

Comparative Analysis of Madison River Recreation Use

Supplement to the 1994-95 Missouri Madison Recreation Survey

October 1994 - September 1995

Submitted to
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Technical Completion Report 96-1a

March 1996

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Preface

This report compares the characteristics of recreation use on the Madison River. This report is one of four separate documents from the 1994-95 Missouri Madison Recreation Survey. The other three are:

Technical Completion Report 96-1. The 1994-95 Missouri Madison Recreation Survey: Results of the Study. Institute for Tourism and Recreation Research, The University of Montana, Missoula, MT 59812.

Technical Completion Report 96-1b. Tables of Visitor Characteristics by Recreation Site. Institute for Tourism and Recreation Research, The University of Montana, Missoula, MT 59812.

Technical Completion Report 96-1c. Visitor Comments by Recreation Site. Institute for Tourism and Recreation Research, The University of Montana, Missoula, MT 59812.

Introduction

This comparative analysis examines the characteristics of recreational use on the Madison River as part of the 1994-95 Missouri Madison Recreation Study. Recreation sites from Hebgen Reservoir to Three Forks are aggregated into four groups. These are: the Hebgen Reservoir sites, the upper Madison River sites, the Ennis Reservoir sites, and the lower Madison River sites.

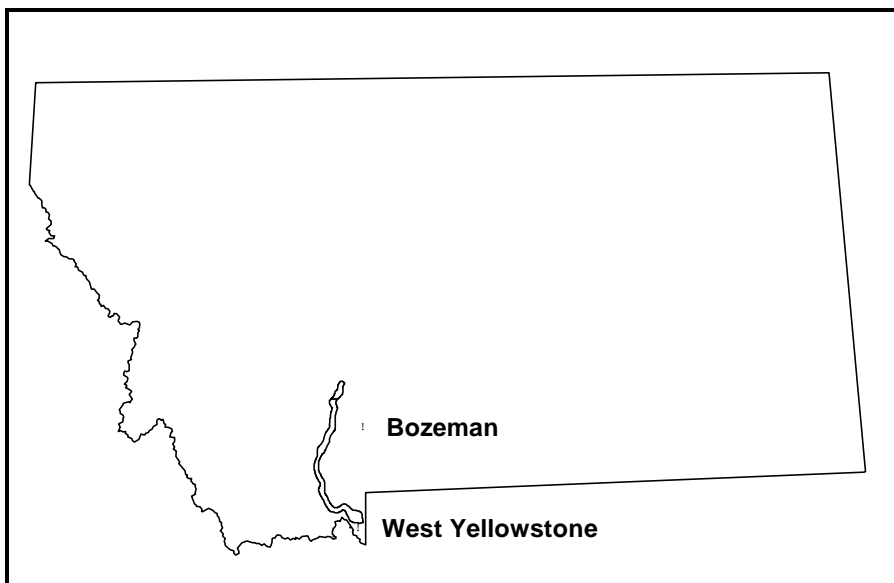
The 1994-95 Missouri Madison Recreation Study was a year-round effort which began in September 1994 continuing through September 1995. This report summarizes the data collected during the winter (October 1994 through March 1995) and summer (April 1995 through September 1995) seasons for each of the four regions.

For a complete discussion of the survey design, methodology, and results of the full survey, the reader is directed to the 1994-95 Missouri Madison Recreation Study, Technical Completion Report 96-1, Institute for Tourism and Recreation Research, The University of Montana, Missoula, MT 59812.

Study Area

The area under study includes the major recreation sites contained within the Madison River Section of the Missouri Madison Comprehensive Recreation Planning Corridor shown in Figure 1. The Madison River runs from Hebgen Reservoir near Yellowstone National Park in southwest

Figure 1. The Madison River Section of the Missouri Madison Planning Corridor.



Montana to its confluence with the Jefferson and Gallatin Rivers forming the Missouri River. The planning corridor then follows the Missouri River to Fort Benton, Montana. There are approximately 150 recreation sites within the planning corridor. Ninety nine of these sites were sampled as part of the 1994-95 Missouri Madison Recreation Study.

ITRR conducted surveys year-round on the reservoir sites. Various public agencies conducted the surveys on the river sites during the majority of the summer season. Identical survey instruments and similar methodologies and sampling frameworks were applied to both the reservoir and river sites. There were 40 reservoir sites sampled during the winter season (October 1994 through March 31, 1995) and 65 reservoir sites sampled during the summer season (April 1, 1995 through September 30, 1995). Figures 1 through 6 show the sites sampled for each season in each of the four regions.

Recreation Sites in this Analysis

This analysis compares recreation use characteristics between four regions of the Madison River. Each of the two reservoirs (Hebgen and Ennis) form a region as does the upper Madison River sites above Ennis reservoir and the lower Madison River sites below Ennis reservoir.

Figure 3. Upper Madison River Sites.

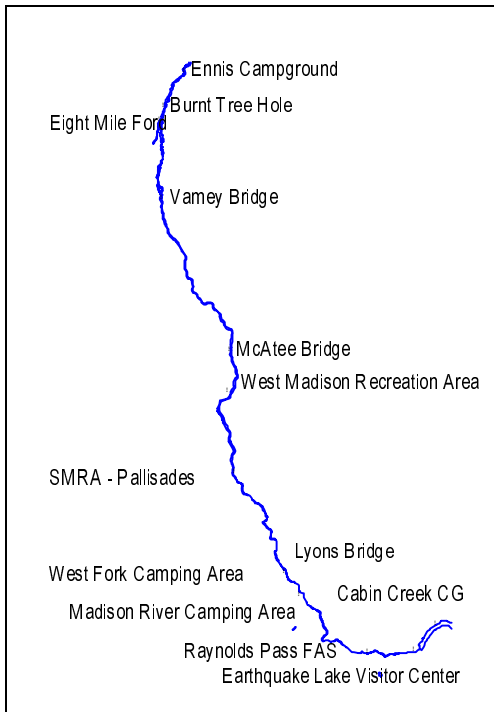
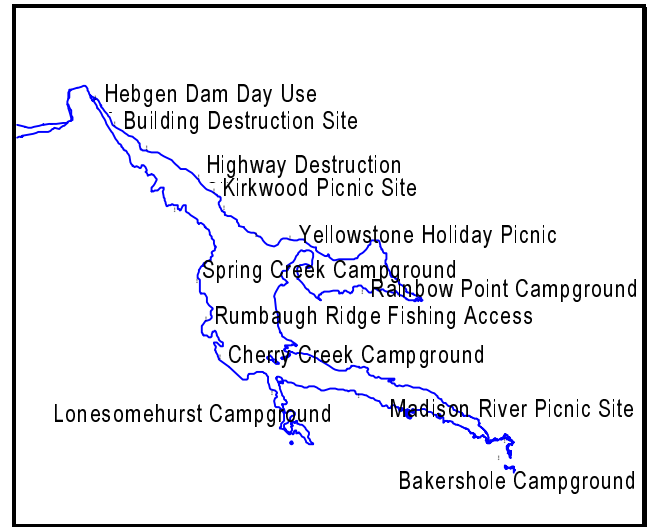
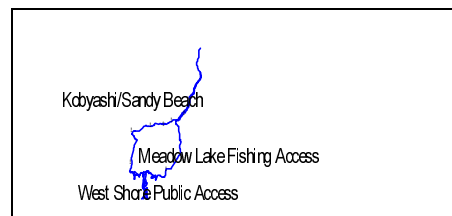


Figure 2. Hebgen Reservoir Sites Sampled.



The sites include the principal state, federal, and privately owned recreational facilities located on the two reservoirs and on the Madison River. The Hebgen reservoir sites are shown in Figure 2, the upper Madison sites in Figure 3, the Ennis reservoir sites in Figure 4, and the lower Madison River sites are shown in Figure 5.

Figure 4. Ennis Reservoir Sites.

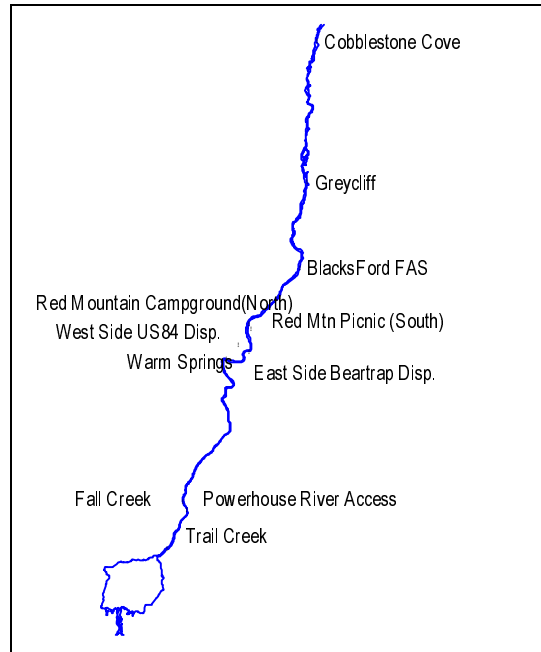


Survey Limitations

All survey designs have limitations that define the interpretation of the data. The 1994-95 Missouri Madison Recreation Study has the following limitations:

1. The data shown reflect the responses of only those visitors in the study. The sample may not reflect the responses of other users not included in the study.
2. The data represent only those people who visited the reservoir sites during the period from October 1994 to September 1995 and the river sites from late May 1995 to early September 1995.
3. Because of survey limitations, the same questions were asked at all sites even though they may not have been appropriate at each site. In some instances, this procedure may have produced responses that were inappropriate for sites that do not exhibit the characteristics necessary to answer certain questions.

Figure 5. Lower Madison River Sites.



Results

The following tables summarize the results of the 1994-95 Missouri Madison Recreation Survey for the four regions shown above. The tables are numbered to correspond with the tables contained within the main report. The results from each of the four regions are shown in the columns of each table. Comparisons with ROS class, larger survey regions and individual sites can be made by comparing the tables in this report with those in the other reports summarizing the 1994-95 Missouri Madison Recreation Survey.

For a complete discussion of the results contained within each of the tables, the reader is directed to the 1994-95 Missouri Madison Recreation Study, Technical Completion Report 96-1, Institute for Tourism and Recreation Research, The University of Montana, Missoula, MT 59812.

Total Expenditures From Recreational Use of Surveyed Madison Sites

Visitors to the corridor spent a considerable amount of money in the surrounding towns and recreation facilities. In addition, while enroute to the corridor, many visitors bought gas, groceries and retail purchases outside the planning region. Visitors were asked to record all trip expenditures made in Montana. Expenditures made outside the region do not directly generate economic activity within the planning region. Therefore, the total expenditures from recreational use within the corridor are based solely on expenditures that occurred within the corridor.

Visitor expenditure information was collected as part of the visitor survey. Average group trip expenditures for each region were calculated for the winter and summer season. Total expenditures for each region and season were then calculated by multiplying the average group trip expenditure by estimated use levels for each region and season.

Average group expenditures were estimated from the survey data for each region by season. Respondents recorded all trip expenditures and locations during their trip in Montana. Categories given were: food and drinks, motels and campgrounds, gas and transportation costs, guides or outfitters, licenses or entrance fees, retail goods and all other expenditures that did not fit the above list. In addition, visitors were asked to record the location by listing the town where each expenditure was made.

Several adjustments were made to the average trip expenditures to better reflect the recreational use of corridor resources. Expenditures made outside the corridor were eliminated so as not to overestimate spending levels within the corridor. Another adjustment was made to eliminate overestimating visitor expenditures from respondents visiting multiple sites during their trip. As many visitors may have stayed at more than one site during their trip, it would be inappropriate to attribute their total trip cost to the site where they were sampled. Total trip costs were adjusted by the proportion of total trip spent at the survey site. As an example, a visitor may only stay one night at a site in the corridor during a one week camping trip. If they spent \$500 during that trip, only 1/7th of their expenditures should be allocated to that site. Adjusted average trip expenditures by season and region are shown in Table 21.

Adjusted average group trip expenditures were then multiplied by the use levels (Table 3, 1994-95 Missouri Madison Recreation Survey: Results of the Study, TCR 96-1) for each region and season to derive total expenditures from recreational use of surveyed sites within the corridor for the year. These are shown in Table 22.

Table 1. Visitor Characteristics by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
Age of respondent	45	40	48	44
Sex of respondent				
Male	76.9%	66.9%	69.8%	54.7%
Female	23.1%	33.1%	30.2%	45.3%
Education of respondent				
Elementary	.0%	.8%	.8%	.0%
High school	12.6%	22.6%	26.5%	23.2%
College	39.5%	43.6%	49.2%	51.8%
Post grad	47.9%	33.0%	23.5%	25.0%
Occupation of respondent				
Professional	42.1%	31.8%	27.1%	31.6%
Managerial	11.3%	12.8%	10.0%	12.3%
Sales	5.7%	5.2%	4.7%	1.8%
Clerical	1.9%	3.8%	4.0%	3.5%
Craftsmen	5.9%	9.5%	6.7%	7.0%
Operatives	2.1%	2.3%	3.0%	.0%
Transport	1.3%	2.3%	1.7%	8.8%
Laborers	.8%	2.7%	1.4%	.0%
Farmers	.6%	.9%	1.3%	3.5%
Service workers	2.3%	4.7%	3.7%	5.3%
Student	4.0%	6.1%	2.9%	3.5%
Housewife	2.3%	2.7%	3.7%	3.5%
Retired	19.3%	14.0%	28.6%	19.3%
Armed Services	.4%	.7%	.4%	.0%
Unemployed, disabled	.0%	.7%	.6%	.0%
Household income before taxes				
less than \$10,000	5.2%	10.2%	4.3%	9.4%
\$10,000 to \$19,999	7.0%	9.2%	7.3%	11.3%
\$20,000 to \$29,999	9.0%	15.6%	12.6%	15.1%
\$30,000 to \$39,999	11.9%	17.3%	18.6%	15.1%
\$40,000 to \$49,999	13.0%	15.4%	17.7%	20.8%
\$50,000 to \$59,999	9.2%	8.8%	12.6%	7.5%
\$60,000 to \$69,999	7.6%	6.4%	8.2%	11.3%
\$70,000 or more	37.2%	17.1%	18.6%	9.4%
N	503	492	746	62

Table 2. Visitor State of Residence by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
MONTANA	24.7%	69.6%	31.1%	72.4%
IDAHO	5.4%	.9%	14.0%	3.4%
UTAH	6.9%	.9%	12.7%	3.4%
CALIFORNIA	11.6%	4.2%	6.8%	5.2%
WASHINGTON	6.5%	2.4%	4.5%	.0%
COLORADO	4.9%	1.3%	3.0%	3.4%
FLORIDA	1.3%	1.8%	2.7%	.0%
OREGON	1.9%	2.0%	1.6%	1.7%
WYOMING	2.4%	.9%	1.7%	1.7%
MINNESOTA	2.2%	1.1%	1.6%	.0%
TEXAS	1.5%	1.8%	1.4%	.0%
PENNSYLVANIA	2.6%	1.3%	.6%	3.4%
ARIZONA	1.9%	.9%	1.4%	.0%
NEVADA	1.9%	.7%	1.4%	.0%
NEW YORK	2.4%	.4%	1.3%	.0%
WISCONSIN	1.7%	1.3%	1.2%	.0%
GEORGIA	1.1%	.7%	.9%	1.7%
ILLINOIS	1.3%	1.1%	.6%	.0%
CANADA	1.1%	.4%	1.0%	1.7%
NEW JERSEY	1.5%	.4%	.7%	.0%
MICHIGAN	1.3%	.4%	.7%	.0%
NORTH CAROLINA	1.1%	1.5%	.1%	.0%
OHIO	.9%	.4%	.9%	.0%
IOWA	.9%	.7%	.6%	.0%
OKLAHOMA	.9%	.7%	.4%	.0%
MASSACHUSETTS	.9%	.2%	.4%	.0%
NORTH DAKOTA	.4%	.4%	.6%	.0%
TENNESSEE	.6%	.2%	.6%	.0%
VIRGINIA	1.3%	.2%	.1%	.0%
MISSOURI	.2%	.4%	.6%	.0%
ALABAMA	.2%	.4%	.4%	.0%
CONNECTICUT	.9%	.0%	.3%	.0%
KANSAS	.6%	.0%	.4%	.0%
NEW MEXICO	.6%	.0%	.4%	.0%
NEBRASKA	.4%	.0%	.4%	.0%
WEST VIRGINIA	.9%	.0%	.1%	.0%
MARYLAND	.2%	.0%	.4%	.0%
NEW HAMPSHIRE	.9%	.0%	.0%	.0%
RHODE ISLAND	.2%	.0%	.3%	1.7%
MAINE	.4%	.0%	.1%	.0%
SOUTH CAROLINA	.4%	.0%	.1%	.0%
SOUTH DAKOTA	.0%	.2%	.3%	.0%
ARKANSAS	.2%	.0%	.1%	.0%
DELAWARE	.4%	.0%	.0%	.0%
DISTRICT OF COLUMBIA	.0%	.0%	.3%	.0%
N	503	492	746	62

Table 3. Montana County of Residence by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
GALLATIN	40.4%	76.0%	49.5%	42.9%
YELLOWSTONE	7.9%	3.2%	22.8%	2.4%
MADISON	21.9%	4.4%	1.5%	45.2%
SILVER BOW	4.4%	4.4%	3.4%	2.4%
LEWIS AND CLARK	3.5%	3.5%	2.9%	.0%
CASCADE	4.4%	1.3%	4.4%	.0%
PARK	.9%	1.3%	2.4%	.0%
JEFFERSON	.9%	1.6%	1.0%	.0%
MISSOULA	3.5%	.3%	1.5%	.0%
STILLWATER	.9%	.3%	2.4%	.0%
BEAVERHEAD	.9%	.6%	1.5%	.0%
CARBON	1.8%	.0%	1.0%	2.4%
FLATHEAD	.9%	.0%	1.5%	2.4%
RAVALLI	.9%	.9%	.0%	2.4%
BROADWATER	.0%	.6%	.5%	.0%
SANDERS	1.8%	.3%	.0%	.0%
SWEET GRASS	.0%	.0%	1.5%	.0%
CUSTER	.0%	.6%	.0%	.0%
LINCOLN	.9%	.0%	.5%	.0%
POWELL	1.8%	.0%	.0%	.0%
DEER LODGE	.0%	.3%	.0%	.0%
FALLON	.0%	.0%	.5%	.0%
FERGUS	.9%	.0%	.0%	.0%
GARFIELD	.0%	.0%	.5%	.0%
HILL	.0%	.3%	.0%	.0%
PONDERA	.9%	.0%	.0%	.0%
RICHLAND	.0%	.0%	.5%	.0%
ROSEBUD	.9%	.0%	.0%	.0%
VALLEY	.0%	.0%	.5%	.0%
N	115	318	215	42

Table 4. Group Characteristics by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
Type of group with on this trip				
Alone	15.3%	12.2%	9.5%	15.0%
Family	45.1%	37.5%	59.7%	40.0%
Friends	23.1%	30.9%	16.1%	23.3%
Family and Friends	12.5%	18.3%	14.3%	21.7%
Outfitted guest	4.0%	1.1%	.4%	.0%
GRPALL	3.22	4.94	4.57	3.95
Number of males	1.78	2.25	1.84	1.61
Number of females	.99	1.67	1.53	1.06
Number of children	.39	.94	1.16	1.23
N	503	492	746	62

Table 5. Group Disabilities by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
N	503	492	746	62
Indicates person in group with disability				
No	96.0%	91.7%	92.0%	95.2%
Yes	4.0%	8.3%	8.0%	4.8%
Specify disability *				
Difficulty walking	14.3%	13.0%	13.7%	66.7%
Back condition	.0%	8.7%	17.6%	.0%
Arthritis	21.4%	8.7%	3.9%	.0%
Hearing	14.3%	.0%	7.8%	.0%
Legs	7.1%	4.3%	5.9%	33.3%
Heart condition	7.1%	4.3%	7.8%	.0%
Blindness	7.1%	.0%	7.8%	.0%
Bad knee	.0%	4.3%	5.9%	.0%
Chronic hip	7.1%	.0%	5.9%	.0%
Asthma	.0%	4.3%	3.9%	.0%
Mentally retarded	.0%	13.0%	.0%	.0%
Wheelchair confinement	.0%	.0%	3.9%	.0%
Amputee	.0%	.0%	3.9%	.0%
Old age	.0%	.0%	3.9%	.0%
Agent orange	.0%	8.7%	.0%	.0%
Downs Syndrome	7.1%	.0%	2.0%	.0%
Replacements, hip, shoulder	7.1%	.0%	.0%	.0%
Polio	.0%	4.3%	.0%	.0%
Cancer	.0%	4.3%	.0%	.0%
Parkinsons disease	.0%	4.3%	.0%	.0%
COPD	.0%	.0%	2.0%	.0%
Learning	.0%	4.3%	.0%	.0%
Foot	.0%	.0%	2.0%	.0%
No fingers	.0%	4.3%	.0%	.0%
Cerebral Palsy	7.1%	.0%	.0%	.0%
Stroke	.0%	4.3%	.0%	.0%
Speech impaired	.0%	.0%	2.0%	.0%
Head injury	.0%	4.3%	.0%	.0%

*Percentages are only for those with the characteristic.

Table 6. Visitor Site Experience by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
First visit to this site				
Yes	45.27%	30.25%	42.90%	28.81%
No	54.73%	69.75%	57.10%	71.19%
N	497	486	732	59
Visits to this site before today				
1 to 5	36.4%	32.0%	37.6%	26.2%
6 to 10	13.6%	12.9%	16.8%	16.7%
more than 10	50.0%	55.1%	45.6%	57.1%
N	264	325	410	42
Years visiting this site				
less than 1	6.2%	11.5%	4.1%	4.7%
1 to 2	9.1%	13.3%	9.6%	18.6%
3 to 5	25.9%	18.3%	19.8%	20.9%
5 to 10	18.2%	18.3%	17.3%	27.9%
more than 10	40.5%	38.5%	49.2%	27.9%
Overnight stay at this site on this visit				
Yes	54.9%	32.9%	61.1%	28.8%
No	45.1%	67.1%	38.9%	71.2%
Number of nights at this site on this visit				
	3.37	3.87	4.81	2.65
Hours at this site on this visit				
less than 1	37.5%	20.1%	29.3%	11.1%
1 to 2	15.8%	14.9%	29.7%	22.2%
2 to 6	29.9%	54.6%	33.6%	48.1%
more than 6	16.8%	10.4%	7.4%	18.5%
N	503	492	746	62

Table 7. Reasons for Choosing This Site by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
Reasons why site chosen				
Close to home	11.6%	40.7%	15.4%	48.3%
Easy to get to	24.7%	49.2%	26.0%	35.0%
Group facilities	1.4%	5.6%	3.5%	3.3%
Specific attraction	10.4%	12.0%	15.4%	10.0%
Other sites too crowded	8.0%	6.4%	10.7%	6.7%
Good facilities	11.8%	15.1%	13.3%	10.0%
Good fishing	55.9%	36.3%	29.0%	16.7%
Scenic beauty	39.8%	43.8%	49.2%	33.3%
Been here before	27.3%	39.6%	35.8%	36.7%
Try a new area	11.6%	9.8%	11.8%	11.7%
Heard about it	12.0%	7.9%	14.1%	10.0%
Other reasons you chose this site	13.1%	11.6%	15.1%	16.7%
Most important reason you chose this site				
Good fishing	46.1%	25.0%	18.2%	11.1%
Close to home	6.2%	20.4%	7.9%	37.0%
Been here before	6.7%	12.5%	12.3%	29.6%
Scenic beauty	7.3%	8.8%	13.8%	.0%
Easy to get to	11.4%	9.3%	5.4%	3.7%
Specific attraction	4.7%	7.9%	12.3%	3.7%
Other	5.7%	4.2%	6.9%	11.1%
Heard about it	2.6%	4.6%	7.4%	.0%
Other sites too crowded	2.1%	2.3%	8.4%	.0%
Try a new area	4.1%	2.3%	4.4%	3.7%
Good facilities	2.6%	1.4%	2.5%	.0%
Group facilities	.5%	1.4%	.5%	.0%
N	503	492	746	62

Note: totals do not add to 100% due to multiple responses.

Table 7.1. Other Crowded Sites as a Reason for Choosing This Site by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
Sites crowded *				
Yellowstone				
Park	75.0%	.0%	64.9%	.0%
Madison	8.3%	10.0%	5.3%	.0%
Lonesomehurst				
Campground	.0%	.0%	7.0%	.0%
Canyon Ferry	8.3%	10.0%	.0%	50.0%
Gallatin River	.0%	30.0%	.0%	.0%
Cherry Creek	.0%	.0%	5.3%	.0%
Madison Arm				
Resort	.0%	.0%	3.5%	.0%
Island Park	.0%	.0%	3.5%	.0%
Madison				
Junction	.0%	.0%	3.5%	.0%
River Madison	.0%	20.0%	.0%	.0%
Cabin Creek				
Campground	8.3%	.0%	.0%	.0%
Rainbow Point				
Campground	.0%	.0%	1.8%	.0%
Horse Butte				
Lookout				
Picnic Site	.0%	.0%	1.8%	.0%
Spring Creek				
Campground	.0%	.0%	1.8%	.0%
Red Mtn				
Campground,				
Picnic Area	.0%	10.0%	.0%	.0%
Blacks Ford	.0%	10.0%	.0%	.0%
Big Hole	.0%	10.0%	.0%	.0%
Lake Shore	.0%	10.0%	.0%	.0%
Other side of				
river	.0%	10.0%	.0%	.0%
Canyon Ferry				
East Side	.0%	.0%	.0%	50.0%
Yosemite	.0%	.0%	1.8%	.0%
Bakers Hole	.0%	.0%	1.8%	.0%
Madison				
Campground	.0%	.0%	1.8%	.0%
N	12	10	57	2

Note: totals do not add to 100% due to multiple responses.

*Percentages are only for those with the characteristic.

Table 8. Recreation Activity by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
Site Activities				
Sightseeing	47.5%	46.7%	64.9%	44.1%
Photography	35.8%	24.0%	42.9%	15.3%
Auto/RV camping	28.9%	21.3%	42.3%	25.4%
River floating	28.1%	40.5%	4.6%	5.1%
Walking/hiking	33.9%	30.0%	46.7%	20.3%
Picnicking	21.2%	31.4%	29.7%	44.1%
Sunbathing	6.1%	20.7%	14.1%	39.0%
Horseback riding	1.6%	.8%	2.8%	.0%
Shooting	.4%	2.3%	1.4%	1.7%
Ice fishing	.0%	.0%	1.8%	.0%
X-Country skiing	.0%	.2%	.0%	.0%
Swimming	3.2%	19.2%	20.4%	44.1%
Jet skiing	.0%	.6%	1.9%	22.0%
Powerboating	.6%	1.4%	12.3%	25.4%
Nature study	11.1%	10.1%	11.4%	6.8%
Tubing	1.4%	15.3%	8.5%	22.0%
Canoeing	2.4%	9.1%	4.0%	5.1%
Viewing wildlife	32.7%	29.1%	43.3%	20.3%
Viewing cultural/ historical sites	13.1%	5.8%	21.6%	5.1%
Snowmobiling	.0%	.2%	.4%	.0%
Sledding	.0%	.2%	.0%	.0%
Bicycling	4.0%	5.4%	11.7%	5.1%
Hunting	1.2%	2.7%	2.1%	5.1%
Fishing from the boat	26.3%	16.1%	25.7%	10.2%
Fishing from the shore	38.2%	36.2%	27.5%	16.9%
Wade fishing	47.5%	25.0%	14.7%	8.5%
Motorcycling/ ATV	1.4%	2.5%	2.8%	.0%
Water-skiing	.2%	1.7%	9.8%	18.6%
Sailing/ sailboarding	.0%	.0%	1.0%	3.4%
Snowshoeing	.0%	.2%	.0%	.0%
Other activities	26.5%	16.9%	15.5%	18.6%
N	503	492	746	62

Note: totals do not add to 100% due to multiple responses.

Table 9. Levels of Overall Trip Satisfaction by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
This trip was better than any recreation experience I remember	-.10	-.17	-.10	-.39
This trip was better than any other trip to this area I remember	-.02	.04	.10	-.15
This trip was so good I would like to take it again	.76	.78	.71	.61
Overall Measure	.22	.22	.24	.03
N	503	492	746	62

-2=Strongly disagree 0=Neutral/no opinion 2=Strongly agree

Table 10. Percent Who Felt Site Characteristics Were Important by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
Importance of site Conditions				
Campsite & picnic area conditions	42.3%	35.4%	54.1%	39.1%
Quality of interpretive info	8.0%	7.3%	9.6%	4.3%
Appropriateness of developments	17.9%	19.9%	16.2%	10.9%
Maintenance of facilities	48.3%	38.0%	49.6%	41.3%
Cleanliness of area	62.8%	62.9%	66.9%	67.4%
Low development	39.5%	43.6%	32.1%	34.8%
Privacy of area	45.5%	46.2%	48.7%	30.4%
Condition of natural features	38.6%	39.5%	39.5%	32.6%
Low residence visible from water	36.4%	34.5%	25.4%	17.4%
Historical information	6.3%	7.3%	12.0%	4.3%
Behavior of other people	33.5%	33.6%	35.3%	26.1%
Little conflict with others	27.3%	34.5%	34.0%	32.6%
High degree of naturalness	44.0%	46.5%	37.8%	34.8%
Campsites within site or sound	24.4%	22.2%	29.1%	10.9%
Seeing or hearing others	30.4%	35.1%	30.6%	23.9%
Few rules or restrictions	18.5%	22.5%	20.3%	23.9%
Number of fish caught	39.2%	27.5%	25.6%	8.7%
Viewing wildlife	27.0%	31.9%	34.2%	21.7%
Opportunity to hunt	5.1%	7.9%	5.1%	10.9%
N	503	492	746	62

Note: totals do not add to 100% due to multiple responses.

Table 11. Mean Satisfaction of Site Characteristics by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
Sat with campsite or picnic conditions	.80	.73	.92	.13
Sat with interpretive/educational information	.22	.17	.40	.03
Sat with appropriateness of developments	.55	.64	.59	.26
Sat with facilities maintenance	.88	.83	.86	.13
Sat with cleanliness of area	1.12	.99	1.11	.23
Sat with low amount of development	.78	.93	.78	.35
Sat with privacy of area	.63	.75	.88	.48
Sat with natural features	1.06	1.09	1.16	.77
Sat with low amount of development visible from water	.47	1.15	.82	.52
Sat with historical information	.28	.16	.43	.06
Sat with behavior of other people	.80	.67	.73	.61
Sat with little conflict with other users	.89	.85	.87	.73
Sat with high degree of naturalness	.95	1.02	1.08	.74
Sat with number of campsites within site/sound	.44	.52	.55	.35

-2=Strongly disagree 0=Neutral/no opinion 2=Strongly agree

(continued)

Table 11. Mean Satisfaction of Site Characteristics by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
Sat with seeing hearing others	.56	.62	.65	.48
Sat with few rules restrictions	.66	.78	.79	.81
Sat with number of fish caught	.19	.20	.08	.05
Sat with the opportunity to view wildlife	.81	.74	.77	.56
Sat with opportunity to hunt	.09	.14	.07	.23
N	503	492	746	62

-2=Strongly disagree 0=Neutral/no opinion 2=Strongly agree

Table 12. Additional Facilities and Services by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
N	503	492	746	62
No facilities needed	68.4%	66.5%	61.1%	56.5%
Facilities needed	31.6%	33.5%	38.9%	43.5%
Additional facilities/services needed. *				
Restroom facilities	9.4%	9.7%	16.6%	11.1%
Better RV facility, dump station	1.9%	1.8%	19.0%	7.4%
Showers	19.5%	4.8%	7.9%	3.7%
Running water	11.9%	4.2%	9.3%	.0%
Drinking water	8.2%	9.7%	6.9%	7.4%
Improve Restroom facilities	10.7%	7.3%	6.9%	.0%
Trash cans	6.3%	9.1%	2.1%	14.8%
Bathroom maintenance	3.1%	7.9%	2.4%	7.4%
Electricity	2.5%	.6%	7.2%	.0%
Picnic tables, covered	3.8%	5.5%	3.1%	7.4%
Road maintenance	3.8%	3.0%	3.8%	11.1%
Overnight camping, campsites	.6%	1.2%	5.9%	11.1%
Improve boat ramp	3.8%	1.8%	2.1%	7.4%
More restrooms	1.9%	3.0%	1.7%	3.7%
Regular maintenance	1.9%	2.4%	1.7%	3.7%
Trees	1.3%	2.4%	1.7%	3.7%
Improved picnic sites	1.9%	1.8%	2.1%	.0%
Need RV facilities, dump, hookups	2.5%	.6%	2.1%	.0%
Shaded areas	2.5%	3.0%	.7%	.0%
Preserve naturalness, wilderness	.6%	3.6%	1.4%	.0%
Firewood sales	2.5%	2.4%	1.0%	.0%
More picnic tables near water	1.3%	1.8%	1.7%	.0%
Better parking	1.3%	1.8%	.7%	7.4%
Need boat launch	.6%	1.8%	1.0%	7.4%
More river access; river byways, roads	3.1%	1.2%	.3%	3.7%
Stock more fish	3.1%	.0%	1.0%	.0%
Snack bar	.6%	1.8%	1.4%	.0%
Need beach area	.0%	.6%	.3%	18.5%
Public phone	.6%	1.8%	1.0%	.0%
No fee	1.3%	1.2%	1.0%	.0%
Firepits/more, improved	1.3%	1.2%	1.0%	.0%

*Percentages are only for those with the characteristic.
(continued)

Table 12. Additional Facilities and Services by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
More water pumps	1.3%	.6%	1.4%	.0%
Sports equipment	.6%	1.8%	.3%	3.7%
Empty garbage more	1.3%	1.2%	.7%	.0%
More interpretation/ visitor center	.6%	.0%	1.4%	.0%
More road side garbage pick-up	1.3%	.6%	.7%	.0%
More walking trails	.6%	.6%	.7%	.0%
Reduce management/ development	.6%	.6%	.7%	.0%
No restricted parking	.6%	.6%	.3%	3.7%
Gravel in campsites/level/ improved	1.9%	.0%	.3%	.0%
Bigger campsites to accommodate modern RVs/campers	.0%	.6%	1.0%	.0%
Restrooms which are not closed	.6%	.6%	.3%	.0%
Better RV parking	1.3%	.6%	.0%	.0%
Groceries	.0%	1.2%	.3%	.0%
Benches	.0%	1.2%	.3%	.0%
Restrict camping duration	.6%	.6%	.3%	.0%
Increase ranger supervision	.0%	1.2%	.3%	.0%
No commercial facilities	.0%	1.8%	.0%	.0%
Recycling bins	.6%	.6%	.3%	.0%
Pave roads/oiled	.0%	.6%	.7%	.0%
Expand	1.3%	.6%	.0%	.0%
Enlarge facility	.0%	.0%	.7%	.0%
Swimming area	.0%	.0%	.3%	3.7%
Add more boat docks	.0%	.0%	.7%	.0%
Fishing info	.0%	.6%	.3%	.0%
Night lights	.6%	.0%	.3%	.0%
Security	.6%	.6%	.0%	.0%
Playground	.6%	.6%	.0%	.0%
More landscaping	.0%	1.2%	.0%	.0%
Better fishing	.6%	.6%	.0%	.0%
Good wildlife	.6%	.6%	.0%	.0%
Less campsites	.6%	.6%	.0%	.0%
More garbage disposal throughout Montana	.6%	.6%	.0%	.0%

*Percentages are only for those with the characteristic.
(continued)

Table 12. Additional Facilities and Services by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
Utilize space, spread campers out	.0%	.6%	.3%	.0%
Keep livestock away from river/public land	1.3%	.0%	.0%	.0%
Trail maintenance	.0%	.0%	.7%	.0%
Water grass more often	.0%	.6%	.0%	.0%
Protect wildlife habitat	.0%	.6%	.0%	.0%
Need boat slips	.6%	.0%	.0%	.0%
Need boat dock	.0%	.0%	.3%	.0%
Improve boat dock	.0%	.6%	.0%	.0%
Multilingual employees	.0%	.0%	.0%	3.7%
No bait fishing	.0%	.6%	.0%	.0%
Manage for peace and quiet	.0%	.6%	.0%	.0%
Bridge to cross river	.0%	.6%	.0%	.0%
Another overlook	.0%	.0%	.3%	.0%
Extend trail	.0%	.6%	.0%	.0%
Hot springs	.6%	.0%	.0%	.0%
Food facilities	.0%	.6%	.0%	.0%
Overnight boatdocks	.0%	.6%	.0%	.0%
Keep lot plowed of snow	.0%	.0%	.3%	.0%
Provide for bird habitat	.0%	.0%	.3%	.0%
Keep simple	.0%	.6%	.0%	.0%
Hatchery	.0%	.0%	.3%	.0%
Easier access to tables for elderly (close to parking)	.0%	.6%	.0%	.0%
Access to Sulphur Springs	.0%	.6%	.0%	.0%
Volleyball pits	.0%	.0%	.0%	3.7%
Paved parking lot	.6%	.0%	.0%	.0%
Separate parking from recreation area	.0%	.0%	.0%	3.7%
No dogs	.0%	.0%	.3%	.0%
Finish development plan	.0%	.6%	.0%	.0%
People should clean-up their campsites	.0%	.6%	.0%	.0%
Never close trails	.0%	.6%	.0%	.0%
Low impact recreation	.0%	.0%	.0%	3.7%
Hot tubs	.6%	.0%	.0%	.0%
Better disabled access	.6%	.0%	.0%	.0%
Eliminate KOA Concession/Reservation System	.0%	.0%	.3%	.0%
Historical interpretation	.0%	.6%	.0%	.0%

*Percentages are only for those with the characteristic.
(continued)

Table 12. Additional Facilities and Services by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
Preserve bridge	.0%	.0%	.3%	.0%
Horse camping an option	.6%	.0%	.0%	.0%
Wind break	.6%	.0%	.0%	.0%
Shuttle service	.0%	.6%	.0%	.0%
Parking regulations enforced	.0%	.6%	.0%	.0%
Hunting	.0%	.6%	.0%	.0%
Non-governmental	.0%	.0%	.3%	.0%
Ice delivery	.0%	.0%	.3%	.0%
Privacy	.6%	.0%	.0%	.0%
Provisions for shooters	.0%	.6%	.0%	.0%
More tent sites	.0%	.6%	.0%	.0%
Quiet rules	.0%	.0%	.3%	.0%
Too close to road	.6%	.0%	.0%	.0%
No flyfishing	.6%	.0%	.0%	.0%
Golf course	.6%	.0%	.0%	.0%
Fault line access	.6%	.0%	.0%	.0%
Should be able to use picnic area off river while floating	.0%	.6%	.0%	.0%
Picnic area	.6%	.0%	.0%	.0%
Access to lake	.0%	.0%	.3%	.0%

*Percentages are only for those with the characteristic.

Table 13. Disabled Facility Needs by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
N	503	492	746	62
No disabled facilities needed	96.6%	94.3%	96.0%	95.2%
Disabled facilities needed	3.4%	5.7%	4.0%	4.8%
Any needs at site to accommodate disability *				
Need handicap bathroom facilities	47.1%	32.1%	36.7%	66.7%
Better disabled access to shoreline	5.9%	14.3%	13.3%	.0%
Black top drives and walkways	17.6%	10.7%	6.7%	33.3%
More disabled access to water	.0%	7.1%	13.3%	.0%
Ramps	.0%	3.6%	10.0%	.0%
Need level or hard surface sites	5.9%	7.1%	.0%	.0%
Better handicap boat ramp	5.9%	7.1%	.0%	.0%
Access to tables	5.9%	3.6%	3.3%	.0%
Terrain too steep	.0%	.0%	6.7%	.0%
Make it safe for disabled	.0%	7.1%	.0%	.0%
Need handicap parking at main picnic area	5.9%	.0%	3.3%	.0%
Easier access to potable water	5.9%	.0%	.0%	.0%
Steps to aid asthmatics	.0%	.0%	3.3%	.0%
Larger docks	.0%	3.6%	.0%	.0%
Better road/trails	.0%	.0%	3.3%	.0%
Signs in large print	.0%	3.6%	.0%	.0%

*Percentages are only for those with the characteristic.

Table 14. Number of Encounters and Their Evaluation by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
Canoes seen today				
0	80.2%	59.1%	79.8%	75.0%
1 to 5	18.8%	33.8%	19.2%	25.0%
6 to 10	.8%	4.7%	.4%	.0%
11 to 20	.2%	1.7%	.4%	.0%
21 to 30	.0%	.2%	.0%	.0%
31+	.0%	.4%	.1%	.0%
Rate canoe encounters				
Enjoyed seeing	27.1%	30.9%	49.6%	30.8%
Didnt mind seeing	67.1%	67.4%	50.4%	69.2%
Disliked seeing	5.9%	1.7%	.0%	.0%
Powerboats seen today				
0	92.1%	92.9%	56.4%	51.9%
1 to 5	5.6%	4.7%	30.5%	25.9%
6 to 10	1.7%	1.7%	9.2%	20.4%
11 to 20	.4%	.4%	3.3%	.0%
21 to 30	.0%	.0%	.4%	.0%
31+	.2%	.2%	.1%	1.9%
Rate powerboats encounters				
Enjoyed seeing	8.6%	3.3%	17.8%	39.1%
Didnt mind seeing	60.0%	80.0%	65.5%	52.2%
Disliked seeing	31.4%	16.7%	16.7%	8.7%
Waterskiers seen today				
0	97.5%	94.9%	76.6%	60.4%
1 to 5	2.3%	3.6%	19.0%	24.5%
6 to 10	.0%	1.1%	2.8%	11.3%
11 to 20	.0%	.2%	1.2%	1.9%
21 to 30	.0%	.2%	.1%	.0%
31+	.2%	.0%	.3%	1.9%
Rate waterskiers encounters				
Enjoyed seeing	.0%	4.3%	19.9%	47.4%
Didnt mind seeing	83.3%	78.3%	56.3%	47.4%
Disliked seeing	16.7%	17.4%	23.8%	5.3%

(continued)

Table 14. Number of Encounters and Their Evaluation by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
Jetskis seen today				
0	96.5%	94.0%	81.5%	50.0%
1 to 5	3.3%	4.3%	14.5%	21.2%
6 to 10	.2%	1.5%	2.9%	23.1%
11 to 20	.0%	.2%	.6%	1.9%
21 to 30	.0%	.0%	.3%	1.9%
31+	.0%	.0%	.1%	1.9%
Rate jetskiers encounters				
Enjoyed seeing	11.8%	7.7%	11.3%	44.0%
Didnt mind seeing	52.9%	50.0%	46.8%	40.0%
Disliked seeing	35.3%	42.3%	41.9%	16.0%
Bank anglers seen today				
0	31.5%	31.5%	47.4%	68.5%
1 to 5	36.3%	43.6%	34.9%	27.8%
6 to 10	19.6%	17.9%	10.0%	.0%
11 to 20	10.4%	4.9%	4.1%	1.9%
21 to 30	1.7%	1.7%	1.7%	.0%
31+	.6%	.4%	1.9%	1.9%
Rate bank anglers encounters				
Enjoyed seeing	27.2%	29.3%	39.9%	60.0%
Didnt mind seeing	67.2%	67.0%	58.2%	40.0%
Disliked seeing	5.6%	3.7%	1.9%	.0%
Wade anglers seen today				
0	26.0%	37.8%	59.4%	81.1%
1 to 5	35.6%	42.4%	26.9%	15.1%
6 to 10	21.9%	14.2%	7.7%	1.9%
11 to 20	11.0%	4.3%	3.6%	.0%
21 to 30	4.0%	.9%	1.3%	.0%
31+	1.5%	.4%	1.0%	1.9%
Rate wade anglers encounters				
Enjoyed seeing	28.5%	28.9%	38.2%	36.4%
Didnt mind seeing	66.1%	67.4%	58.6%	63.6%
Disliked seeing	5.5%	3.7%	3.2%	.0%

(continued)

Table 14. Number of Encounters and Their Evaluation by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
Boat anglers seen today				
0	40.0%	50.8%	56.5%	67.9%
1 to 5	25.5%	29.7%	28.7%	26.4%
6 to 10	16.5%	9.9%	10.1%	5.7%
11 to 20	10.0%	6.2%	3.8%	.0%
21 to 30	4.8%	2.2%	.3%	.0%
31+	3.1%	1.3%	.6%	.0%
Rate boat anglers encounters				
Enjoyed seeing	21.1%	27.5%	31.1%	31.3%
Didnt mind seeing	67.0%	66.8%	67.8%	68.8%
Disliked seeing	11.9%	5.7%	1.1%	.0%
River floaters seen today				
0	57.7%	40.9%	86.2%	84.6%
1 to 5	23.3%	25.4%	10.0%	13.5%
6 to 10	10.4%	12.7%	2.1%	1.9%
11 to 20	5.0%	9.9%	1.2%	.0%
21 to 30	2.3%	4.7%	.1%	.0%
31+	1.3%	6.5%	.4%	.0%
Rate river floater encounters				
Enjoyed seeing	22.3%	36.4%	36.4%	14.3%
Didnt mind seeing	62.9%	58.3%	59.7%	85.7%
Disliked seeing	14.9%	5.3%	3.9%	.0%
Livestock seen today				
0	60.8%	74.1%	76.5%	81.1%
1 to 5	11.7%	8.8%	9.2%	5.7%
6 to 10	4.8%	3.9%	4.1%	.0%
11 to 20	5.4%	4.7%	2.5%	3.8%
21 to 30	3.8%	1.7%	1.0%	.0%
31+	13.5%	6.9%	6.7%	9.4%
Rate livestock encounters				
Enjoyed seeing	25.1%	21.3%	40.3%	30.0%
Didnt mind seeing	52.7%	66.7%	50.4%	50.0%
Disliked seeing	22.2%	12.0%	9.4%	20.0%

(continued)

Table 14. Number of Encounters and Their Evaluation by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
Shoreline development seen today				
0	60.1%	77.1%	72.2%	65.4%
1 to 5	18.8%	15.0%	15.6%	21.2%
6 to 10	8.4%	3.5%	5.6%	5.8%
11 to 20	8.1%	1.3%	3.1%	3.8%
21 to 30	1.5%	.9%	1.6%	.0%
31+	3.1%	2.2%	1.9%	3.8%
Rate shoreline development encounters				
Enjoyed seeing	6.5%	5.3%	8.1%	17.6%
Didnt mind seeing	29.4%	43.6%	48.1%	35.3%
Disliked seeing	64.1%	51.1%	43.8%	47.1%
Snowmobiles seen today				
0	80.0%	98.9%	90.2%	100.0%
1 to 5	.0%	.0%	4.9%	.0%
6 to 10	.0%	.0%	1.2%	.0%
11 to 20	.0%	1.1%	1.2%	.0%
31+	20.0%	.0%	2.4%	.0%
Rate snowmobiles encounters				
Enjoyed seeing	.0%	33.3%	10.0%	.0%
Didnt mind seeing	.0%	33.3%	80.0%	.0%
Disliked seeing	.0%	33.3%	10.0%	.0%
Ice fishers seen today				
0	80.0%	96.9%	80.5%	100.0%
1 to 5	.0%	2.1%	12.2%	.0%
6 to 10	20.0%	.0%	6.1%	.0%
11 to 20	.0%	1.0%	1.2%	.0%
Rate ice fishing encounters				
Enjoyed seeing	.0%	66.7%	37.5%	.0%
Didnt mind seeing	.0%	.0%	62.5%	.0%
Disliked seeing	.0%	33.3%	.0%	.0%
Hunters seen today				
0	60.0%	96.7%	98.5%	91.7%
1 to 5	40.0%	1.1%	1.5%	8.3%
11 to 20	.0%	1.1%	.0%	.0%
31+	.0%	1.1%	.0%	.0%
Rate hunting encounters				
Enjoyed seeing	.0%	40.0%	50.0%	100.0%
Didnt mind seeing	100.0%	20.0%	.0%	.0%
Disliked seeing	.0%	40.0%	50.0%	.0%
N	503	492	746	62

Table 15. Perceptions of Crowding by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
Perception of Crowding				
1 Not at all crowded	38.1%	52.1%	50.1%	55.7%
2	13.8%	19.3%	15.7%	16.4%
3 Slightly	14.7%	12.6%	9.8%	4.9%
4 crowded	9.4%	8.0%	9.1%	19.7%
5	4.1%	2.7%	3.6%	.0%
6 Moderately	9.4%	2.9%	6.6%	1.6%
7 crowded	5.7%	.8%	2.3%	1.6%
8	1.8%	1.0%	1.7%	.0%
9 Extremely Crowded	3.1%	.6%	1.1%	.0%
Mean	3.06	2.11	2.45	2.03
N	503	492	746	62

Table 16. Where crowding occurred by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
Where crowding occured				
In campsite	16.8%	18.0%	33.9%	11.8%
On the river	25.1%	23.3%	2.3%	.0%
Yellowstone Park	15.2%	.8%	23.5%	5.9%
Madison	8.4%	5.3%	1.8%	5.9%
On boat ramp	2.6%	12.0%	1.8%	5.9%
In fishing areas	6.3%	2.3%	4.5%	.0%
Parking areas	3.7%	8.3%	1.4%	.0%
All over	4.2%	3.8%	3.2%	.0%
West				
Yellowstone	4.2%	.0%	3.2%	5.9%
On beach	.0%	1.5%	1.8%	52.9%
On roads	1.6%	2.3%	3.2%	.0%
In the park	.5%	.8%	3.2%	.0%
At the lake	.5%	1.5%	1.8%	5.9%
On water	2.1%	1.5%	.9%	.0%
At restaurant	1.6%	.8%	1.4%	.0%
Hebgen Lake sites	.5%	.0%	2.3%	.0%
Lonesomehurst Campground	.0%	.0%	1.8%	.0%
On shore	.0%	3.0%	.0%	.0%
Shoreline of Madison	1.6%	.0%	.5%	.0%
On trail	.0%	3.0%	.0%	.0%
Bathroom	.0%	1.5%	.9%	.0%
On the bank	.5%	1.5%	.0%	.0%
Madison between Hebgen and Quake lakes	.5%	.0%	.9%	.0%
Glacier Park	.5%	.0%	.9%	.0%
Place we stayed	.5%	.8%	.5%	.0%
Spring Creek Campground	.0%	.0%	.9%	.0%
On boat dock	.0%	1.5%	.0%	.0%
Around the bridge	1.0%	.0%	.0%	.0%
Town pond	.0%	.8%	.0%	5.9%
Northside	.5%	.8%	.0%	.0%
Between Palisades and MacAtee	1.0%	.0%	.0%	.0%
Cherry Creek	.0%	.0%	.9%	.0%

(continued)

Table 16. Where crowding occurred by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
Hebgen Lake Interpretive Site	.0%	.0%	.5%	.0%
Trail Creek	.0%	.8%	.0%	.0%
Dispersed East Side Beartrap Road	.0%	.8%	.0%	.0%
Shoreline below Hebgen Dam, along Madison	.0%	.0%	.5%	.0%
Side of road	.0%	.8%	.0%	.0%
At trailhead	.0%	.8%	.0%	.0%
Viewing area	.0%	.0%	.5%	.0%
Entrance/exit	.0%	.8%	.0%	.0%
Between Dam and Powerhouse	.0%	.8%	.0%	.0%
West Fork	.5%	.0%	.0%	.0%
Red Rock Lakes area	.0%	.0%	.5%	.0%
Hellgate Canyon (Canyon Ferry)	.0%	.0%	.5%	.0%
Fairmont RV Park	.0%	.0%	.5%	.0%
RV Park	.0%	.8%	.0%	.0%
N	191	133	221	17

Table 17. Reasons No Longer Visit Sites by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir

Any recreation sites no longer visited				
No	87.3%	87.0%	85.8%	88.7%
Yes	12.7%	13.0%	14.2%	11.3%

Reasons no longer visit sites				
Crowding	37.9%	55.9%	51.4%	50.0%
Resource degradation	31.8%	33.8%	15.9%	.0%
Conflicts with other users	12.1%	25.0%	15.0%	12.5%
Overuse	19.7%	47.1%	24.3%	25.0%
Other reasons	54.5%	41.2%	58.9%	25.0%

Other reasons no longer visit *				
Closed	26.5%	7.7%	8.8%	.0%
Fees	.0%	19.2%	15.8%	.0%
Too expensive	.0%	3.8%	8.8%	50.0%
Unsatisfactory	11.8%	3.8%	1.8%	.0%
Road conditions	5.9%	3.8%	5.3%	.0%
Too much regulation	2.9%	3.8%	7.0%	.0%
Unnatural, commercialized	5.9%	3.8%	3.5%	.0%
Inadequate facilities	2.9%	15.4%	.0%	.0%
Bad fishing	5.9%	.0%	5.3%	.0%
Prefer being on Hebgen Lake	.0%	.0%	7.0%	.0%
Too far from water	.0%	.0%	7.0%	.0%
Dirty	.0%	3.8%	1.8%	50.0%
Destroyed	2.9%	3.8%	1.8%	.0%
Closed	5.9%	.0%	1.8%	.0%
No camping	5.9%	3.8%	.0%	.0%
Reservation system	.0%	3.8%	3.5%	.0%
Privatized	5.9%	.0%	.0%	.0%
Dont like improvements made to increase use	.0%	3.8%	1.8%	.0%
Noise; lack of quiet	.0%	.0%	3.5%	.0%
Didnt like caretaker/poor management	2.9%	.0%	1.8%	.0%
Floaters for pay	2.9%	.0%	.0%	.0%
Owner no longer allows access	2.9%	.0%	.0%	.0%

*Percentages are only for those with the characteristic.

(continued)

Table 17. Reasons No Longer Visit Sites by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
Too much grass in water to fish	.0%	.0%	1.8%	.0%
Wrong species of fish	2.9%	.0%	.0%	.0%
Age	.0%	.0%	1.8%	.0%
Drunks	.0%	3.8%	.0%	.0%
Too far away	.0%	.0%	1.8%	.0%
Day use only	2.9%	.0%	.0%	.0%
Hostile locals	.0%	.0%	1.8%	.0%
Closer to mountains	.0%	3.8%	.0%	.0%
No shade	.0%	3.8%	.0%	.0%
No wake law	.0%	.0%	1.8%	.0%
Buried	.0%	.0%	1.8%	.0%
Bad boat dock	2.9%	.0%	.0%	.0%
Wind	.0%	3.8%	.0%	.0%
To developed	.0%	3.8%	.0%	.0%
Catch and release	.0%	.0%	1.8%	.0%
N	503	492	746	62

*Percentages are only for those with the characteristic.

Table 18. Recreation Sites No Longer Visited by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
Which sites no longer visit				
Yellowstone Park	15.8%	4.2%	17.2%	25.0%
Lonesomehurst Campground	.0%	.0%	16.1%	.0%
Rainbow Point Campground	5.3%	.0%	11.8%	.0%
Bear trap	2.6%	16.7%	.0%	.0%
Lower Madison	5.3%	6.3%	3.2%	25.0%
Upper Madison	2.6%	12.5%	1.1%	.0%
Cherry Creek Campground	.0%	.0%	5.4%	.0%
West Fork on Madison down to Ennis	7.9%	2.1%	1.1%	.0%
Ennis Lake	7.9%	2.1%	.0%	25.0%
Madison arm Resort	.0%	.0%	5.4%	.0%
Any fee area	.0%	4.2%	2.2%	.0%
Slide Inn	10.5%	.0%	.0%	.0%
Bakershole Campground	2.6%	.0%	2.2%	.0%
Red Mtn Campground, Picnic Area	2.6%	4.2%	.0%	.0%
Dispersed East Side Beartrap Road	.0%	6.3%	.0%	.0%
Rainbow and Lewis and Clark Overlooks	.0%	.0%	3.2%	.0%
End of Bear Trap Road	.0%	4.2%	1.1%	.0%
Bakers Hole	.0%	.0%	3.2%	.0%
Burnt Tree Mole	5.3%	2.1%	.0%	.0%
Blacks Ford	2.6%	2.1%	.0%	.0%
Gallatin	.0%	.0%	2.2%	.0%
Quake Lake	.0%	2.1%	1.1%	.0%
Day use areas	.0%	.0%	2.2%	.0%
Lewis and Clark Caverns	.0%	2.1%	1.1%	.0%
Forest Service	2.6%	.0%	1.1%	.0%
Island Park	.0%	.0%	2.2%	.0%
Jack Creek	2.6%	2.1%	.0%	.0%
Cabin Creek Campground	.0%	.0%	1.1%	.0%
Yellowstone Holiday Resort	.0%	.0%	1.1%	.0%
West Shore Public Access	.0%	2.1%	.0%	.0%
North Shore Boat Access	.0%	.0%	1.1%	.0%
Warm Springs, Dispersed West US84	.0%	2.1%	.0%	.0%
Disp.-West US84	.0%	2.1%	.0%	.0%
Beaver Creek Fishing Access	2.6%	.0%	.0%	.0%
West bank of Broadwater Bay	2.6%	.0%	.0%	.0%

(continued)

Table 18. Recreation Sites No Longer Visited by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
Big Hole	2.6%	.0%	.0%	.0%
Below dam at Norris	.0%	2.1%	.0%	.0%
Camp areas	2.6%	.0%	.0%	.0%
Road closures	.0%	.0%	1.1%	.0%
Gallatin Canyon	.0%	2.1%	.0%	.0%
Cliff Lake	.0%	.0%	1.1%	.0%
Wade Lake	.0%	.0%	1.1%	.0%
North Side	.0%	.0%	1.1%	.0%
Lava Lake	.0%	2.1%	.0%	.0%
Quake campground	.0%	.0%	1.1%	.0%
Canyon Ferry	.0%	.0%	1.1%	.0%
Cameron Bridge	.0%	2.1%	.0%	.0%
Williams Bridge	.0%	2.1%	.0%	.0%
Greek Creek	.0%	2.1%	.0%	.0%
Burnt Tree Campground	2.6%	.0%	.0%	.0%
Below Lyons Warden	2.6%	.0%	.0%	.0%
Fort Smith	2.6%	.0%	.0%	.0%
Missouri Headwaters	.0%	2.1%	.0%	.0%
Virginia City	.0%	.0%	1.1%	.0%
Hebgen Lake	.0%	.0%	1.1%	.0%
Henrys Fork	.0%	.0%	1.1%	.0%
Beaver Creek	.0%	.0%	1.1%	.0%
Museum site of Mtn avalanche	.0%	.0%	1.1%	.0%
RV Parks with power	.0%	.0%	1.1%	.0%
Hyalite	.0%	2.1%	.0%	.0%
Those with no water	2.6%	.0%	.0%	.0%
Ling Rock	.0%	2.1%	.0%	.0%
Yellowstone River	2.6%	.0%	.0%	.0%
Troll bash	.0%	2.1%	.0%	.0%
N	38	48	93	4

Table 19. Behavioral Response to Displacement by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
Ways in which closed site would affect trip				
Choose another site in this area	63.9%	59.2%	57.2%	53.7%
Choose another site somewhere else	21.0%	19.7%	19.7%	22.2%
Visit at some other time	8.4%	13.6%	15.2%	16.7%
Stay at home	2.7%	3.8%	5.3%	7.4%
Do some other activity	4.0%	3.8%	2.6%	.0%
N	503	492	746	62

Table 20. Average Measures of Attachment to Place by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
My life is organized around this place	-.55	-.47	-.47	-.27
This is the best place for what I like to do	.47	.48	.51	.65
I feel no commitment to this place	-.28	-.36	-.19	-.39
The time I spend here could just as easily be spent somewhere else	-.01	-.09	-.04	-.19
I feel very attached to this place	.26	.43	.36	.32
I identify strongly with this place	.25	.42	.36	.32
This place makes me feel like no other place can	-.08	-.01	.10	-.05
Doing what I do here is more important to me than doing it in any other place	-.15	-.09	-.07	-.05
N	503	492	746	62

-2=Strongly disagree 0=Neutral/no opinion 2=Strongly agree

Table 21. Group Trip Expenditures by Region

	Region			
	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir
Food, drinks, and refreshments	76.07	48.90	49.88	35.09
Motels, campgrounds, and etc.	51.05	21.05	27.33	5.39
Gas and other transportation	53.36	26.03	37.47	24.82
Guide or outfitter	55.34	8.89	8.70	.00
License or entrance fees	21.88	9.85	9.87	1.42
Retail goods	66.31	27.41	28.83	3.16
Other expenditures	9.36	6.53	2.80	.08
Total expenditures	333.37	148.67	164.88	69.94
N	503	492	746	62

Table 22. Total Group Expenditures by Region.

	Upper Madison	Lower Madison	Hebgen Reservoir	Ennis Reservoir	Total
Food, drinks, and	1,540,000	996,000	1,051,000	85,000	3,672,000
Motels, campgrounds, and	1,116,000	429,000	576,000	13,000	2,134,000
Gas and other trans.	1,068,000	530,000	789,000	60,000	2,447,000
Guide or outfitter	1,040,000	181,000	183,000	0	1,404,000
License or entrance fees	447,000	200,000	208,000	3,000	858,000
Retail goods	1,268,000	558,000	607,000	7,000	2,440,000
Other expenditures	191,000	133,000	59,000	0	383,000
Total expenditures	6,670,000	3,027,000	3,473,000	168,000	13,338,000