small groups (1 or 2 people) of primarily males are the most common group composition (McDonough and Field 1979). Fishermen have somewhat higher income levels than other user groups and tend to have generally high education and occupational status (Heberlein and Vaske 1977). Fishing is primarily a local activity and many fishermen have been visiting the same areas for several decades (USDI 1980).

Powerboating is widely pursued by visitors from 18 to 60 years of age, who generally have relatively high incomes and are more likely to be blue collar rather than white collar. Boaters at the Apostle Islands in Wisconsin were found to have higher incomes and were more more likely to be city dwellers than campers using the area (Heberlein and Vaske 1979).

Canoeing and kayaking appear to be activities primarily for young to middle-aged adults in friendship groups. In a survey of Minnesota canoe and kayak owners, Leatherberry (1979) found participants have a higher than average education and income from state residents and that greater than a third hold professional or technical jobs. Most owners are city residents. On the Bois Brule River in Wisconsin (Heberlein and Vaske 1977) greater than 3/4 of the canoeists are older than 21 and about equal numbers of participants are male and female. Canoeists have higher educations and incomes than tubers on the river but slightly lower than fishermen.

Swimming is an activity for all age groups. Most swimmers are local residents. Group composition and occupation vary depending on the resource (McDonough and Field 1979, USDI 1980).

#### Motives and Values

The water-based activities of fishing and river running have received considerable attention in studies of 'recreationists' motives and preferences. Anglers have been shown to participate

in fishing in pursuit of several primary motives other than harvesting fish. These include escape, adventure, affiliation, learning about nature, and solitude (Knopf et al. 1973, Driver and Bassett 1975, Ditton et al., 1978). Motives and attitudes toward the angling experience may vary somewhat by type of fishing pursued. Anglers who hike into a high mountain lake to fish for trout tend to value solitude and prefer pristine, natural conditions (Manfredo et al. 1980). Visitors to an accessible, rural river for the annual steelhead run may prefer well maintained access and socializing with other groups (Shelby and Stein 1984).

Important motives identified for river runners are similar to those for fishermen such as experiencing nature, stress release, and solitude. However, the pursuit of action and excitement are also important factors in motivating people to run rivers. As with anglers, the floaters who use different types of resource settings (wilderness vs. developed) will generally have different attitudes toward setting characteristics and number of contacts with other groups (Schreyer et al. 1976, Knopp et al. 1979).

#### Recreation Behavior

Social psychological theory suggests that "behavior is more a manifestation of group properties than features inherent in the recreation site" (Altman and Wohlwill 1983). The outdoor

experience is most commonly a group experience (Field and O'Leary 1973) and by analyzing group characteristics, social scientists may be able to determine the leisure behavior of a group.

"Behavior is not an end in itself but a means to optimizing interaction among members of a group" (Altman and Wohlwill 1983).

This path of research has drawn observations from sociology on the relation between group type and resulting behavior to be used as a predictive management tool. Much of the work on human behavior and social group occurred in the realm of water-based recreation (e.g., Field 1973, Field and Cheek, Jr. 1974 and 1981, Ditton and Graefe 1975, Field and O'Leary 1973, Dottavio et al. 1980, Christinsen 1980). The data have revealed that the type and composition of the social group will affect recreation participation. For example, a family group may behave differently at a beach than a friendship group of teenagers. McDonough and Field (1979) noted differentiation in activity participation by group type at Coulee Dam. Family groups were commonly involved in beach combing and fishing while friendship groups were more commonly involved in sailing, canoeing, and kayaking. Mixed family and friendship groups participated in powerboating more commonly than other groups.

## WHISKEYTOWN VISITORS

The Whiskeytown Unit of the Whiskeytown-Shasta-Trinity National Recreation Area, in keeping with the philosophy that recreation visitors are best served by a variety of outdoor recreation opportunities, provides for a diversity of opportunities. The recreation focus at Whiskeytown Lake is water-oriented and in addition to designated beaches and boat launches, there are miles of relatively undeveloped and accessible shoreline. Whiskeytown Lake is an excellent area for boating, water-skiing, sailing, scuba-diving, fishing, and swimming. The Whiskeytown Unit also includes back-country trails and campsites, 4-wheel-drive vehicle trails, nature trails, and tent and recreational vehicle campgrounds (Figure 2).

### Methods

Visitors were contacted from May 25 through September 2, 1985 at 16 sites around the lake area (Figure 3). These sites were chosen to reflect the variety of physical settings, activities, and use levels around Whiskeytown Lake. <sup>1</sup> Approximately 200 surveys were

---

<sup>1</sup> more complete description of the 16 survey locations is found in Stark et. al. 1986. Recreation Places: A Description of Recreation Sites at Whiskeytown, CPSU/OSU 86-3, Cooperative Park Studies Unit, Oregon State University.

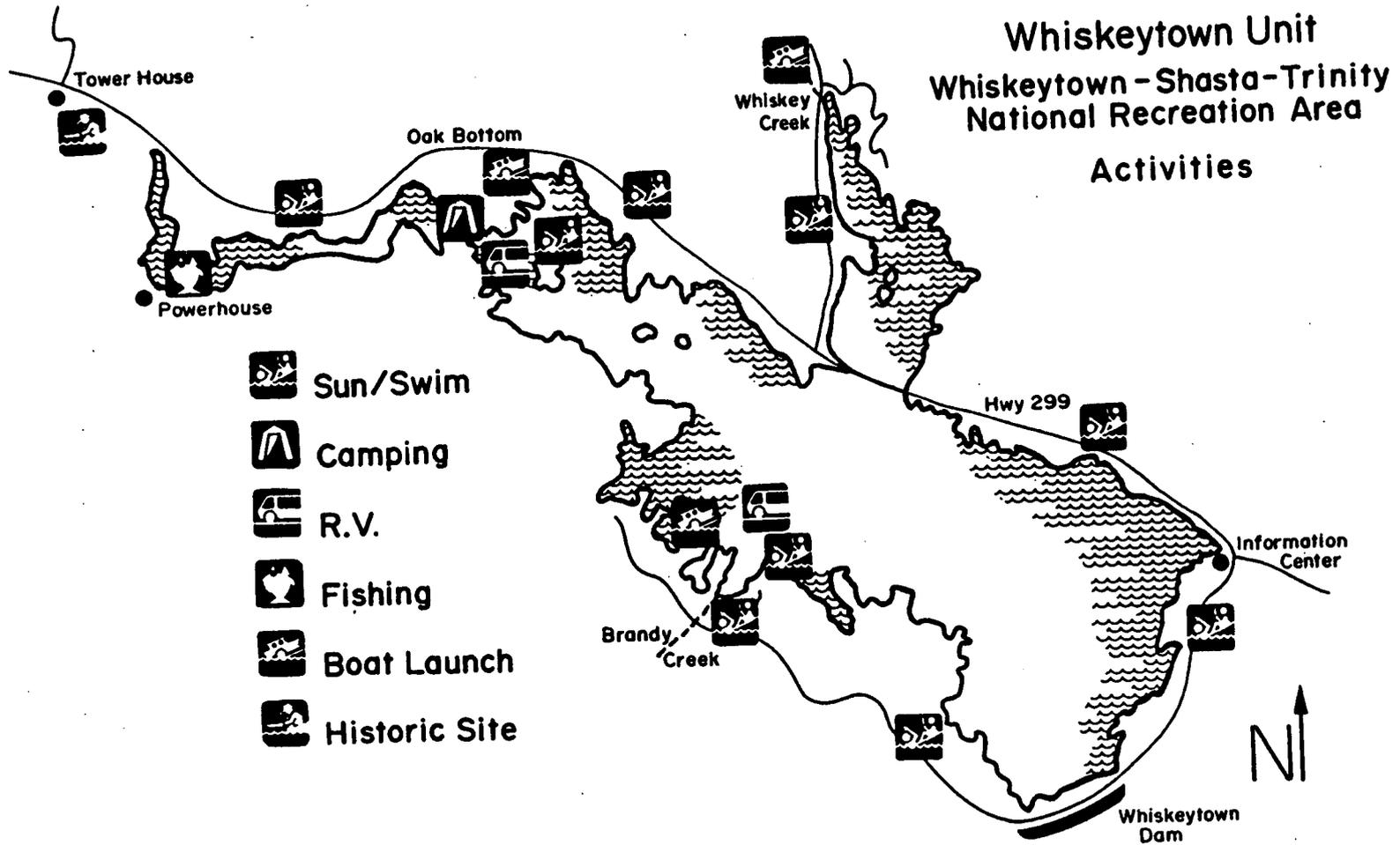


FIGURE 2. RECREATION ACTIVITIES, WHISKEYTOWN, SUMMER 1985.

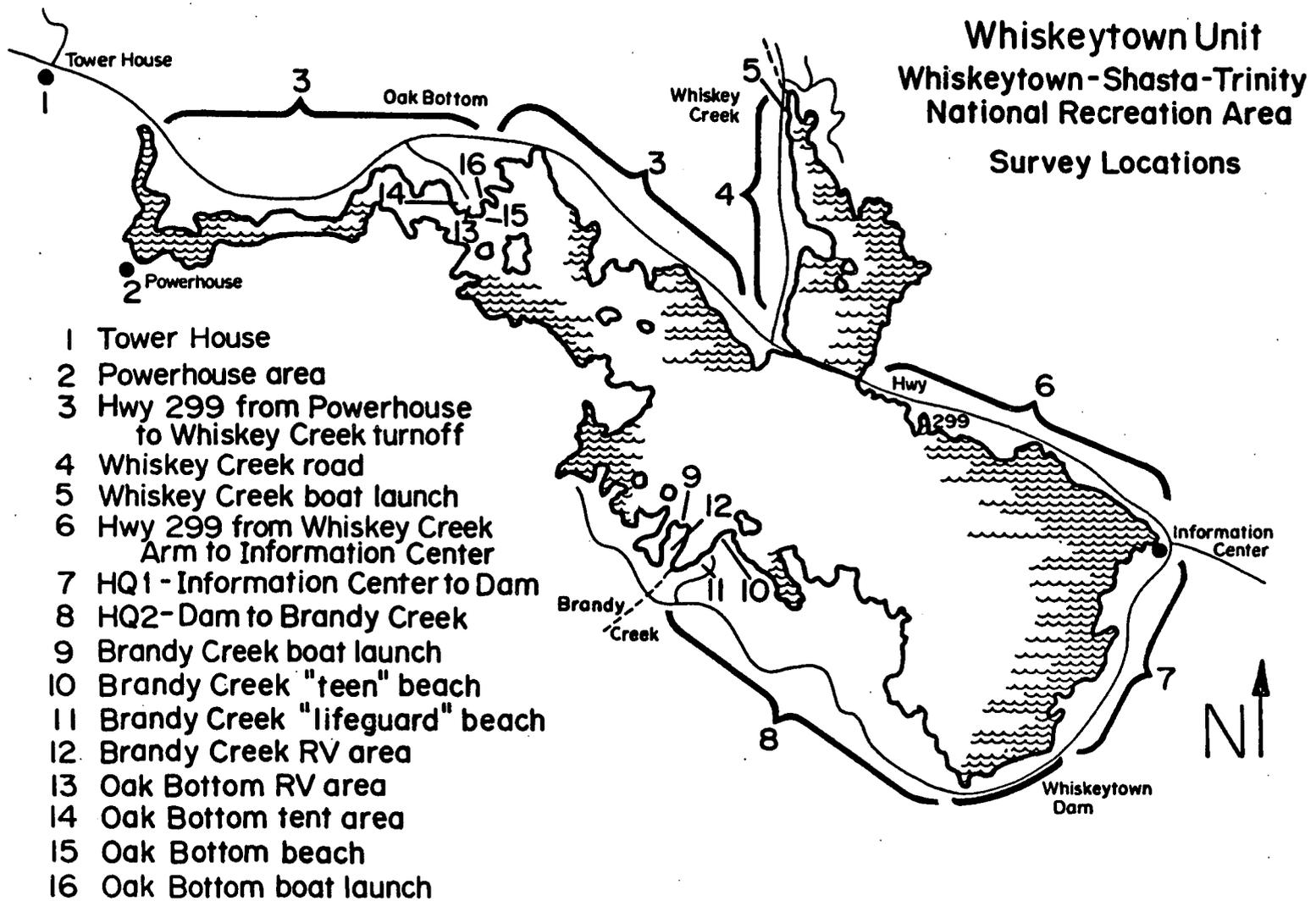


FIGURE 3. SIXTEEN SURVEY LOCATIONS, WHISKEYTOWN, SUMMER 1985.

distributed at each site during systematically sampled time blocks stratified by week days, weekend days, and holidays.

The primary data collection instrument was a mailback questionnaire. The survey was distributed to visitors by trained interviewers who randomly selected visitors judged to be 16 years old or older at each of the 16 sites. Interviewers briefly introduced the study, asked for the visitor's cooperation, and provided him/her with a questionnaire and a postage-paid return envelope. A follow-up reminder postcard was sent to participants one week after initial contact, followed 3 weeks later by a second reminder and replacement questionnaire to respondents who had not yet returned their questionnaires. A total of 2313 usable questionnaires were returned, a response rate of 75 percent.

### Results

Results will be presented in two sections. First will be an overall description of Whiskeytown visitors including location of residence, socio-demographic characteristics, and activities. The second section will focus on the 16 individual sites around the lake where visitors were contacted. Visitors at each site will be described according to the variables listed above.

#### Who Are They?

Whiskeytown visitors are relatively young. Sixty percent of visitors within the groups surveyed were less than 30 years old and almost a quarter of those were 12 years old or younger (Table 1). Fifty percent were male, 50 percent female. The fairly substantial number of children is consistent with the finding

that 56 percent of those contacted were with family groups and 64 percent were married. It should also be noted that many of those contacted came to Whiskeytown alone (9%) or with friends (18%) (Table 2).

Table 1. Demographics, Whiskeytown Visitors Summer, 1985.

---

	<u>Percent</u>
<b>Age:</b>	
$\leq$ 12 years old	24
13-19	15
20-29	21
30-39	19
40-49	10
50-59	6
60+ years old	5
<b>Sex:</b>	
Male	50
Female	50
<b>Marital status*:</b>	
Married	64
Not married	36
<b>Education*:</b>	
$\bar{x}$ = 14 years	

---

\* Of respondents only.

Table 2. Group Type and Size, Whiskeytown, Summer 1985 (n = 2261).

Group Type	Frequency	Percent
Alone	213	9.4
Family	1256	55.6
Friends	409	18.1
Family and Friends	350	15.5
Other (Church, Scout, Etc.)	33	1.5
Group Size: $\bar{x} = 6.1$ people		

More than half of Whiskeytown visitors contacted worked in professional/technical (23%), managerial (17%), or clerical (14%) occupations (Table 3). They are very educated, averaging 14 years of education.

Table 3. Occupation of Respondents, Whiskeytown, 1985 (n = 1881).

Occupation	Frequency	Percent
Professional, technical worker	442	23
Manager, official, proprietor	324	17
Clerical worker	272	14
Craftsman, foreman, and related worker	226	12
Service workers	203	11
Operatives and related worker	149	8
Sales worker	97	5
Laborers, farming/mining	76	4
Private household worker	65	3
Other	27	1

Where Do They Come From?

More than 90 percent of all Whiskeytown visitors surveyed live in California (Table 4, Figure 4). Half of those California visitors live less than 20 miles from the lake and the majority live in Redding, the area's largest city located 8 miles east of Whiskeytown. An additional 17 percent of those surveyed live in cities outside 20 miles and north to the Oregon/California border, thus 64 percent of visitors come from the Northern California area. Of visitors coming from outside California, almost half come from Oregon.

Table 4. Residence of Whiskeytown Visitors, Summer 1985.

Residence Area	Number	Percent
<20 Miles	1069	47
North of Whiskeytown	382	17
Southern California	298	13
Sacramento Area	176	8
San Francisco Area	186	8
Oregon	71	3
Other U.S.	91	4
Outside U.S.	9	<1
	<hr/> 2282	

# Visitor Origins, Whiskeytown NRA

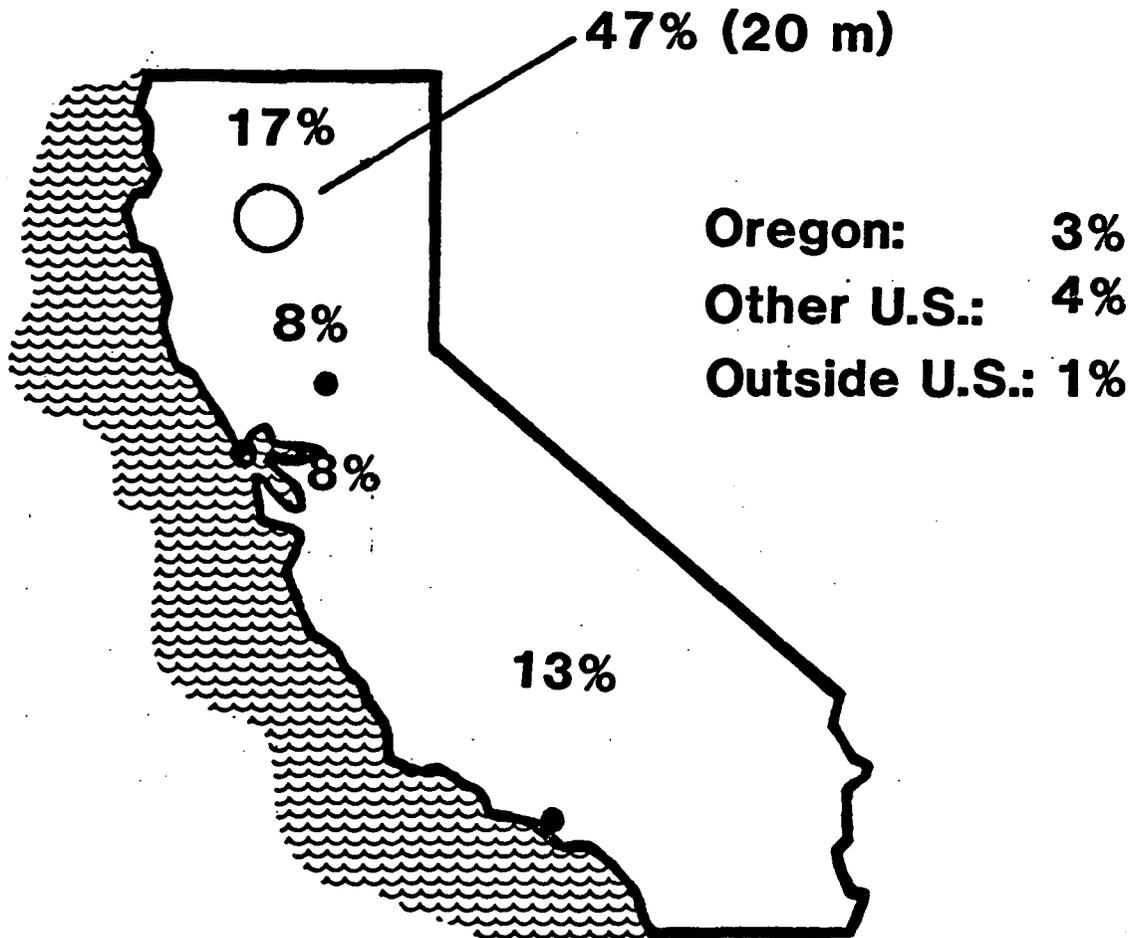


FIGURE 4. VISITOR RESIDENCE, WHISKEYTOWN, SUMMER 1985.

### How Long Do They Stay?

Visits to Whiskeytown Lake last primarily one day or less. Sixty-five percent of visitors contacted described their visit as either a day (31%) or less than a day (34%) outing (Tables 5 and 6). Twenty percent indicated their visit was part of a major vacation and 14 percent indicated it was a weekend or overnight trip. Half (52%) of those who stayed eight hours or less stayed between two and four hours.

Table 5. Type of Outing, Whiskeytown, Summer 1985

Type of Outing	Frequency	Percent
Major vacation	458	20.1
Weekend or overnight trip	326	14.3
Day outing	716	31.5
Visit for several hours (less than a whole day)	776	34.1

Table 6. Length of Stay, Whiskeytown, Summer 1985 (n = 2277).

Length of Stay	Frequency	Percent
<1/2 hour	18	0.8
1/2 - 1 hour	59	2.6
2 - 4 hours	756	33.2
5 - 8 hours	626	27.5
9 - 12 hours	93	4.1
>12 hours	725	31.8

Many of the visitors to Whiskeytown are repeat visitors. Forty-five percent of those contacted reported from 1 to 200 previous visits to Whiskeytown during 1985 average was 11 previous visits in 1985 (s.d. = 17.7 visits). Many visitors said they visited or would be visiting Whiskeytown more than once over the course of the summer. Almost half of those contacted said they had come or expected to come either once a week or more (28%) or a couple of times a month (20%) during the 1985 summer season (Table 7).

Table 7. Visitation in 1985, Whiskeytown Visitors, Summer 1986.

How often in 1985?	Frequency	Percent
Once a week or more during the season	644	28
A couple of times a month during the season	457	20
About once a month during the season	161	7
Two or 3 times a year	324	14
Once during the year	399	18
Other	283	13

### What Do They Do?

As expected, visitors to Whiskeytown Lake come primarily for water-oriented activities--almost 70 percent of visitors contacted had been swimming. Other popular activities include resting/relaxing (62% of visitors contacted), sunbathing (56%), eating and meal preparation (42%), picnicking (36%), fishing (28%), walking/hiking (23%), motorboating (21%), waterskiing (19%), and sightseeing (20%) (Table 8).

Table 8. Activities, Whiskeytown Visitors, Summer 1985 (n = 23).

Activity	Number	Percent*
Swimming	1591	69
Resting/relaxing	1428	62
Sunbathing	1301	56
Eating/meal preparation	962	42
Picnicking	839	36
Fishing	651	28
Walking/hiking	534	23
Motorboating	477	21
Waterskiing	436	19
Sightseeing	471	20
Campsite activities	388	17
Other	297	13
Sailing	297	8
Gold panning	123	5
Canoeing	86	4
Ranger-guided programs	95	4

\*Totals more than 100% because of multiple responses.

The various group types found at Whiskeytown vary somewhat in the activities in which they participate (Table 9). For example, a larger percentage of people who come to Whiskeytown alone go sailing or fishing than those who came as part of a group. People who came as part of an organized group such as tour groups or church groups are more likely to picnic, pan for gold, and attend ranger-guided programs than other types of Whiskeytown visitors. Groups made up of families or families and friends participate in a wide variety of activities and have the highest participation percentages among the five group types.

The Visitor Information Center at the entrance to the south side of Whiskeytown provides information on the Whiskeytown Lake area-- historical background, day use and overnight facilities, literature and guidebooks, regulations, etc. Three-quarters of visitors contacted at Whiskeytown had not stopped at the Center during that particular visit to the Lake, though almost 60 percent said they had stopped at the Center during some previous visit to Whiskeytown (Tables 10 and 11). Thirty-percent of visitors contacted had stopped neither during the present visit nor during a previous visit to Whiskeytown. These findings are not surprising given that the use is primarily local visitors who repeatedly visit the lake and are familiar with the area.

Table 9. Activities by Groups, Whiskeytown Visitors, Summer 1985.

Activity	GROUP TYPE									
	Alone		Family		Friends		Family and Friends		Other <sup>b</sup>	
	n	% <sup>a</sup>	n	%	n	%	n	%	n	%
Swimming <sup>c</sup>	123	58	858	68	300	73	253	72	19	57
Sunbathing <sup>c</sup>	108	51	685	54	255	62	214	61	14	42
Picnicking <sup>c</sup>	38	18	475	38	123	30	164	47	20	61
Resting/relaxing <sup>c</sup>	101	47	812	64	225	55	234	67	17	51
Walking/hiking <sup>c</sup>	36	17	316	25	77	19	84	24	10	30
Motorboating <sup>c</sup>	15	7	284	23	54	13	108	31	7	21
Waterskiing <sup>c</sup>	14	6	233	18	59	14	113	32	10	30
Fishing <sup>c</sup>	55	26	420	33	75	18	81	23	4	12
Sightseeing <sup>c</sup>	32	15	282	22	70	17	69	20	8	24
Canoeing	9	4	45	4	14	3	10	3	2	6
Sailing <sup>c</sup>	28	13	98	8	38	9	28	8	—	—
Gold panning <sup>c</sup>	7	3	76	6	16	4	10	3	10	30
Ranger-guided programs <sup>c</sup>	1	<1	68	5	7	2	10	3	5	15
Total in group type	213		1256		409		350		33	

<sup>a</sup>Totals more than 100% because of multiple response.

<sup>b</sup>Includes tour groups, scout groups, church groups.

<sup>c</sup>Significant differences among groups at .05 level using chi-square analysis.

Table 10. Stopping at the Information Center During Current Whiskeytown Visit, Summer 1985 (n = 2304)

Stop at Information Center?	Number	Percent
Yes	602	26
No	1702	74

Table 11. Stopping at the Information Center During a Previous Visit to Whiskeytown, Summer 1985 (n = 2259).

Stop at Information Center?	Number	Percent
Yes	1331	59
No	928	41

#### Where Else Do They Go?

The Whiskeytown Unit is part of the Whiskeytown-Shasta-Trinity National Recreation Area. Visitors were asked if they had visited either of the other two units of the National Recreation Area during 1985. Twenty-one percent of Whiskeytown visitors had visited Trinity Lake and had averaged 2.7 visits during the year. Lake Shasta was more popular, with 56 percent of those contacted having visited the lake during 1985 with an average of 6.4 visits among them (Table 12).

Table 12. Visits to Trinity Lake and Lake Shasta in 1985, Whiskeytown Visitors, Summer 1985.

	Frequency	Percent
<b>Visited Trinity Lake</b>		
Yes	479	21
No	1804	79
$\bar{x}$ = 2.7 visits		
<b>Visited Lake Shasta</b>		
Yes	1270	56
No	981	44
$\bar{x}$ = 6.4 visits		

Other National Park Service areas visited during 1985 by people contacted at Whiskeytown include Lassen National Volcanic Park (36%), Redwood National Park (21%), and Crater Lake National Park (8%) (Table 13).

Table 13. Other NPS Areas Visited in 1985, Whiskeytown, 1985.

NPS Area	Number who had visited	Percent of respondents
Lassen Volcanic NP	845	36
Lava Beds National Monument	146	6
Redwood National Park	493	21
Oregon Caves National Monument	96	4
Crater Lake National Park	183	8

## In Summary

Visitors to Whiskeytown Lake reflect the characteristics of participants described in other research on water-oriented recreation. They also reflect characteristics of the local area where almost half of them live. Whiskeytown visitors are young, the average age of men living in Redding is 29 years old, women average 31 years old. The ratio of men to women among Whiskeytown visitors is 50:50, 48 percent of Redding residents are men, 52% are women.

Visitors most often come in family groups though solitary visitors are not uncommon. Visitors come often and most don't stay overnight at the lake. Most come to swim, relax, and sunbathe. More sophisticated comparisons of activities among groups are needed. Preliminary comparisons indicate there may be differentiation in participation in activity by group type. This idea is suggested in other water-based recreation research (McDonough and Field, 1979). More detail on the complex interactions among settings, groups, and activities will be discussed in the upcoming Whiskeytown reports on carrying capacity and crowding issues.

## DESCRIPTIONS OF VISITORS BY SITE

The following section describes visitors at 16 recreation sites at Whiskeytown around which this research was organized. Among the 16 sites are four beach areas, three boat launch sites, and four shoreline areas (see Figure 3, p. ). These 11 sites, along with the Tower House Historical District and the Powerhouse area, capture much of the day-use activity at Whiskeytown. The other three sites chosen were the two R.V. camping areas and the tent camping area. These 16 sites reflect the variety of physical settings, level of management influence and development, and activities found at the Whiskeytown Unit. For a complete description of the biophysical characteristics, management activities, and social setting of each of these sites see "Recreation Places: A Description of Recreation Sites at the Whiskeytown Unit of the Whiskeytown-Shasta-Trinity National Recreation Area" by Stark, Lee, Field, van Riper, and Avery, Report No. CPSU/OSU 86-3.

Descriptions of visitors at each of the 16 sites will include ages and sex of group members, group type and size; location of residence; activities; and impressions of the site including whether or not it was their favorite Whiskeytown location, their most important reason for choosing that particular site, and whether they felt crowded there using a 9-point crowding scale where 1 = not at all crowded and 9=extremely crowded.

#### Site 1 - Tower House

The Tower House Historic District is one of the last remnants of Whiskeytown's gold mining era. Visitors contacted at this site tended to be young (56% of group members were less than 20 years old), come as family groups (64%) and reside primarily in the local area (44%) and the northern (15%) and southern (15%) parts of California (Table 14).

Gold panning was the primary activity at this site (62% participating) along with resting/relaxing (42%), walking/hiking (41%), sightseeing (36%), and swimming (35%). Twenty-one percent of those contacted at this site had participated in a ranger-guided program--the largest percentage of the 16 sites.

Fifty-four percent of the visitors said the Tower House was their favorite place at Whiskeytown and most important reasons given for choosing this site included gold panning (32% of respondents), seeing historical sites (13%), and to view the scenery (10%). This site was not perceived as being crowded by those contacted with a mean crowding scale score of 1.6

#### Site 2 - Powerhouse

The Powerhouse area is a large site near the Francis J. Carr Powerplant. There is an extensive lawn area as well as secluded shoreline areas with abundant native vegetation. Visitors at this site tended to be slightly older than visitors to Whiskeytown in general (66% were 20+ years old and 26% were 40+ years old). The majority of those contacted (74%) were in family

Table 14. Tower House Visitors, Whiskeytown, Summer 1985.

<u>Demographics:</u>		<u>Percent</u>
<b>Ages:</b>		
≤12 years old		46
13 - 19 years old		10
20 - 29 years old		9
30 - 39 years old		16
40 - 49 years old		10
50 - 59 years old		5
60 + years old		5
<b>Sex:</b>		
Male		53
Female		47
<b>Group Type:</b>		
Alone		8
Family		64
Friends		10
Family and friends		8
Other		10
Group Size: $\bar{x} = 5.9$ people		
<b>Residence:</b>	<u>n</u>	<u>Percent</u>
Local (< 20 miles)	58	44
Northern California	20	15
Southern California	20	15
Sacramento area	12	9
San Francisco area	11	8
Outside U.S.	7	5
Oregon	2	2
Other U.S.	2	2

Table 14. Continued.

---

<u>Activities</u>	<u>n</u>	<u>Percent*</u>
Gold Panning	83	62
Resting/Relaxing	56	42
Walking/Hiking	55	41
Swimming	48	36
Sightseeing	47	35
Sunbathing	30	23
Picnicking	29	22
Fishing	29	22
Ranger-guided program	28	21
Other	10	7
Motorboating	9	7
Sailing	7	5
Waterskiing	6	4
Canoeing	3	2

At the Site:

Favorite place?

Yes	69	54
No	60	46

Most important reason  
for choice of site (top 3)

- gold panning	41	32
- see historical sites	16	13
- view scenery	13	10

Feel crowded?\*

$$\bar{x} = 1.6 \quad \text{s.d.} = 1.1$$

---

\* Totals more than 100% because of multiple responses.

\*\*Scale 1-9 where 1 = not at all crowded ...9 = extremely crowded.

groups though 14 percent of those contacted had come alone. Fifty-eight percent of those contacted live within 20 miles of Whiskeytown Lake (Table 15).

The older ages and higher percentage of local, solitary visitors may be due to the fact that the Powerhouse area is the primary fishing area on Whiskeytown Lake. Seventy-six percent of the visitors had fished at the site with other activities mentioned including resting (52%), swimming (43%), picnicking (37%), and sunbathing (34%).

Sixty-six percent of those contacted said the Powerhouse was their favorite place at Whiskeytown and reasons for choosing that site included fishing (37% of respondents, to get away from the usual demands of life (8%), to get away from crowds (8%), and to relax (8%). Crowding was not a problem for Powerhouse visitors (mean score of 2.6 on the crowding scale).

Site 3 - Highway 299 Shoreline from Powerhouse  
to Whiskey Creek Road

This large shoreline area includes numerous small, secluded cove areas as well as an area with a swinging rope which is popular with younger people. Visitors to this shoreline area tend to be young (72% of group members were less than 30 years old and 85% were less than 40 years old). Slightly more females used this site than males (51% vs. 49%) and the majority came in friendship groups (38%) and family groups (36%), though 11 percent came alone. Average group size tended to be smaller than visitors in general (4 vs. 6 people) and the majority of visitors (57%) live within 20 miles of the Lake (Table 16).

Table 15. Powerhouse Visitors, Whiskeytown, Summer 1985.

---

Demographics: Percent

Ages:

<12 years old	26
13 - 19 years old	8
20 - 29 years old	22
30 - 39 years old	18
40 - 49 years old	10
50 - 59 years old	9
60 + years old	7

Sex:

Male	51
Female	49

Group Type:

Alone	14
Family	56
Friends	11
Family and Friends	18
Other	1

Group Size:  $\bar{x} = 4.7$  people

<u>Residence:</u>	<u>n</u>	<u>Percent</u>
Local (<20 miles)	88	58
Northern California	20	13
Southern California	19	12
San Francisco area	13	9
Sacramento area	10	6
Oregon	1	1
Other U.S.	1	1
Outside U.S.	--	--
	152	

Table 15. Continued.

---

<u>Activities</u>	<u>n</u>	<u>Percent*</u>
Fishing	118	76
Resting/Relaxing	81	52
Swimming	66	43
Picnicking	57	37
Sunbathing	53	34
Walking/Hiking	30	19
Sightseeing	22	14
Other	17	11
Canoeing	7	4
Motorboating	4	3
Gold panning	4	3
Sailing	3	2
Waterskiing	3	2
Ranger-guided program	2	1

At the Site:

Favorite place?

Yes	92	66
No	48	34

Most important reason  
for choice of site (top 3)

- fishing	54	37
- get away from usual demands of life	12	8
- get away from crowds	12	8
- relax	12	8

Feel crowded?\*\*\*

$\bar{x} = 2.6$  s.d. = 1.9

---

\* Totals more than 100% because of multiple responses.

\*\*Scale 1-9 where 1 = not at all crowded ... 9 = extremely crowded.

Swimming was the dominant activity (74% of respondents participating) along with sunbathing (63%), resting/relaxing (57%), picnicking (37%), and fishing (27%).

Fifty-nine percent of respondents said this shoreline area was their favorite place at Whiskeytown and the main reasons for choosing this site were to sunbathe (16%), swim (16%), and to get away from crowds (14%). These shoreline users did not appear to feel crowded, producing an average crowding scale score of 2.6.

#### Site 4 - Whiskey Creek Road Shoreline

This shoreline area extends from Highway 299 to the inlet of Whiskey Creek. The area is accessible by road and provides primarily undeveloped areas to picnic, swim, or sunbathe.

Visitors to this site are fairly young (65% of group members were less than 30 years old), are slightly more likely to be male (53% vs. 47% female), and most often come with family groups (63% of respondents). More than half (57%) of the visitors contacted at this site live within 20 miles of Whiskeytown and 78 percent of them live either within 20 miles or in the area north of Whiskeytown to the Oregon border (Table 17).

The dominant activity along this shoreline was swimming (73% of respondents) along with resting (62%), sunbathing (57%), picnicking (53%) and fishing (21%).

This was the favorite Whiskeytown site for 70 percent of respondents and the most often given reasons for choosing this site were to get away from crowds (14% of respondents), to view scenery (11%), and to be with family (11%). Crowding was not a problem for these visitors, who averaged 3.0 on a 9-point

Table 16. Hwy 229 from Powerhouse to Whiskeytown Creek Shoreline  
Visitors, Whiskeytown, Summer 1985.

<u>Demographics</u>	<u>Percent</u>	
<b>Ages:</b>		
≤12 years old		23
13 - 19 years old		20
20 - 29 years old		29
30 - 39 years old		16
40 - 49 years old		5
50 - 59 years old		3
60 + years old		4
<b>Sex:</b>		
Male		49
Female		51
<b>Group Type:</b>		
Alone		11
Family		36
Friends		38
Family and Friends		14
Other		1
<b>Group Size: <math>\bar{x} = 4.1</math> people</b>		
<b>Residence:</b>	<u>n</u>	<u>Percent</u>
Local (<20 miles)	75	57
Northern California	36	27
Southern California	6	4
San Francisco area	5	4
Other U.S.	5	4
Sacramento area	4	3
Oregon	1	1
Outside U.S.	--	--
	132	

Table 16 Continued.

---

<u>Activities</u>	<u>n</u>	<u>Percent*</u>
Swimming	99	74
Sunbathing	85	63
Resting/Relaxing	76	57
Picnicking	50	37
Fishing	36	27
Other	23	17
Walking/Hiking	21	16
Sightseeing	15	11
Motorboating	9	7
Waterskiing	9	7
Canoeing	4	3
Gold panning	4	3
Sailing	3	2
Ranger-guided program	2	1

At the site:

Favorite place?

Yes	74	59
No	51	41

Most important reason  
for choice of site (top 3)

- Sunbathe	20	16
- Swim	20	16
- Get away from crowds	17	14

Feel crowded? \*\*

$$\bar{x} = 2.6 \quad \text{s.d.} = 2.0$$

---

\* Totals more than 100% because of multiple responses.

\*\*Scale 1-9 where 1 = not at all crowded ...9 = extremely crowded.

Table 17. Whiskey Creek Road Shoreline Visitors, Whiskeytown, Summer 1985.

Demographics:

Ages:	<u>Percent</u>
<12 years old	27
13 - 19 years old	15
20 - 29 years old	23
30 - 39 years old	17
40 - 49 years old	8
50 - 59 years old	7
60 + years old	3

Sex:	
Male	53
Female	47

Group Type:	
Alone	7
Family	63
Friends	12
Family and Friends	17
Other	1

Group Size:  $x = 7.0$  people

Residence:	<u>n</u>	<u>Percent</u>
Local (<20 miles)	78	57
Northern California	29	21
San Francisco area	12	9
Southern California	6	4
Oregon	6	4
Sacramento area	3	3
Other U.S.	3	2
Outside U.S.	--	--

137

Table 17 Continued.

---

<u>Activities</u>	<u>n</u>	<u>Percent*</u>
Swimming	101	73
Resting/Relaxing	85	62
Sunbathing	79	57
Picknicking	73	53
Fishing	29	21
Waterskiing	26	19
Sightseeing	26	19
Motorboating	24	17
Walking/Hiking	22	16
Other	15	11
Canoeing	2	1
Sailing	2	1
Ranger-guided program	1	1
Gold panning	1	1

At the site:

Favorite place?

Yes	89	70
No	38	30

Most important reason  
for choice of site (top 3)

- get away from crowds	18	14
- view scenery	14	11
- be with family	14	11

Feel crowded?\*

$\bar{x} = 3.0$  s.d. = 2.1

---

\* Totals more than 100% because of multiple response.

\*\*Scale 1-9 where 1 = not at all crowded ... 9 = extremely crowded.

crowding scale where 1 = not at all crowded and 9 = extremely crowded.

#### Site 5 - Whiskey Creek Boat Launch

One of three boat developed boat launch areas at Whiskeytown, this site is used primarily by those launching motor boats. Visitors contacted at this site were older than Whiskeytown visitors in general (50% were 30 years old or older vs. 40% of all visitors), were more likely to be male (56%) than female (44%), and came primarily in family groups (58%) or with family and friends (25%). Most of these visitors (64%) live within 20 miles of the lake or in the area north of Whiskeytown (17%) (Table 18).

Motorboating is the dominant activity for visitors contacted at the boat launch (58%) along with swimming (56%), waterskiing (48%), resting/relaxing (46%), and sunbathing (44%).

Seventy percent of those contacted said the boat launch area was their favorite Whiskeytown location and reasons given by visitors for their choice of settings were to waterski (30% of respondents), to fish (13%), and to relax (11%). These visitors did not feel crowded, averaging 3.4 on the 9-point crowding scale.

#### Site 6 - Highway 299 Shoreline from Whiskey Creek Arm to Information Center

This shoreline site extends along a 2 1/2 mile section of Highway 299 between the Visitor Information Center and Whiskey Creek Road. Young visitors are prominent (74% of group members were less than 30 years old) divided almost equally among males (49%) and females (51%). Almost one-fifth (19%) of those

Table 18. Whiskey Creek boat launch visitors, Whiskeytown, summer 1985.

<u>Demographics:</u>		<u>Percent</u>
<b>Ages:</b>		
<12 years old		18
13 - 19 years old		13
20 - 29 years old		20
30 - 39 years old		20
40 - 49 years old		12
50 - 59 years old		13
60 + years old		4
<b>Sex:</b>		
Male		56
Female		44
<b>Group Type:</b>		
Alone		2
Family		58
Friends		15
Family and friends		25
Other		--
Group Size: $\bar{x} = 5.4$ people		
<b>Residence:</b>	<u>n</u>	<u>Percent</u>
Local (<20 miles)	96	64
Northern California	25	17
Southern California	12	8
Sacramento area	7	5
San Francisco area	5	3
Oregon	3	2
Other U.S.	2	1
Outside U.S.	--	--
	150	

Table 18 Continued.

---

<u>Activities</u>	<u>n</u>	<u>Percent</u>
Motorboating	88	58
Swimming	85	56
Waterskiing	72	48
Resting/Relaxing	70	46
Sunbathing	67	44
Fishing	44	29
Sightseeing	33	22
Other	12	8
Walking/Hiking	5	3
Sailing	5	3
Canoeing	4	3
Gold panning	--	--
Ranger-guided program	--	--

At the site:

Favorite place?

Yes	100	70
No	43	30

Most important reason  
for choice of site (top 3)

- water ski	42	30
- fish	19	13
- relax	15	11

Feel crowded?\*

$\bar{x} = 3.4$  s.d. = 2.5

---

\* Totals more than 100% because of multiple response.

\*\*Scale 1-9 where 1 = not at all crowded ... 9 = extremely crowded.

contacted at this shoreline site came alone, 39 percent came in friendship groups, and 35 percent came with family. The number of solitary visitors at this site is high compared with only 9 percent of all Whiskeytown visitors who come alone. This site offers the closest lake access to Redding and attracts primarily local users (71 percent of respondents live within 20 miles of the Lake) (Table 19).

Activities of these shoreline visitors include swimming (82% of respondents), sunbathing (64%), and resting/relaxing (50%).

Sixty-five percent of those contacted at the site indicated this was their favorite Whiskeytown site and reasons for choosing this site included to sunbathe (16% of respondents), to relax (13%), and to swim (10%). This site was not seen as being crowded by visitors, who averaged 2.3 on the 9-point crowding scale.

Site 7 - Shoreline from the Information Center  
to Whiskeytown Dam

This site includes the shoreline on the east side of Whiskeytown Lake extending from the visitor center to the dam. Similar to other shoreline visitors, those at this site tend to be young (72% of group members were less than 30 years old), are more likely to be female (55%) than male (45%), and come primarily with family (46%) and friends (22%) though a relatively high percentage (16%) come alone. Close to three-quarters of these shoreline visitors (74%) live within 20 miles of Whiskeytown Lake (Table 20).

Table 19. Hwy 299, Whiskey Creek to Information Center, Shoreline  
Visitors, Whiskeytown, Summer 1985.

<u>Demographics:</u>	<u>Percent</u>	
<b>Ages:</b>		
<12 years old		14
13 - 19 years old		28
20 - 29 years old		32
30 - 39 years old		18
40 - 49 years old		5
50 - 59 years old		2
60 + years old		1
<b>Sex:</b>		
Male		49
Female		51
<b>Group Type:</b>		
Alone		19
Family		35
Friends		39
Family and friends		6
Other		1
<b>Group Size: <math>x = 5.0</math> people</b>		
<b>Residence:</b>	<u>n</u>	<u>Percent</u>
Local (<20 miles)	100	71
Northern California	25	18
Southern California	2	1
Oregon	2	1
Other U.S.	4	3
San Francisco area	4	3
Sacramento area	3	2
Outside U.S.	1	1
	<u>141</u>	

Table 19 Continued.

---

<u>Activities</u>	<u>n</u>	<u>Percent</u>
Swimming	117	82
Sunbathing	91	64
Resting/Relaxing	72	50
Other	33	23
Picnicking	31	22
Fishing	29	20
Sightseeing	18	20
Waterskiing	14	10
Walking/Hiking	2	1
Sailing	4	3
Canoeing	2	1
Motorboating	2	1
Gold panning	--	--
Ranger-guided program	--	--

At the site:

Favorite place?

Yes	87	65
No	46	35

Most important reason  
for choice of site (top 3)

- sunbathe	22	16
- relax	18	13
- swim	14	10

Feel crowded?\*

$$\bar{x} = 2.3 \quad \text{s.d.} = 1.7$$

---

\* Totals more than 100% because of multiple response.

\*\*Scale 1-9 where 1 = not at all crowded ... 9 = extremely crowded.

Table 20. Information Center to Dam, Shoreline Visitors,  
Whiskeytown, Summer 1985.

<u>Demographics:</u>		<u>Percent</u>
<b>Ages:</b>		
≤12 years old		33
13 - 19 years old		11
20 - 29 years old		28
30 - 39 years old		20
40 - 49 years old		5
50 - 59 years old		2
60 + years old		1
<b>Sex:</b>		
Male		45
Female		55
<b>Group Type:</b>		
Alone		16
Family		46
Friends		22
Family and friends		16
Other		--
<b>Group Size: <math>\bar{x} = 4.6</math> people</b>		
<b>Residence:</b>	<u>n</u>	<u>Percent</u>
Local (<20 miles)	100	71
Northern California	25	18
Southern California	2	1
Sacramento area	3	2
San Francisco area	4	3
Oregon	1	1
Other U.S.	1	1
Outside U.S	--	--
	132	

Table 20. Continued.

---

<u>Activities</u>	<u>n</u>	<u>Percent*</u>
Swimming	121	89
Sunbathing	110	81
Resting/Relaxing	98	72
Picnicking	61	45
Sightseeing	25	18
Walking/Hiking	24	18
Other	21	15
Fishing	18	13
Waterskiing	11	13
Motorboating	8	8
Canoeing	6	4
Gold panning	2	1
Ranger-guided program	1	1
Sailing	1	1

At the site:

Favorite place?

Yes	83	64
No	46	36

Most important reason  
for choice of site (top 3)

- swim	22	17
- sunbathe	16	12
- get away from usual demands of life	14	10

Feel crowded?\*

$$\bar{x} = 3.6 \quad \text{s.d.} = 2.2$$

---

\* Totals more than 100% because of multiple response.

\*\*Scale 1-9 where 1 = not at all crowded ... 9 = extremely crowded.

Swimming (89% of respondents), sunbathing (81%), resting/relaxing (72%), and picnicking (45%) were the prominent activities for visitors at this shoreline site.

Almost two-thirds (64%) of those contacted said this was their favorite place at Whiskeytown and the primary reasons given were to swim (17% of respondents), to sunbathe (12%), and to get away from the usual demands of life (9%). Visitors at this site felt more crowded than visitors at other shoreline areas and averaged a score of 3.6 on the rowding scale.

Site 8 - Shoreline from Whiskeytown Dam to  
Brandy Creek Area

This site extends from the dam to Brandy Creek beaches and was the largest of the sites though much of the area is unused because it is accessible only by boat. The shoreline area closest to the dam is the most often used and was where visitors were contacted.

Almost 40 percent (39%) of visitors at this site were between 20 and 29 years old and 73 percent of these shoreline visitors were less than 30 years old. Males and females were present in fairly equal numbers (51% vs. 49% respectively) and those contacted came with family groups (44%) or with friends (30%), though, like other shoreline areas, a relatively large percentage contacted at this site were alone (15%) (Table 21).

Visitors most often live within 20 miles of the lake (61% of respondents) though 13% of those contacted came from the Sacramento and San Francisco areas.

Table 21. Dam to Brandy Creek, Shoreline Visitors, Whiskeytown, Summer 1985.

<u>Demographics:</u>	<u>Percent</u>
<b>Ages:</b>	
<12 years old	17
13 - 19 years old	17
20 - 29 years old	39
30 - 39 years old	17
40 - 49 years old	5
50 - 59 years old	3
60 + years old	2
<b>Sex:</b>	
Male	51
Female	49
<b>Group Type:</b>	
Alone	14
Family	44
Friends	30
Family and friends	12
Other	--

Group Size:  $x = 4.0$  people

<u>Residence:</u>	<u>n</u>	<u>Percent</u>
Local (<20 miles)	78	61
Northern California	19	15
Sacramento area	9	7
San Francisco area	7	6
Southern California	6	5
Oregon	4	3
Other U.S.	4	3
Outside U.S.	--	--

127

Table 21 Continued.

---

<u>Activities</u>	<u>n</u>	<u>Percent*</u>
Swimming	105	82
Sunbathing	99	77
Resting/Relaxing	78	61
Picnicking	50	39
Fishing	29	23
Other	22	17
Walking/Hiking	17	13
Sightseeing	13	10
Waterskiing	9	7
Motorboating	5	4
Canoeing	2	2
Sailing	2	2
Ranger-guided program	1	1
Gold panning	--	--

At the site:

Favorite place?

Yes	83	70
No	36	30

Most important reason  
for choice of site (top 3)

- get away from crowds	21	17
- sunbathe	16	13
- relax	15	12

Feel crowded?\*

$$\bar{x} = 2.5 \quad \text{s.d.} = 1.9$$

---

\* Totals more than 100% because of multiple response.

\*\*Scale 1-9 where 1 = not at all crowded ... 9 = extremely crowded.

Swimming (81% of respondents), sunbathing (77%), resting/relaxing (61%), and picnicking (39%) were the dominant activities at this site.

This shoreline area is the favorite Whiskeytown location for 70 percent of those contacted and reasons given for this choice included to get away from crowds (17%), to sunbathe (13%), and to relax (12%). Consistent with other shoreline visitors these visitors averaged a score of 2.5 on the crowding scale, indicating crowding was not a problem.

#### Site 9 - Brandy Creek Boat Launch

The Brandy Creek boat launch area is often used as a recreation site as well as a place to launch boats. Besides water skiing and fishing boats launching at this site, Brandy Creek Boat Launch is very popular with sailboaters and windsurfers because of its desirable wind patterns.

Similar to those at other boat launching sites, visitors at the Brandy Creek boat launch tended to be somewhat older than shore visitors (45% were 30 or more years old and 42% were between 13 and 30 years of age). There was a larger percentage of males (53%) than females (47%) and the majority of these visitors (52%) came with family groups, 24% with friends, and 12% came alone--perhaps a function of this being the primary windsurfing site and the solitary nature of that activity (Table 22).

Table 22. Brandy Creek Boat Launch Visitors, Whiskeytown, Summer 1985.

Demographics: Percent

Ages:

<12 years old	13
13 - 19 years old	21
20 - 29 years old	21
30 - 39 years old	23
40 - 49 years old	12
50 - 59 years old	7
60 + years old	3

Sex:

Male	53
Female	47

Group Type:

Alone	12
Family	52
Friends	24
Family and friends	11
Other	1

Group Size:  $\bar{x} = 6.0$  people

Residence:	<u>n</u>	<u>Percent</u>
Local (<20 miles)	78	49
Northern California	19	21
Southern California	19	13
San Francisco area	12	8
Sacramento area	5	3
Oregon	4	3
Other U.S.	4	3
Outside U.S.	--	--

146

Table 22 Continued.

---

<u>Activities</u>	<u>n</u>	<u>Percent*</u>
Sailing	80	54
Swimming	79	54
Resting/Relaxing	76	52
Sunbathing	65	44
Picnicking	45	31
Motorboating	36	25
Waterskiing	34	23
Fishing	27	18
Walking/Hiking	20	14
Other	16	11
Sightseeing	13	9
Canoeing	6	4
Ranger-guided program	1	1
Gold panning	--	--

At the site:

Favorite place?

Yes	111	80
No	28	20

Most important reason  
for choice of site  
(top 3)

- sailing	56	40
- waterskiing	19	14
- relax	9	6

Feel crowded?\*\*\*

$$\bar{x} = 2.9 \quad \text{s.d.} = 2.04$$

---

\* Totals more than 100% because of multiple response.

\*\*Scale 1-9 where 1 = not at all crowded ... 9 = extremely crowded.

A relatively smaller percentage of visitors to the boat launch live within 20 miles of the lake (49%) while 21 percent came from the area north of Whiskeytown and 13 percent came from Southern California.

Reflecting the uniqueness of this Whiskeytown site for good sailing conditions, 54 percent of visitors surveyed had been sailing. Other dominant activities included swimming (54% of respondents), resting/relaxing (52%), and sunbathing (44%).

This site was the favorite site of 80 percent of those contacted and reasons given for choosing that setting included to sail (40% of respondents), to waterski (14%), and to be with family (6%). Crowding was not seen as much of a problem by these visitors who averaged 2.9 on the crowding scale.

#### Site 10 - Brandy Creek "Teen" Beach

One of four developed beach sites included in the survey, this Brandy Creek beach is one of the most heavily used sites at Whiskeytown.

This site attracts a large number of young visitors. Forty percent of group members were less than 20 years old, 67 percent were less than 30 years old, and 87 percent of visitors were less than 40 years old. There were slightly more female visitors (52%) than male visitors (48%) at this site. Groups were made up primarily of families (38%) and friends (30%) though 14 percent of those contacted came to this beach site alone (Table 23).

Table 23. Brandy Creek "Teen" Beach Visitors, Whiskeytown, Summer 1985.

---

Demographics: Percent

Ages:

<12 years old	24
13 - 19 years old	16
20 - 29 years old	27
30 - 39 years old	20
40 - 49 years old	9
50 - 59 years old	2
60 + years old	2

Sex:

Male	48
Female	52

Group Type:

Alone	14
Family	38
Friends	30
Family and friends	15
Other	3

Group Size:  $x = 8.0$  people

<u>Residence:</u>	<u>n</u>	<u>Percent</u>
Local (<20 miles)	81	60
Northern California	27	20
Sacramento area	4	3
San Francisco area	10	8
Southern California	6	5
Oregon	2	1
Other U.S.	4	3
Outside U.S.	--	--

---

134

Table 23 Continued.

---

<u>Activities</u>	<u>n</u>	<u>Percent*</u>
Swimming	109	80
Sunbathing	106	78
Resting/Relaxing	92	68
Picnicking	62	46
Sightseeing	28	21
Walking/Hiking	22	16
Other	15	11
Waterskiing	14	10
Motorboating	12	9
Fishing	9	7
Sailing	6	4
Canoeing	5	4
Gold panning	1	1
Ranger-guided program	--	--

At the site:

Favorite place?

Yes	106	82
No	23	17

Most important reason  
for choice of site  
(top 3)

- sunbathe	24	19
- swim	18	14
- relax	16	12

Feel crowded?\*\*\*

$$\bar{x} = 4.5 \quad \text{s.d.} = 2.3$$

---

\* Totals more than 100% because of multiple response.

\*\*Scale 1-9 where 1 = not at all crowded ... 9 = extremely crowded.

Visitors at this beach site most often live within 20 miles of Whiskeytown Lake (60% of respondents) and in the region north of the lake to the Oregon border (20%).

Swimming (80% of respondents), sunbathing (78%), resting/relaxing (68%), and picnicking (46%) were the dominant activities of these visitors.

A very high percentage of visitors to this Brandy Creek beach (82%) indicated that this was their favorite location at Whiskeytown and they cited reasons for that choice that included to sunbath (19% of respondents), to swim (14%), and to relax (12%) These visitors felt somewhat crowded at this site, averaging a score of 4.5 on the crowding scale compared with scores of 2.5 and 2.6 given by shoreline visitors.

#### Site 11 - Brandy Creek "Lifeguard" Beach

Located on the south side of the lake, the "Lifeguard" Beach is a developed beach area adjacent to the "Teen" Beach and is also one of the most heavily used sites at Whiskeytown.

Compared to the adjacent "Teen" beach, visitors at this beach are older (47% are less than 20 years old vs. 67%, respectively), are slightly more likely to be female (55% vs. 52%, respectively), and are more likely to be part of a family group (53% vs. 38% of "Teen" beach visitors). Group size at both this and the adjacent beach averaged comparatively large average group sizes (8 vs. 6 people for Whiskeytown visitors in general) (Table 24).

Table 24. Brandy Creek "Lifeguard" Beach Visitors, Whiskeytown, Summer 1985.

<u>Demographics:</u>	<u>Percent</u>
<b>Ages:</b>	
<12 years old	28
13 - 19 years old	19
20 - 29 years old	15
30 - 39 years old	14
40 - 49 years old	10
50 - 59 years old	6
60 + years old	8

<b>Sex:</b>	
Male	45
Female	55

<b>Group type:</b>	
Alone	6
Family	53
Friends	12
Family and friends	24
Other	5

Group size:  $\bar{x} = 8.3$  people

<u>Residence:</u>	<u>n</u>	<u>Percent</u>
Local (<20 miles)	81	53
Northern California	35	23
Southern California	10	7
Sacramento area	8	5
San Francisco area	6	4
Other U.S.	6	4
Oregon	5	3
Outside U.S.	1	1

---

152

Table 24 Continued.

---

<u>Activities</u>	<u>n</u>	<u>Percent*</u>
Swimming	137	89
Sunbathing	110	71
Resting/Relaxing	110	71
Picnicking	96	52
Walking/Hiking	40	26
Sightseeing	28	18
Fishing	16	10
Other	9	6
Motorboating	8	5
Waterskiing	7	4
Gold panning	3	2
Ranger-guided program	1	1
Sailing	1	1
Canoeing	--	--

At the site:

<u>Favorite place?</u>	<u>n</u>	<u>Percent</u>
Yes	125	85
No	22	15

Most important reason  
for choice of sites  
(top 3)

- swim	35	24
- sunbathe	18	12
- view scenery	14	9

Feel crowded?\*

$\bar{x} = 4.5$  s.d. = 2.3

---

\* Totals more than 100% because of multiple response.

\*\*Scale 1-9 where 1 = not at all crowded ... 9 = extremely crowded.

Half of the visitors (53%) contacted at this site lived within 20 miles of Whiskeytown Lake, 23 percent from the area north of Whiskeytown, and 16 percent from remaining California areas.

Swimming was the most popular activity (89 percent of respondents) as was sunbathing (71%), resting/relaxing (71%), and picnicking (62%).

The highest percentage of visitors at any of the 16 sites indicated that this was their favorite Whiskeytown location (89%) even though their average score on the 9-point crowding scale was 4.5 indicating they felt somewhat crowded. Reasons given for choosing that particular site included to swim (24%), to sunbathe (12%), and to view the scenery).

#### Site 12 - Brandy Creek Recreation Vehicle (RV) Area

The Brandy Creek Recreational Vehicle (RV) area, a no-fee camping area for self-contained RVs, is one of three designed overnight camping areas at Whiskeytown.

Visitors staying at this site tended to be older than visitors in general (42% were 40 years old or older, 13% were between 50-59 years old and 14 % were 60 or more years old). Males and females are fairly evenly distributed (51% and 49%, respectively). An overwhelming proportion of visitors to this site (80%) come with family groups (Table 25).

Unlike other Whiskeytown sites, the largest percentage of visitors at this site came from southern California (34%) and the

Table 25. Brandy Creek RV Area Visitors, Whiskeytown, Summer 1985.

<u>Demographics:</u>		<u>Percent</u>
<b>Ages:</b>		
<12 years old		16
13 - 19 years old		9
20 - 29 years old		13
30 - 39 years old		20
40 - 49 years old		15
50 - 59 years old		13
60 + years old		14
<b>Sex:</b>		
Male		51
Female		49
<b>Group type:</b>		
Alone		10
Family		80
Friends		4
Family and friends		6
Other		-
<b>Group size:</b> $\bar{x} = 4.4$ people		
<b>Residence:</b>	<u>n</u>	<u>Percent</u>
Southern California	53	34
Sacramento area	31	20
Other U.S.	19	12
Northern California	17	11
San Francisco area	13	9
Local (<20 miles)	11	7
Oregon	8	5
Outside U.S.	3	2

---

155

Table 25 Continued.

---

<u>Activities</u>	<u>n</u>	<u>Percent*</u>
Resting/Relaxing	111	71
Swimming	89	57
Walking/Hiking	75	48
Sunbathing	65	42
Sightseeing	52	33
Fishing	43	28
Picnicking	36	23
Motorboating	35	22
Waterskiing	30	19
Other	17	11
Sailing	12	8
Canoeing	6	4
Gold panning	5	3
Ranger-guided program	1	1

At the site:

Favorite place?

Yes	115	78
No	33	22

Most important reason  
for choice of sites  
(top 3)

- camping	22	16
- relax	18	13
- view scenery	15	11

Feel crowded? \*\*

$$\bar{x} = 2.8 \quad \text{s.d.} = 2.1$$

---

\* Totals more than 100% because of multiple response.

\*\*Scale 1-9 where 1 = not at all crowded ... 9 = extremely crowded.

Sacramento area (20%) while local visitors made up 7 percent of the visitors at this site.

The primary activity for visitors to this site is resting/relaxing (71% of respondents) along with swimming (57%), walking/hiking (48%), and sunbathing (42%).

This site was the favorite site of 78 percent of respondents and reasons given for choosing this site included to camp (16%), to relax (13%), and to view the scenery (11%). These visitors appeared less aware of feeling crowding than visitors to the adjacent beach. Brandy Creek RV visitors averaged 2.8 on the crowding scale.

#### Site 13 - Oak Bottom Recreational Vehicle (RV) Area

The Oak Bottom Recreation Vehicle area is an overnight camping fee area for self-contained RVs. The site contains 46 designated RV spaces and is part of a larger parking lot for vehicles and boat trailers.

Visitors to this RV area tend to be older than shoreline or beach visitors with 38 percent of group members at least 40 years old. Fourteen percent of visitors to this site were 60 or more years old. Males were slightly more prevalent (52% vs. 48% female) and the vast majority of visitors came with family groups (81%) or groups of family and friends (13%) (Table 26).

Table 26. Oak Bottom RV Area Visitors, Whiskeytown, Summer 1985.

<u>Demographics:</u>	<u>Percent</u>
<b>Ages:</b>	
<12 years old	19
13 - 19 years old	14
20 - 29 years old	12
30 - 39 years old	17
40 - 49 years old	13
50 - 59 years old	11
60 + years old	14

<b>Sex:</b>	
Male	52
Female	48

<b>Group type:</b>	
Alone	4
Family	81
Friends	2
Family and friends	13
Other	--

Group Size:  $\bar{x} = 6.3$  people

<u>Residence:</u>	<u>n</u>	<u>Percent</u>
Southern California	58	40
Sacramento area	21	15
Northern California	20	14
Local (<20 miles)	16	11
San Francisco area	15	10
Other U.S.	8	6
Oregon	6	4
Outside U.S.	--	--

---

144

Table 26 Continued.

---

<u>Activities</u>	<u>n</u>	<u>Percent*</u>
Resting/Relaxing	112	76
Swimming	87	59
Fishing	85	57
Sunbathing	63	43
Walking/Hiking	61	41
Motorboating	59	40
Waterskiing	49	33
Sightseeing	38	26
Picnicking	32	22
Ranger-guided program	24	16
Other	22	15
Sailing	12	8
Gold panning	6	4
Canoeing	5	3

At the site:

Favorite place?

Yes	107	77
No	32	23

Most important reason  
for choice of sites  
(top 3)

- fishing	18	13
- waterskiing	17	12
- relax	13	11

Feel crowded?\*

$$\bar{x} = 4.0 \quad \text{s.d.} = 2.3$$

---

\* Totals more than 100% because of multiple response.

\*\*Scale 1-9 where 1 = not at all crowded ... 9 = extremely crowded.

Similar to the Brandy Creek RV area, the largest proportion of visitors reside in Southern California (40%), the Sacramento area (15%), and the Northern California area, including the area around Whiskeytown Lake.

The dominant activity for Oak Bottom area RV users is resting/relaxing (76 percent of respondents) followed by swimming (59%), fishing (57%), and sunbathing (43%). A relatively substantial number of visitors at this site attended ranger-guided programs (16%).

More than three-quarters (77%) of visitors contacted at this site indicated this was their favorite place at Whiskeytown. Reasons for their choice of sites were to fish (13%), to waterski (12%), and to relax (11%). A lack of screening vegetation and close proximity of other RVs might have contributed to these visitors' feelings of being crowded, averaging 4.0 (slightly crowded) on the crowding scale.

#### Site 14 - Oak Bottom Tent Camping Area

The tent campground is located within the Oak Bottom developed area along Highway 299. The site has 106 campsites, some along the shoreline and are accessible by boat.

Visitors at the tent camping area tend to be younger than those at the two RV overnight areas (59% of group members are less than 30 years old and 83% are less than 40 years). Visitors are equally almost as likely to be male (51% ) as female (49%) and come primarily as part of a family group (63% of respondents) or as part of a group of family and friends (20%) (Table 27).

Table 27. Oak Bottom Tent Camping Area Visitors, Whiskeytown, summer 1985.

---

Demographics: Percent

Ages:

<12 years old	24
13 - 19 years old	16
20 - 29 years old	19
30 - 39 years old	24
40 - 49 years old	9
50 - 59 years old	5
60 + years old	3

Sex:

Male	51
Female	49

Group type:

Alone	5
Family	63
Friends	12
Family and friends	20
Other	--

Group size:  $\bar{x} = 7.4$  people

<u>Residence:</u>	<u>n</u>	<u>Percent</u>
San Francisco area	38	24
Southern California	37	24
Sacramento area	26	17
Local (<20 miles)	18	12
Northern California	11	7
Oregon	14	9
Other U.S.	10	6
Outside U.S.	1	1

---

155

Table 27 Continued.

---

<u>Activities</u>	<u>n</u>	<u>Percent*</u>
Resting/Relaxing	130	83
Swimming	128	82
Sunbathing	103	66
Walking/Hiking	75	48
Fishing	63	40
Sightseeing	58	37
Motorboating	58	37
Waterskiing	54	35
Picnicking	47	30
Other	34	22
Ranger-guided program	22	14
Sailing	18	12
Canoeing	17	11
Gold panning	7	4

At the site:

Favorite place?

Yes	92	63
No	53	37

Most important reason  
for choice of sites  
(top 3)

- camping	24	16
- waterskiing	18	12
- get away from usual demands of life	16	11

Feel crowded? \*\*

$\bar{x} = 5.0$     s.d. = 2.5

---

\* Totals more than 100% because of multiple response.

\*\*Scale 1-9 where 1 = not at all crowded ... 9 = extremely crowded.

Almost half of those contacted at the tent camping area were from the San Francisco area (24%) and Southern California (24%). Local users made up 12% of visitors at this site.

Resting/relaxing was the most prevalent activity (83% of respondents) along with swimming (82%), and sunbathing (66%). As with Oak Bottom RV visitors, a relatively large number (14% of those contacted) had attended ranger-guided activities.

Sixty-three percent of those contacted said the tent camping area was their favorite site at Whiskeytown and reasons for their choice of that particular site were to camp (16%), to waterski (12%), and to get away from the usual demands of life (11%). These Whiskeytown visitors felt the most crowded, reflected in the largest average score (5.0) on the 9-point crowding scale.

#### Site 15 - Oak Bottom Beach

The Oak Bottom beach is also located in the Oak Bottom developed area near the tent campground and the boat launching area.

This is a popular area for children--34 percent of those in groups surveyed were 12 years old or younger. Fifty percent of visitors were less than 20 years old. Female visitors are more prevalent than males (54% vs. 46%, respectively) and 75 percent of visitors come with family groups (59%) or with family and friendship groups (16%) (Table 28).

Partly because of its proximity to the tent camping area where local visitors are in a minority, the percentage of visitors living within 20 miles of Whiskeytown Lake is less than

Table 28. Oak Bottom Beach Visitors, Whiskeytown, Summer 1985.

<u>Demographics:</u>		<u>Percent</u>
<b>Ages:</b>		
<12 years old		34
13 - 19 years old		16
20 - 29 years old		17
30 - 39 years old		19
40 - 49 years old		8
50 - 59 years old		4
60 + years old		2
<b>Sex:</b>		
Male		46
Female		54
<b>Group type:</b>		
Alone		8
Family		59
Friends		16
Family and friends		16
Other		1
<b>Group Size: <math>\bar{x} = 8.2</math> people</b>		
<b>Residence:</b>	<u>n</u>	<u>Percent</u>
Local (<20 miles)	61	42
Northern California	27	19
San Francisco area	17	12
Sacramento area	14	9
Southern California	11	8
Other U.S.	8	6
Oregon	5	3
Outside U.S.	1	1

---

144

Table 28 Continued.

---

<u>Activities</u>	<u>n</u>	<u>Percent*</u>
Swimming	122	83
Sunbathing	103	70
Resting/Relaxing	99	67
Picnicking	69	47
Walking/Hiking	35	24
Motorboating	26	18
Waterskiing	23	16
Fishing	21	14
Sightseeing	20	14
Other	13	9
Sailing	8	5
Canoeing	7	5
Gold panning	2	1
Ranger-guided program	2	1

At the site:

Favorite place?

Yes	97	72
No	38	28

Most important reason  
for choice of sites  
(top 3)

- be with family	17	12
- swim	13	9
- sunbathe	31	22

Feel crowded?\*\*\*

$$\bar{x} = 3.8 \quad \text{s.d.} = 2.1$$

---

\* Totals more than 100% because of multiple response.

\*\*Scale 1-9 where 1 = not at all crowded ... 9 = extremely crowded.

for many of the other areas (42%) while 19 percent come from the area north of Whiskeytown and 12 percent come from the San Francisco area.

As with the other beach areas, swimming was the most prevalent activity at this site (83% of respondents) along with sunbathing (70%), resting/relaxing (67%), and picnicking (47%).

The Oak Bottom beach is the favorite site of 72 percent of visitors contacted there and reasons given by those visitors for choosing that particular site include to be with family (12%), to sunbathe (22%), and to swim (9%). These beach visitors felt less crowded than those at the other two developed beach areas, averaging 3.8 on the crowding scale compared with 4.5 at the Brandy Creek beaches.

#### Site 16 - Oak Bottom Boat Launch

Part of the Oak Bottom developed area, this area is used by RV users, tent campers, and other day-use visitors launching fishing boats, ski boats, sail boats, sail boards, and jet skis.

Visitors at the boat launching area were relatively young (58% of group members were less than 30 years old) although 13 percent were between 40 and 49 years old making this group appear to be somewhat older than beach or shoreline users. These visitors are somewhat more likely to be male (52%) than female (48%) and most often come as part of family groups (55%) or as a group of family and friends (21%) (Table 29).

Forty percent of those contacted lived within 20 miles of Whiskeytown while 16 percent were from Southern California and 15% lived in the area north of Whiskeytown.

Table 29. Oak Bottom Boat Launch Visitors, Whiskeytown, Summer 1985.

<u>Demographics:</u>	<u>Percent</u>
<b>Ages:</b>	
<12 years old	22
13 - 19 years old	15
20 - 29 years old	21
30 - 39 years old	19
40 - 49 years old	13
50 - 59 years old	5
60 + years old	5

<b>Sex:</b>	
Male	52
Female	48

<b>Group type:</b>	
Alone	5
Family	55
Friends	18
Family and friends	21
Other	1

Group size:  $x = 7.1$  people

<u>Residence:</u>	<u>n</u>	<u>Percent</u>
Local (<20 miles)	59	40
Southern California	24	16
Northern California	23	15
Sacramento area	16	11
San Francisco area	16	11
Other U.S.	6	4
Oregon	5	3
Outside U.S.	--	--

---

149

Table 29 Continued.

---

<u>Activities</u>	<u>n</u>	<u>Percent*</u>
Swimming	98	65
Motorboating	94	62
Resting/Relaxing	82	54
Waterskiing	75	50
Sunbathing	72	48
Fishing	55	36
Sightseeing	35	23
Picnicking	46	30
Sailing	33	22
Walking/Hiking	23	15
Other	18	12
Canoeing	10	7
Ranger-guided program	9	6
Gold panning	5	3

At the site:

Favorite place?

Yes	90	63
No	53	37

Most important reason  
for choice of sites  
(top 3)

- waterski	31	22
- sailing	18	13
- camping	10	7

Feel crowded?\*\*\*

$$\bar{x} = 3.5 \quad \text{s.d.} = 2.3$$

---

\* Totals more than 100% because of multiple response.

\*\*Scale 1-9 where 1 = not at all crowded ... 9 = extremely crowded.

Sixty-three percent of those surveyed said the Oak Bottom boat launch was their favorite place at Whiskeytown. Reasons for choosing this site were to waterski (22% of respondents), to sail (13%), and to camp (7%). Crowding was not a problem for these visitors who had an average score of 3.5 on the crowding scale.

### Summary

The 16 settings studied at Whiskeytown Lake account for somewhat unique recreation opportunities and accommodate a variety of visitor types, activities, and experiences.

Recreation behavior at the Tower House area centers around gold panning and is the site of the greatest participation in National Park Service ranger-guided activities. Almost half the visitors to the Tower House are local residents and the area is perceived as being uncrowded by those contacted there.

The Powerhouse area offers a variety of activities though it is primarily a fishing area used by nearby residents. This is the favorite Whiskeytown location for two-thirds of those contacted and they come to fish, to get away, and to relax.

The three boat launch areas--Whiskey Creek, Brandy Creek, and Oak Bottom--differ in the types of visitors and activities found there. Visitors tend to be slightly older than Whiskeytown visitors in general and there are more men than women at these sites, particularly Whiskey Creek boat launch. More than half the users at Whiskey Creek and Brandy Creek launches live within 20 miles while the Oak Bottom launch area serves out-of-region visitors staying at the nearby RV and tent campgrounds. Brandy Creek is the favorite launching area for

sail boats--80 percent of visitors contacted there said it was their favorite place at Whiskeytown. Whiskey Creek and Oak Bottom launches are primarily swimming and motorboat launching areas.

The three overnight areas--the Oak Bottom and Brandy Creek RV sites and the Oak Bottom tent camping site--attract older, out-of-region visitors, particularly those from Southern California and the Sacramento area. While tent campers are younger than those staying at the RV sites, all three sites shared equal percentages of men and women (close to 50% for all three sites). Resting and relaxing is the primary activity at these three sites along with swimming and, for Oak Bottom RV visitors, fishing. Oak Bottom tent and RV campers also attend ranger-guided programs (14% and 16% of respondents, respectively). Sixty to 80 percent of visitors at all three sites said these were their favorite Whiskeytown sites, particularly those at the Brandy Creek RV site (78%). They chose these settings because of an interest in camping, fishing, and waterskiing.

Young people and children dominate the three beach areas included in the study. At least 80 percent of visitors at all three sites--the two Brandy Creek beaches and the Oak Bottom beach--were less than 40 years old and 40-50 percent were less than 20 years old. Families were more prevalent at the Oak Bottom and Brandy Creek "lifeguard" beaches while at the Brandy Creek "teen" beach friendship groups were found almost as often as family groups and 14 percent of those visitors came alone. Local residents make up the majority of visitors to these beaches

though Oak Bottom beach is more representative of the out-of-region visitors staying at the Oak Bottom RV and tent camping areas. As expected swimming, sunbathing, resting/relaxing, and, at the Brandy Creek "lifeguard" beach, picnicking, are the prominent activities. The Brandy Creek beaches are the favorite Whiskeytown recreation place for more than 80 percent of their visitors and more than 70 percent of those at the Oak Bottom beach felt similarly. Visitors chose those places to swim, sunbathe, relax, and be with their families (Oak Bottom beach). Visitors at these three sites averaged the highest crowding scale scores which is not surprising since these are three of the most heavily used sites at Whiskeytown Lake.

Shoreline visitors at five locations around the lake were contacted. These are the youngest Whiskeytown visitors (65-74% of visitors at all sites were less than 30 years old). Though family groups are most prevalent, the largest percentages of friendship groups and solitary visitors were found at these sites. Local residents make up the majority of visitors, as high as 74 percent of visitors at one shoreline site. Swimming, sunbathing, and resting/relaxing are dominant activities with some picnicking and fishing prevalent at the Whiskey Creek road shoreline area. These shoreline sites were the favorite Whiskeytown sites of between 60 and 70 percent of their visitors. Visitors come to these relatively secluded shoreline areas to get away from crowds, to swim, and to sunbathe and do not appear to view these sites as being crowded.

## DISCUSSION: THE NEXT STEP

The emphasis within this report has been upon the characteristics of who participates in water-based recreation at Whiskeytown and the activities they choose as part of their recreation experience. This is the first step. The next step is to examine the interrelationship between people and natural resources because for most land management agencies planning begins with resource characteristics. Therefore the associations of behavior with resource bases are important relationships influencing planning and design considerations. Similarly, recreation demand is often imputed to be derived from participation in recreation activities and in association with a resource base. For example, if participation in a water-related activity at a lake has increased during the past year by 50 percent, the implied conclusion is that 50 percent more water-oriented recreationists are using the facilities than did the previous year, or that 50 percent more water-related user-days were created in this year than in the previous one. Water impoundments are often evaluated in this way. What is often ignored is the multidimensional capacity of the resource base to provide for a variety of activities and specifically the role of satellite activities in overall participation patterns.

When attempting to explain recreation participation, planners and managers have a better opportunity to achieve resource management objectives by understanding people, their

behavior, and the diversity of recreation publics that utilize a specific site or facility. Not all publics adapt to established facilities, resources, and management policies in the same way. Instead, given the conditions of a recreation place, publics will consider these as ingredients of any meanings or definitions they apply to the site. As we might expect, even though most publics include resource characteristics within their definitions of the site, the ultimate outcome or interpretation of a site in terms of leisure behavior varies. Simply stated, the importance of site characteristics to people visiting a recreation area varies in importance depending upon personal objectives and the nature of the activity cluster for a given outing.

As stated elsewhere, recreation places are defined by their users as leisure settings rather than specific activity sites (Field and Cheek, 1974; Cheek, Field and Burdge, 1976; Field, Lee and Martinson 1985). O'Leary and colleagues (1974) have noted that recreation sites are leisure settings in which human groups define what a recreation experience is to be within the boundaries of their culture and community of orientation. For example, if a group, such as a family, goes to a site intending to swim but the nature of the area and other people present preclude this activity, there is a high probability that another activity will be substituted so that the desired group interaction can be achieved; thus, the sets of activities pursued by the group become interchangeable depending upon the

configuration of the group and its purposes for taking part, in this example, in water activities (O'Leary et al., 1974).

Whiskeytown is like other water-based recreation areas. The NRA Unit serves a diversity of people, participating in a wide variety of recreation activities. Water is the attraction but the flexibility inherent in an NRA accommodates an "activity set" in which water is not necessary for many activities taking place. This venue provides opportunities for diverse experiences and expectations by Whiskeytown's clients. Future reports that focus on the specific sites as recreation places in conjunction with behavior measures will be the basis to describe behavioral maps of the area and the basis to explore management alternatives associated with the recreation places comprising the Whiskeytown Unit.

#### LITERATURE CITED

- Altman, I., J.F. Wohlwill, eds. 1983. Behavior and the Natural Environment. Plenum Press.
- Bryan, N. 1977. Leisure value systems and recreational specialization: the case of trout fishermen. J. of Leisure Research. 9(3):174-187.
- Cheek, N.H., Jr. and D.R. Field. 1977. Aquatic resources and recreation behavior. Leisure Sciences 1(1):67-83.
- Christensen, J.E. 1980. Rethinking "social groups as a basis for assessing participation in selected water activities." J. Leisure Research 12(4):346-356.
- Ditton, R.B., and A.R. Graefe. 1975. Sport fishermen and their behavior. Paper presented to the 1975 spring meeting of the Texas A & M Chapter of the American Fisheries Society. 9 p.
- Ditton, R.B., T.J. Mertens, and M.P. Schwartz. 1978. Characteristics participation, and motivations of Texas charter boat fishermen. Marine Fisheries Review MFR Paper 1319, Vol. 40(8):8-13.
- Dottavio, F.D., J.T. O'Leary, and B. Koth. 1980. The social group variable in recreation participation studies. J. of Leisure Research. 12(4):357-367.
- Driver, B.L., and J.R. Bassett. 1975. Defining conflicts among river users: a case study of Michigan's Au Sable River. Naturalist 26 (Spring):19-23.
- Field, D.R. 1973. Sociological dimensions of leisure involvement in water-based recreation. Water Resources Bulletin 10:1218-1227.
- Field, D.R., and N.H. Cheek, Jr. 1981. Focused and diffuse patterns of aquatic recreation behavior. Water Resources Bulletin 17(1):16-22.
- Field, D.R. and J.T. O'Leary. 1973. Social groups as a basis for assessing participation in selected water activities. J. of Leisure Research 5:16-25.
- Field, D.R., R.J. Burdge, and J.S. Burch. 1975. Sex roles and group influences on sport fishing behavior. Paper presented at Annual Meeting of the Rural Sociologist Society, San Francisco, Feb.

- Fishbein, M. and I. Ajzen. 1975. Belief, Attitude, Intention, and Behavior: an Introduction to Theory and Research. Addison-Wesley Publishing Co.
- Heberlein, T.A., and J.J. Vaske. 1977. Crowding and visitor conflict on the Bois Brule River. Technical Report WIS WRC 77-04. Univ. of Wisc., Water Resources Center, Madison.
- Heberlein, T.A., and J.J. Vaske. 1979. The Apostle Island visitor in 1975. Working Paper No. 11, The Univ. of Wisc., Center for Resource Policy Studies, Madison.
- Hecock, R.D. 1970. Recreation behavior patterns as related to site characteristics of beaches. J. of Leisure Research 2(4):237-250.
- Knopf, R.C., B.L. Driver, and J.R. Bassett. 1973. Motivations for fishing. Paper presented at 38th N. Am. Wildlife and Nat. Resources Conf., Washington, D. C., March 19. 32 p.
- Knopp, T.B., L.C. Merriam, Jr., G.E. Ballman, and P. Grumstrup. 1979. The Kettle-Minnesota's first wild river--its use and user preferences. Miscellaneous Report No. 160. Forestry Series No. 25. Univ. of Minn., Agricultural Experiment Station.
- Knudson, D.M. 1984. Outdoor recreation. MacMillan Publishing Company.
- Leatherberry, E.C. 1979. Minnesota canoe and Kayak owners: their characteristics and patterns of use. USDA For. Ser. Res. Paper Nc-171.
- Manfredo, M.J., P.J. Brown, and G.E. Haas. 1980. Fishermen Values in Wilderness. Proceedings of the Western Association of Fish and Wildlife Agencies. 52:276-297.
- McDonough, M.H. 1980. The influence of place on recreation behavior: the case of northeast Washington. Ph.D. Dissertation, Univ. of Wash., Seattle.
- McDonough, M.H., and D.R. Field. 1979. Coulee Dam National Recreation Area: visitor use patterns and preferences. University of Washington, NPS, Seattle.
- Merriam, L.C., Jr., and T.B. Knopp. 1977. The complex uses of an accessible river. P. 312-319 In: Proceedings of River Recreation Management and Research Symposium. USDA For. Ser. Gen. Tech. Rept. NC-28.
- Mott, W.P. 1985. An interview with William Penn Mott. Parks and Recreation. November.

- Nielsen, J.M., and B. Shelby. 1977. River-running in the Grand Canyon: how much and what kind of use. P. 168-177. In: Proceedings of River Recreation Management and Research Symposium. USDA For. Ser. Gen. Tech. Rept. NC-28.
- Schreyer, R., J.W. Roggenbuck, S.F. McCool, L.E. Royer, and J. Miller. 1976. The Dinosaur National Monument whitewater river recreation study. USDI National Park Service Contract No. CX-1200-5-8046. Utah State Univ. Institute for the Study for Outdoor Recreation and Tourism.
- Shelby, B., and R.B. Colvin. 1979. Determining use levels for the Rogue River. WRRRI-63. Oregon State University, Water Resources Research Institute, Corvallis.
- Shelby, B., and R.B. Colvin. 1981. Carrying capacity for the Illinois River. WRRRI-72. Oregon State University, Water Resources Research Institute, Corvallis.
- Shelby, B., and J.M. Nielsen. 1975. Use levels and user satisfaction in the Grand Canyon. Paper presented at the Annual Meeting of the Rural Sociological Society, Aug. 21-24.
- Shelby, B., and K. Stein. 1984. Recreational use and carrying capacity for the Klamath River. WRRRI-92. Oregon State Univ., Water Resources Research Institute, Corvallis.
- Tarbet, D., G.H. Moeller, and K.T. McLoughlin. 1977. Attitudes of Salmon River users toward management of wild and scenic rivers. P. 365-371 In: Proceedings of River Recreation Management and Research Symposium. USDA For. Ser. Gen. Tech. Rept. NC-28.
- USDI. National Park Service. 1980. Lake Mead National Recreation Area--carrying capacity. Prepared by PNW--Western Team, Denver Service Center.

**APPENDIX**

**Northern California**

**Recreation Resource Lands**

NORTHERN CALIFORNIA RECREATION  
RESOURCE LANDS

The Whiskeytown Unit of the Whiskeytown-Shasta-Trinity National Recreation Area is an example of the quality and diversity of outdoor recreation resources found in Northern California with its numerous water-based recreation areas-- rivers, lakes, and reservoirs. These areas are managed by federal, state, municipal, and private agencies and provide recreation opportunities for people living in Northern California as well as thousands of other visitors. Following is a description of water-based recreation resource areas near Whiskeytown Lake and within the Shasta County area.

Shasta Lake

Shasta, the largest unit of the three-unit Whiskeytown-Shasta-Trinity National Recreation Area (NRA), lies within the Shasta-Trinity National Forest about 10 miles north of Redding, California. This lake lies behind Shasta Dam, built in 1945 as part of the Central Valley Project. The lake provides water for agricultural and industrial use as well as 30,000 surface acres of water and 365 miles of shoreline for recreational use. Swimming, sunbathing, and other shoreline activities are limited due to wide fluctuations in water level because of drawdown. The lake is very popular for houseboating, boating, waterskiing, and fishing.

The U.S. Forest Service, which administers this part of the NRA, estimates close to 3 million visitor recreation days per year on the lake. Recreation facilities available include 4 picnic areas, 31 developed and dispersed campgrounds and 12 marinas, 6 public and 12 private boat launches, though there are no developed swimming areas.

#### Trinity Lake

Trinity, the third of the National Recreation Area lakes also lies within the Shasta-Trinity National Forest and is administered by the U. S. Forest Service. Located about 40 miles northwest of Whiskeytown Lake, this man-made lake's 17,000 surface acres of water and 145 miles of shoreline provide an estimated 550,000 recreation visitor days per year. Primary activities include boating, waterskiing, camping, swimming, fishing and picnicking.

Facilities include 12 Forest Service and 4 commercial campgrounds, 7 boat public boat launches, 3 developed swimming areas and 3 developed picnic sites. Trinity Lake attracts many visitors from outside the Shasta County area, though it is the least heavily used of the Whiskeytown-Shasta-Trinity NRA lakes.

#### Lewiston Lake

Located south of Trinity Lake on the Trinity River, this lake has 960 acres of surface area and 15 miles of shoreline. Fishing is the primary recreation activity because the water in the lake is colder water released from the bottom of Trinity Dam.

The U. S. Forest Service manages the area and maintains 4 campgrounds, a boat launch, and a picnic area.

#### Lake McLoud

This small lake, located 20 miles northeast of Lake Shasta near Castle Crags State Park, is also managed by the U.S. Forest Service and is primarily a fishing lake. Facilities include a 16-unit campground and a public boat launch.

#### Keswick Reservoir

Located downstream from Lake Shasta on the Sacramento River, this reservoir contains 640 surface acres of water and has 25 miles of shoreline. Shasta County maintains public boat launches along the reservoir. The cold water and hilly surrounding terrain restrict recreation activity to primarily fishing.

#### Iron Canyon Reservoir

This small reservoir is located 20 miles northeast of Shasta Lake. The U.S. Forest Service maintains a 30-unit campground and a public boat launch at the reservoir.

#### Lake Britton

This man-made lake, located on the Pit River, is managed by Pacific Gas and Electric which maintains a campground and picnic area near the lake.

#### Sacramento River

City parks and private outfitters in Redding provide a variety of opportunities for people to enjoy the Sacramento River for recreation. Redding has two municipal parks located along the river that include swimming pools, picnic areas, boat launches, fishing areas, playgrounds, hiking/jogging trails, and ballfields.

Private recreation outfitters rent canoes and provide RV hookups, boat launches, campgrounds, pools, playgrounds, and fishing areas. Fishing and floating are the two prominent activities on the river.

#### Federal Land Management Agencies

U. S. Forest Service. Many of the water impoundments and lakes described above are managed by the U. F. Forest Service, primarily within the Shasta-Trinity National Forest. The Shasta-Trinity and Lassen National Forests manage most of the Forest Service land in Shasta County and the surrounding area. These forests, managed under a multiple use mandate, offer numerous recreation opportunities in addition to those at the water-based areas described above. There are four Wilderness Areas in the Shasta-Trinity National Forest and three in the Lassen National Forest. Both Forests offer miles of hiking trails, hundreds of campgrounds and picnic areas, provide miles of fishable rivers, streams, and lakes. The Shasta-Trinity National Forest reported 6.3 million recreation visitor days in 1984--the fourth highest number in total visitor days for California national forests.

Bureau of Land Management (BLM). The Redding District of the BLM manages more than 3,000 acres of land along the Sacramento River for recreational use. Within that area are 14 developed recreation sites, boat launches, picnic and camping sites, and areas for fishing and swimming. The BLM provides opportunities for other land-based recreation uses such as off-road vehicles, hunting, camping, and hiking. The Redding District reported 127,000 recreation visitor days in 1981.

National Park Service (NPS). In addition to Whiskeytown, the National Park Service manages Lassen National Park, a 165 square mile national park located about an hour's drive east of Redding. The central feature of the park is Lassen Peak, the southernmost of the giant Cascade Mountains and, until Mt. St. Helens erupted in 1980, the last active volcano in the continental U.S. In addition to numerous hiking trails, approximately 100 miles within the park, there are opportunities for camping, both developed and dispersed, nordic skiing, fishing, and attending NPS interpretive programs.

#### State Recreation Lands

The State of California manages several state parks, state historical parks, and other recreation areas within the Shasta County region. These include:

McArthur-Burney Falls State Park. The spectacular falls on the Pit River attract visitors to this 565 acre park which provides facilities for camping, picnicking, fishing, and hiking.

Castle Crags State Park. Located 50 miles north of Redding, this park, the largest state park in the area (6,216 acres), offers spectacular scenery and opportunities for fishing, rock climbing, hiking, backpacking, camping, and sightseeing.

Ahjumawi Lava Springs State Park. This relatively little-used state park is located 70 miles northeast of Redding. The park's outstanding feature is its unusual scenery and lava fields. There are also two lakes near the park and fishing and boating access, trails, and picnicking facilities are provided.

Shasta State Historic Park. Located six miles west of Redding on Highway 299, in the town of Shasta, the park includes several old buildings that were once the gold-rush town of Shasta. There is a museum, guided tours, and exhibits.

Chinese Joss House State Historic Park. Located in Weaverville, the building is an old Chinese temple from Weaverville's goldmining past. The area is open to the public and tours are available.

Round Valley State Game Refuge. This large game management area is about 60 miles southeast of Redding. The area has four campgrounds, trails, and opportunities for hunting and fishing.

Woodson Bridge State Recreation Area. Located on the Sacramento River, just east of Corning, this is a very small area managed for recreation purposes. The area offers fishing and boating access to the river as well as camping and picnicking facilities.

#### Shasta County Recreation Resources

The county administers a number of recreation-related areas, the most prominent being the Shasta County Fairgrounds southwest of Redding.

#### City of Redding Recreation Resources

The city has a park system that includes 370 acres of parklands. There are 12 small neighborhood parks and six larger community parks. Recreation use of these parks ranges from high intensity use activities such as at the rodeo grounds, ball

fields, pools, and playgrounds; intermediate use such as fishing access, picnicking, and boating; and resource uses such as the natural areas, bird sanctuary, and trails.

Other facilities provided by the City of Redding include 48 tennis courts, 27 ball fields, 4 soccer/football fields, 5 pools, a gun firing range, two museums, a planetarium, two campgrounds, one ORV area consisting of 100 acres, 10 pedestrian/equestrian trails, and the Civic Auditorium.

### Private Recreation Resources

The diverse recreation attractions of northern California attract large numbers of vacationers and, being situated at the crossroads of Interstate 5 and Highways 44 and 299, Redding is a focal point for tourists. Already mentioned are businesses that relate to water resources and many of those are located adjacent to the Sacramento River. Among the other services and facilities offered by the private sector to the public are five golf courses, four RV parks, several tour outfits, seven movie theaters, three arcades, three martial arts clubs, two billiard parlors, three card rooms, one skating rink, several miniature golf courses, two bowling alleys, two private park facilities with water slides, and uncounted bar and nightclub establishments.

In summary, the northern California region has much to offer both local and out-of-region visitors looking for outdoor recreation opportunities, particularly water-oriented activities such as swimming, boating, waterskiing, and fishing. These lands

are managed by federal, state, county, and local agencies and represent an important natural resource asset to Northern California. The Whiskeytown Unit of the Whiskeytown-Shasta-Trinity National Recreation Area, the focus of this study, plays an important role as part of the area's recreation resource lands in providing recreation opportunities for local area residents in particular.