



# **A SUMMARY REPORT: 2001 MYSTIC LAKES RECREATIONAL VISITORS SURVEY**

OMB #0596-0108

*Prepared for:*  
**U.S.D.A. Forest Service  
Black Hills National Forest**

**Utah State University  
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## **PREFACE**

In an effort to better serve the public through improved management of water-based recreation areas, Black Hills National Forest in South Dakota, along with researchers at Utah State University, conducted a research survey of boaters and other recreationists during the summer of 2001 at two Black Hills lakes: Sheridan Lake and Pactola Reservoir. The objectives of this research were to gain insights into visitor's demographic characteristics, recreational use patterns and characteristics, outdoor recreation satisfaction and conflicts, attitudes toward use limits, potential alternative destinations, and comments and recommendations regarding recreation resource management. The following report summarizes the results of the study. At each lake three subgroups were sampled: boaters at the ramps, slip holders, and other recreationists contacted at beaches and campgrounds.

The following report is divided into eight sections with supporting documentation in the appendices. The first section, Introduction/Overview, contains background information relevant to understanding the results presented thereafter. It describes study objectives along with the physical characteristics of the study locations.

The next section, Methods, describes the survey and sampling methods. The third section, Survey Response and User Characteristics, reports the survey response rate along with the results from the demographic questions. The Lake Use Characteristics section contains behavioral results such as weekend vs. weekday use patterns, types of watercraft operated by the respondents, activities engaged in by the non-boaters, amount of daily motorboat fuel use, and the parking lots' capacity patterns.

In the fifth section, Visitor Use Characteristics, summary information is presented regarding group size, types of water-based recreational activities the respondents participated in, reasons for visiting the lakes, and location of respondents' residences. Recreation Satisfaction, Conflicts, & Crowding, the sixth section, summarizes survey questions designed to assess the degree of satisfaction with respondents' recreational experiences and perceived conflicts. It also contains summary data on whether the visitors feel that there are too many other users in the area and where they would go recreate if they were unable to use the lake due to use restrictions.

The next section, Visitor Preferences, Recommendations, and Comments, summarizes the several open-ended questions and comments the respondents offered after the survey was completed. The last section, Conclusions and Recommendations, presents some of the authors' interpretation of the results and recommendations for further research. Appendix A contains a copy of the survey instrument along with a calendar showing the dates, location, and time of day when the research was conducted. Appendix B supports the section on Visitor Use Characteristics in that it contains the frequencies of the respondents' cities of residence categorized by the reservoir where they were surveyed. Appendix C lists the user groups that detract from respondents' enjoyment of the lakes and the activities that cause those detractions. Appendix D summarizes results from questions about facility improvements and policy changes and Appendix E contains a complete text of all the respondents' open-ended comments and management recommendations.

The authors wish to thank the U.S.D.A. Forest Service, Black Hills National Forest for providing the support and funding for this project. We would also like to acknowledge the Institute for Outdoor Recreation and Tourism at Utah State University for providing the support facilities and computers for data entry and analysis. Finally, we would like to thank the lakes' management personnel, field research technicians, and Black Hills National Forest administrators along with the social science research technicians at Utah State University whose dedication to collecting, recording, and presenting accurate and useful information made this research possible.

## **I. INTRODUCTION/OVERVIEW**

Black Hills National Forest is comprised of 1.2 million acres in western South Dakota and eastern Wyoming. Two of the most heavily used reservoirs, Sheridan and Pactola, are found on the Mystic Ranger District. These lakes are the only two lakes on the Forest that accommodate large motorboats and personal watercraft (PWC). The Forest Service is responsible for the administration and, along with South Dakota Game, Fish, and Parks, cooperatively engages in the enforcement of South Dakota boating rules and regulations in these areas. The popularity of water recreation uses has grown over the past years and, along with it, management concerns over issues associated with an increase in recreation activities. District staff is concerned that this increasing use will affect their ability to adequately provide safe and enjoyable recreation experiences for the public. Some of the water-based activities that occur on these lakes include cruising in motorboats, fishing, sightseeing, picnicking, waterskiing (which also may include tubing, wakeboarding, and kneeboarding), sailing, canoeing/kayaking, swimming, windsurfing, and riding on personal watercraft (PWC). The areas around these lakes contain numerous campsites and trails.

In an effort to better serve the public by improving the management of water and land based recreation areas, the District asked recreation researchers at Utah State University (USU) Institute for Outdoor Recreation and Tourism (IORT), to clarify the type of users, along with identifying the outdoor recreation public's needs and attitudes toward recreation use and management at these two reservoirs. USU researchers along with the District's staff designed a study to explore those needs and attitudes. The study was designed to help managers understand differences between users' desired recreation experience and intentions stated in the Forest Plan. It was also intended to identify patterns of use and identify what types of managerial or facility changes the visitors desire.

A field research technician was hired by the Forest Service for the 2001 summer season to conduct a visitor intercept survey. The survey was conducted at about eight different locations at the two reservoirs and their surrounding recreation areas. Four of the intercept sites were located at the two ramps at each lake. The other intercept sites

were beaches, shore fishing sites, campsites, and picnic areas. The survey was also mailed to boat owners who lease slips on the two lakes. The broad objective of this research was to obtain information regarding visitor: 1) demographic characteristics; 2) lake and recreation area use; 3) use characteristics; 4) recreation satisfaction and conflicts; 5) attitudes toward use limits and potential alternative destinations; and 6) comments and recommendations regarding park management.

### **Characteristics of Study Areas**

***Sheridan Lake and Recreation Area.*** Sheridan Lake is a 380 surface acre reservoir located about 20 miles southwest of Rapid City, South Dakota and eight miles south of Pactola Reservoir. Its dam is holding water flowing in Spring Creek. On the north side of the lake, there is a boat ramp, marina, 74 boat slips, group camp sites, picnic areas, parking lots, and a swimming beach. On the south side there is another boat ramp, a 129 unit campground in five loops, beaches for swimming and fishing, and parking lots for day users. Game fish include largemouth bass, yellow perch, sunfish, northern pike, and a small population of rainbow trout. There are also public courtesy docks available.

***Pactola Reservoir and Recreation Area.*** Pactola Reservoir is the largest lake in the Black Hills with approximately 700 surface acres. It is also a deep lake reaching a maximum depth of about 160 feet at the dam. This feature attracts scuba divers. The dam holds back water flowing through Rapid Creek and among the lake's purposes, besides providing recreation opportunities, are flood control and water storage for Rapid City and surrounding agricultural lands. The lake is located approximately 15 miles west of Rapid City. On the north side of the reservoir, there is a boat ramp with parking facilities, and a marina with boat slips. Nearby is Veterans Point, which has accommodations for wheelchair accessible fishing. On the south side of the lake is a day use area named Pactola Point which has a swimming beach and a picnic area. Also on the south end is a marina with slips, boat ramp, swimming beach, and an 89 unit campground in three loops. There are 212 leased boat slips at Pactola Reservoir. The Pactola Visitor Center is located south of the dam on Highway 385 and attracts, on average, between 800 and 1,500 visitors per day during the tourist season.

## **Management Objectives of the Study Areas**

The Black Hills National Forest plays host to approximately 2.5 million visitors each year. Out of all those visitors, thousands of people participate in the recreation opportunities offered at Pactola Reservoir and Sheridan Lake. It is the desire of the Forest and Mystic Ranger District to recognize shifts in recreation visitors' preferences and establish opportunities through administration, budget and planning, facilities development, and other methods to maintain or enhance the user public's outdoor recreation experiences.

The Forest Service's national mission is to care for the land while serving its customers. It is this overriding mission that has led the Forest to undertake this research in asking its customers to respond to the survey. Additionally, the Recreation Specialists on the District have observed crowding, conflicts between user groups, and potential safety concerns. This research is undertaken to help reveal user's concerns about those types of issues in order to for them to be reasonably addressed.

Currently, user capacity limits at all of the developed recreation sites on the two lakes are primarily set by existing engineering and facility confines. There are finite designated areas developed for camping and parking and when those areas are full, a theoretical capacity for the area has been met. The marinas at these lakes are also at a theoretical capacity and, at this time, there is no opportunity to expand the number of boat slips at the lakes.

With these thoughts in mind, the Forest and District are striving to determine the best mix of product with the least conflict. By turning to the customers that use these areas (such as with this visitor survey research), the managers desire is to develop a set of management goals and objectives that can reasonably meet a "Desired Recreation Experience" at these very popular recreation areas.



## II. METHODS

To assess the user public's attitudes toward boating and non-boating recreation on Sheridan and Pactola lakes, a survey was developed and implemented during the 2001 summer season. The survey instruments were designed by Utah State University (USU) social scientists and U.S.F.S. Mystic Ranger District staff. The survey instruments were three pages long and contained about 50 questions (Appendix A). The data obtained was analyzed using SPSS statistical software on computers at USU.

The field survey research was conducted with a random sampling method. A roving interviewer administered the intercept survey at four launches and other recreation sites (e.g., campgrounds, beaches, etc.) at the two reservoirs. There were two boat ramps at Sheridan (north and south) and two at Pactola (north and south). The sampling period was June 27 to September 10 for a total of 12 weeks and 56 sampling days. Each reservoir was surveyed a total of 28 six-hour days, half of those days surveying boaters and the other half non-boaters. The interviewer used a rotating time schedule with a morning to afternoon shift (9 a.m. to 3 p.m.) half the days and an afternoon to evening shift (2 p.m. to 8 p.m.) for the other half. For August and September, the afternoon to evening sampling period moved backward one hour (1 p.m. to 7 p.m.) to accommodate the change in daylight recreation hours. On the boater sampling days, these time periods were evenly split between the launches at each reservoir during the six-hour day. The intercept survey was conducted in an interview questionnaire format. We also mailed a survey form to each slip holder and asked them to think about their most current boating experience and fill out the survey.

***Boater sampling.*** The boater survey was conducted in an interview questionnaire format. Any adult operating a boat and using the designated launch facilities was asked to participate in the survey. Only one person per boating group was interviewed. Boaters were interviewed after they finished using the ramp during take-out. After loading their boats on the trailers, the majority of boaters would drive to the top of the ramp or into a nearby parking lot. As the boaters were finishing tying down their craft and stowing gear, they were approached by the interviewer who asked if they would participate in this study. By talking to boaters in a staging area, the interviews were conducted without

interfering with the ramp traffic flows. One person on the boat was selected for the interview which was typically the boat's primary operator. On most days, all users taking out at the ramps were approached whereas on very crowded days, all users could not be personally contacted. If the boater drove away before they could be approached or if the interviewer was in the process of interviewing one boater while others drove off, the researcher indicated on the survey form the number of missed interviewing opportunities. In some cases boaters refused to participate and that was logged as a "refusal" on the survey form. In other cases, boaters terminated the interview part way through the survey. In these cases, the survey was noted as a "partial completion" in the general information box on the survey form.

***Non-boater sampling.*** As in the sampling of boaters, the non-boater survey was conducted in an interview format. However, one of the main differences between interviewing the two user groups was the method of making initial contact. In the case of the boaters, the researcher stayed at the ramp during the sampling period and waited for boaters to come off the lake. For non-boaters, the researcher drove to different sites around the lakes and interviewed adults recreating at those sites. For instance, the researcher would begin the sampling day by stopping at a swimming beach, approach the recreationists using the site, and ask one adult in the group if they would be willing to be interviewed. The researcher noted on the survey where the interview was conducted and what activity the interviewee was engaged in at the time of the interviewer. After contacting each group at the beach site, the interviewer would drive to another site on that lake, for instance, the campground. There, the researcher would drive through the loops, stop at occupied sites where people were present, and approach campers and conduct interviews with a spokesperson for the groups. As in the sampling of boaters, the researcher noted missed opportunities, refusals, and partial survey completions.

***Slip holder sampling.*** During the research design process, it was determined that it would be beneficial to obtain data from a third user group, people who store their boats in slips on the lakes. Because slip holders rarely need to use the take-out ramps and they are unlikely to be at their slips for an interview, a mail survey was sent to their homes. The Forest Service provided a list of names and addresses of all slip holders to the USU researchers. The available number of slips leased at each lake is limited and somewhat

small (42 at Sheridan, 103 on the south side of Pactola, and 96 on the north side of Pactola). To obtain a sample large enough to make inferences about the population of slip holders, a survey was sent to each person on the list. This type of sampling differs from the method employed with the boaters and non-boaters in that those two groups were randomly systematically selected (probability systematic sample). Thus, the sample frame used to obtain data about the slip holders can be thought of as a non-probability census sample type. The same survey questions asked of the boaters were sent to the slip holders along with a cover letter. The cover letter explained the nature of the study and asked the recipient to think about their most recent excursion on the lake and answer the questions. A three tier mailing process was employed where: 1) the initial mailing consisted of a survey form, cover letter, and self-addressed stamped return envelope; 2) a reminder postcard was sent to all recipients ten days after the initial mailing; and 3) a second survey form, cover letter, and return envelope was sent to those who had not sent back a survey form ten days after the reminder postcard was mailed.

***Survey instruments.*** The survey form contained about 50 questions on three pages with a section on general use and user information (date, time of day, location, parking lot capacity, watercraft type or activity, gender, and age). In the case of on-site interviews, this general information section was completed by the interviewer. The slip holders personally filled out this section. In general, the questions on the rest of the survey assessed the users' characteristics and attitudes toward reservoir management, other users, and regulations. The questions were developed to assess the following: 1) demographic characteristics, 2) lake and recreation area use, 3) visitor characteristics, 4) perceptions of lake recreation satisfaction and conflicts, 5) attitudes toward use limits and alternative recreation destinations, and 6) open-ended comments. The open-ended questions gave the respondents the opportunity to address personal ideas and concerns regarding reservoir management. (See Appendix A for copy of survey instruments and interview schedule.)

In the following sections, descriptive statistics are presented for all survey questions for each of the study reservoirs. In most tables, the data is organized into the three groups sampled for each reservoir; boaters, non-boaters, and slip holders.

### III. SURVEY RESPONSE & BOATER CHARACTERISTICS

This section reports results related to visitor demographics including gender, age, resident states, and interview response rates.

***Interview and mail survey response.*** A total of 134 boaters were contacted with only 9 of those refusing to participate. The response rate was greater than 92% at each lake (Table III.1). Of the total number of completed boater surveys, Sheridan accounted for 41.6% and Pactola for 58.4%. A total of 233 non-boaters were contact with 7 refusing to be interviewed for a response rate of about 98% at Sheridan and 96% at Pactola. While interviewing boaters at Sheridan, 16 boats left before the researcher had the opportunity to interview them (“misses” in Table III.1) and at Pactola, there were 22 misses. While the response rate after accounting for missed interview opportunities remains somewhat high (72.2% at Sheridan and 73.0% at Pactola), it must be noted that results will slightly under represent visitors at crowded times.

**Table III.1: Survey sampling results.**

	<i>Sheridan</i>			<i>Pactola</i>		
	Boaters	Non-Boaters	Slip Holders	Boaters	Non-Boaters	Slip Holders
Contacts <sup>1</sup>	56	112	42	78	121	199
Refusals/Non-responses <sup>2</sup>	4	2	14	5	5	49
Completed Surveys	52	110	28	73	116	150
Response Rate	92.9%	98.2%	66.7%	93.6%	95.9%	75.4%
Misses	16	0	N.A. <sup>3</sup>	22	0	N.A. <sup>3</sup>
Response Rate Without Misses and Refusals	72.2%	98.2%	N.A. <sup>3</sup>	73.0%	95.9%	N.A. <sup>3</sup>

<sup>1</sup>Slip holder contacts are the number of names on the original mailing list.

<sup>2</sup>Non-responses refer to slip holders that did not fill out and return the mail survey.

<sup>3</sup>All slip holders were mailed a survey.

All 241 slip holders were mailed a copy of the survey, asked to think about their last boat trip on the lake where the slip is located, and fill out and return the questionnaire. Of the 42 Sheridan slip holders, 28 returned the survey for a response rate of 66.7%. For the Pactola slip holders (n = 199), 150 completed and returned the survey for a response rate of about 75% (Table III.1).

Table III.2 summarizes the sampling results by week day periods. As mentioned in the previous chapter, the researcher conducted interviews for 56 days during the sampling period. Twenty eight days were spent at each lake, including 14 days conducting boater interviews and 14 conducting non-boater interviews. Each subgroup (e.g., Sheridan boater, Pactola non-boater, etc.) was targeted for interviews two week days during the summer (i.e., 2 Sundays, 2 Mondays, etc.). On the Fourth of July (a Wednesday) surveys were taken of the Pactola non-boaters and on Labor Day (Monday, September 3), the researcher interviewed Sheridan boaters. Using the categories described in Table III.2, the sampling days were: Sheridan boaters, 7 weekdays and 7 weekends/holidays; Sheridan non-boaters, 8 weekdays and 6 weekends/holidays; Pactola boaters, 8 weekdays and 6 weekends/holidays; and Pactola non-boaters, 7 weekdays and 7 weekends/holidays. Slip holders were asked to fill out the day of the week that their most recent boat outing occurred.

**Table III.2: Distribution of survey responses by type of day.<sup>1</sup>**

Time of Use <sup>2</sup>	<i>Sheridan</i>			<i>Pactola</i>		
	Boaters	Non-Boaters	Slip Holders	Boaters	Non-Boaters	Slip Holders
Weekdays	17.3% (9)	45.5% (50)	38.5% (10)	41.1% (30)	36.2% (42)	48.5% (63)
Weekends/Holidays	82.7% (43)	54.5% (60)	61.5% (16)	58.9% (43)	63.8% (74)	51.5% (67)

<sup>1</sup>Responses (*n*) are shown in parentheses under the percentage.

<sup>2</sup>Weekdays include Monday, Tuesday, Wednesday, and Thursday. Weekends/Holidays include Friday, Saturday, and Sunday with the addition of Wednesday the 4<sup>th</sup> of July and Monday the 3<sup>rd</sup> of September, Labor Day.

When comparing completed survey results for all locations (Table III.2), the weekend/holiday visitation amount was greater than during the workweek. However, there are some striking contrasts. The number of Sheridan (non-slip holder) boaters was nearly five times higher on weekends/holidays while the number of Sheridan non-boaters was only slightly higher on weekends/holidays (54.5%) than weekdays (45.5%). At Pactola, nearly 60% of the boaters and 64% of the non-boaters were surveyed during the weekends. Another interesting comparison can be made between the slip holders. The Sheridan slip holders were more likely to be on the lake on weekends/holidays (61.5%) than the Pactola slip holders (51.5%). When further examining the days that the

interviewer missed interviewing boaters because the ramp take-out traffic was heavy, there does not seem to be any differences between weekend and workweek days.

**Gender.** As shown on Table III.3, a majority of the recreationists were male. For example, about 80% of the Sheridan and Pactola boaters and slip-holders were male. However, about half of the non-boaters at each lake were female. The lowest percent of females were among the Sheridan (15.4%) and Pactola (19.7%) boater sub-groups. When examining the types of activities that the non-boaters were engaged in when approached by the researcher, there was a greater percentage of women swimming than men (77.4% at Sheridan and 57.1% at Pactola).

**Table III.3: Gender of respondents.<sup>1</sup>**

	<i>Sheridan</i>			<i>Pactola</i>		
	Boaters	Non-Boaters	Slip Holders	Boaters	Non-Boaters	Slip Holders
Male	84.6% (44)	48.5% (49)	80.0% (20)	80.3% (53)	53.2% (58)	78.6% (114)
Female	15.4% (8)	51.5% (52)	20.0% (5)	19.7% (13)	46.8% (51)	21.4% (31)

<sup>1</sup>Responses (*n*) are shown in parentheses under the percentage.

**Age.** Respondents were asked to give their age. In addition to the means and medians, seven age group categories were created: 20 years or younger; 21 to 30; 31 to 40; 41 to 50; 51 to 60; 61 to 70; and those over 70 (Table III.4). The age range was 19 to 92 years, and there were only 22 respondents under age 21, and 21 over age 70.

Table III.4 displays the respondents' age group percentages and frequencies by the location where they recreated. Pactola non-boaters had the lowest average age of 39.1 years while the average of Pactola slip holders was the highest (52.0) followed by Sheridan slip holders (51.5). Although the percent of boaters under the age of 31 is about the same for Sheridan (26.5%) and Pactola (23.6%), none of the Sheridan boaters were under 21. Only one slip holder at Pactola was younger than 31. However, over one-fifth of the slip holders at Sheridan (21.0%) and Pactola (23.1%) were over 60 in contrast to Sheridan boaters (4.1%), Sheridan non-boaters (11.2%), Pactola boaters (16.7%), and Pactola non-boaters (10.0%).

**Table III.4: Age group distribution.<sup>1</sup>**

Age Category	<i>Sheridan</i>			<i>Pactola</i>		
	Boaters	Non-Boaters	Slip Holders	Boaters	Non-Boaters	Slip Holders
20 or Younger	0.0% (0)	6.5% (7)	0.0% (0)	6.9% (5)	9.1% (10)	0.0% (0)
21 to 30	26.5% (13)	19.6% (21)	0.0% (0)	16.7% (12)	30.0% (33)	0.8% (1)
31 to 40	26.5% (13)	30.8% (33)	15.8% (3)	27.8% (20)	23.6% (26)	16.2% (21)
41 to 50	24.5% (12)	18.7% (20)	36.8% (7)	22.2% (16)	17.3% (19)	37.7% (49)
51 to 60	18.4% (9)	13.1% (14)	26.3% (5)	9.7% (7)	10.0% (11)	22.3% (29)
61 to 70	4.1% (2)	9.3% (10)	10.5% (2)	13.9% (10)	9.1% (10)	12.3% (16)
71 or Older	0.0% (0)	1.9% (2)	10.5% (2)	2.8% (2)	0.9% (1)	10.8% (14)
Median Age (Range)	40.0 (23-64)	40.0 (19-75)	48.0 (34-73)	40.0 (19-73)	36.5 (19-73)	49.5 (29-92)
Mean Age (Standard Deviation)	41.0 (12.08)	40.9 (14.04)	51.5 (11.22)	43.6 (14.09)	39.1 (13.73)	52.0 (12.52)

<sup>1</sup>Responses (*n*) are shown in parentheses under the percentage.

**State residence.** All but three of the respondents are residents of the United States (one of the Sheridan non-boaters was from England, there was a South African Pactola boater, and a Canadian Pactola non-boater). A large majority of respondents, especially boaters and slip holders, are South Dakota residents (Sheridan: boaters (92.3%), non-boaters (68.5%), slip holders (100.0%); Pactola: boaters (88.9%), non-boaters (68.7%), slip holders 98.0%)). Non-boaters represented the greatest number of other state residences with Sheridan visitors coming from 17 other states (6.5% from Minnesota and 3.7% each from Wyoming and California) and those at Pactola from 15 (4.3% from Texas and 3.5% each from Nebraska and Colorado). For a listing of the states and cities where the respondents reside and which reservoirs they used, see Appendix B. Further discussion of distances traveled to the lake is contained in Chapter V and Table V.8.

#### IV. LAKE USE CHARACTERISTICS

Data were recorded by the research technician for boaters and non-boaters regarding the time of use, day of week, location, type of watercraft the boaters were using, and type of activities the non-boaters were engaged in. Slip holders were asked to think about their most recent boat trip when providing this information. The field researcher also noted the capacity of the parking areas when the interviews were conducted. These data help clarify the use characteristics of visitors to the different reservoirs. The number of intercept surveys administered at both reservoirs (Table III.2) indicates that almost two-thirds (62.7%) of the use (with the exception of slip holder use) occurs on weekends (Friday, Saturday, and Sunday) and holidays. This contrasts with the slip holder results that suggests only about half (53.2%) of their use occurs during those weekend/holiday periods.

The types of watercraft operated by boaters indicates that three-quarters of those surveyed operated open motorboats (76.6% at Sheridan and 76% at Pactola) followed by cabin motorboats (6.7% at Sheridan and 10.1% at Pactola) and PWCs (6.4% at Sheridan and 8.7% at Pactola) (Table IV.1). Relatively few respondents were on sailboats (one at each lake) or oar boats (four at Sheridan and two at Pactola). These numbers may under represent the actual amount because surveys were conducted at ramps for motorized watercraft. Boaters using oar boats, kayaks, canoes, rafts, small sailboats, and sailboards could access the lakes at locations other than where the research technician was stationed.

The types of watercraft reported by the slip holders in their mail survey create a slightly different profile. Twelve of the Sheridan slip holders (44.4%) indicated that they used an open motorboat on their most recent trip. The same percentage (44.4%) indicated a pontoon or houseboat. Only one respondent indicated a PWC and one indicated a sailboat. At Pactola, 58.5% (n = 79) of slip holders used open motorboats compared to 22.2% (n = 30) using pontoon/houseboats, 14.8% (n = 20) cabin motorboats, and 3.7% (n = 5) using PWCs. As with Sheridan, one Pactola slip holder indicated a sailboat (Table IV.1).



**Table IV.1: Type of watercraft or type of activity when respondents were surveyed.**

	<i>Sheridan</i>			<i>Pactola</i>		
	Boaters <sup>1</sup>	Non-Boaters <sup>2</sup>	Slip Holders <sup>3</sup>	Boaters <sup>4</sup>	Non-Boaters <sup>5</sup>	Slip Holders <sup>6</sup>
<b><u>Watercraft</u></b>						
Open Motorboat	76.6%	N.A.	44.4%	76.8%	N.A.	58.5%
Cabin Motorboat	6.4%		3.7%	10.1%		14.8%
Personal Watercraft	6.4%		3.7%	8.7%		3.7%
Pontoon/Houseboat	0.0%		44.4%	0.0%		22.2%
Other	10.7%		3.7%	4.2%		0.7%
<b><u>Activity</u></b>						
Camping	N.A.	61.0%	N.A.	N.A.	50.5%	N.A.
Swimming		31.4%			32.7%	
Picnicking		2.9%			12.1%	
Other		4.8%			4.7%	

<sup>1</sup>n = 47<sup>2</sup>n = 105<sup>3</sup>n = 27<sup>4</sup>n = 69<sup>5</sup>n = 107<sup>6</sup>n = 135

A majority of non-boaters contacted were camping (61.0% at Sheridan and 50.5% at Pactola) when interviewed by the researcher and almost a third at each lake were swimming (31.4% at Sheridan and 32.7% at Pactola). There were a higher percentage of non-boaters picnicking at Pactola (12.1%) than at Sheridan (2.9%). The researcher only managed to interview four shore fishers, one at Sheridan and three at Pactola (Table IV.1).

The field technician was asked to estimate the relative use of the parking lots, in terms of how full they were, for each interview conducted. Results shown in Table IV.2 indicate that the Sheridan boaters' parking lots were greater than three-quarters full more often (19.2%) than those lots at Pactola (11.0%). When interviewing non-boaters at Sheridan, the parking areas were estimated to be greater than three-quarters full only about 3% of the time and they never exceeded capacity. The non-boater estimates at Pactola are dramatically different. About half of the time (50.5%), the non-boater parking areas were three-quarters to full and 3.7% the lots exceeded capacity (Table IV.2).

Further analysis by day types (weekdays vs. weekends) against parking lot capacity reveals interesting insights. Sheridan boater lots were never more than one-half full on the week days, but on weekends, the lots were three-quarters or greater full nearly a quarter of the time (23.2%) (Table IV.3). The only time that the capacity was exceeded

was during weekends (2.3% of the times that sampling occurred on weekend days). The results at Pactola boating lots are similar. On weekdays, 90% of the time the lots were one-quarter full or less and were never more than three-quarters full. However on weekends, the lots were less than one-quarter full 39.5% of the time and exceeded capacity 16.3% of the time.

**Table IV.2: Parking lot capacity.**

Capacity	<i>Sheridan</i>			<i>Pactola</i>		
	Boaters	Non-Boaters	Slip Holders <sup>1</sup>	Boaters	Non-Boaters	Slip Holders <sup>1</sup>
Less than ¼ full	46.2%	51.0%	N.A.	60.3%	33.0%	N.A.
¼ to ½ full	23.1%	35.6%	N.A.	13.7%	6.4%	N.A.
½ to ¾ full	11.5%	10.6%	N.A.	15.1%	6.4%	N.A.
¾ to full	17.3%	2.9%	N.A.	1.4%	50.5%	N.A.
Over capacity	1.9%	0.0%	N.A.	9.6%	3.7%	N.A.

<sup>1</sup>Slipholders were not asked to assess parking lot capacity.

**Table IV.3: Parking lot capacity by day type.**

Capacity Day Type	<i>Sheridan</i>			<i>Pactola</i>		
	Boaters	Non-Boaters	Slip Holders <sup>3</sup>	Boaters	Non-Boaters	Slip Holders <sup>3</sup>
<u>Less than ¼ full</u>						
Weekdays <sup>1</sup>	66.7%	53.1%	N.A.	90.0%	55.3%	N.A.
Weekends <sup>2</sup>	41.9%	49.1%		39.5%	21.1%	
<u>¼ to ½ full</u>						
Weekdays	33.3%	46.9%	N.A.	0.0%	10.5%	N.A.
Weekends	20.9%	25.5%		23.3%	4.2%	
<u>½ to ¾ full</u>						
Weekdays	0.0%	0.0%	N.A.	10.0%	5.3%	N.A.
Weekends	14.0%	20.0%		18.6%	7.0%	
<u>¾ to full</u>						
Weekdays	0.0%	0.0%	N.A.	0.0%	28.9%	N.A.
Weekends	20.9%	5.5%		2.3%	62.0%	
<u>Over capacity</u>						
Weekdays	0.0%	0.0%	N.A.	0.0%	0.0%	N.A.
Weekends	2.3%	0.0%		16.3%	5.6%	

<sup>1</sup>Weekdays include Monday, Tuesday, Wednesday, and Thursday, with the exceptions of Wednesday the 4<sup>th</sup> of July and Monday the 3<sup>rd</sup> of September.

<sup>2</sup>Weekends include Friday, Saturday, and Sunday with the addition of Wednesday the 4<sup>th</sup> of July and Monday the 3<sup>rd</sup> of September, Labor Day.

<sup>3</sup>Slipholders were not asked to assess parking lot capacity.

Comparison of Sheridan and Pactola non-boater lots also reveals some interesting contrasts. While the non-boater lots at Sheridan were never greater than one-half full on

weekdays, the lots at Pactola were three-quarters to full on weekdays 28.9% of the time. Weekend use also differs between the two lakes. While the Sheridan non-boater lots were never over capacity and three-quarters to full 5.5% of the time, the Pactola non-boater lots were three-quarters to full 62.0% of the time and actually exceeded capacity 5.6% of the time.

### **Summary of Lake Use Characteristics by Lake**

***Sheridan Lake.*** At Sheridan, more than 80% of the boater surveys were collected on weekends/holidays, while 17.3% were collected on weekdays. More than half (54.5%) of the non-boater surveys were collected on weekend/holidays. More than 60% of the mail-back slip holder respondents indicated that their most recent boating trip was on the weekend or holiday. On the weekdays, the boater parking areas were half full or less all the time. However on the weekends, they were one-half full or greater more than one-third the time. The non-boater areas also were never more than one-half full on weekdays. On weekends, about one-quarter of the time they were one-half full or greater but never exceeded capacity. More than three-quarters of the watercraft operated by the boaters were open motorboats. The slip holders' boats of choice were open motorboats and pontoon/houseboats (44.4% each). Most of the non-boaters (61.0%) were engaged in camping activities when interviewed followed by those swimming at the beaches (31.4%).

***Pactola Reservoir.*** Thirteen more boater surveys were collected on the weekend/holiday sampling days than on the weekdays. However, slightly less than twice as many non-boater interviews were conducted on the weekends (n = 74) than on the weekdays (n = 42). About an equal number of slip holders indicated that their most recent trip was on a weekday (n = 63) and weekend (n = 67). On the weekdays, the boaters' parking areas was less than one-quarter full 90.0% of the time and was never more than three-quarters full. This contrasts with the weekend use where the lots were one-half to full 20.9% of the time and exceeded capacity 16.3% of the time. Although the non-boater parking areas never exceeded capacity on the weekdays, almost 30% of the time they were three-quarters to full. Comparing that to weekend use, the non-boater lots exceeded capacity 5.6% of the time during the weekend sampling and was three-quarters to full

62.0% of the time. As with Sheridan boaters, those at Pactola were more likely to be operating open motorboats (76.8%). The researcher did interview more PWC operators at Pactola (6) than Sheridan (3). More than half of the slip holders (58.5%, n = 79) indicated that they operated an open motorboat on their most recent trip. This was more than double the number that used pontoons/houseboats (n = 30) and almost four times as many who were on a cabin motorboat (n = 20). About half of the non-boaters (50.5%) were engaged in camping activities when interviewed followed by those swimming at the beaches (32.7%) and picnicking (12.1%).

## V. VISITOR USE CHARACTERISTICS

The surveys contained a series of questions designed to assess some characteristics of the lakes' visitors including group size, length of visit to the lakes, recreation activities that respondents participated in, respondent's familiarity with the lakes, and reasons that they came out to the lake. Relative distance traveled to the lakes was estimated based on respondent's city of residence.

**Group size.** Table V.1 shows results from the question asking how many people were in the respondent's group. The highest average group sizes were the non-boaters with Sheridan and Pactola about the same (5.6 and 5.7 respectively). The lowest average group sizes were the boaters: 3.6 at Sheridan and 3.7 at Pactola. Slip holder average group size was higher than the boaters but similar at each reservoir (Sheridan 4.3 and Pactola 4.4).

**Table V.1: Number of people per group.<sup>1</sup>**

Group Size Category	<i>Sheridan</i>			<i>Pactola</i>		
	Boaters	Non-Boaters	Slip Holders	Boaters	Non-Boaters	Slip Holders
1 to 2	34.6% (18)	22.7% (25)	22.2% (6)	37.5% (27)	23.3% (27)	30.4% (42)
3 to 6	55.8% (29)	56.4% (62)	63.0% (17)	52.8% (38)	50.0% (58)	57.2% (79)
7 to 10	9.6% (5)	6.4% (7)	11.1% (3)	8.3% (6)	18.1% (21)	8.7% (12)
11 to 20	0.0% (0)	11.8% (13)	3.7% (1)	1.4% (1)	6.0% (7)	3.6% (5)
More than 20	0.0% (0)	2.7% (3)	0.0% (0)	0.0% (0)	2.6% (3)	0.0% (0)
Median Group Size (Range)	3.0 (1-7)	4.0 (1-75)	4.0 (1-11)	3.5 (1-12)	4.0 (1-40)	4.0 (1-20)
Mean Group Size (Standard Deviation)	3.6 (1.81)	5.6 (7.89)	4.3 (2.48)	3.7 (2.26)	5.7 (5.25)	4.4 (2.78)

<sup>1</sup>Responses (*n*) are shown in parentheses under the percentage.

It is interesting to note that there were very few, if any, slip holder or boater groups larger than 10 people. However, 12.6% of the Pactola slip holder groups were larger than six people. In contrast, a greater percentage of the non-boaters at both lakes were in larger groups. More than 20% of the Sheridan non-boaters were in groups of seven or more, with the largest group being 75 people, and 26.7% of the Pactola non-boaters were

in groups greater than seven (the largest was 40). It should also be noted that more than half the respondents in each subgroup were in parties of three to six people.

**Visit length.** Respondents were asked how long they were visiting the lake. They were asked either how many hours or the number of days. As shown on Table V.2, an overwhelming majority of the boaters and slip holders were there for a single day. Half of the Pactola non-boaters and 56.9% of the Sheridan non-boaters were at those lakes for more than one day. About 16% of the Sheridan non-boaters and 7% of the Pactola non-boaters were staying for a week or more.

**Table V.2: Length of visit to lake area.<sup>1</sup>**

Number of Days	<i>Sheridan</i>			<i>Pactola</i>		
	Boaters	Non-Boaters	Slip Holders	Boaters	Non-Boaters	Slip Holders
Single day use <sup>2</sup>	80.8% (42)	43.1% (47)	74.1% (20)	83.1% (59)	50.0% (58)	91.3% (126)
Two days	15.4% (8)	20.2% (22)	7.4% (2)	8.5% (6)	21.6% (25)	6.5% (9)
Three days	3.8% (2)	13.8% (15)	14.8% (4)	5.6% (4)	15.5% (18)	1.4% (2)
4 to 5 days	0.0% (0)	7.4% (7)	0.0% (0)	0.0% (0)	6.0% (7)	0.0% (0)
6 to 7 days	0.0% (0)	10.1% (11)	0.0% (0)	2.8% (2)	1.7% (2)	0.0% (0)
8 to 10 days	0.0% (0)	2.8% (3)	0.0% (0)	0.0% (0)	2.6% (3)	0.7% (1)
11 to 18 days	0.0% (0)	3.7% (4)	3.7% (1)	0.0% (0)	2.6% (3)	0.0% (0)

<sup>1</sup>Responses (*n*) are shown in parentheses under the percentages.

<sup>2</sup>Combines those who indicated the length of visit in hours and those who indicated one day. Average number of hours for the respondents who indicated their visit length in hours was 4.0 for all subgroups with the exceptions of Pactola boaters (5.0) and Pactola slip holders (4.6).

**Lake recreation activities.** Respondents were asked to indicate which types of recreation activities they or a member of their party were engaging in on the day of their visit. They were encouraged to indicate all of those activities. Summary results for each sample group – boaters, non-boaters, and slip holders – are shown, respectively, on Tables V.3, V.4, and V.5. (Note: The summary column “Both Lakes” is only intended as a reference for the reader.) They were then asked to indicate what their primary activity was. Those results are summarized on Table V.6.

The most frequently mentioned activity for the Sheridan boaters was fishing from their boats (57.7%) followed by waterskiing, sightseeing, and cruising around the lake (each with 46.2% of the respondents indicating those activities) (Table V.3). Swimming and trolling were also popular activities (28.8% each). A majority of boaters at Pactola (63.4%) indicated cruising for fun followed by sightseeing and fishing (46.5% each) and waterskiing (36.6%). Very few of the boaters indicated non-motorized boating (sailing and canoeing). Over three-quarters of the boaters on both lakes indicated more than one activity.

**Table V.3: Activities that respondents participated in (boater survey).<sup>1</sup>**

Types of Activities	<i>Sheridan</i> <sup>2</sup>	<i>Pactola</i> <sup>3</sup>	<i>Both Lakes</i>
Waterskiing	46.2% (24)	36.6% (26)	40.7% (50)
PWC	3.8% (2)	11.3% (8)	8.1% (10)
Swimming	28.8% (15)	14.1% (10)	20.3% (25)
Sailing	9.6% (5)	1.4% (1)	4.9% (6)
Sightseeing	46.2% (24)	46.5% (33)	46.3% (57)
Canoeing	9.6% (5)	1.4% (1)	4.9% (6)
Trolling	28.8% (15)	16.4% (12)	22.0% (27)
Fishing From Boat	57.7% (30)	46.5% (33)	51.2% (63)
Cruising For Fun	46.2% (24)	63.4% (45)	56.1% (69)
Other	5.8% (3)	7.0% (5)	6.5% (8)

<sup>1</sup> Responses (n) are shown in parentheses under the percentage.

<sup>2</sup>Of the 52 Sheridan boaters, 41 (78.8%) participated in more than one activity.

<sup>3</sup>Of the 71 Pactola boaters, 54 (76.1%) participated in more than one activity.

Top five activities for non-boaters were picnicking, swimming, camping, fishing and wildlife viewing, with fishing especially important at Pactola and camping and wildlife viewing especially important at Sheridan. A large majority of the non-boaters at both lakes indicated that they or someone in their group went swimming (73.4% at Sheridan and 70.7% at Pactola) (Table V.4). More than 80% at each lake indicated picnicking and a majority also said they were camping (66.1% at Sheridan and 59.5% at Pactola). Other popular activities at both lakes were shore fishing (especially at Pactola), wildlife viewing (especially at Sheridan), and hiking. Very few of the non-boaters were snorkeling or scuba diving. Jet skiing and non-motorized boating is low at both lakes with Pactola getting more jet skiers and Sheridan getting more canoers and kayakers. (Almost 10% of the Sheridan non-boaters indicated they were canoeing or kayaking.) Almost 90% of the non-boaters at each lake indicated they or members of their groups engaged in more than one activity.

As shown on Table V.5, a majority of Sheridan slip holders participated in cruising (78.6%), sightseeing (71.4%), and waterskiing and swimming (53.6% each). Pactola slip holders show similar patterns with 81.3% indicating both cruising and sightseeing, 54.7% swimming, and 48.7% waterskiing. Of all three sample groups, PWC riding was the most frequently indicated by the slip holders (25.0% at Sheridan and 19.3% at Pactola with the largest number of PWC riders at Pactola). All 31 (20.7%) of the Pactola slip holders' "other" activity (bottom row) was scuba diving. As with the other two subgroups, a large majority of the slip holders or their party (89.3% at Sheridan and 94.0% at Pactola) engaged in multiple activities.

When asked to identify their primary lake recreation activity, Sheridan boaters and slip holders and Pactola boaters indicated fishing followed by waterskiing (Table V.6). Pactola slip holders indicated cruising (29.7%) followed by waterskiing (20.0%), sightseeing (15.2%) with fishing (7.6%) the fourth most frequent response. Non-boaters at both lakes most frequently indicated camping followed by swimming. Fishing was the third most frequent response of the Sheridan non-boaters (2.9%) and the fifth most frequent of the Pactola non-boaters (3.7%).



**Table V.4: Activities that respondents participated in (non-boater survey).<sup>1</sup>**

Types of Activities	<i>Sheridan</i> <sup>2</sup>	<i>Pactola</i> <sup>3</sup>	<i>Both Lakes</i>
Fishing from the shore	36.7% (40)	51.7% (60)	44.4% (100)
Swimming from the shore	73.4% (80)	70.7% (82)	72.0% (162)
Snorkeling	4.6% (5)	4.3% (5)	4.4% (10)
Wildlife viewing	49.5% (54)	31.9% (37)	40.4% (91)
Camping	66.1% (72)	59.5% (69)	62.7% (141)
Picnicking	81.7% (89)	82.8% (96)	82.2% (185)
Scuba diving	0.0% (0)	0.9% (1)	1.8% (4)
Hiking	37.6% (41)	30.2% (35)	33.8% (76)
Backpacking	3.7% (4)	1.7% (2)	2.7% (6)
Waterskiing	10.1% (11)	12.1% (14)	11.1% (25)
Jet skiing	2.8% (3)	5.2% (6)	4.0% (9)
Motorboating	19.3% (21)	23.3% (27)	21.3% (48)
Canoeing or kayaking	9.2% (10)	0.0% (0)	4.4% (10)
Other	6.4% (7)	5.2% (6)	5.8% (13)

<sup>1</sup> Responses (*n*) are shown in parentheses under the percentage.

<sup>2</sup>Of the 109 Sheridan non-boaters, 96 (88.1%) participated in more than one activity.

<sup>3</sup>Of the 116 Pactola non-boaters, 104 (89.7%) participated in more than one activity.

**Table V.5: Activities that respondents participated in (slip holder survey).<sup>1</sup>**

Types of Activities	<i>Sheridan</i> <sup>2</sup>	<i>Pactola</i> <sup>3</sup>	<i>Both Lakes</i>
Waterskiing	53.6% (15)	48.7% (73)	49.4% (88)
PWC	25.0% (7)	19.3% (29)	20.2% (36)
Swimming	53.6% (15)	54.7% (82)	54.5% (97)
Sailing	3.6% (1)	2.0% (3)	2.2% (4)
Sightseeing	71.4% (20)	81.3% (122)	79.8% (142)
Canoeing	0.0% (0)	1.2% (2)	1.1% (2)
Trolling	25.0% (7)	22.7% (34)	23.0% (41)
Fishing From Boat	46.4% (13)	36.0% (54)	37.6% (67)
Cruising For Fun	78.6% (22)	81.3% (122)	80.9% (144)
Other	10.7% (3)	20.7% (31)	19.1% (34)

<sup>1</sup> Responses (*n*) are shown in parentheses under the percentage.

<sup>2</sup> Of the 28 Sheridan slip holders, 25 (89.3%) participated in more than one activity.

<sup>3</sup> Of the 150 Pactola slip holders, 141 (94.0%) participated in more than one activity.

**Table V.6: Primary recreational activities at each location and group.<sup>1</sup>**

Location Group	Most popular	Second most popular	Third most popular	Fourth most popular	Fifth most popular
<b>Sheridan Boater</b>	<u>Fishing</u> 31.4% (11)	<u>Waterskiing</u> 25.7% (9)	<u>Sailing</u> 11.4% (4)	<u>PWC</u> 8.6% (3)	<u>Canoe</u> 8.6% (3)
<b>Sheridan Non-boater</b>	<u>Camping</u> 57.1% (60)	<u>Swimming</u> 29.5% (31)	<u>Fishing</u> 2.9% (3)	<u>Picnicking</u> 2.9% (3)	2
<b>Sheridan Slip holder</b>	<u>Fishing</u> 34.6% (9)	<u>Waterskiing</u> 23.1% (6)	<u>Cruising</u> 23.1% (6)	3	
<b>Pactola Boater</b>	<u>Fishing</u> 35.8% (24)	<u>Waterskiing</u> 23.9% (16)	<u>Cruising</u> 16.4% (11)	<u>PWC</u> 10.4% (7)	<u>Trolling</u> 4.5% (3)
<b>Pactola Non-boater</b>	<u>Camping</u> 48.1% (52)	<u>Swimming</u> 30.6% (33)	<u>Picnicking</u> 9.3% (10)	<u>Motorboating</u> 3.7% (4)	<u>Fishing</u> 3.7% (4)
<b>Pactola Slip holder</b>	<u>Cruising</u> 29.7% (43)	<u>Waterskiing</u> 20.0% (29)	<u>Sightseeing</u> 15.2% (22)	<u>Fishing</u> 7.6% (11)	<u>Swimming</u> 6.9% (10)

<sup>1</sup>Responses (*n*) shown in parentheses.

<sup>2</sup>Hiking, waterskiing, jet skiing, and motorboating tied for fifth most popular with *n* = 1.

<sup>3</sup>Swimming, sailing, sightseeing, trolling, and cliff jumping tied for fourth most popular with *n* = 1.

**Lake familiarity.** The questionnaires contained a series of three questions designed to identify percent of first time visitors, number of years experienced respondents have visited the lakes, and frequency of visits during a year. Summary results are shown on Table V.7.

When asked if they had visited the lakes before, over 90% of the boaters on both lakes and over 95% of the slip holders (100% in the case of Pactola slip holders) indicated they had visited previously. Of the non-boaters, 26.6% at Sheridan and 30.2% at Pactola indicated that this was their first visit. Of those who had previously visited, the next question asked the number of years they had been coming to the lakes. The highest average number of years were calculated for the Pactola slip holders (mean = 17.9) followed by Pactola boaters (17.0), and Sheridan boaters (16.4). The non-boaters had the lowest averages (12.4 at Sheridan and 13.0 at Pactola).

If the respondents indicated they had visited the lakes more than one previous year, they were then asked to estimate the average number of times they come in a typical year. As expected, the slip holders had the highest averages with 20.9 times for Sheridan and 22.2 for Pactola. The average number of times Sheridan and Pactola boaters visit the

lakes where they were interviewed was about eleven. Of the Sheridan non-boaters who had visited the lake more than one year, half visited three or less times and the other half three or more in a typical year (median). There was a higher median (4.0) for the Pactola non-boaters.

**Table V.7: Familiarity with lakes.<sup>1</sup>**

	<i>Sheridan</i>			<i>Pactola</i>		
	Boaters	Non-Boaters	Slip Holders	Boaters	Non-Boaters	Slip Holders
Visited before?						
No	9.6% (5)	26.6% (29)	3.6% (1)	8.5% (6)	30.2% (35)	0.0% (0)
Yes	90.4% (47)	73.4% (80)	96.4% (27)	91.5% (65)	69.8% (81)	100.0% (149)
If visited before, number of years visited.						
Mean	16.4	12.4	14.0	17.0	13.0	17.9
Median	10.0	6.0	12.0	13.0	8.0	15.0
Mode	10 (5)	1 (11)	4 (5)	10 (10)	3 (11)	20 (14)
Range	4 - 50	1 - 50	0 - 40	1 - 53	1 - 51	0 - 47
If respondent had been visiting more than one year, how many visits per year.						
(n) <sup>2</sup>	(28)	(66)	(24)	(52)	(67)	(125)
Mean	11.6	6.1	20.9	11.3	8.9	22.2
Median	6.0	3.0	20.0	10.0	4.0	20.0
Mode	4 (5)	2 (14)	20 (5)	5, 15 (7)	1 (13)	20 (24)
Range <sup>3</sup>	2 - 51	0 - 51	3 - 51	1 - 51	1 - 51	2 - 60

<sup>1</sup>Responses (n) are shown in parentheses.

<sup>2</sup>Number of respondents who had visited before but had been coming out to the lake more than one year.

<sup>3</sup>Responses "every weekend" were coded as 51.

**Distance from lake.** The relative proximity of respondents' residences to the lakes they were on was estimated by overlaying a series of concentric circles on a map of the area and identifying the respondents' cities of residences within the circles. The circles were drawn with the individual reservoirs at the center points and spaced at 25 miles, 50 miles, and 100 miles. This distance estimation method is not designed to assess accurate road mileage to reach a travel destination (the reservoirs). In fact, given that the lakes are only two recreation opportunities in an area rich in recreation and tourism sites, it would be erroneous to conclude that Sheridan and Pactola lakes are single point destinations for

“typical” Black Hills tourists. These lakes, however, are recreation destinations for the population sampled in this research (e.g., high familiarity, multiple numbers of trips per year, multi-day stays, etc.). This type of distance estimation provides information about the ratio of local to non-local lake users. It can also be thought of as identifying the relative effort or ease (in terms of driving time expended) in visiting the lakes.

As shown on Table V.8, a majority within each subgroup for both lakes live within 25 miles as the bird flies. Only three of the Sheridan boaters (5.9%) and eight of the Pactola boaters (11.3%) came from further than 100 miles. This is in contrast with the non-boaters where 36.5% of those contacted at Sheridan and 31.5% at Pactola lived more than 100 miles away. However, it should also be noted that more than half of the non-boaters at both lakes live within 25 miles. As expected, nearly 90% of the Sheridan slip holders and 93.3% of the Pactola slip holders live within 25 miles. For a complete list of the respondents’ cities of residence by reservoir and subgroup, see Appendix B.

**Table V.8: Distance traveled to reservoirs.<sup>1</sup>**

Miles Traveled	<i><b>Sheridan</b></i>			<i><b>Pactola</b></i>		
	Boaters	Non-Boaters	Slip Holders	Boaters	Non-Boaters	Slip Holders
0 to 25 miles	94.1% (48)	56.7% (59)	89.3% (25)	81.7% (58)	58.3% (63)	93.3% (140)
26 to 50 miles	0.0% (0)	3.8% (4)	0.0% (0)	4.2% (3)	10.2% (11)	5.3% (8)
51 to 100 miles	0.0% (0)	2.9% (3)	10.7% (3)	2.8% (2)	0.0% (0)	0.0% (0)
Greater than 100 miles	5.9% (3)	36.5% (38)	0.0% (0)	11.3% (8)	31.5% (34)	1.3% (2)

<sup>1</sup>Responses (*n*) are shown in parentheses under the percentage.

***Reasons for visiting the lakes.*** The surveys had an open-ended question which asked “What was the main reason you decided to come out to the lake today?” Two responses were coded, aggregated, and classified into broad categories. Sub-group results are summarized in Tables V.9, V.10, and V.11.

Table V.9 contains the results of the boater subgroups for the lakes. The most frequently mentioned category for Sheridan was the relative proximity of the lake to the respondent’s residence (36.5%). That was followed by the lake’s fishing opportunities and recreation opportunities (waterskiing, swimming, etc.). Not crowded and get

away/relax each was mentioned by 11.4% of the respondents. For the Pactola boaters, the most frequently mentioned reason had to do with getting away or relaxing. This was followed by Pactola's fishing opportunities (20.3%) and nice day/weather (18.3%). Close/proximity was mentioned by 13.0% (fourth most frequently mentioned) of the Pactola boaters.

**Table V.9: Aggregate percentages of reasons people visited the different locations (boater survey).<sup>1</sup>**

Response Category	Sheridan <sup>2</sup>	Pactola <sup>3</sup>	Both Lakes <sup>4</sup>
Close/proximity	36.5% <b>1</b>	13.0% <b>4</b>	23.1% <b>1</b>
Get away/relax	11.4% <b>7</b>	26.1% <b>1</b>	21.5% <b>2</b>
Fishing opportunities	19.2% <b>2<sup>5</sup></b>	20.3% <b>2</b>	19.8% <b>3</b>
Nice day/weather	13.5% <b>5</b>	18.8% <b>3</b>	16.5% <b>4</b>
Lake qualities and characteristics	15.2% <b>4</b>	10.1% <b>5<sup>6</sup></b>	13.2% <b>5</b>
Family fun/social	13.5% <b>5</b>	8.7% <b>7</b>	13.2% <b>5</b>
Not crowded	11.4% <b>7</b>	8.7% <b>7</b>	10.7% <b>7</b>

<sup>1</sup>Ranking of the response categories are shown in bold under the aggregate percentages.

<sup>2</sup>Respondents were given the opportunity to give two responses. Of the 52 Sheridan boaters who answered this question, 29 gave one response and 23 gave two responses. Total number of responses = 75.

<sup>3</sup>Responses were given the opportunity to give two responses. Of the 69 Pactola boaters who answered this question, 43 gave one response and 26 gave two responses. Total number of responses = 95.

<sup>4</sup>Recreation opportunities ranked eighth with one response less than not crowded.

<sup>5</sup>Recreation opportunities tied with fishing opportunities.

<sup>6</sup>Recreation opportunities tied with lake qualities and characteristics.

For the Sheridan non-boaters (Table V.10), the most frequently mention answers (26.9%) fell into the lake qualities and characteristics category (clean water, beautiful setting, etc.). Nearly as many of the respondents (25.9%) indicated Sheridan's recreation opportunities and 16.7% get away/relax as well as family fun/social. In contrast, getaway/relax was most frequently mentioned by the Pactola non-boaters (38.9%). Family fun/social was the second most frequent response followed by lake qualities and characteristics.

**Table V.10: Aggregate percentages of reasons people visited the different locations (non-boater survey).<sup>1</sup>**

Response Category	Sheridan <sup>2</sup>	Pactola <sup>3</sup>	Both Lakes
Get away/relax	16.7% <b>3</b>	38.9% <b>1</b>	28.1% <b>1</b>
Lake qualities and characteristics	26.9% <b>1</b>	22.1% <b>3</b>	24.4% <b>2</b>
Family fun/social	16.7% <b>3</b>	27.4% <b>2</b>	22.2% <b>3</b>
Recreation opportunities	25.9% <b>2</b>	16.8% <b>4</b>	21.3% <b>4</b>
Close/proximity	15.7% <b>5</b>	8.8% <b>5</b>	12.2% <b>5</b>
Familiarity	10.2% <b>6</b>	8.0% <b>7</b>	9.0% <b>6</b>
Other lakes undesirable	9.3% <b>7</b>	8.8% <b>5</b>	6.8% <b>7</b>

<sup>1</sup>Ranking of the response categories are shown in bold under the aggregate percentages.

<sup>2</sup>Respondents were given the opportunity to give two responses. Of the 108 Sheridan non-boaters who answered this question, 67 gave one response and 44 gave two responses. Total number of responses = 149.

<sup>3</sup>Respondents were given the opportunity to give two responses. Of the 113 Pactola non-boaters who answered this question, 66 gave one response and 47 gave two responses. Total number of responses = 160.

When examining the slip holder results, another category for reasons to come to the lakes emerged, own slip/easy access. As shown on Table V.11, it was the sixth most mentioned reason category for the Sheridan slip holders (11.5%) and the fifth among the Pactola slip holders (15.9%). The most frequently mentioned reasons at Sheridan fell within the recreation opportunities (46.2%) followed by family fun/social (30.8%) and get away/relax and close/proximity (19.2% each). Pactola slip holders most frequently mentioned reasons for coming to the lake fell within the get away/relax category (31.2%). Next were recreation opportunities (28.2%), family fun/social (26.8%), and nice day/weather (22.5%).

**Table V.11: Aggregate percentages of reasons people visited the different locations (slip holder survey).<sup>1</sup>**

Response Category	Sheridan <sup>2</sup>	Pactola <sup>3</sup>	Both Lakes <sup>4</sup>
Recreation opportunities	46.2% <b>1</b>	28.3% <b>2</b>	29.9% <b>1</b>
Get away/relax	19.2% <b>3<sup>5</sup></b>	31.2% <b>1</b>	29.3% <b>2</b>
Family fun/social	30.8% <b>2</b>	26.8% <b>3</b>	26.2% <b>3</b>
Nice day/weather	7.6% <b>7</b>	22.5% <b>4</b>	20.1% <b>4</b>
Own slip/easy access	11.5% <b>6</b>	15.9% <b>5</b>	15.2% <b>5</b>
Fishing opportunities	15.4% <b>5</b>	8.7% <b>7</b>	11.0% <b>6</b>
Lake qualities and characteristics	0.0% <b>6</b>	12.3% <b>6</b>	10.4% <b>7</b>

<sup>1</sup>Ranking of the response categories are shown in bold under the aggregate percentages.

<sup>2</sup>Respondents were given the opportunity to give two responses. Of the 26 Sheridan slip holders who answered this question, 13 gave one response and 13 gave two responses. Total number of responses = 49.

<sup>3</sup>Respondents were given the opportunity to give two responses. Of the 138 Pactola slip holders who answered this question, 59 gave one response and 79 gave two responses. Total number of responses = 217.

<sup>4</sup>Close/proximity ranked eighth with four less responses than lake qualities and characteristics.

<sup>5</sup>Close/proximity tied with get away/relax.

<sup>6</sup>Recreation opportunities tied with lake qualities and characteristics.



## VI. RECREATION SATISFACTION, CONFLICTS, & CROWDING

The survey instrument contained several questions designed to assess the visitors' degree of satisfaction, conflicts that the respondents felt detracted from their lake recreation experience, and their attitude toward crowding at the reservoirs and the need to impose use limits.

**Recreation satisfaction.** The respondents were asked how satisfied, in general, they were with their recreational experience at the lakes on the day of their trip. The results shown in Table VI.1 suggest that there were very few visitors that were not satisfied with their day's recreation experience.

**Table VI.1: User level of satisfaction with day's experience.<sup>1</sup>**

Response	<i>Sheridan</i>			<i>Pactola</i>		
	Boaters	Non-Boaters	Slip Holders	Boaters	Non-Boaters	Slip Holders
Very satisfied	53.8% (28)	67.9% (74)	50.0% (14)	59.2% (42)	57.9% (66)	47.7% (71)
Satisfied	38.5% (20)	29.4% (32)	46.4% (13)	40.8% (29)	34.2% (39)	47.0% (70)
Neutral	5.8% (3)	0.9% (1)	3.6% (1)	0.0% (0)	5.3% (6)	2.0% (3)
Dissatisfied	1.9% (1)	0.0% (0)	0.0% (0)	0.0% (0)	2.6% (3)	2.7% (4)
Very dissatisfied	0.0% (0)	1.8% (2)	0.0% (0)	0.0% (0)	0.0% (0)	0.7% (1)
Mean <sup>2</sup>	1.56	1.39	1.54	1.41	1.53	1.62

<sup>1</sup>Responses (n) are shown in parentheses under the percentage.

<sup>2</sup>Mean score calculated on a scale where 1=Very satisfied, 2=Satisfied, 3=Neutral, 4=Dissatisfied, and 5=Very dissatisfied.

Across both lakes and all three sub-groups, more than 90% indicated that they were either very satisfied or satisfied. Pactola slip holders had the largest proportion of respondents indicating they were dissatisfied or very dissatisfied (3.4%). However, for each subgroup, five or less respondents indicated they were dissatisfied or very dissatisfied. Sheridan slip holders and Pactola boaters had no one indicating dissatisfaction. It should also be noted that very few respondents were neutral on this question (ranging from 0.0% for Pactola boaters to 5.8% for Sheridan boaters).

**Conflicts with other users.** Even though almost all of the respondents indicated that they were satisfied with their recreation experience, other users' activities may detract from an individual's enjoyment of the lake. With that in mind, the next survey question on the survey asked if the actions of others detracted from their enjoyment while recreating at the lake and, if so, how often. As shown on Table VI.2, a majority of the slip holders at both lakes and Pactola boaters indicated that the actions of others do detract from their enjoyment. A majority of non-boaters at both lakes and Sheridan boaters indicated that the actions of others do not detract from their enjoyment. Of those who answered that their enjoyment is affected, Sheridan boaters had the largest proportion who indicated it occurred often (27.8%) followed by Pactola boaters (20.0%) and slip holders (17.6%). None of the Sheridan slip holders and 10% or less of the non-boaters at both lakes indicated often.

**Table VI.2: If the actions of others detracted from respondents' enjoyment and, if so, the frequency that user's enjoyment is reduced.<sup>1</sup>**

Response	<i>Sheridan</i>			<i>Pactola</i>		
	Boaters	Non-Boaters	Slip Holders	Boaters	Non-Boaters	Slip Holders
Actions of others do not detract from enjoyment	65.4% (34)	75.9% (82)	48.1% (13)	56.5% (39)	70.8% (80)	30.1% (44)
Actions of others detract, or possibly detract, from enjoyment	34.6% (18)	24.1% (26)	51.9% (14)	53.5% (30)	29.2% (33)	69.9% (102)
Rarely <sup>2</sup>	5.6% (1)	61.9% (13)	50.0% (7)	50.0% (15)	60.0% (18)	50.0% (51)
Sometimes <sup>2</sup>	16.7% (3)	23.8% (5)	50.0% (7)	16.7% (5)	30.0% (9)	30.4% (31)
Often <sup>2</sup>	27.8% (5)	9.5% (2)	0.0% (0)	20.0% (6)	10.0% (3)	17.6% (18)
Don't know <sup>2</sup>	50.0% (9)	4.8% (1)	0.0% (0)	13.3% (4)	0.0% (0)	2.0% (2)

<sup>1</sup>Responses (n) are shown in parentheses under the percentage.

<sup>2</sup>Of the number of respondents who said that the actions of some lake users detract or possibly detract from their enjoyment of the lake, the number who responded "rarely," "sometimes," "often," or "don't know."

Those who indicated that the actions of others detracted from their enjoyment were asked to identify the user group and what they did. They were allowed two responses for each question (see Appendix C). Of the 18 Sheridan boaters, the most frequently mentioned group was PWC operators (55.6%) followed by users in general (22.2%) and

motorboat operators (16.7%). The most frequent response identifying what the other groups did to detract was driving too close to shore or other boats (44.4%) followed by carelessness (38.9%). Of the 29 Pactola boaters, the most frequently mentioned group was PWC operators (65.5%) followed by motorboat drivers (17.2%) and users in general and drunks (10.3% each). When asked what those user groups did, 41.4% indicated driving too close to shore or other boats, 34.5% careless boat operations, and 27.6% said driving their watercraft too fast.

When asked what types of users detracted from their experience, 8 of the 26 Sheridan non-boaters (30.8%) said loud/rude groups followed by PWC operators (19.2%), users in general, and people with dogs on the beach (15.4% each). When asked what they did, 34.9% said they were loud followed by carelessness (15.4%) and making noise at inappropriate hours (15.4%). The most frequently mentioned group by the 32 Pactola non-boaters was PWC operators (43.8%) followed by motorboat operators (21.9%) and loud users and general users (15.6% each). When asked what they did, 43.8% indicated driving their boats too close to shore or other boats, being loud (18.8%), and carelessness (12.5%).

Of the 12 Sheridan slip holders that identified other groups that detracted from their enjoyment, 75.0% said PWC operators and 16.7% motorboat drivers. When asked what they did the most frequent response was driving their watercraft too close to shore or other boats (41.7%). For the 97 Pactola slip holders, the most frequently mention user group was PWC drivers (79.4%) followed by rude/loud users (13.4%) and speed boaters (11.3%). When asked what those groups did that detracted from the Pactola slip holders' enjoyment, 33.0% said driving their boats too close to shore or other boats, 17.5% said they were too loud, 13.4% careless operations. Other responses included driving the watercraft too fast, dangerous driving, and inconsiderate driving (12.4% each).

***Perceived crowding and use limits.*** There was only one question on the survey that asked the respondent's perception of whether there were too many other recreationists in the same area when they visited the lake. For the boaters and slip holders, the question was asked "In your opinion, do you feel that there were too many, too few, or about the right number of people on the lake today?" The non-boaters were asked "In your opinion,

do you feel that there were too many, too few, or about the right number of people in this area today?”

Results presented in Table VI.3 indicate that a large majority in each sub-group indicated the number was about right. The highest percentage who indicated that there were too many were the Pactola slip holders (17.8%) followed by the Sheridan boaters (8.2%). None of the Sheridan slip holders thought that there were too many. It is also interesting that few respondents in each sub-group thought that there were too few people on the lake or the area they were recreating.

**Table VI.3: Amount of other participants respondents felt were on the lake.<sup>1, 2</sup>**

Response	<i>Sheridan</i>			<i>Pactola</i>		
	Boaters	Non-Boaters	Slip Holders	Boaters	Non-Boaters	Slip Holders
Too many	8.2% (4)	2.8% (3)	0.0% (0)	4.3% (3)	5.3% (6)	17.8% (26)
Too few	4.1% (2)	2.8% (3)	7.1% (2)	2.9% (2)	3.5% (4)	4.8% (7)
About right	87.8% (43)	94.4% (102)	92.9% (26)	92.8% (64)	91.2% (104)	77.4% (113)

<sup>1</sup>Boaters and slip holders were asked about the number on the lake and the non-boaters were asked about the number in the area they were recreating (e.g., campground, beach, etc.).

<sup>2</sup>Responses (*n*) are shown in parentheses under the percentage.

The next question on the surveys asked if the respondents felt there is a need to limit the number of people that can use the lake recreation areas. As shown on Table VI.4, more than 70% in each sub-group indicated probably no and definitely no. Sheridan boaters had the highest percentage that said definitely yes and probably yes (29.4%) followed by Pactola slip holders (23.3%) and Pactola boaters (17.4%). None of the Sheridan slip holders indicated definitely yes.

The respondents who indicated that there is a need to put limits on the number of people that can use the area at one time were then asked if they could identify specific groups that should be limited. For most of the sub-groups, very few identified specific groups (two of the Sheridan boaters, four Sheridan non-boaters, no Sheridan slip holders, three Pactola boaters, and five Pactola non-boaters). However, 24 of the Pactola slip holders (75.0%) said they could identify a specific user group and 18 of those answered PWC operators.

**Table VI.4: Opinion of respondents on the need to put limits on the number of people that can use the area at one time.<sup>1</sup>**

Response	<i>Sheridan</i>			<i>Pactola</i>		
	Boaters	Non-Boaters	Slip Holders	Boaters	Non-Boaters	Slip Holders
Definitely yes	3.9% (2)	4.2% (4)	0.0% (0)	5.8% (4)	1.0% (1)	5.5% (8)
Probably yes	25.5% (13)	9.5% (9)	7.4% (2)	11.6% (8)	10.3% (10)	17.8% (26)
Probably no	49.0% (25)	48.4% (46)	59.3% (16)	20.3% (14)	37.1% (36)	41.8% (61)
Definitely no	21.6% (11)	32.6% (31)	14.8% (4)	53.6% (37)	42.3% (41)	28.8% (42)
Don't know	0.0% (0)	5.3% (5)	18.5% (5)	8.7% (6)	9.3% (9)	6.2% (9)

<sup>1</sup>Responses (n) are shown in parentheses under the percentage.

The follow up question asked if there were use limits on the lakes, would the respondents change the type of recreation activity they were engaged in and, if not, where they were likely to go. As shown on Table VI.5, a majority of the boaters and non-boaters at both lakes said they would definitely or probably do the same activity. In examining the results for slip holder groups a word of explanation is necessary. A lot of the slip holders wrote a note off to the side that this question was not applicable to them since their boats were already on the lake or that they could not easily go somewhere else or would not. The largest percent among the sub-groups that indicated they would do something else were the Pactola boaters (36.2%) followed by Pactola slip holders (28.9%), Pactola non-boaters (22.0%), Sheridan boaters (19.0%), and Sheridan non-boaters (14.0%).

Of those who said that they would probably do the same activity, it was then asked where they would go. Up to three locations were recorded for each respondent and the results shown on Table VI.6 shows the summed results. The most frequently mentioned lake by the Sheridan boaters (52.9% of the respondents gave it as either their first, second, or third response) was Pactola whereas 65.6% of Pactola Boaters indicated Sheridan. The same trend can be seen among the non-boaters. It should also be noted that Angostura Lake and any lake in the Black Hills was two other frequently mentioned locations.

**Table VI.5: If respondent was restricted from using area due to use limits, would they do the same activity somewhere else? <sup>1</sup>**

Response	<i>Sheridan</i>			<i>Pactola</i>		
	Boaters <sup>2</sup>	Non-Boaters <sup>3</sup>	Slip Holders <sup>2</sup>	Boaters <sup>2</sup>	Non-Boaters <sup>3</sup>	Slip Holders <sup>2</sup>
Definitely do the same activity	33.3% (7)	43.0% (37)	0.0% (0)	37.9% (22)	41.0% (41)	0.7% (1)
Probably do the same activity	47.6% (10)	30.2% (26)	17.9% (5)	17.2% (10)	22.0% (22)	4.0% (6)
Something else	19.0% (4)	14.0% (12)	0.0% (0)	36.2% (21)	22.0% (22)	28.0% (42)
Unsure	0.0% (0)	12.8% (11)	0.0% (0)	8.6% (5)	15.0% (15)	10.0% (15)
Slip holder <sup>4</sup>	-	-	82.1% (23)	-	-	57.3% (86)
Missing <sup>5</sup>	59.6% (31)	21.8% (24)	0.0% (0)	20.5% (15)	13.8% (16)	0.0% (0)

<sup>1</sup>Responses (n) are shown in parentheses under percentages.

<sup>2</sup>Boaters and slip holders were asked if they thought they would go boating somewhere else.

<sup>3</sup>Non-boaters were asked if they would do the same activity they were engaged in when interviewed only do it someplace else.

<sup>4</sup>Many slip holders wrote in responses such as “I am a slip holder and have no other option but to boat here.”

<sup>5</sup>Missing answers (no response or blank) not included in percent calculations for the responses presented above.

**Table VI.6: Location where respondents would have gone to engage in the same recreation activity if they were not able to recreate in the area they were in due to use limit restrictions.<sup>1</sup>**

Location Group	Most mentioned	Second most mentioned	Third most mentioned	Fourth most mentioned	Fifth most mentioned
<b>Sheridan Boater</b>	<u>Pactola</u> 52.9% (9)	<u>Black Hills</u> <sup>3</sup> 11.8% (2)	<u>Angostura L.</u> 11.8% (2)	4	
<b>Sheridan Non-boater</b>	<u>Pactola</u> 41.3% (26)	<u>Angostura L.</u> 17.5% (11)	<u>Sylvan L.</u> 9.5% (6)	<u>Custer S.P.</u> 7.9% (5)	<u>Black Hills</u> <sup>3</sup> 7.9% (5)
<b>Sheridan Slip holder</b> <sup>2</sup>	<u>Pactola</u> 60.0% (3)	5			
<b>Pactola Boater</b>	<u>Sheridan</u> 65.6% (21)	<u>Angostura L.</u> 31.3% (10)	<u>Black Hills</u> <sup>3</sup> 6.3% (2)	<u>Stockade L.</u> 6.3% (2)	6
<b>Pactola Non-boater</b>	<u>Sheridan</u> 38.1% (24)	<u>Angostura L.</u> 11.1% (7)	<u>Black Hills</u> <sup>3</sup> 7.9% (5)	<u>Sylvan L.</u> 6.3% (4)	<u>Pactola</u> <sup>7</sup> 3.7% (4)
<b>Pactola Slip holder</b> <sup>2</sup>	<u>Angostura L.</u> 71.4% (5)	<u>Sheridan</u> 42.9% (3)	<u>Pactola</u> <sup>7</sup> 14.3% (1)		

<sup>1</sup>Responses (*n*) shown in parentheses. Up to three different responses were allowed for each respondent.

<sup>2</sup>Only five Sheridan slip holders and seven Pactola slip holders indicated they would go boating somewhere else. See Table VI.5.

<sup>3</sup>Complete response is “anywhere in the Black Hills.”

<sup>4</sup>Elsewhere on Sheridan, Stockade L., non-motorized watercraft lake, any lake with fish tied for fourth most mentioned lake with *n* = 1.

<sup>5</sup>Elsewhere on Sheridan, lake with no restrictions, and Angostura L. tied for second most mentioned lake with *n* = 1.

<sup>6</sup>Elsewhere on Pactola, Rubix L., Deerfield L., and Horse Thief L. tied for fifth most mention lake with *n* = 1.

<sup>7</sup>Complete response is “somewhere else at Pactola.”

## VII. VISITOR PREFERENCES, RECOMMENDATIONS, AND COMMENTS

The survey instruments contained questions regarding visitor's satisfaction with existing facilities, what facility improvements would be preferable, campsite preferences, perceived physical impacts caused by visitors, and policy or managerial changes that would benefit the users' experience. The final question on the survey asked if the respondents had any additional comments or recommendations for future management of the lakes.

***Satisfaction with existing facilities.*** Respondents were asked to identify their satisfaction with existing facilities. As shown on Table VII.1, over 70% of the respondents in each sub-group responded with very satisfied or satisfied. The largest degree of satisfaction was expressed by Sheridan boaters (92.0%) followed by Pactola boaters (90.05) and Sheridan non-boaters (86.1%). Only one respondent (Pactola slip holder) indicated they were very dissatisfied with the existing facilities. None of the Sheridan boaters indicated dissatisfied or very dissatisfied compared to 8.3% of the Pactola non-boaters, 8.2% Pactola slip holders, 7.1% Pactola boaters, and 3.7% of the Sheridan non-boaters and slip holders.

**Table VII.1: User level of satisfaction with recreation facilities.<sup>1</sup>**

Response	<i>Sheridan</i>			<i>Pactola</i>		
	Boaters	Non-Boaters	Slip Holders	Boaters	Non-Boaters	Slip Holders
Very satisfied	30.0% (15)	33.3% (36)	22.2% (6)	34.3% (24)	26.9% (29)	24.7% (36)
Satisfied	62.0% (31)	52.8% (57)	59.3% (16)	55.7% (39)	46.3% (50)	53.4% (78)
Neutral	8.0% (4)	10.2% (11)	14.8% (4)	2.9% (2)	18.5% (20)	13.7% (20)
Dissatisfied	0.0% (0)	3.7% (4)	3.7% (1)	7.1% (5)	8.3% (9)	7.5% (11)
Very dissatisfied	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.7% (1)
Mean <sup>2</sup>	1.8	1.8	2.0	1.8	2.1	2.1

<sup>1</sup>Responses (*n*) are shown in parentheses under the percentage.

<sup>2</sup>Mean score calculated on a scale where 1=Very satisfied, 2=Satisfied, 3=Neutral, 4=Dissatisfied, and 5=Very dissatisfied.



**Facility improvements.** The next question asked “What recreation facility improvements would you like to see?” Up to three responses were coded for each respondent with the aggregated results shown in Appendix D organized by subgroups, lakes, ramp locations (for boater subgroups), and slip locations (in the case of Pactola). The most frequently mentioned improvement for the Sheridan boaters (n = 17) had to do with adding or improving the docks. The next most frequently mentioned improvement concerned bathrooms (15) followed by launch ramps (nine of those responses had to do with adding another launch or enlarging the existing ramp). A large number (69) of the Sheridan non-boaters’ suggested bathroom improvements. There were 31 comments that the bathrooms are gross or stink, and some of the suggestions included moving them closer to the lake and providing running water. Next to bathrooms, showers were a concern of the Sheridan non-boaters with 27 comments suggesting adding more or new showers. There were nine comments directed at improving the environmental conditions (e.g., weed or thistle eradication, providing more trash receptacles to help eliminate litter, etc.). Six of the Sheridan slip holders’ comments referred to improving bathroom facilities. There were five other comments about the docks and only two regarding slips.

Bathroom improvements were also most frequently mentioned by Pactola boaters (18) and six respondents said there was a need to add additional bathrooms. Next most frequently mentioned facility improvements were docks (16) followed by ramps and services (12 each). Bathrooms were also a concern with Pactola non-boaters with 79 comments: 14 of the respondents suggested adding new or more bathrooms and ten thought that new or flush toilets would be desirable. Next most frequently mentioned were camping area (14) and beach (11) improvements. A large number of Pactola slip holder comments (52) had to do with dock improvements with 18 respondents saying that bigger or wider docks were needed. Another 29 comments had to do with service improvements (e.g., improved security and law enforcement) and 16 comments referred to slips (e.g., better slips, more slips, etc.).

**Campsites.** There were two questions regarding camping at the lakes. All respondents, with the exception of the non-boaters contacted in the campgrounds who were obviously camping (had tent or trailer set up), were asked if they were planning on camping on this trip. The interviewer determined that 51 of the 112 Sheridan non-boaters

(45.5%) and 63 of 121 Pactola non-boaters (52.1%) were obviously camping and were not asked this question. In the case of slip holders, they were asked if they had camped on the trip they referred to when filling out the mail survey. The other question asked all respondents the type of campsites they preferred to use when visiting the lakes. Summary results are shown on Table VII.2.

**Table VII.2: If respondents were camping at lake areas and preferred type of campsites.<sup>1</sup>**

	<i>Sheridan</i>			<i>Pactola</i>		
	Boaters	Non-Boaters	Slip Holders	Boaters	Non-Boaters	Slip Holders
On this trip, are you planning on camping at lake? <sup>2</sup>						
Yes	16.3% (7)	34.4% (21)	14.8% (4)	20.9% (14)	13.8% (8)	16.2% (23)
No	83.7% (36)	65.6% (40)	85.2% (23)	79.1% (53)	86.2% (50)	83.8% (119)
<b><u>Preferred Campsites<sup>3</sup></u></b>						
Never plan on camping here	4.0% (1)	2.0% (2)	25.0% (6)	11.7% (7)	8.5% (9)	25.6% (33)
Undeveloped sites <sup>4</sup>	0.0% (0)	2.0% (2)	0.0% (0)	5.0% (3)	0.0% (0)	3.9% (5)
Semi-developed sites <sup>4</sup>	20.0% (5)	10.1% (10)	8.3% (2)	15.0% (9)	14.2% (15)	14.7% (19)
Developed sites <sup>4</sup>	52.0% (13)	45.5% (45)	33.3% (8)	46.7% (28)	40.6% (43)	28.7% (37)
Highly developed sites <sup>4</sup>	24.0% (6)	40.4% (40)	33.3% (8)	21.7% (13)	36.8% (39)	27.1% (35)

<sup>1</sup>Responses (*n*) are shown in parentheses under the percentage.

<sup>2</sup>This question was not asked of the non-boaters contacted in the campgrounds.

<sup>3</sup>All respondents were asked the question “What type of campsite would you prefer to use when you visit this lake?”

<sup>4</sup>Campsite types were defined on the questionnaire as: “Undeveloped sites (no toilets or other facilities)”; “Semi-developed sites with pit toilets and fire rings”; “Developed sites with pit toilets, picnic tables, and fire grills”; and “Highly developed sites with flush toilets, showers, running water, and utility hookups.”

As shown on Table VII.2, a large majority of boaters and slip holders were not camping at the lakes. About 16% of boaters at Sheridan and about 21% of boaters at Pactola were camping. Results for the slip holders were similar with less than 20% at each lake indicating they were camping. A majority of non-boaters were obviously camping or indicated they were planning on camping (64.3% at Sheridan and 58.7% at Pactola). Of the non-boaters interviewed outside of campgrounds or were at campsites

but not obviously camping (e.g., picnicking, throwing the Frisbee, etc.), more than a third at Sheridan and 13.8% at Pactola indicated they were camping or planning on camping (Table VII.2).

When all respondents were asked the preferred type of campsites, about 25% of both Sheridan and Pactola slip holders indicated that they never plan on camping at the lakes. Very few respondents in all subgroups (10) indicated they would prefer to use undeveloped campsites. More than half of the Sheridan boaters indicated a preference for developed sites followed by Pactola boaters (46.7%), Sheridan non-boaters (45.5%), and Pactola non-boaters (40.6%). The same percent of Sheridan slip holders (33.3%) indicated developed sites as those that chose highly developed sites. The largest percent that prefer highly developed sites were among the Sheridan (40.4%) and Pactola (36.8%) non-boaters.

***Management services or policy changes.*** A question on the survey instruments asked “Can you think of any management services or policy changes that would enhance your recreation experience at the lake?” Up to three answers were recorded for each respondent and the summary results are presented in the last part of Appendix D. Overall, most of the respondents indicated that no management services or policies needed to be changed.

For Sheridan boaters, five responses had to do with rule enforcement, six with facility improvements, and six with concessionaire operations. All six concessionaire responses were from boaters taking out on the south ramp. Of the 35 Sheridan non-boater responses, ten referred to concessionaires (e.g., nicer camp hosts and could be more helpful and cheerful), nine dealt with rules enforcement (e.g., more patrols/lifeguards), six with pricing, five with maintenance operations, and four with the/a reservation system. For the nine Sheridan slip holders that offered suggestions, six of the comments had to do with rules enforcement and three with maintenance or operational changes.

Like Sheridan boaters, the most comments made by Pactola boaters referred to rules enforcement (6) and maintenance/facility improvements (6). All six maintenance/facility improvement responses were from boaters taking out at the south ramp. Of the 39 responses given by 31 of the Pactola non-boaters, 30.8% referred to rules enforcement with half of those (6) recommending more patrols/lifeguards. Eleven responses referred

to concessionaires (e.g., more helpful and stay open longer) and eight responses were about maintenance/facility improvements. Pactola slip holders had the highest percentage of any of the other subgroups that offered recommendations: 67 comments made by 55 slip holders (37.4% overall). More than half (34) of the responses had to do with rules enforcement with seven of those suggesting increased patrols/lifeguards. There were 17 comments about maintenance or facility improvements and 11 about concessionaires.

***Perception of physical impacts.*** Another question asked the respondents to rate the physical impacts on the area they were recreating caused by the number or people. Mean scores reported in Table VII.3 suggests that the perceived impacts are moderately low across all subgroups. It is interesting that between 28.5% and 47.3% indicated currently acceptable, neither low nor high. Pactola slip holders had the highest percent who indicated moderately high and very high (10.4%) while Sheridan boaters and Sheridan slip holders had no one indicating either of those responses.

**Table VII.3: User opinion on physical impacts to the area caused by the number of people.<sup>1</sup>**

Response	<i>Sheridan</i>			<i>Pactola</i>		
	Boaters	Non-Boaters	Slip Holders	Boaters	Non-Boaters	Slip Holders
Very low	21.6% (11)	21.3% (23)	39.3% (11)	20.3% (14)	17.9% (20)	29.2% (42)
Moderately low	43.1% (22)	29.6% (32)	25.0% (7)	37.7% (26)	33.0% (37)	31.9% (46)
Currently acceptable	35.3% (18)	45.4% (49)	35.7% (10)	40.6% (28)	47.3% (53)	28.5% (41)
Moderately high	0.0% (0)	3.7% (4)	0.0% (0)	1.4% (1)	1.8% (2)	9.7% (14)
Very high	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.7% (1)
Mean <sup>2</sup>	2.1	2.3	2.0	2.2	2.3	2.2

<sup>1</sup>Responses (n) are shown in parentheses under the percentage.

<sup>2</sup>Mean score calculated on a scale where 1=Very low, 2=Moderately low, 3=Currently acceptable, 4=Moderately high, and 5=Very high.

***Additional comments.*** At the end of the survey, respondents were asked if they had any additional comments or recommendations for future management of the lakes. The complete text of those comments is presented in Appendix E organized by lakes and subgroups.

Only 15 of the Sheridan boaters offered additional comments. Two of those referred to better accommodating local users; locals not having to pay a fee, having more open campsites available for local users, and less campsites on the reservation system. Two comments had to do with fish stocking and one boater suggested relocating Sheridan Lake (“The lake needs to be closer to Rapid City ...”).

About a third of the Sheridan non-boaters (38) offered additional comments. Many of those (15), in whole or in part, had to do with the beauty of the setting, the good time they had, or the nice weather. Several of the respondents were unhappy with the way the campground hosts treated them (“The camp host was kind of rude and not very helpful”), several more complained about the showers (“The water smells terrible – very full of chlorine – kind of skunky”), and one person thought that there should be more remote campsites. Two of the non-boaters that were swimming when interviewed complained of abundant “seaweed.”

Fifteen of the Sheridan slip holders wrote additional comments on their survey forms. There were two that praised the marina operators and two complaints (like the non-boater swimmers) about excessive underwater weed growth. One respondent stated that they would camp at Sheridan if there were better facilities. Another suggested making the designated handicap camp areas more accessible to the lake. Still another pointed out that since Sheridan is a small lake, it may be more “suitable for canoeing, kayaking, and sailing” and that “motorboats should be limited.” Two Sheridan slip holders offered ideas about game fish stocking policy.

More than half of the Pactola boaters (39) offered additional comments. Eight of the boaters said it was a great place or they had a good time or thought that it is a beautiful lake. There were five Pactola boaters that suggested that there should be no additional development (“Do not expand or develop any more in the lake area, it is at its maximum capacity, recreation-wise”). Six mentioned admission or launch fees with one person suggesting that “You should be able to keep your daily tickets and after accumulating \$20 (the cost of an annual pass), you should be able to turn them in for an annual pass.” Several people offered improvements in boater education with one respondent asking to “Please post etiquette signs: maybe five important rules of etiquette.” There were seven respondents that suggested that there is room for improvement in buoy locations and that

some additional buoys need to be installed to identify dangerous underwater features and outcroppings.

Of the 116 Pactola non-boaters, 35 (30.1%) offered additional comments. Of those contacted in the campgrounds, suggestions offered included more campsites, larger parking areas, and more trash receptacles. Several did not want additional development and two respondents said they loved the bath house. There were also some complaints about management and concessionaire policy with one person saying that “We were trying to have a family reunion and I swear the management must be the Gestapo.” Two of the Pactola non-boaters contacted on shore suggested handicap accessibility improvements to picnic areas, docks, water, beach areas, and campgrounds. One person thought that one of the campground loops should be highly developed. There were also several complaints about litter, dirty bathrooms, and lack of parking. One person asked the question “Why can’t the area in general open earlier? Keep things open longer. Get more people to check people in the field.”

Pactola slip holders not only offered the most number of comments (64) but they were also the most diverse. Eight of the respondents remarked that they love the area and find the lake beautiful. Several suggestions had to do with controlling the number of boats on the lake at certain times whereas several others did not see a need for additional use limits. About eight Pactola slip holders thought that there should be more patrolling by the fish and game agency and better rule enforcement. There were also several who felt that the poor condition of the campsites and lack of hookups did not warrant the price paid. There were also several that complained about boaters not following regulations with one person talking about specific behavior: “Some people come tearing along the docks and when you motion them to slow down and say “this is a no-wake zone” they curse at us and say we don’t own the lake, then on the way out from the marina they try harder to rough up the boats up in the docks.”

## **VIII. CONCLUSIONS AND RECOMMENDATIONS**

The purpose of this study is to provide the Mystic Lakes Ranger District with use and attitude data for visitors to Pactola and Sheridan Lakes. The visitor population was divided into three randomly sampled subgroups: boaters, non-boaters, and slip holders. The District's goal for the management of these lakes is to provide the best mix of recreational experiences with the least conflict. This section summarizes the results and makes general recommendations for meeting these goals at the two study lakes. First we discuss the recreational experiences at the two lakes, and then the visitors' perceptions of conflict and management needs.

### **Visitor Characteristics and Experiences**

Many of the recreational use measures are similar for the two lakes. These are local use lakes, attracting visitors primarily from the Black Hills region, and visitors have a high level of familiarity resulting from many years visiting the lakes and a high number of visits per year. Group sizes are similar at both lakes, although non-boaters tend to visit in slightly larger groups (~6) than boaters and slip holders (~4). Over three-quarters of the boaters on both lakes use open motorboats, with fewer than 10% using cabin motorboats or PWCs, and slip holders are more likely to use larger boats (e.g., pontoons and house boats) than other boaters.

The activities pursued at both lakes are also similar. Picnicking and swimming are the primary activities of non-boaters, and cruising, sightseeing, waterskiing, and swimming are the top four activities for slip holders at both lakes. Boater activities are similar to slip holders except that fishing is one of the top boater activities at both lakes. It is also interesting to note that fishing is more important than waterskiing for three groups: Sheridan Lake boaters and slip holders and Pactola boaters.

Despite these use similarities, and the similar biophysical and geographic location of Sheridan and Pactola Lakes, the two lakes seem to provide slightly different recreational experiences. Compared to Pactola, there is less boating and PWC use on Sheridan Lake and it tends to be more oriented to older visitors with larger but quieter boats. Parking lots are rarely full at Sheridan, and there are fewer boaters that tend to use the lake on

weekdays compared to Pactola. Sheridan Lake gets more overnight visitors with longer average stays than Pactola, and more visitors that are interested in fishing. Conversely, Pactola gets nearly twice as many boaters compared to Sheridan, parking lots tend to be full on weekends, and it receives much more use during weekdays. While higher weekday use may reflect some displacement due to busier conditions on weekends, we found no evidence for this on the survey. In short, Sheridan Lake seems to provide a slower, quieter, and more a nature-based type of recreational experience compared to Pactola Lake. This does not mean, however, that Sheridan offers a more satisfying experience for visitors than Pactola.

Satisfaction levels are very high and perceptions of crowding are very low on both lakes. Over 90% of all three visitor groups at both lakes had been satisfied or very satisfied with their latest visit and “very satisfied” was the modal response category for all subgroups. And between 82 and 100 per cent of all groups said the number of people they saw during their visit was “about right” or “too few.” And less than a quarter of all visitor subgroups felt that use limits are needed, except for Sheridan Lake boaters (29.4%) where lake and boat ramp use is *less* than at Pactola Lake. (For comparison, a similar study of two lakes of a similar size in Utah found that about three-quarters of the boaters felt that use limits were needed (Reiter et. al. 2000, 2002.)

These satisfaction and crowding results are not surprising since the visitors tend to be local and very familiar with the lakes. The results do indicate, however, that, based on the recreational experiences, additional use capacity limits are not needed for the surface water or recreation facility sites. This is especially true at Pactola Lake. While Pactola gets more lake use and parking lot congestion, which indicates it might be the more logical candidate for use restrictions, in fact, the opposite is probably true. Neither lake appears to have high use densities, at least compared to similar sized lakes in Utah (Reiter et. al. 2000, 2002), and visitors at Pactola still rated “get away/relaxation” as the major reason for visiting the lake. And while current potential for displacement appears to be low, limiting use at Pactola will displace people to Sheridan Lake, which could adversely affect the more appreciative nature of the Sheridan experience.

Limiting use at Pactola would also result in the experiences at the two lakes becoming more similar, thus reducing the current diversity of experiences offered by the two lakes.



If experience diversity is a management goal, Sheridan Lake would actually be a more logical candidate for use capacity limits, and if facilities are expanded in order to allow for increasing use, it should be at Pactola. Before such management actions are taken, however, more specific recreational use objectives and experience indicators for each of the two lakes should be developed.

### **Visitor Perceptions of Conflict and Management Needs**

Despite high satisfaction and low crowding levels, there are moderate levels of conflict perceptions on both lakes. About one-third to one-half of the three visitor types at both lakes feel that the actions of others detract from their visit. Slip holders (about half) are more likely to feel conflicts than non-boaters (about one-third). And while the results for boaters are mixed – one-third of the boaters at Sheridan felt conflicts compared to half of the boaters at Pactola – Sheridan boaters who experienced visitor conflicts were most likely to think that the actions of others detract from their visit “often.” The level of conflict perception for all three subgroups, however, is relatively low compared to lakes of similar size in Utah (Reiter et. al. 2000, 2002), but still high enough to warrant some management concern.

For boaters, the primary causes of conflict are other boaters, especially PWC operators and motor boaters. Offending actions include inappropriate boating behavior such as driving too close, carelessness, and, on Pactola, driving too fast. Pactola slip holders have many more specific concerns than those at Sheridan, and over three-quarters of the slip holders who said the actions of others detracted from their last visit, specifically identified PWC operators with motor or speed boaters a distant second. The actions that slip holders identified were similar to the boaters. At Sheridan, “driving too close” was the only offending behavior, while at Pactola, several slip holders also mentioned fast, carelessness, or reckless driving, and noise as problems. The conflict perceptions of non-boaters are lower than for boaters and slip holders, and the responses for conflict types and management needs are very diverse. The primary cause of conflicts is inconsiderate visitor behaviors (noise, rudeness, dogs on the beach, and carelessness) and PWC use. The non-boaters at Pactola are also concerned with these behaviors, but

they are more concerned than non-boaters at Sheridan Lake with the behaviors of PWC and motor boat operators, especially those who drive too close to shore.

The primary conflicts that need to be addressed by management are related to behaviors of certain PWC and motor boat operators, not to the number of people using the lakes, so behavior change strategies (e.g., rule changes (if needed), enforcement, and education) should be implemented rather than use restrictions. These strategies can target specific behaviors and individual violators; general use restrictions, on the other hand, will not change offending behaviors, but will displace boaters to other lakes. Respondent comments at the end of the survey also tend to support this management approach. Better rule enforcement was mentioned most often by all three subgroups, and several boaters suggested the need for more education and better boater etiquette, especially at Pactola Reservoir.

Slip holders were the most likely of all subgroups to say the actions of others detract from their visits, and Pactola slip holders were the most likely to make management recommendations at the end of the survey. The types of issues raised by the slip holders are similar to the other recreationists, but they have a greater level of concern. This may be because slip holders have a greater investment of time, money, and experience at Sheridan and Pactola than the other two recreation subgroups. The Forest Service can take advantages of this situation by encouraging slip holders to help identify and implement policy and management changes to address the concerns related to boater behavior. Collaboration between managers and slip holders can increase the number of people educating boaters, monitoring visitor behavior, and “self policing” by reporting violators, and possibly decrease slip holders perceptions of conflict.

A pilot adaptive management program should be implemented at Pactola Reservoir, where conflict perceptions are higher. The program could promote better boater etiquette with an information/education component. For example, well designed signs at boat ramps and campgrounds should focus on key etiquette and rule violation problems, such as the lake rotation pattern, safe boating distances, and better identification of wakeless areas. To be effective, however, the education program must be accompanied by some increase in ranger patrols and lifeguards, especially during busy weekends. One extra staff person, perhaps jointly funded by the Forest Service and the state, could help meet

several needs identified from this study: 1) provide additional boat patrols and lifeguards, 2) monitor wakeless areas and boater behavior on and near shore, 3) monitor campground behavior of recreationists, hosts, and concessionaires, and 4) collaborate with slip holders and encourage their participation in monitoring lake activities of boaters and non-boaters. The program should emphasize educational signage and increased patrols at the beginning, but the emphasis can shift to the revision of the educational strategies and more specific applications of education and collaboration strategies at Sheridan Lake, based on the monitoring results. Since visitor characteristics and activities are similar at Sheridan Lake, the education and collaboration strategies that are effective at Pactola should also work at Sheridan. However there are fewer conflicts at Sheridan, so educational strategies may be streamlined and focus more on management strategies designed to protect the nature of the experience at Sheridan Lake.

Other management or policy preference recommendations of visitors focus on facilities and services. Very few visitors (10% or less of all subgroups) feel the physical impacts of recreation are unacceptable at either Pactola or Sheridan Lake. (This is especially encouraging since boaters and slip holders, have a lot of experience at the lakes.) But there were a relatively high number of concerns related to the quality of the facilities at Pactola and the concessionaires and campground hosts at both lakes. There was a wide diversity of facility issues raised at Pactola Reservoir, and most dealt with the campgrounds, bathrooms and showers, and the need for larger parking lots. And since about 30 people mentioned problems with concessionaires and campground hosts, there should be a review of the concessionaires, especially at the Sheridan Lake South Ramp. Closer monitoring of concessionaire activities can be part of the new staff position recommended above.

## **Conclusions**

In general, there were relatively few themes in the comments related to management problems or policy needs. Satisfaction is very high, and perceptions of crowding and physical impacts are very low on both lakes. The primary sources of conflict can be traced to poor etiquette or behavior of certain PWC and motor boat operators, and these should be addressed with better enforcement and education. The recreational experiences

are different at the two lakes, and specific management objectives need to be developed to protect the quieter and more natural experience of Sheridan Lake, and to better manage larger numbers and potentially conflicting uses on Pactola Reservoir.

Fishing is a relatively important activity at both lakes. Management objectives need to be developed that will help protect fishing, because past research indicates that fishermen tend to be sensitive to the behavior of other recreationists, especially motorized recreationists. Zoning the lakes for non-motorized zones or times may be needed to help protect the fishing experiences.

Slip holders also tend to be more sensitive to certain behaviors of boaters, especially PWC operators, and their input in future management of motorized activities on the lakes could be valuable. The slip holders have the most experience of all visitor groups and are most concerned about rule enforcement. They also have the most presence and visibility on the lakes, and managers may be able to enlist their help monitoring and policing of boater behavior and rule violations.

Major rule changes or use restrictions are not needed at this time. Most of the issues identified on the survey can be addressed with the addition of one staff person, informational signing regarding boating and campground etiquette and rules, and collaboration with slip holders.

## **REFERENCES**

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## **APPENDIX A**

### Survey Instruments

### Survey Schedule

(SB = Sheridan Boaters, SO = Sheridan Other Recreationists, PB = Pactola Boaters, PO = Pactola Other Recreationists,  
M = Morning, A = Afternoon)

No. \_\_\_\_\_

|||||

OMB #0596-0108

### MYSTIC LAKES BOATER SURVEY

**Date:** \_\_\_\_\_ **Day:** M Tu W Th F Sa Su **Time:** 9 10 11 12 1 2 2 3 4 6 7 8 9

**Location:** \_\_\_\_\_ Sheridan \_\_\_\_\_ Pactola \_\_\_\_\_ Ramp

**Parking Lot:** " < ¼ full " ¼ to ½ full " ½ to ¾ full " ¾ to full " over capacity

**Watercraft:** 1 Open motorboat 3 Personal watercraft 5 Sail (only) 7 Canoe  
2 Cabin motorboat 4 Auxiliary sail 6 Rowboat 8 Other: \_\_\_\_\_

**Gender:** " Male " Female **Age:** \_\_\_\_\_ **Interview Result:** " Completed " Partial " Refused

1. Where are you from? (city/town, county, state): \_\_\_\_\_

2. Are you the boat owner or primary operator? " NO " YES

3. How many people are in your group today? \_\_\_\_\_

4. How long is your visit to [LAKE NAME]? \_\_\_\_\_ hours **OR** \_\_\_\_\_ days

5. Have you visited [LAKE NAME] before? " YES " NO ° [GO TO Q6]

5a. [IF YES] Before **this** year, for how many years have you been coming out to [LAKE]? \_\_\_\_\_

5b. [IF MORE THAN 1 YEAR] How many times do you come out in a **typical** year? \_\_\_\_\_

6. I'm going to read a list of boating activities you may have participated in today. Please tell me which of the activities someone in your group did. [CHECK ALL THAT APPLY]

" Water skiing, tubing, or knee boarding

" Riding on personal watercraft

" Swimming from a watercraft

" Sailing

" Sightseeing on the lake

" Canoeing or kayaking

" Trolling

" Still fishing from a boat

" Cruising or just driving the boat for fun

" Other boating activities: \_\_\_\_\_

7. [IF MORE THAN ONE ACTIVITY] Which of these was your **primary** activity? [CIRCLE ABOVE]

8. What was the main reason you decided to come out to [LAKE NAME] today? \_\_\_\_\_

[PROBE FOR UP TO TWO REASONS]

9. In general, how satisfied were you with your recreation experience here today? Would you say you were:

" very satisfied, " satisfied, " neutral, " dissatisfied, or " very dissatisfied?

9a. [IF DISSATISFIED] What were the problems? \_\_\_\_\_

---

[**PROBE:** "Did you have any other problems on the lake today?" or "Anything else?"]

10. Do you feel that the actions of some lake users detract from your enjoyment while you're boating on [LAKE NAME]?

" YES " POSSIBLY " NO ° [IF NO, GO TO Q11]

10a. In *general*, how often is your enjoyment of [LAKE] reduced by the actions of others? Would you say:

- " rarely (by that I mean on *some trips but not on every trip* to the lake).
- " sometimes (once or twice a day), or
- " often (more than twice a day).
- " DK OR NEVER BEEN HERE BEFORE

10b. Which types of groups or lake users detract from your enjoyment? \_\_\_\_\_

What did they do? \_\_\_\_\_

Can you think of any other group that detracted from your enjoyment? \_\_\_\_\_

What did they do? \_\_\_\_\_

11. In your opinion, do you feel that there were too many, too few, or about the right number of boaters on the lake *today*?

" TOO MANY " TOO FEW " ABOUT RIGHT

12. In *general*, do you think there is a need to put a limit on the number of boats that can use [LAKE NAME] at one time? Would you say:

- " definitely yes,
- " probably yes,
- " probably no, or °
- " definitely no. °
- " DON'T KNOW °

**Go to question #15**

13. [IF YES TO Q12] Why do you feel that use limits are needed at [LAKE]?

---

[**PROBE UNTIL NO MORE REASONS ARE GIVEN**]

14. [IF YES TO Q12] Are there any specific boating groups whose use you think should be limited?

" NO " YES ° [IF YES] **Who is that?** \_\_\_\_\_  
**Anyone else?** \_\_\_\_\_



" BOATING (DEFINITELY)    ° ° °    **Where do you think you would have gone?**  
 " BOATING (PROBABLY)    ° ° °  
 " SOMETHING ELSE    \_\_\_\_\_ [PROBE FOR UP TO THREE LAKES]  
 " UNSURE

" VERY LOW,  
 " MODERATELY LOW,  
 " CURRENTLY ACCEPTABLE,  
 " MODERATELY HIGH, or   ○ ○ ○  
 " VERY HIGH?                   ○ ○ ○

" very satisfied, " satisfied, " neutral, " dissatisfied, or " very dissatisfied?

[PROBE FOR UP TO THREE TYPES OF FACILITY IMPROVEMENTS]

[PROBE FOR UP TO THREE SERVICE OR POLICY CHANGES]

- " I never plan on camping here
- " Undeveloped sites (no toilets or other facilities)
- " Semi-developed sites with pit toilets and fire rings
- " Developed sites with pit toilets, picnic tables, and fire grills
- " Highly developed sites with flush toilets, showers, running water, and utility hookups

**That's the end of the survey – Thank you very much for your help!**

No. \_\_\_\_\_

|||||

OMB #0596-0108

### MYSTIC LAKES RECREATION SURVEY

**Date:** \_\_\_\_\_ **Day:** M Tu W Th F Sa Su **Time:** 9 10 11 12 1 2 2 3 4 6 7 8 9

**Location:** \_\_\_\_\_ Sheridan \_\_\_\_\_ Pactola \_\_\_\_\_ Area or Campground

**Parking Lot:** " < ¼ full " ¼ to ½ full " ½ to ¾ full " ¾ to full " over capacity

**Activity:** 1 Shore fishing 3 Snorkeling 5 Camping 7 Scuba diving  
2 Swimming 4 Sailboarding 6 Picnicking 8 Other: \_\_\_\_\_

**Gender:** " Male " Female **Age:** \_\_\_\_\_ **Interview Result:** " Completed " Partial " Refused

1. Where are you from? (city/town, county, state): \_\_\_\_\_

2. How many people are in your group today? \_\_\_\_\_

3. How long is your visit to [LAKE NAME] today? \_\_\_\_\_ hours **OR** \_\_\_\_\_ days

4. Have you visited [LAKE NAME] before? " YES " NO ° [GO TO Q5]

4a. [IF YES] Before **this** year, for how many years have you been coming out to [LAKE]? \_\_\_\_\_

4b. [IF MORE THAN 1 YEAR] How many times do you come out in a **typical** year? \_\_\_\_\_

5. I'm going to read a list of outdoor recreation activities you may have participated in today. Please tell me which of the activities someone in your group did. [CHECK ALL THAT APPLY]

" Fishing from the shore	" Picnicking	" Jet skiing
" Swimming from the shore	" Scuba diving	" Motorboating
" Snorkeling	" Hiking	" Canoeing/kayaking
" Wildlife viewing	" Backpacking	
" Camping	" Waterskiing	" Other: _____

6. [IF MORE THAN ONE ACTIVITY] Which of these was your **primary** activity? [CIRCLE ABOVE]

7. What was the main reason you decided to come out to [LAKE NAME] today? \_\_\_\_\_

\_\_\_\_\_  
[PROBE FOR UP TO TWO REASONS]

8. In general, how satisfied were you with your recreation experience here today? Would you say you were:

" very satisfied, " satisfied, " neutral, " dissatisfied, or " very dissatisfied?

8a. [IF DISSATISFIED] What were the problems? \_\_\_\_\_

[PROBE: "Did you have any other problems out here today?" or "Anything else?"]

9. Do you feel that the actions of some lake users detract from your enjoyment while you're recreating at [LAKE AREA]?

" YES " POSSIBLY " NO ° [IF NO, GO TO Q10]

9a. In *general*, how often is your enjoyment of [AREA] reduced by the actions of others? Would you say:

" rarely (by that I mean on *some trips but not on every trip* to the lake).

" sometimes (once or twice a day), or

" often (more than twice a day).

" DK OR NEVER BEEN HERE BEFORE

9b. Which types of groups or lake users detract from your enjoyment? \_\_\_\_\_

What did they do? \_\_\_\_\_

Can you think of any other group that detracted from your enjoyment? \_\_\_\_\_

What did they do? \_\_\_\_\_

10. In your opinion, do you feel that there were too many, too few, or about the right number of people in this area *today*?

" TOO MANY " TOO FEW " ABOUT RIGHT

[IF INTERVIEWEE IS A CAMPER, SKIP QUESTIONS #11 AND #12]

11. In *general*, do you think there is a need to put a limit on the number of people that can use [LAKE AREA] at one time? Would you say:

" definitely yes,

" probably yes,

" probably no, or °

" definitely no. °

" DON'T KNOW °

Go to question #13

12. [IF YES TO Q11] Why do you feel that use limits are needed at [LAKE AREA]?

[PROBE UNTIL NO MORE REASONS ARE GIVEN]

13. [IF YES TO Q11 AND CAMPERS] Are there any specific groups whose use you think should be limited?

" NO " YES ° [IF YES] Who is that? \_\_\_\_\_  
Anyone else? \_\_\_\_\_

14. If you were not able to get on the lake as a result of restrictions on the number of people *today*, do you think you still would have gone to another [CAMPGROUND OR BEACH] or done something else?

- " GONE [TO A BEACH OR CAMPING] (DEFINITELY) ° Where do you think you would have gone?
- " GONE [TO A BEACH OR CAMPING] (PROBABLY) ° \_\_\_\_\_
- " SOMETHING ELSE [PROBE FOR UP TO THREE AREAS]
- " UNSURE

15. In general, would you rate the physical impacts on [BEACH OR CAMPGROUND] caused by the number of people as:

- " VERY LOW,
- " MODERATELY LOW,
- " CURRENTLY ACCEPTABLE,
- " MODERATELY HIGH, or ° ° ° \_\_\_\_\_
- " VERY HIGH? ° ° ° \_\_\_\_\_

**What impacts come to mind when you say HIGH?**

16. How satisfied are you with the [BEACH OR CAMPGROUND] facilities?

- " very satisfied      " satisfied      " neutral      " dissatisfied, or      " very dissatisfied

16a. What recreation facility improvements would you like to see? \_\_\_\_\_

\_\_\_\_\_

17. Can you think of any management services or policy changes that would enhance your recreation experience at [BEACH OR CAMPGROUND]?

\_\_\_\_\_

[PROBE FOR UP TO THREE SERVICE OR POLICY CHANGES]

18. **[NON-CAMPERS ONLY]** On this trip, did you or are you planning on camping at [LAKE NAME]?

- " NO      " YES

19. What type of campsite would you prefer to use when visiting [LAKE NAME]?

- " I never plan on camping here
- " Undeveloped sites (no toilets or other facilities)
- " Semi-developed sites with pit toilets and fire rings
- " Developed sites with pit toilets, picnic tables, and fire grills
- " Highly developed sites with flush toilets, showers, running water, and utility hookups

20. Do you have any additional comments or recommendations for future management of [LAKE NAME]?

\_\_\_\_\_

**That's the end of the survey – Thank you very much for your help!**

**PACTOLA LAKE SLIPHOLDER BOATER SURVEY**

**Date:** \_\_\_\_\_ **Day:** M Tu W Th F Sa Su **Time:** 9 10 11 12 1 2 3 4 6 7 8 9

**Watercraft:** 1 Open motorboat 3 Personal watercraft 5 Sail (only) 7 Canoe  
2 Cabin motorboat 4 Auxiliary sail 6 Rowboat 8 Other: \_\_\_\_\_

**Gender:** " Male " Female **Age:** \_\_\_\_\_ **Interview Result:** " Completed " Partial " Refused

1. Where are you from? (city/town, county, state): \_\_\_\_\_

2. Are you the boat owner or primary operator? " NO " YES

3. How many people were in your group that day? \_\_\_\_\_

4. How long was your visit to Pactola? \_\_\_\_\_ hours **OR** \_\_\_\_\_ days

5. Have you visited Pactola before? " YES " NO ° [GO TO Q6]

5a. [IF YES] Before **this** year, for how many years have you been coming out to Pactola? \_\_\_\_\_

5b. [IF MORE THAN 1 YEAR] How many times do you come out in a **typical** year? \_\_\_\_\_

6. I'm going to read a list of boating activities you may have participated in that day. Please tell me which of the activities someone in your group did. [CHECK ALL THAT APPLY]

" Water skiing, tubing, or knee boarding

" Riding on personal watercraft

" Swimming from a watercraft

" Sailing

" Sightseeing on the lake

" Canoeing or kayaking

" Trolling

" Still fishing from a boat

" Cruising or just driving the boat for fun

" Other boating activities: \_\_\_\_\_

7. [IF MORE THAN ONE ACTIVITY] Which of these was your **primary** activity? [CIRCLE ABOVE]

8. What was the main reason you decided to come out to Pactola on that day? \_\_\_\_\_

[PLEASE LIST UP TO TWO REASONS]

9. In general, how satisfied were you with your recreation experience? Would you say you were:

" very satisfied, " satisfied, " neutral, " dissatisfied, or " very dissatisfied?

9a. [IF DISSATISFIED] What were the problems? \_\_\_\_\_

“Did you have any other problems on the lake today?”

10. Do you feel that the actions of some lake users detract from your enjoyment while you’re boating on Pactola?

" YES " POSSIBLY " NO ° [IF NO, GO TO Q11]

10a. In *general*, how often is your enjoyment of Pactola reduced by the actions of others? Would you say:

" rarely (by that I mean on *some trips but not on every trip* to the lake).

" sometimes (once or twice a day), or

" often (more than twice a day).

" DK OR NEVER BEEN HERE BEFORE

10b. Which types of groups or lake users detract from your enjoyment? \_\_\_\_\_

What did they do? \_\_\_\_\_

Can you think of any other group that detracted from your enjoyment? \_\_\_\_\_

What did they do? \_\_\_\_\_

11. In your opinion, do you feel that there were too many, too few, or about the right number of boaters on the lake *that day*?

" TOO MANY

" TOO FEW

" ABOUT RIGHT

12. In *general*, do you think there is a need to put a limit on the number of boats that can use Pactola at one time?

Would you say:

" definitely yes,

" probably yes,

" probably no, or °

" definitely no. °

" DON'T KNOW °

**Go to question #15**

13. [IF YES TO Q12] Why do you feel that use limits are needed at Pactola?

[PLEASE LIST UP TO 3 REASONS]

14. [IF YES TO Q12] Are there any specific boating groups whose use you think should be limited?

" NO " YES ° [IF YES] **Who is that?** \_\_\_\_\_

**Anyone else?** \_\_\_\_\_

15. If you were not able to get on the lake as a result of restrictions on the number of boats *that day*, do you think you still would have gone boating or done something else?

- " BOATING (DEFINITELY)   ° ° °   **Where do you think you would have gone?**  
" BOATING (PROBABLY)   ° ° °   \_\_\_\_\_  
" SOMETHING ELSE   [LIST UP TO THREE LAKES]  
" UNSURE

16. In general, at Pactola, would you rate the physical impacts on land or water caused by the number of boaters as:

- " VERY LOW,  
" MODERATELY LOW,  
" CURRENTLY ACCEPTABLE,  
" MODERATELY HIGH, or   ° ° °   \_\_\_\_\_  
" VERY HIGH?   ° ° °   \_\_\_\_\_

**What impacts come to mind when you say HIGH?**

17. How satisfied are you with the boating facilities at Pactola?

" very satisfied,   " satisfied,   " neutral,   " dissatisfied, or   " very dissatisfied?

17a. What boating facility improvements would you like to see? \_\_\_\_\_

\_\_\_\_\_  
[PLEASE LIST UP TO THREE TYPES OF FACILITY IMPROVEMENTS]

18. Can you think of any management services or policy changes you would like to see that would enhance your boating experience at Pactola?

\_\_\_\_\_  
[PLEASE LIST UP TO THREE SERVICE OR POLICY CHANGES]

19. On that trip, did you camp at Pactola?   " NO   " YES

20. What type of campsite would you prefer to use when visiting Pactola?

- " I never plan on camping here  
" Undeveloped sites (no toilets or other facilities)  
" Semi-developed sites with pit toilets and fire rings  
" Developed sites with pit toilets, picnic tables, and fire grills  
" Highly developed sites with flush toilets, showers, running water, and utility hookups

21. Do you have any additional comments or recommendations for future management of Pactola?

\_\_\_\_\_  
\_\_\_\_\_  
**That's the end of the survey – Thank you very much for your help!**

# JUNE

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
			<u>PB</u> [M] 9-3	<u>PO</u> [M] 9-3	<u>SB</u> [M] 9-3	<u>SO</u> [M] 9-3

2001



# JULY

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
1	2	<u>PB</u> [A] 2-8	<u>PO</u> [A] 2-8	<u>SB</u> [A] 2-8	<u>SO</u> [A] 2-8	7
8	<u>PB</u> [M] 9-3	<u>PO</u> [M] 9-3	<u>SB</u> [M] 9-3	<u>SO</u> [M] 9-3	13	<u>SB</u> [A] 2-8
15	<u>PB</u> [A] 2-8	<u>PO</u> [A] 2-8	<u>SB</u> [A] 2-8	<u>SO</u> [A] 2-8	<u>PO</u> [A] 2-8	21
22	<u>PO</u> [M] 9-3	<u>SB</u> [M] 9-3	<u>SO</u> [M] 9-3	<u>PB</u> [A] 2-8	<u>PB</u> [A] 2-8	<u>PO</u> [A] 2-8
29	<u>SB</u> [A] 2-8	<u>SO</u> [A] 2-8	31			

## 2001

# AUGUST

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
			1	2	3	4
				<u>PB</u> [M] 9-3	<u>PO</u> [M] 9-3	<u>SB</u> [M] 9-3
5 <u>SO</u> [M] 9-3	6	7	8 <u>PB</u> [A] 1-7	9 <u>PO</u> [A] 1-7	10 <u>SB</u> [A] 1-7	11 <u>SO</u> [A] 1-7
12 <u>SO</u> [A] 1-7	13	14 <u>PB</u> [M] 9-3	15 <u>PO</u> [M] 9-3	16 <u>SB</u> [M] 9-3	17 <u>SO</u> [M] 9-3	18
19	20 <u>PB</u> [A] 1-7	21 <u>PO</u> [A] 1-7	22 <u>SB</u> [A] 1-7	23 <u>SO</u> [A] 1-7	24	25
26 <u>PB</u> [M] 9-3	27 <u>PO</u> [M] 9-3	28 <u>SB</u> [M] 9-3	29 <u>SO</u> [M] 9-3	30	31	

2001

# SEPTEMBER

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
						1 <b><u>PB</u></b> [A] 1-7
2 <b><u>PO</u></b> [A] 1-7	3 <b><u>SB</u></b> [A] 1-7	4 <b><u>SO</u></b> [A] 1-7	5	6	7 <b><u>PB</u></b> [M] 9-3	8 <b><u>PO</u></b> [M] 9-3
9 <b><u>SB</u></b> [M] 9-3	10 <b><u>SO</u></b> [M] 9-3	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

2001

## **APPENDIX B**

### Respondents' Cities of Residence

### **Residences of Sheridan Boaters**

#### ***STATE RESIDENCE = South Dakota (92.3%)***

	<u>Frequency</u>	<u>Percent</u>
Rapid City	39	81.3
Custer	2	4.2
Hill City	2	4.2
Ellsworth AFB	4	8.3
Piedmont	1	2.1
<i>Total</i>	<i>48</i>	<i>100.0</i>

#### ***STATE RESIDENCE = Minnesota (3.8%)***

Pipestone	1	50.0
N/A	1	50.0
<i>Total</i>	<i>2</i>	<i>100.0</i>

#### ***STATE RESIDENCE = Nebraska (1.9%)***

Sidney	1	100.0
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#### ***STATE RESIDENCE = Connecticut (1.9%)***

Torrington	1	100.0
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*Missing = 0*

### **Residences of Sheridan Non-Boaters**

#### ***STATE RESIDENCE = South Dakota (68.5%)***

	<u>Frequency</u>	<u>Percent</u>
Rapid City	45	60.8
Rockerville	3	4.1
Custer	2	2.7
Hill City	6	8.1
Pierre	1	1.4
Hermosa	1	1.4
Sturgis	2	2.7
Blackhawk	1	1.4
Spearfish	2	2.7
Hot Springs	1	1.4
Ellsworth AFB	1	1.4
Wall	1	1.4
Porcupine	1	1.4
Minnow	1	1.4
Freeman	1	1.4
Aberdeen	1	1.4
Yankton	1	1.4
Johnson	1	1.4
Watertown	1	1.4
Roland	1	1.4
<i>Total</i>	<i>74</i>	<i>100.0</i>

#### ***STATE RESIDENCE = Wyoming (3.7%)***

Newcastle	1	25.0
Lander	1	25.0
Gillette	1	25.0
Laramie	1	25.0
<i>Total</i>	<i>4</i>	<i>100.0</i>

#### ***STATE RESIDENCE = Texas (0.9%)***

Brownfield	1	100.0
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#### ***STATE RESIDENCE = Colorado (1.9%)***

Longmont	1	50.0
Steamboat	1	50.0
<i>Total</i>	<i>2</i>	<i>100.0</i>

#### ***STATE RESIDENCE = Idaho (1.9%)***

Pocatello	1	50.0
Yankton	1	50.0
<i>Total</i>	<i>2</i>	<i>100.0</i>

#### ***STATE RESIDENCE = Illinois (1.9%)***

Crystal Lake	1	50.0
Carolstream	1	50.0
<i>Total</i>	<i>2</i>	<i>100.0</i>

#### ***STATE RESIDENCE = Iowa (1.9%)***

	<u>Frequency</u>	<u>Percent</u>
Sioux City	1	50.0
Turin	1	50.0
<i>Total</i>	<i>2</i>	<i>100.0</i>

#### ***STATE RESIDENCE = Minnesota (6.5%)***

Ithaca	1	14.3
Minneapolis	2	28.6
Duluth	1	14.3
Conwood	1	14.3
N/A	2	28.6
<i>Total</i>	<i>7</i>	<i>100.0</i>

#### ***STATE RESIDENCE = Nebraska (0.9%)***

Lavista	1	100.0
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#### ***STATE RESIDENCE = Washington (0.9%)***

N/A	1	100.0
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#### ***STATE RESIDENCE = California (3.7%)***

Palm Springs	1	25.0
San Diego	1	25.0
Los Angeles	1	25.0
N/A	1	25.0
<i>Total</i>	<i>4</i>	<i>100.0</i>

#### ***STATE RESIDENCE = Ohio (0.9%)***

Dayton	1	100.0
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#### ***COUNTRY RESIDENCE = England (0.9%)***

London	1	100.0
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#### ***STATE RESIDENCE = Nevada (0.9%)***

Henderson	1	100.0
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#### ***STATE RESIDENCE = Michigan (0.9%)***

Ann Arbor	1	100.0
-----------	---	-------

#### ***STATE RESIDENCE = New York (0.9%)***

New York City	1	100.0
---------------	---	-------

#### ***STATE RESIDENCE = Florida (0.9%)***

Canal Point	1	100.0
-------------	---	-------

#### ***STATE RESIDENCE = Pennsylvania (0.9%)***

Harrisburg	1	100.0
------------	---	-------

#### ***STATE RESIDENCE = Hawaii (0.9%)***

Pahoa	1	100.0
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*N/A = no answer*

*Missing = 2*

### **Residence of Sheridan Slip Holders**

***STATE RESIDENCE = South Dakota  
(100.0%)***

	<u>Frequency</u>	<u>Percent</u>
Rapid City	23	82.1
Hill City	1	3.6
Wall	1	3.6
Porcupine	1	3.6
Newell	1	3.6
Keystone	1	3.6
<i>Total</i>	28	100.0

*Missing = 0*

## **Residences of Pactola Boaters**

### ***STATE RESIDENCE = South Dakota (88.9%)***

	<u>Frequency</u>	<u>Percent</u>
Rapid City	49	76.6
Hill City	2	3.1
Nemo	2	3.1
Sturgis	1	1.6
Blackhawk	1	1.6
Spearfish	1	1.6
Sioux Falls	1	1.6
Lead	3	4.7
Ellsworth AFB	1	1.6
Wall	1	1.6
Pine Ridge	1	1.6
Winner	1	1.6
<i>Total</i>	<i>64</i>	<i>100.0</i>

### ***STATE OF RESIDENCE = Wyoming (1.4%)***

Newcastle	1	100.0
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### ***STATE OF RESIDENCE = Colorado (2.8%)***

Denver	1	50.0
Fort Collins	1	50.0
<i>Total</i>	<i>2</i>	<i>100.0</i>

### ***STATE OF RESIDENCE = Minnesota (2.8%)***

Duluth	1	50.0
Fergus Falls	1	50.0
<i>Total</i>	<i>2</i>	<i>100.0</i>

### ***COUNTRY RESIDENCE = S. Africa (1.4%)***

N/A	1	100.0
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### ***STATE RESIDENCE = Utah (1.4%)***

Provo	1	100.0
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### ***STATE RESIDENCE = Montana (1.4%)***

N/A	1	100.0
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*N/A = no answer*

*Missing = 1*



## **Residences of Pactola Non-Boaters**

### ***STATE RESIDENCE = South Dakota (68.7%)***

	<u>Frequency</u>	<u>Percent</u>
Rapid City	48	60.8
Rockerville	2	2.5
Custer	1	1.3
Hill City	6	7.6
Nemo	3	3.8
Pierre	2	2.5
Hermosa	1	1.3
Sturgis	2	2.5
Spearfish	7	8.9
Sioux City	1	1.3
Hot Springs	1	1.3
Howes	1	1.3
Bryant	1	1.3
Piedmont	1	1.3
N/A	2	2.5
<i>Total</i>	<i>79</i>	<i>100.0</i>

### ***STATE RESIDENCE = North Dakota (1.7%)***

Minnow	1	50.0
Wilton	1	50.0
<i>Total</i>	<i>2</i>	<i>100.0</i>

### ***STATE RESIDENCE = Wyoming (2.6%)***

Newcastle	1	33.3
Cody	1	33.3
Laramie	1	33.3
<i>Total</i>	<i>3</i>	<i>100.0</i>

### ***COUNTRY RESIDENCE = Canada (0.9%)***

Calgary	1	100.0
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### ***STATE RESIDENCE = Texas (4.3%)***

El Paso	2	40.0
Fort Worth	1	20.0
Tyler	1	20.0
Dallas	1	20.0
<i>Total</i>	<i>5</i>	<i>100.0</i>

### ***STATE RESIDENCE = Colorado (3.5%)***

Denver	2	50.0
Fort Carson	1	25.0
Grand Lake	1	25.0
<i>Total</i>	<i>4</i>	<i>100.0</i>

### ***STATE RESIDENCE = Wisconsin (1.7%)***

Fondulac	1	50.0
N/A	1	50.0
<i>Total</i>	<i>2</i>	<i>100.0</i>

### ***STATE RESIDENCE = Illinois (1.7%)***

	<u>Frequency</u>	<u>Percent</u>
Springfield	1	50.0
Rockford	1	50.0
<i>Total</i>	<i>2</i>	<i>100.0</i>

### ***STATE RESIDENCE = Minnesota (1.7%)***

Hutchson	1	50.0
N/A	1	50.0
<i>Total</i>	<i>2</i>	<i>100.0</i>

### ***STATE RESIDENCE = Nebraska (3.5%)***

Dalton	1	25.0
Randolph	1	25.0
Omaha	1	25.0
N/A	1	25.0
<i>Total</i>	<i>4</i>	<i>100.0</i>

### ***STATE RESIDENCE = New Jersey (0.9%)***

Trenton	1	100.0
---------	---	-------

### ***STATE RESIDENCE = Washington (2.6%)***

Spokane	1	33.3
Evert	1	33.3
Seattle	1	33.3
<i>Total</i>	<i>3</i>	<i>100.0</i>

### ***STATE RESIDENCE = Maryland (0.9%)***

Baltimore	1	100.0
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### ***STATE RESIDENCE = Georgia (0.9%)***

Atlanta	1	100.0
---------	---	-------

### ***STATE RESIDENCE = Arkansas (0.9%)***

Gassville	1	100.0
-----------	---	-------

### ***STATE RESIDENCE = Missouri (0.9%)***

Kansas City	1	100.0
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### ***STATE RESIDENCE = Michigan (2.6%)***

Trevor City	1	33.3
N/A	2	66.7
<i>Total</i>	<i>3</i>	<i>100.0</i>

*N/A = no answer*

*Missing = 1*

## **Residences of Pactola Slip Holders**

***STATE RESIDENCE = South Dakota (98.0%)***

	<u>Frequency</u>	<u>Percent</u>
Rapid City	121	82.3
Hill City	2	1.4
Nemo	1	.7
Blackhawk	4	2.7
Spearfish	5	3.4
Lead	3	2.0
Ellsworth AFB	1	.7
Piedmont	4	2.7
Silver City	1	.7
New Underwood	1	.7
Deadwood	2	1.4
Boulder Canyon	1	.7
Brandon	1	.7
<i>Total</i>	<i>147</i>	<i>100.0</i>

***STATE RESIDENCE = Wyoming (0.7%)***

Gillette	1	100.0
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***STATE RESIDENCE = Colorado (0.7%)***

Denver	1	100.0
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***STATE RESIDENCE = Idaho (0.7%)***

Blackhawk	1	100.0
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*Missing = 0*

## **APPENDIX C**

Groups That Detract From Respondents' Enjoyment

Actions That Detract From Respondents' Enjoyment

**Sheridan Boater Contacts: Groups That Detract From Respondents' Enjoyment of the Lake and What Those Groups Do**

*(Of the total number of Sheridan boaters (52), 18 respondents answered these questions. Up to two responses were recorded for each respondent.)*

**Groups**

PWCs [10] (55.6%)  
Users in general [4] (22.2%)  
Boaters [3] (16.7%)  
Don't know [2] (11.1%)  
Loud users [1] (5.6%)  
Camp hosts [1] (5.6%)  
Reckless users [1] (5.6%)

**Actions**

Too close to shore/other boats [8] (44.4%)  
Carelessness [7] (38.9%)  
Don't follow rules [1] (5.6%)  
Loud [1] (5.6%)  
Too fast [1] (5.6%)  
Harass campers [1] (5.6%)  
Speeding in no-wake zone [1] (5.6%)

**Sheridan Non-Boater Contacts: Groups That Detract From Respondents'**  
**Enjoyment of the Lake and What Those Groups Do**

*(Of the total number of Sheridan non-boaters (110), 26 respondents answered these questions. Up to two responses were recorded for each respondent.)*

**Groups**

Loud/rude users    [8] (30.8%)  
PWCs                [5] (19.2%)  
Users in general    [4] (15.4%)  
Dogs on beach      [4] (15.4%)  
Boaters             [3] (11.5%)  
Partiers/drunks    [3] (11.5%)  
Campers            [2] (7.6%)  
Litterbugs          [1] (3.8%)

**Actions**

Loud                [9] (34.6%)  
Noise early in AM/late in PM    [4] (15.4%)  
Carelessness       [4] (15.4%)  
Used generators     [2] (7.6%)  
Too close to shore/other boats    [1] (3.8%)  
Littering           [1] (3.8%)  
Too fast            [1] (3.8%)  
Too many people    [1] (3.8%)  
Loud music          [1] (3.8%)

**Sheridan Slip Holder Contacts: Groups That Detract From Respondents'**

**Enjoyment of the Lake and What Those Groups Do**

*(Of the total number of Sheridan slip holders (28), 12 respondents answered these questions. Up to two responses were recorded for each respondent.)*

**Groups**

PWCs [9] (75.0%)  
Boaters [2] (16.7%)  
Waterskiers [1] (8.3%)  
Jet boats [1] (8.3%)  
Loud/rude users [1] (8.3%)  
Users in general [1] (8.3%)  
Youth [1] (8.3%)

**Actions**

Too close to shore/other boats [5] (41.7%)  
Don't follow rules [1] (8.3%)  
Big wakes [1] (8.3%)  
Too fast [1] (8.3%)  
Don't use flags [1] (8.3%)  
Speeding in no-wake zone [1] (8.3%)  
Reckless [1] (8.3%)  
Buzz around [1] (8.3%)  
Loud [1] (8.3%)  
Mooning [1] (8.3%)

**Pactola Boater Contacts: Groups That Detract From Respondents' Enjoyment of the Lake and What Those Groups Do**

*(Of the total number of Pactola boaters (73), 29 respondents answered these questions. Up to two responses were recorded for each respondent.)*

**Groups**

PWCs [19] (65.5%)  
Boaters [5] (17.2%)  
Users in general [3] (10.3%)  
Pariters/drunks [3] (10.3%)  
Discourteous boaters [2] (6.9%)  
Loud/rude users [1] (3.4%)  
Swimmers [1] (3.4%)  
Tubers [1] (3.4%)  
Reckless users [1] (3.4%)  
Litterbugs [1] (3.4%)  
Waterskiers [1] (3.4%)

**Actions**

Too close to shore/other boats [12] (41.4%)  
Carelessness [10] (34.5%)  
Too fast [8] (27.6%)  
Don't follow rules [2] (6.9%)  
Loud [1] (3.4%)  
Cliff jumping [1] (3.4%)  
Big wakes [1] (3.4%)  
Drink alcohol [1] (3.4%)  
Don't use flags [1] (3.4%)  
Littering [1] (3.4%)

**Pactola Non-Boater Contacts: Groups That Detract From Respondents' Enjoyment  
of the Lake and What Those Groups Do**

*(Of the total number of Pactola non-boaters (116), 32 respondents answered these questions. Up to two responses were recorded for each respondent.)*

**Groups**

PWCs [14] (43.8%)  
Boaters [7] (21.9%)  
Loud/rude users [5] (15.6%)  
Users in general [5] (15.6%)  
Litterbugs [2] (6.3%)  
Partiers/drunks [2] (6.3%)  
People making wakes [2] (6.3%)  
Campers [1] (3.1%)  
Mountain bikes [1] (3.1%)  
Young adults [1] (3.1%)  
Motorcycles [1] (3.1%)  
Mothers [1] (3.1%)  
ATVs [1] (3.1%)

**Actions**

Too close to shore/other boats [14] (43.8%)  
Loud [6] (18.8%)  
Carelessness [4] (12.5%)  
Noise early in AM/late in PM [3] (9.4%)  
Loud music [3] (9.4%)  
Littering [2] (6.3%)  
Ignore flags [2] (6.3%)  
Riding through campground [2] (6.3%)  
Too fast [1] (3.1%)  
Drink alcohol [1] (3.1%)  
Sexual harassment [1] (3.1%)  
Big wakes [1] (3.1%)  
Kids driving [1] (3.1%)  
Don't follow rules [1] (3.1%)  
Rude to kids [1] (3.1%)



**Pactola Slip Holder Contacts: Groups That Detract From Respondents' Enjoyment  
of the Lake and What Those Groups Do**

*(Of the total number of Pactola slip holders (150), 97 respondents answered these questions. Up to two responses were recorded for each respondent.)*

**Groups**

PWCs [77] (79.4%)  
Loud/rude users [13] (13.4%)  
Speed boats [11] (11.3%)  
Boaters [8] (8.2%)  
Youth [5] (5.2%)  
Jet boats [5] (5.2%)  
Users in general [4] (4.1%)  
Partiers/drunks [4] (4.1%)  
Kids activities on beaches [3] (3.1%)  
Waterskiers [3] (3.1%)  
Litterbugs [2] (2.1%)  
Swimmers [2] (2.1%)  
Discourteous boaters [1] (1.0%)  
Inattentive boaters [1] (1.0%)  
Pontoon renters [1] (1.0%)  
Reckless users [1] (1.0%)  
Fish/game/park rangers [1] (1.0%)

**Actions**

Too close to shore/other boats [32] (33.0%)  
Loud [17] (17.5%)  
Carelessness [13] (13.4%)  
Too fast [12] (12.4%)  
Reckless [12] (12.4%)  
Inconsiderate [12] (12.4%)  
Don't follow rules [11] (11.3%)  
Big wakes [7] (7.2%)  
Littering [5] (5.2%)  
Buzz around [4] (4.1%)  
Harass fishermen [3] (3.1%)  
Drink alcohol [1] (1.0%)  
Harass campers [1] (1.0%)  
Speeding in no-wake zone [1] (1.0%)  
Kids driving [1] (1.0%)  
Cut trolling lines [1] (1.0%)  
Bad language [1] (1.0%)  
Swim in the way [1] (1.0%)

## **APPENDIX D**

Respondents' Recommended Facility Improvements

Respondents' Recommended Management Services or Policy Changes

**Sheridan South Ramp Boater Contacts: Facility Improvements for Sheridan**

**[N=36 responses]**

*(Of the 23 respondents who answered this question, 2 (8.7%) said that no facility improvements were necessary.)*

**Bathrooms:** [7] (19.4%)

Bathrooms gross/stink [2] (28.6%)

Running water in bathrooms [1] (14.3%)

Bathrooms closer to lake [4] (57.1%)

**Showers:** [2] (5.6%)

Need to have showers [2] (100.0%)

**Docks:** [11] (30.6%)

New docks [4] (36.4%)

Another dock [7] (63.6%)

**Ramps:** [5] (13.9%)

Another boat launch [5] (100.0%)

**Slips:** [2] (5.6%)

More slips [2] (100.0%)

**Beaches:** [1] (2.8%)

More beach/sand area [1] (100.0%)

**Parking Areas:** [6] (16.7%)

More parking [6] (100.0%)

**Camping Areas:** [0] (0.0%)

**New Facilities:** [0] (0.0%)

**Services:** [1] (2.8%)

Off ramp at south marina [1] (100.0%)

**Environment:** [1] (2.8%)

More trash receptacles [1] (100.0%)

**General:** [0] (0.0%)

**Sheridan North Ramp Boater Contacts: Facility Improvements for Sheridan**

**[N=28 responses]**

*(Of the 29 respondents who answered this question, 7 (24.1%) said that no facility improvements were necessary.)*

**Bathrooms:** [8] (28.6%)

Running water in bathrooms [1] (12.5%)

Need sink in bathrooms [1] (12.5%)

Flush toilets [1] (12.5%)

Restrooms closer to lake [5] (62.5%)

**Showers:** [1] (3.6%)

Showers in bathhouse [1] (100.0%)

**Docks:** [6] (28.6%)

New docks [1] (16.7%)

Another dock [2] (33.3%)

Stabilize docks [1] (16.7%)

Bigger, better, wider docks [1] (16.7%)

Cushions on docks [1] (16.7%)

**Ramps:** [4] (14.3%)

Another boat launch [2] (50.0%)

Bigger launch [2] (50.0%)

**Beaches:** [0] (0.0%)

**Parking Areas:** [3] (10.7%)

More parking [2] (66.7%)

More boat parking [1] (33.3%)

**Camping Areas:** [0] (0.0%)

**New Facilities:** [2] (7.1%)

Restaurant [1] (50.0%)

Food to buy [1] (50.0%)

**Services:** [2] (7.1%)

More road access [1] (50.0%)

Slalom buoy's for skiers [1] (50.0%)

**Environment:** [0] (0.0%)

**General:** [2] (7.1%)

Dumpster stinks at location [1] (50.0%)

No wake area is too big [1] (50.0%)

**Sheridan Non-Boater Contacts: Facility Improvements for Sheridan**

**[N=153 responses]**

*(Of the 99 respondents who answered this question, 11(11.1%) said that no facility improvements were necessary.)*

**Bathrooms:** [69] (45.1%)

Bathrooms gross/stink [31] (44.9%)  
Running water in bathrooms [3] (4.3%)  
New Bathrooms [10] (14.5%)  
Better toilets [9] (13.0%)  
Bathroom is always broken [3] (4.3%)  
Bathroom closer to lake [2] (2.9%)  
Different sinks [2] (2.9%)  
Update the bathrooms [1] (1.5%)  
Flush toilets [4] (5.8)  
More faucets [1] (1.5%)  
Ammonia smell no good [1] (1.5%)  
Bathroom and showers need to be together [1] (1.5%)  
Need sink [1] (1.5%)

**Showers:** [31] (20.3%)

Showers closer to campgrounds [1] (3.2%)  
More showers [7] (22.6%)  
Need to have showers [20] (64.5%)  
Showers for beach [2] (6.5%)  
Showers need warm water [1] (3.2%)

**Docks:** [2] (1.3%)

Fishing Docks [1] (50.0%)  
Dock to walk on with no boats allowed [1] (50.0%)

**Beaches:** [6] (3.9%)

More beach area [3] (50.0%)  
More sand [3] (50.0%)

**Parking Areas:** [2] (1.3%)

Use day lot as overflow at night [1] (50.0%)  
Shade in parking area [1] (50.0%)

**Camping Areas:** [13] (8.5%)

Electricity at campground [4] (30.8%)  
Flatter campgrounds [1] (7.7%)  
Hook-ups [3] (23.1%)  
Bigger grills [1] (7.7%)  
Sites closer to water [4] (30.8%)

New Facilities: [12] (7.8%)

Power dump station [2] (16.7%)

Water slide [3] (25.0%)

Volleyball court [2] (16.7%)

Payphones [1] (8.3%)

Handrails [1] (8.3%)

Snow cone vendor [1] (8.3%)

Horseshoe pits [1] (8.3%)

Widen the roads [1] (8.3%)

Services: [1] (0.7%)

Prices too high [1] (100.0%)

Environment: [9] (5.9%)

Less weeds [3] (33.3%)

Remove thistles [1] (11.1%)

More trash receptacles [3] (33.3%)

Keep it natural [1] (11.1%)

Water is polluted [1] (11.1%)

General: [8] (5.2%)

General improvements/upkeep [5] (62.5%)

More trash receptacles [3] (37.5%)

**Sheridan Slip Holder Contacts: Facility Improvements for Sheridan**

**[N=25 responses]**

*(Of the 28 respondents who answered this question, 10 (35.7%) said that no facility improvements were necessary.)*

**Bathrooms:** [6] (24.0%)

- Better toilets [1] (16.7%)
- Cleaner/better bathrooms [3] (50.0%)
- Bathrooms closer to lake [2] (33.3%)

**Showers:** [1] (4.0%)

- Need to have showers [1] (100.0%)

**Docks:** [5] (20.0%)

- Improve docks [3] (60.0%)
- Docks get crowded [1] (20.0%)
- Night time lighting of docks [1] (20.0%)

**Ramps:** [0] (0.0%)

**Slips:** [2] (8.0%)

- Better slips [1] (50.0%)
- Stairs to slips on north side [1] (50.0%)

**Beaches:** [0] (0.0%)

**Parking Areas:** [1] (4.0%)

- More parking for slipholders with > 1 car [1] (100.0%)

**Camping Areas:** [0] (0.0%)

**New Facilities:** [1] (4.0%)

- Fish cleaning station [1] (100.0%)

**Services:** [6] (24.0%)

- Slalom buoy's for skiers [1] (16.7%)
- Dredge slip inlet [1] (16.7%)
- Better security [1] (16.7%)
- More places to fish offshore [1] (16.7%)
- Improve areas where boats can be beached [1] (16.7%)
- Fast boats leave fishing area [1] (16.7%)

**Environment:** [0] (0.0%)

**General:** [3] (12.0%)

- Clean up day use areas and shorelines [3] (100.0%)

**Pactola South Ramp Boater Contacts: Facility Improvements for Pactola**

**[N=46 responses]**

*(Of the 36 respondents who answered this question, 8 (22.2%) said that no facility improvements were necessary.)*

**Bathrooms:** [11] (23.9%)

Bathrooms gross/stink [4] (36.4%)  
New Bathrooms [3] (27.3%)  
Bathrooms closer to lake [1] (9.1%)  
Better bathrooms [1] (9.1%)  
More restrooms [2] (18.2%)

**Showers:** [0] (0.0%)

**Docks:** [9] (19.6%)

Another dock [3] (33.3%)  
Handicap access to docks [1] (11.1%)  
New docks [4] (44.4%)  
Bigger, better, wider docks [1] (11.1%)

**Ramps:** [6] (13.0%)

Another boat launch [6] (100.0%)

**Slips:** [0] (0.0%)

**Beaches:** [0] (0.0%)

**Parking Areas:** [5] (10.9%)

More parking [4] (80.0%)  
Area for trailers [1] (20.0%)

**Camping Areas:** [2] (4.3%)

Electricity at campground [1] (50.0%)  
Better fire rings [1] (50.0%)

**New Facilities:** [2] (4.3%)

New lake and not restrictions [2] (100.0%)

**Services:** [7] (15.2%)

Signs for loading and unloading [1] (14.3%)  
Information about fish species [1] (14.3%)  
More buoy's to mark hazards [5] (71.4%)

**Environment:** [0] (0.0%)



General: [4] (5.7%)

Prices too high [1] (25.0%)

General improvements/upkeep [2] (50.0%)

Clean up day use areas and shorelines [1] (25.0%)

**Pactola North Ramp Boater Contacts: Facility Improvements for Pactola**

**[N=34 responses]**

*(Of the 31 respondents who answered this question, 7 (22.6%) said that no facility improvements were necessary.)*

**Bathrooms:** [7] (20.6%)

Bathrooms gross/stink [5] (71.4%)

New Bathrooms [1] (14.3%)

Better toilets [1] (14.3%)

**Showers:** [0] (0.0%)

**Docks:** [7] (20.6%)

Fishing Docks [1] (14.3%)

Handicap access to docks [1] (14.3%)

New Docks [2] (28.6%)

Cushions on docks [1] (14.3%)

Another dock [1] (14.3%)

Ties on docks [1] (14.3%)

**Ramps:** [6] (17.6%)

Another boat launch [5] (83.3%)

Bigger launch [1] (16.7%)

**Slips:** [2] (5.9%)

Various slip sizes [1] (50.0%)

More slips [1] (50.0%)

**Beaches:** [0] (0.0%)

**Parking Areas:** [0] (0.0%)

**Camping Areas:** [3] (8.8%)

Electricity at campground [1] (33.3%)

Hook-ups [1] (33.3%)

More campsites [1] (33.3%)

**New Facilities:** [1] (2.9%)

Fish cleaning area [1] (100.0%)

**Services:** [5] (4.3%)

More road access [2] (40.0%)

More buoys to mark hazards [3] (60.0%)

**Environment:** [2] (5.9%)

Keep it natural [2] (100.0%)

General: [1] (2.9%)

Clean up day use areas and shorelines [1] (25.0%)

**Pactola Non-Boater Contacts: Facility Improvements for Pactola [N=141 responses]**

*(Of the 109 respondents who answered this question, 14 (12.8%) said that no facility improvements were necessary.)*

**Bathrooms:** [79] (56.0%)

- Bathrooms gross/stink [46] (58.2%)
- Running water in bathrooms [3] (3.8%)
- New Bathrooms [13] (16.5%)
- Better toilets [6] (7.6%)
- Update the bathrooms [3] (3.8%)
- Need sink in bathrooms [2] (2.5%)
- Flush toilets [4] (5.1%)
- There is no latch on the men's bathroom [1] (1.3%)
- More restrooms [1] (1.3%)

**Showers:** [5] (3.6%)

- Showers closed too early [1] (20.0%)
- Showers closer to campgrounds [2] (40.0%)
- More showers [1] (20.0%)
- Need to have showers [1] (20.0%)

**Docks:** [3] (2.1%)

- Fishing Docks [1] (33.3%)
- Handicap access to docks [1] (33.3%)
- New Docks [1] (33.3%)

**Beaches:** [11] (7.8%)

- More beach area [8] (72.7)
- More sand area [2] (18.2%)
- Need shade on beach [1] (9.1%)

**Parking Areas:** [9] (6.4%)

- More parking [9] (100.0%)

**Camping Areas:** [14] (9.9%)

- Larger campgrounds [2] (14.3%)
- Electricity at campground [4] (28.6%)
- Flatter campgrounds [1] (7.1%)
- Hook-ups [2] (14.3%)
- Sites closer to water [2] (14.3%)
- More campsites [2] (14.3%)
- Better fire rings [1] (7.1%)

New Facilities: [4] (2.8%)

Power dump station [1] (25.0%)

Cell phone tower [1] (25.0%)

More picnic tables [2] (50.0%)

Services: [6] (4.3%)

More road access [1] (16.7%)

More spots to pay [1] (16.7%)

Employees better organized [1] (16.7%)

Better wheelchair accessibility [1] (16.7%)

More buoy's out from shore [2] (33.3%)

Environment: [2] (1.4%)

Keep it natural [1] (50.0%)

More trash receptacles [1] (50.0%)

General: [8] (5.7%)

General improvements/upkeep [5] (62.5%)

Clean up day use areas and shorelines [2] (25.0%)

PWC too close to boats [1] (12.5%)

**Pactola South Slip Holder Contacts: Facility Improvements for Pactola**

**[N=68 responses]**

*(Of the 69 respondents who answered this question, 24 (34.8%) said that no facility improvements were necessary.)*

**Bathrooms:** [13] (19.1%)

Bathrooms gross/stink [2] (15.4%)

Better toilets [2] (15.4%)

Cleaner/better bathrooms [8] (61.5%)

More restrooms [1] (7.7%)

**Showers:** [0] (0.0%)

**Docks:** [22] (32.4%)

Stabilize docks [1] (4.5%)

Bigger, better, wider docks [11] (50.0%)

New Docks [5] (22.7%)

Improve docks [4] (18.2%)

Longer docks [1] (4.5%)

**Ramps:** [1] (1.5%)

Improve north boat ramp [1] (100.0%)

**Slips:** [8] (11.8%)

Better slips [6] (75.0%)

More slips [1] (12.5%)

Electric outlets for slips [1] (12.5%)

**Beaches:** [0] (0.0%)

**Parking Areas:** [0] (0.0%)

**Camping Areas:** [0] (0.0%)

**New Facilities:** [6] (8.8%)

Fish cleaning station [1] (16.7%)

New marina [1] (16.7%)

Repair shop [1] (16.7%)

Restaurant [1] (16.7%)

Full services [2] (33.3%)

Services: [17] (25.0%)

- More law enforcement [1] (5.9%)
- Better security [2] (11.8%)
- More lighting of marina and docks [3] (17.6%)
- Off ramp at south marina [1] (5.9%)
- More buoy's marking hazards [1] (5.9%)
- More no wake zones [2] (11.8%)
- Enforce no wake zones [1] (5.9%)
- Maintain lake water level [2] (11.8%)
- Signs for loading and unloading [1] (5.9%)
- Trailer storage for rent [1] (5.9%)
- Better walks [1] (5.9%)
- Better gas quality [1] (5.9%)

Environment: [0] (0.0%)

General: [1] (1.5%)

- North end folks are grumpy [1] (100.0%)

**Pactola North Slip Holder Contacts: Facility Improvements for Pactola**

**[N=99 responses]**

*(Of the 78 respondents who answered this question, 26 (33.3%) said that no facility improvements were necessary.)*

**Bathrooms:** [13] (13.1%)

- Bathrooms gross/stink [3] (23.1%)
- Better toilets [1] (7.7%)
- Flush toilets [2] (15.4%)
- Cleaner/better bathrooms [6] (46.2%)
- More restrooms [1] (7.7%)

**Showers:** [0] (0.0%)

**Docks:** [30] (30.3%)

- Bigger, better, wider docks [7] (23.3%)
- Another dock [3] (10.0%)
- New docks [6] (20.0%)
- Repair docks [10] (33.3%)
- Steps to docks [2] (6.7%)
- Upkeep on courtesy docks [1] (3.3%)
- Longer docks [1] (3.3%)

**Ramps:** [5] (5.1%)

- Another boat launch [2] (40.0%)
- Bigger launch [1] (20.0%)
- Another ramp on north side [2] (40.0%)

**Slips:** [8] (8.1%)

- More slips [1] (12.5%)
- Better slips [1] (12.5%)
- Lockers for slip holders [1] (12.5%)
- Easier access to slips [1] (12.5%)
- Stairs to slips on north side [2] (25.0%)
- North boat landing needs to be bigger [2] (25.0%)

**Beaches:** [4] (4.0%)

- More beach area [2] (50.0%)
- More beach line for swimming and boat parking [1] (25.0%)
- Eliminate gate at south beach [1] (50.0%)



Parking Areas: [17] (17.2%)

- More parking [11] (64.7%)
- More boat parking [1] (5.9%)
- Parking pass for slipholders with > 1 car [2] (11.8%)
- Specific parking for slipholders [2] (11.8%)
- No pay parking on west side [1] (5.9%)

Camping Areas: [1] (1.0%)

- More campsites [1] (100.0%)

New Facilities: [7] (7.1%)

- Full services [4] (57.1%)
- New Marina [1] (14.3%)
- More picnic tables [2] (28.6%)

Services: [12] (12.1%)

- Maintain buoy's [1] (9.1%)
- Better walks [2] (18.2%)
- Trailer storage for rent [1] (9.1%)
- Less no wake zones [1] (9.1%)
- More Forest Service patrolling [1] (9.1%)
- No-wake zone enforced [1] (9.1%)
- Boat security after Sept. 10 [1] (9.1%)
- Open more lake area [1] (9.1%)
- More light at marina and docks [1] (9.1%)
- Improve HW 385 exit [1] (9.1%)
- Better security [1] (9.1%)

Environment: [1] (1.0%)

- More trash receptacles [1] (100.0%)

General: [1] (1.0%)

- Facility improvements in general [1] (100.0%)

**Sheridan South Ramp Boater Contacts: Management Service and Policy Changes**

**Users Would Like to See at Sheridan [N=9 responses]**

*(Of the 22 respondents who answered this question, 14 (63.6%) said that no management/policy changes need to be made.)*

Rules enforcement/new rules: [1] (11.1%)

More patrol/lifeguards [1] (50.0%)

Information: [0] (0.0%)

Reservation System: [0] (0.0%)

Concessionaire: [6] (66.7%)

Locally run concessions [1] (27.3%)

More helpful/cheerful [2] (9.1%)

Host doesn't do his/her job [1] (9.1%)

Host harassing people [2] (27.3%)

Maintenance/facility improvements: [2] (11.1)

Soda pop machine [1] (12.5%)

Boat parking for campers [1] (12.5%)

Pricing: [0] (0.0%)

**Sheridan North Ramp Boater Contacts: Management Service and Policy Changes**

**Users Would Like to See at Sheridan [N=8 responses]**

*(Of the 27 respondents who answered this question, 21 (77.8%) said that no management/policy changes need to be made.)*

Rules enforcement/new rules: [4] (50.0%)

No wake area too large [2] (50.0%)

Speed zones [1] (25.0%)

Pass for all local reservoirs [1] (25.0%)

Information: [0] (0.0%)

Reservation System: [0] (0.0%)

Concessionaire: [0] (0.0%)

Maintenance/facility improvements: [4] (50.0)

Need fishing docks [1] (25.0%)

More bathrooms and showers [1] (25.0%)

Upgrade campground [1] (25.0%)

More trees on beach [1] (25.0%)

Pricing: [0] (0.0%)

**Sheridan Non-Boater Contacts: Management Service and Policy Changes Users**

**Would Like to See at Sheridan [N=35 responses]**

*(Of the 109 respondents who answered this question, 80 (73.4%) said that no management/policy changes need to be made.)*

**Rules enforcement/new rules:** [9] (25.7%)

More patrol/lifeguards [4] (44.4%)

Enforce quiet hours [2] (22.2%)

Outlaw dogs [2] (22.2%)

Campers should pay at loop [1] (11.1%)

**Information:** [1] (2.9%)

Notify users about changes [1] (100.0%)

**Reservation System:** [4] (11.4%)

Should have reservation system [1] (25.0%)

Better reservation system [2] (50.0%)

Campers should choose site [1] (25.0%)

**Concessionaire:** [10] (28.6%)

Provide more full-time jobs [1] (10.0%)

Nicer camp hosts [5] (50.0%)

More helpful/cheerful [2] (20.0%)

Get rid of concessions [1] (10.0%)

Stay open longer in season [1] (10.0%)

**Maintenance/facility improvements:** [5] (14.3%)

Grounds management [1] (20.0%)

Stop all the building [1] (20.0%)

Cleaner restrooms [3] (60.0%)

**Pricing:** [6] (17.1%)

Lower the cost for fishing licenses [2] (33.3%)

Reduce price as day goes on [1] (16.7%)

Lower cost [2] (33.3%)

Stop charging money [1] (16.7%)

**Sheridan Slip Holder Contacts: Management Service and Policy Changes Users**

**Would Like to See at Sheridan [N=11 responses]**

*(Of the 28 respondents who answered this question, 19 (67.9%) said that no management/policy changes need to be made.)*

**Rules enforcement/new rules:** [6] (54.5%)

Rules on harassment and playing on beach [1] (50.0%)

Remove Northern's [1] (8.3%)

Portable sticker for other vehicles [2] (8.3%)

Enforce emission and noise standards [1] (8.3%)

Polite rangers [1] (8.3%)

**Information:** [0] (0.0%)

**Reservation System:** [1] (9.1%)

First come, first serve campsites [1] (33.3%)

**Concessionaire:** [1] (9.1%)

Concession stand [1] (36.4%)

**Maintenance/facility improvements:** [3] (27.3)

Mark no wake area with buoy's [1] (12.5%)

More dumpsters available [1] (25.0%)

Buoys available [1] (12.5%)

**Pricing:** [0] (0.0%)

**Pactola South Ramp Boater Contacts: Management Service and Policy Changes**

**Users Would Like to See at Pactola [N=12 responses]**

*(Of the 36 respondents who answered this question, 26 (72.2%) said that no management/policy changes need to be made.)*

Rules enforcement/new rules: [2] (16.7%)

More patrol/lifeguards [1] (50.0%)

Fishermen allowed night use [1] (50.0%)

Information: [1] (8.3%)

Post signs [1] (100.0%)

Reservation System: [0] (0.0%)

Concessionaire: [2] (16.7%)

More helpful/cheerful [1] (50.0%)

Concession stands [1] (50.0%)

Maintenance/facility improvements: [6] (50.0)

No more docks [1] (16.7%)

Clean up garbage [1] (16.7%)

More dumpsters available [2] (33.3%)

Mark underwater hazards [1] (16.7%)

Camping at Jenny Gulch [1] (16.7%)

Pricing: [1] (8.3%)

Stop charging money [1] (100.0%)

**Pactola North Ramp Boater Contacts: Management Service and Policy Changes**

**Users Would Like to See at Pactola [N=7 responses]**

*(Of the 31 respondents who answered this question, 25 (80.6%) said that no management/policy changes need to be made.)*

**Rules enforcement/new rules:** [4] (57.1%)

More patrol/lifeguards [1] (25.0%)

Require minimum distance [1] (25.0%)

Require bright jetski colors [1] (25.0%)

Annual parking/boating pass program [1] (25.0%)

**Information:** [1] (14.3%)

Give maps with rules at entrance [1] (100.0%)

**Reservation System:** [0] (0.0%)

**Concessionaire:** [1] (14.3%)

Better uniforms [1] (100.0%)

**Maintenance/facility improvements:** [0] (0.0)

**Pricing:** [1] (14.3%)

Stop charging money [1] (100.0%)

**Pactola Non-Boater Contacts: Management Service and Policy Changes Users**

**Would Like to See at Pactola [N=39 responses]**

*(Of the 111 respondents who answered this question, 80 (72.1%) said that no management/policy changes need to be made.)*

**Rules enforcement/new rules:** [12] (30.8%)

- More patrol/lifeguards [6] (50.0%)
- Enforce quiet hours [1] (8.3%)
- Dogs need to be allowed on beach [1] (8.3%)
- More vehicles allowed at campsite [1] (8.3%)
- No ATV's, mountain bikes in campsite [1] (8.3%)
- Enforce rules [1] (8.3%)
- Stricter regulations on boats near swim area [1] (8.3%)

**Information:** [1] (2.6%)

- More surveys to see public opinion [1] (100.0%)

**Reservation System:** [3] (7.7%)

- Online reservation [1] (33.3%)
- Locals do reservations, not NYC people [2] (66.7%)

**Concessionaire:** [11] (28.2%)

- Nicer/new management [4] (36.4%)
- Nicer camp hosts [3] (27.3%)
- More helpful/cheerful [1] (9.1%)
- Host doesn't do his/her job [1] (9.1%)
- Stay open longer in the season [2] (27.3%)

**Maintenance/facility improvements:** [8] (20.5)

- Cleaner restrooms [1] (12.5%)
- Showers closer to campground [2] (25.0%)
- Snow cone stand [1] (12.5%)
- Further distances between campsites [2] (25.0%)
- Larger campsites [1] (12.5%)
- Area at beach just for campers [1] (12.5%)

**Pricing:** [4] (10.3%)

- Lower cost [3] (75.0%)
- Stop charging money [1] (25.0%)



**Pactola South Slip Holder Contacts: Management Service and Policy Changes Users**

**Would Like to See at Pactola [N=32 responses]**

*(Of the 70 respondents who answered this question, 42 (60.0%) said that no management/policy changes need to be made.)*

**Rules enforcement/new rules:** [17] (53.1%)

- More patrol/lifeguards [4] (23.5%)
- Fewer PWC's [1] (5.9%)
- Limit user numbers at busy times [1] (5.9%)
- Security provisions [1] (5.9%)
- Outlaw loud exhaust [2] (11.8%)
- Enforce rules [4] (23.5%)
- Polite rangers [1] (5.9%)
- Speed zones [1] (5.9%)
- Enforce flag rules [1] (5.9%)
- Portable stickers for other vehicles [1] (5.9%)

**Information:** [0] (0.0%)

**Reservation System:** [1] (3.1%)

- Locals do reservations, not NYC people [1] (100.0%)

**Concessionaire:** [6] (18.8%)

- Nicer/new management [1] (16.7%)
- Nicer camp hosts [1] (16.7%)
- Water toy rentals [1] (16.7%)
- Host doesn't do his/her job [1] (16.7%)
- Keep presence at a minimum [1] (16.7%)
- Better handicap accessibility [1] (16.7%)

**Maintenance/facility improvements:** [6] (18.8%)

- Stabilize docks [1] (16.7%)
- Demo stand [1] (16.7%)
- Mark low water areas [1] (16.7%)
- Maintain water level [1] (16.7%)
- Credit card operated fuel pump [1] (16.7%)
- Grounds maintenance [1] (16.7%)

**Pricing:** [2] (6.3%)

- Lower camping fees [1] (50.0%)
- Cheaper slip prices [1] (50.0%)

**Pactola North Slip Holder Contacts: Management Service and Policy Changes Users**

**Would Like to See at Pactola [N=35 responses]**

*(Of the 77 respondents who answered this question, 50 (64.9%) said that no management/policy changes need to be made.)*

**Rules enforcement/new rules:** [17] (48.6%)

- More patrol/lifeguards [3] (50.0%)
- Fewer PWC's [1] (8.3%)
- Security provisions [1] (8.3%)
- Outlaw loud exhaust [1] (8.3%)
- No wake area is too big [1] (8.3%)
- Portable stickers for other vehicles [2] (8.3%)
- Use of fines [2] (8.3%)
- Slip holder guests not have to pay fees [3] (8.3%)
- Supervise marina [1] (8.3%)
- Bigger fines for littering [1] (8.3%)
- Restrict large boats [1] (8.3%)

**Information:** [1] (2.9%)

- Lake etiquette information [1] (100.0%)

**Reservation System:** [0] (0.0%)

**Concessionaire:** [5] (14.3%)

- Nicer/new management that know dock rules [1] (36.4%)
- Nicer camp hosts [1] (27.3%)
- Concession stands [1] (9.1%)
- Hosts do a good job [1] (9.1%)
- Concessions run by locals [1] (27.3%)

**Maintenance/facility improvements:** [11] (31.4)

- Mark low water hazards [1] (12.5%)
- Cleaner restrooms [1] (25.0%)
- New docks [2] (12.5%)
- Open more lake area to public [1] (25.0%)
- More parking for slipholders [3] (12.5%)
- Bigger boat ramp [1] (12.5%)
- Gov. money to enhance facilities [1] (8.3%)
- Remove gate at Pactola Point [1] (8.3%)

**Pricing:** [1] (2.9%)

- Yearly pass [1] (100.0%)

## **APPENDIX E**

### Respondents' Additional Comments

**2001 Mystic Lakes Visitor Survey**  
**Additional Comments or Recommendations for Future Management**

**SHERIDAN LAKE**

**[BOATERS – SOUTH RAMP]**

- (sb714001) Good experience.
- (sb714002) Why was the road around the point/driving path around the lake shore closed?
- (sb714003) The lake needs to be closer to Rapid City and have a reservoir closer to town.
- (sb714004) Have more open campsites for locals and only reserve for a limited number. The firewood costs too much.
- (sb804001) It was too hot.
- (sb816004) It is a beautiful area and setting.
- (sb828002) Tell the rain to go away!
- (sb903002) The fees kind of limit the usage.
- (sb903003) The lake needs better fishing.
- (sb903004) Locals shouldn't have to pay a fee.

**[BOATERS – NORTH RAMP]**

- (sb903006) The bathrooms need to lock on time.
- (sb903008) The location of the dumpster needs to be changed, it's too close to the dock area and is smelly.
- (sb903009) The \$3.00 fee for boat launching is enough. The camping outhouse is smelly and filthy.
- (sb903015) There should be locally owned concessions, not out of state ones.
- (sb903018) Lake should be a Northern/Walleye lake.

[NON-BOATERS – CONTACTS AT CAMPGROUNDS]

- (so626001) We are interested if there was an enforced speed limit because of young children.
- (so626002) Very happy with the campsites.
- (so626003) There needs to be showers at the campsites. But we love it here!
- (so630004) It's a nice place.
- (so630006) The campground needs more "remote" campsites and more informative hosts.
- (so706007) There needs to be a phone available in case of emergencies!!
- (so718003) The camp host was kind of rude and not very helpful.
- (so718008) The campsites need electricity.
- (so724002) The camp host didn't come and talk to us.
- (so724003) The showers at the beach should have solar panels for heating.
- (so724004) We were wondering why the beach didn't get tilled? There are few hot showers, even when you have to pay for them. The water smells terrible -- very full of chlorine -- and kind of skunky.
- (so724005) We thought that it would be quieter, especially on the weekends, since Pactola is so noisy.
- (so724011) We would like better access to showers, and to see showers at the beach house. The Northerns should be killed and the lake should be stocked with other fish. Get generators. The parking is too strict and attendants need to be more pleasant when confronting people. There needs to be general parking all along the lake.
- (so724014) Keep the lake beautiful and keep up the good work. The costs keep going up, but we can't see where the money goes.
- (so724016) The firewood needs to be less expensive.
- (so724017) There needs to be better access to the showers.
- (so729001) It's a very beautiful place!
- (so805007) It's a beautiful area of the world.

- (so805009) The price is pretty good.
- (so811008) Open Calumet point again.
- (so812008) We're happy to be here.
- (so817001) It's a very nice place.
- (so817003) We can't wait to move here and spend more time at the lake!
- (so817005) Is the price ever going to go down?
- (so817006) What a great place! We love it here!
- (so823003) We love it here!
- (so829004) The speed limit needs to be enforced, some people have young children.
- (so910001) Good job managing the campsites.
- (so910002) There needs to be a payphone in area on the south side.

[NON-BOATERS – CONTACTS ON SHORE]

- (so706003) There needs to be concession stands.
- (so706006) Its nice and peaceful, we love it here.
- (so724007) The swimming area has lots of seaweed and dead fish. The dog rule needs to be enforced.
- (so724019) There needs to be camping along the lake shore, and Calumet point should be reopened.
- (so811005) Get rid of the seaweed in the beach area.
- (so811004) We enjoy coming here.
- (so811010) Something needs to be done about the seaweed.
- (so812002) We are happy to be here.
- (so817004) It was nice to have the beach to ourselves.

[SLIP HOLDERS]

- (sh5) The management was very helpful when we had trouble with the boat.
- (sh7) There is a large growth of weeds in the water at the boat slip that needs cutting. We usually push the boat out several feet before engaging the motor to get through the heavy growth.
- (sh8) I have been boating at Sheridan Lake for over five years and have never experienced overcrowding or seen any visible adverse affects boating has on this lake. Primarily because this lake is continuously fed from runoff from springs and various other water sources.
- (sh12) Keep it a pan-fish and bass lake. It's nice to have a lake in the hills where you can catch something besides trout.
- (sh16) The current marina operators (Karen & Jeff Anderson) are great to work with.
- (sh18) The costs of the slips are too high.
- (sh19) Clean up the beaches! I pay for a slip to use it (Q-15).
- (sh21) The campground needs an RV dump station.
- (sh22) We enjoy camping and would do it more if the facilities were better.
- (sh25) We enjoy boating and fishing at Sheridan Lake. Just wish it could go back to the good old days of Trout, Perch, Bass, and Crappie! No rough fish (bullheads & northerns).
- (sh32) Sheridan Lake is a small lake suitable for canoeing, kayaking, and sailing, motorized watercrafts should be limited.
- (sh33) Very good.
- (sh36) The lake needs to be dredged of the weeds which are rapidly taking over the lake and are dangerous for swimmers.
- (sh40) The handicap camp areas need to be accessible to/from the water.
- (sh42) Only a few users bother me-it is a great lake. Only a few act like "they" own the lake.

**2001 Mystic Lakes Visitor Survey**  
**Additional Comments or Recommendations for Future Management**

**PACTOLA RESERVOIR**

**[BOATERS – SOUTH RAMP]**

- (pb627003) We would really like to see the fee gone. “We have state parks for that!”
- (pb703001) There isn’t enough lake access.
- (pb721006) There needs to be more patrol officers.
- (pb721008) There needs to be more boat launches and campsites.
- (pb721009) The cost is too much for the existing facilities. The camping area needs to be kept cleaner (*e.g.*, crates, toilets).
- (pb721010) We were very satisfied. There needs to be more buoys to mark the rocky areas.
- (pb802001) There needs to be more fishing docks.
- (pb802002) The buoys need to be moved closer to land.
- (pb808001) It’s gorgeous here.
- (pb808002) Make Jenny Gulch group camping, like Bear Gulch is.
- (pb826003) The buoy needs to be moved closer to shore.
- (pb826004) We love it here and we’ll be back!
- (pb826005) It’s beautiful! What a wonderful place to come and stay!
- (pb901003) There should be dumpsters in the Jenny Gulch area.
- (pb901004) Mark the underwater hazards.
- (pb901007) The lake needs to be bigger.
- (pb901008) Decrease the cost of a Day Use permit.
- (pb901018) Make more camp sites. Build another lake. The picnic areas need to be more like Jenny Gulch. There should be a different and larger parking area to the south.



- (pb901019) Please post etiquette signs: maybe five important rules of etiquette and no children swimming on/at docks. Mark the shallow spot at the south boat dock.
- (pb901020) Do not expand or develop any more in the lake area, it is at its maximum capacity, recreation-wise.
- (pb901022) It's a great place. Do not develop more of the area, we come from Montana twice a year for the lake and campground.

[BOATERS – NORTH RAMP]

- (pb627002) The management needs to be trained in handling and keeping boats secure, so that no damage happens. We have provided the Forest Service with contracts, rules and websites from other facilities.
- (pb715004) The Forest Service Rangers shouldn't be wearing guns. There aren't any crimes on the water that are that big.
- (pb715006) Mark the low spots!! There needs to be electricity at the campsites.
- (pb719002) There is a shale reef by the South Boat Dock, it is outside the buoys and it needs to be marked.
- (pb719004) You should be able to keep your daily tickets, and after accumulating \$20 (the cost of an annual pass), you should be able to turn them in for an annual pass.
- (pb721002) It's good to have no cabins around the lakes. There needs to be more education for skidoos.
- (pb721003) Paying to get in is good.
- (pb721007) The "no wake" zone isn't big enough.
- (pb726001) There should be fines placed on the people who litter and those that drink. The PWC's leave a film on the water while they are moving.
- (pb802003) Keep it the way that it is – beautiful.
- (pb802004) We love it here, we'll be back!
- (pb802005) Are there any docks you can fish off of?
- (pb810001) There needs to be more fish.
- (pb810002) There shouldn't be an entry fee.

(pb810003) The restrooms need to be closer to the docks.

(pb814003) It's a nice place.

(pb826002) Keep things the way they are.

(pb901014) Keep the area cleaner.

[NON-BOATERS – CONTACTS AT CAMPGROUNDS]

(po628003) Advertise for out-of-state people, possibly in a AAA book.

(po628010) The water quality is bad, the water is brown. There needs to be people at the booth earlier than 10am. We were very dissatisfied by the hosts and litter.

(po704008) There needs to be a faucet with running water in the bathrooms, it doesn't even have to be warm, just have it for sanitary purposes.

(po722005) Don't develop the lake area anymore.

(po722007) There needs to be more parking, campsites and trash receptacles.

(po727008) The campsite grill was dirty.

(po803001) It's a very beautiful place.

(po803007) There needs to be bigger campsites, so that bigger RV's can fit there too.

(po803008) I love the shower house.

(po809004) There needs to be RV hook ups.

(po815003) We love it here, it's beautiful.

(po815006) Just leave it the way it is, it's so nice here.

(po827002) We love the bath house.

(po827003) Electricity would be nice. It's beautiful here, we love it.

(po902016) We were trying to have a family reunion and I swear the management must be the Gestapo.

(po908006) Showers would be nice.

(po908007) Before the concessionaire, the Forest Service ran it just fine. Ty puts up the “full” sign before it’s full.

[NON-BOATERS – CONTACTS ON SHORE]

(po628008) Put in more picnic areas, and road accessibility at more points. Put the money to use. Why can’t the area in general open earlier?? Keep things open longer. Get more people to check people in the field, less administration.

(po628011) Put a sign in to say that the gate is locked at Bear Gulch. Everyone needs to have access, right now it is a “Rich Man’s Campground.”

(po628013) There is a lot of litter.

(po704002) It’s very clean.

(po704004) The B Loop should be highly developed sites, with a dump site. You need to double the size of the swimming area. The sand and rocks need to be moved off of the surface of the road. There needs to be more slips. Jenny Gulch was really dirty. We need a place to “enjoy ourselves.” The south ramp needs to be finished, so that there is more parking available.

(po704005) We had a hard time finding a place to buy a season pass. There isn’t enough parking. There was way more litter this year. There needs to be more picnic grounds, to spread the people out. The bathrooms smell bad.

(po710004) Where is the sun?

(po716008) It’s a very nice place.

(po722009) The bathrooms smell bad. You shouldn’t be allowed to pull a tube behind a Jet Ski. There needs to be a bigger boat ramp.

(po722010) There needs to be a handicap accessible picnic area. There are too many weeds in the water.

(po722012) Other people need to start acting responsibly.

(po722013) Good job.

(po722014) There needs to be better shelter/cover.

(po727002) It’s a beautiful place, we had a great time.

(po727003) There needs to be more parking. I wish it was back to the old way.

- (po727004) Find a way to maximize both parking and use.
- (po803004) I love the Black Hills. There needs to be more parking at the beach.
- (po902001) Either the toilets need to be cleaned, or there needs to be flush toilets.
- (po902026) There should be asphalt/cement ramps to the docks, beach, water, picnic areas and bathrooms (make it handicap accessible).

[SLIP HOLDERS – SOUTH]

- (ps3) The lake is impacted by too many boats on very few dams for short time. Restrictions aren't the answer, enforcement of safe boating is.
- (ps4) Don't change the water level so often.
- (ps6) Perhaps issuing "1<sup>st</sup> time warnings" with education pamphlets would improve the "no wake" problem. I was passed that day by two different boats within the slip area. They were going way too fast and were not using their horns.
- (ps8) Some people come tearing along the docks and when you motion them to slow down and say "this is a 'no wake' zone", they curse at us and say that we don't own the lake, then on the way out from the marina they try harder to rough the boats up in the docks.
- (ps10) Open the south beach area or Pactola Point all year. Take down the gate.
- (ps11) Widen the road to allow more parking for the beach, clean up and add new sand to the beach and enlarge the sand area.
- (ps14) Other than the inconvenience of making reservations for camping at pactola every thing is perfect there. We would be very happy campers to have it back the way it used to be.
- (ps15) There needs to be more parking.
- (ps18) I love it the way it is.
- (ps22) Camping is overcharged for the services you get. The shorelines need to be cleaned up by the Forest Service.
- (ps29) Management of Marinas and associated facilities and the campgrounds should be local, *i.e.*, not out-of-state persons or corporations.
- (ps33) Keep it about where it is. It's a great lake and we enjoy it every time out. Thanks.

- (ps39) Pactola is a very beautiful lake and we enjoy it very much. For the most part boaters are respectful and courteous.
- (ps40) Since slipholders pay a premium to keep boats there, maybe a chance to reserve campsites or day use areas would be good.
- (ps43) I think we pay too much money for camping with no hook-ups. Better orientation for the campground hosts/managers in regards to reservations, etc.
- (ps46) The campground hosts this year aren't very nice, always seem to be in a bad mood. Prices are too high and the \$8.00 fee for reservations is too high. At other campgrounds in the hills it is \$13.00 to camp and no reservation fee. Please call me to discuss this. Rick Edelen 787-7525
- (ps47) There should be boat camping, with restrooms available on shore.
- (ps48) The costs of campsites go up with not much improvement. We would like a Sunday afternoon fee for locals to not have to pack up at noon. When firewood is left at the fire grill it should not be picked up by "hosts" to be sold again. The hosts should be "at all times" kind and caring, they are not little Gods because they are "hosts." As we get older we generally get crankier. The boaters/campers are there to have fun and don't need a bunch of rules shoved down their throats.
- (ps59) The people are very nice.
- (ps60) Beautiful lake, but it must be maintained.
- (ps61) The DNR needs to enforce wake rules with stronger enforcement. Make boaters and wave runner users take a safety course before using the lake.
- (ps64) Campgrounds with hook-ups for RV's tend to be noisy.
- (ps66) Pactola is not a very big lake and it gets crowded fast. If everyone had boating experience and courtesy it would help. The lake is not policed enough by the Fish & Game Service. People enjoy littering the lake and shoreline, especially with beer cans. People that rent pontoons are not properly informed of what a "no wake" area is, or they are not told to go slow, if you see a wave behind your boat, you are going too fast.
- (ps74) There needs to be better management of visitors off shore that are littering, drinking alcohol and that cliff dive off the rocks.

- (ps75) We used to camp at Pactola every weekend, but now we get a better deal at private campgrounds.
- (ps87) The operators of the facility could use some hospitality training.
- (ps90) Have a volunteer clean-up day, especially for the shore and underwater. Preferably for disabled vets and purple heart holders.
- (ps91) Leave it as it is.
- (ps94) There needs to be more and better slips at the marina. The slips are too narrow for two boats.
- (ps97) I dislike the reservation system for camping. I would like to be able to call Pactola for a reservation. It should not matter if you're in a campsite that is paid for. The system now has very little leeway if you want to camp Friday/Saturday. You need to make advance reservations or physically go to Pactola on Thursday to camp.
- (ps98) There needs to be more patrolling by Game Wardens on weekends. Skier flags should be required.
- (ps101) The boat trailer parking lots seem to self control the boater access. PWCs are fine if the operators follow common sense boatmanship.
- (ps103) The boat dock prices are too high! Our summer is short and \$400 plus is a lot of money for four months.

[SLIP HOLDERS – NORTH]

- (pn3) I feel the Fish and Game should be more visible to ensure the rules are followed by all.
- (pn4) It seems to me the USFS personal should patrol & be more obvious on weekends – back in the cove as well as in the main part of the lake – I didn't see any sign of one on Sunday, and there were a lot of reckless watercraft operators that day.
- (pn5) The toilet situation really needs to be improved.
- (pn10) The campground needs new management. Currently they are very rude and unprofessional. The managers strongly decrease our desire to camp at Pactola.
- (pn13) Pactola is one of the most beautiful lakes in the Black Hills, and it is normally managed very well.

- (pn14) The less involvement in management of Pactola by the Forest Service, the better.
- (pn30) There needs to be more campsites closer to shore.
- (pn31) Slipholders should have first priority on crowded days. If parking is not available, or if there might not be enough spots, slipholders should be allowed to park and use their boats. We are paying to have them there for our use.
- (pn32) I currently feel that Pactola is well managed.
- (pn36) I like the fact that someone is watching and caring for our boats when we are not there.
- (pn37) The management of North Pactola is excellent.
- (pn38) This is a great lake. Please don't restrict access to the point where families can no longer "spontaneously" use the lake as they desire. Restricted use would be a nightmare.
- (pn39) We would like to see modern camp facilities. In 20 years, prices continue to rise, but facilities don't.
- (pn42) There are few lakes here in the Hills. In the future boat management will be needed.
- (pn44) Limit the over control of this area, it's not needed.
- (pn46) The doors and gangplanks need to be repaired.
- (pn54) We camp a lot and RV hookups are needed, especially when we pay the same amount for a site without hookups and others do for completely developed sites. There also needs to be one sandy beach to go to.
- (pn56) There should be better lighting at night, and a bigger marina dock.
- (pn59) Slip holders should not have to pay entrance fees to access their boats if they are driving a different vehicle with no park sticker on it, since we have already paid \$420+.
- (pn60) Get someone like myself out there to manage the facilities. The campgrounds are unorganized; there needs to be a local number to call for reservations; the price is too high; there needs to be more campsites and bathrooms. There needs to be someone who really cares about how our lakes are being managed.

- (pn65) Pat & Ernie are doing a fine job at the North Marina, with the exception of the store prices.
- (pn67) Stock the lake with something other than trout, more bass, pike, etc.
- (pn74) Get rid of the obnoxious, loud boats.
- (pn75) In regards to the campgrounds either more sites or a better reservation system are needed. We have made several reservations for a specific site, were told it was full, and then saw it sit empty the entire time.
- (pn77) The cost of campsites is too high for the quality of the sites. The bathrooms are really poor.
- (pn84) Having tie-ups at the camping areas, so that you could leave the boat by the campsites instead of running back to the docks, would lessen congestion traffic.
- (pn85) I think that boater safety courses should be required for all operators, there also needs to be better enforcement and more encouragement.
- (pn87) In my opinion Pactola seems to be very well maintained, managed and patrolled. The number of boats on the lake during weekends and holidays is high, but not so much so that limiting the numbers is necessary. I for one would strongly oppose this type of regulation.
- (pn93) I believe all primary boats owners should have to take a Rules of Boating and Safety course. Being a retired Navy person, I think that knowing the difference between Port & Starboard, and Fore & Aft is essential.
- (pn95) The population will double in 10 years, we will need additional lakes in the Black Hills to support demand for combined water supply and recreation. Pactola, Sheridan and Deerfield are limited by size. Tourism is the largest business in the area, so the demand for camping will increase too.