

PPL Montana, 45 Basin Creek Road, Butte, Montana

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PPLM-1869-1814 ORIGINAL

FEDERAL ENERGY
REGULATORY COMMISSION

Magalie R. Salas
Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

RE: Thompson Falls Hydroelectric Project (FERC No. 1869), submission of
Recreation Use Study Report as required by Commission order dated May 11,
2000 and Article 416 of the License

February 10, 2004

Dear Secretary Salas:

As required by Commission Order dated May 11, 2000 and under Article 416 of the License, PPL Montana hereby submits the 2003 Thompson Falls Recreation Use Study Report. As the May 11, 2000 Order requires, PPL Montana has consulted with the Forest Service, City of Thompson Falls, Thompson Falls Lion's Club, Montana Fish Wildlife and Parks, Sanders County and National Park Service, to monitor recreation facilities and will continue to do so every four years for the term of the License. The Order also requires PPL Montana to file, within 6 months of completion of monitoring, a description of the methodology used for monitoring recreational use, monitoring results and for Commission approval, and a plan, if necessary, for developing any additional recreational facility to accommodate project-induced recreational use.

The attached report summarizes study results of visitor activities, perceptions of facilities, trip characteristics and other study factors of recreation use associated with the Thompson Falls Hydroelectric Project. Study results, presented in the report, indicate that the Thompson Falls recreation area receives relatively light use and that visitors are generally satisfied with the recreation opportunities and facilities. Visitors to undeveloped sites often expressed desire for basic amenities, such as garbage cans and picnic tables. Visitors also expressed sensitivity to restroom cleanliness and the presence of litter and weeds at some sites.

Based on PPL Montana consultation with agencies and stakeholders, these recreation study results do not suggest a need, at the present time, to develop additional recreational facilities to accommodate project-induced recreational use. However, PPL Montana is making necessary enhancements to Wild Goose Landing Park, which is owned and operated by the City of Thompson Falls. Through an agreement reached with the City this summer, PPL Montana will contribute \$7,500 annually for a five-year period to improve operation and maintenance of the park. In addition, in September 2003, PPL Montana installed a new 40-foot floating dock (\$14,800) at the park to improve access to and recreation on Thompson Falls Reservoir. PPL Montana also has made matching contributions to a project not yet initiated by the community regarding the reopening of the High Bridge.

The Thompson Falls Recreation Use Study will be conducted every four years to help determine if project-induced recreation demand is being adequately accommodated.

Sincerely,



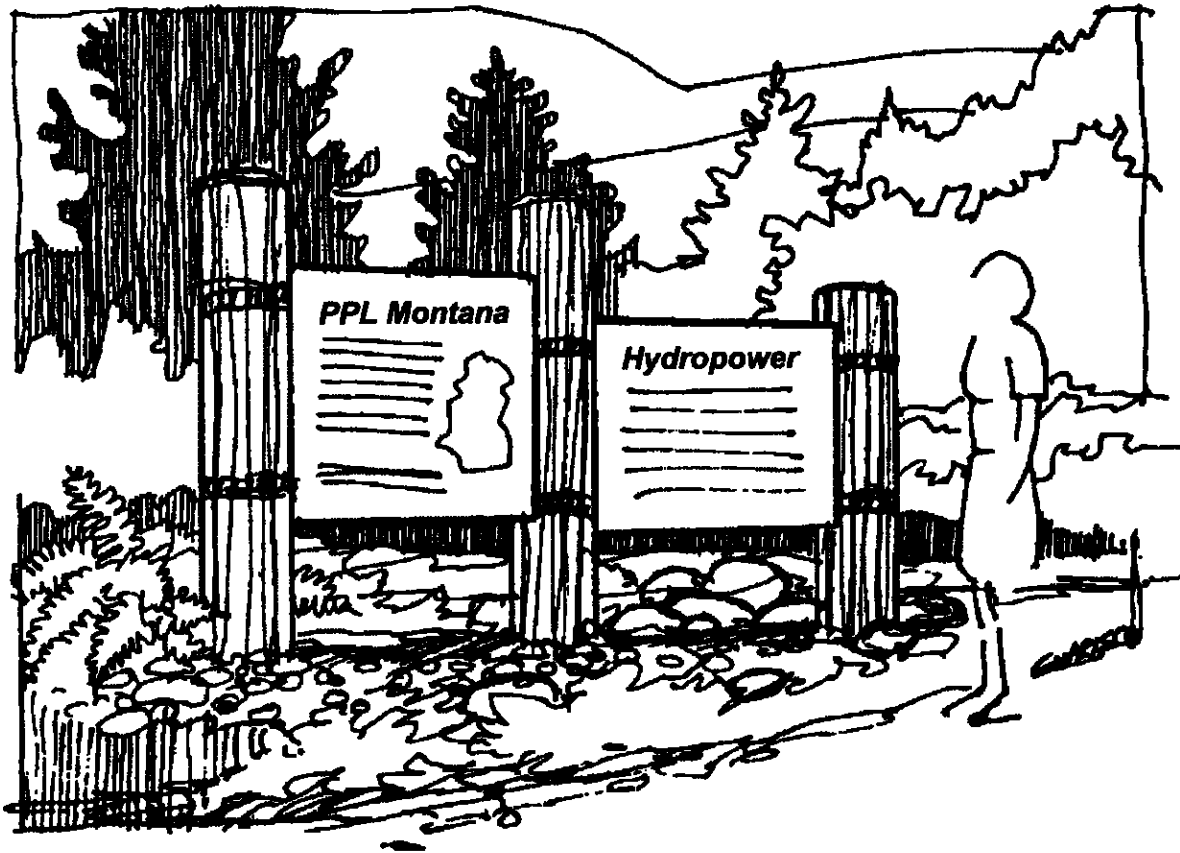
John C. VanDaveer,
Manager Hydro Generation

cc: Jeff Frost, APLE
Nancy Johnson, APLE
Jon Jourdonnais, PPLM
Rich Bonnes, PPLM
District Ranger, Plains District
T-Falls Beautification Project

Brian Burky, Sanders County Park Board
Marty Watkins, MFWP
Sanders County Commissioners
T-Falls Lions Club
T-Falls Public Works Director

2003 Recreation Use Study Report

Thompson Falls Hydroelectric Project



December 12, 2003

Prepared for:
PPL Montana

Prepared by:
American Public Land Exchange Company

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Summary

A survey of recreational use in the Thompson Falls Hydroelectric Project area was conducted by PPL Montana from mid-May to mid-September 2003. The study was designed and administered by the American Public Land Exchange Company.

Over the course of the study, 166 recreationists (aged 16 or over) were interviewed at eleven recreation sites about their past and present visits, activities, opinions and other factors.

Results Overview

- ❑ Seventy-one percent of visitors live in Montana, with 50 percent from Sanders County and 48 percent from Thompson Falls. Visitors were 70 percent male and had an average age of 43.
- ❑ The sites with the most visitors were Thompson Falls State Park (24 percent), Wild Goose Landing Park (15 percent), and South Shore, Island Park and Flat Iron Ridge (11 percent each). North Shoreline and Power Company Park provided eight and seven percent of the sample respectively. Cherry Creek Access Site, Thompson River mouth, Sandy Beach, and Boat Barrier north shoreline contributed a total of only 13 percent of the sample.
- ❑ Two-thirds of visitors had visited the site before. These visitors had used the site an average of five years, usually nine days each year.
- ❑ On their current visit, 93 percent of visitors used the area for the day and seven percent spent the night. Typically, day users spent two hours and campers spent two nights.
- ❑ The average group size was two, with three-quarters of the groups composed of one to three people.
- ❑ Of the 19 recreation activities included in the survey, relaxing and socializing were reported most often (90 and 58 percent respectively).
- ❑ Water-based activities were also popular, with 42 percent of visitors fishing from shore, seven percent fishing from a boat and 28 percent swimming. Four percent motorboated and two percent or less each used a tube, raft, canoe or kayak.
- ❑ Nearly half reported hiking or walking and picnicking (45 and 43 percent respectively).
- ❑ Twelve percent of visitors were camping in tents and 11 percent were using RVs on their trip, although not necessarily at the site where they were surveyed.
- ❑ The primary motivation for the visit was to be outdoors and enjoy nature.
- ❑ Nearly half (47 percent) of the visitors preferred to see some changes in recreation development or management at the site. Most desired changes

related to improving the site's condition (restroom cleanliness, litter and weed control, goose droppings, etc.) and requests for additional basic facilities (garbage cans, tables and benches, drinking water, boat dock, etc.).

- When asked what they liked about the landscape, visitors almost unanimously responded (97 percent) and most often mentioned the area's scenic beauty or their positive feelings for the place. Many mentioned appreciating the setting's peacefulness and naturalness.
- When asked what they disliked about the landscape, 17 percent of visitors responded and expressed their sensitivity to litter, the closeness of the site to a road or railroad, and weeds.
- Ninety-one percent of visitors reported encountering no problems on their visit. For those reporting a problem, half involved the behavior of other people (rudeness, late night disturbance, suspicion of illegal activity).
- In general, recreation use in 2003 was very similar to that reported in the previous study done in 1999, with the exception that the recent study found fewer out-of-state visitors, more male visitors, more first-time visitors, less hiking or walking activity, and more desire for change to facilities or management.¹

Report Organization

Section 1 of the report outlines the **study's purpose and guidelines**.

Section 2 summarizes **study results**. It describes the typical visitor, their trip characteristics and activities, and their opinions on area facilities.

Section 3 outlines the **study's methods**.

¹ Statistically significant differences at the 90 percent confidence level.

1. Introduction

The American Public Land Exchange Co. conducted a recreational use study for PPL Montana in the Thompson Falls area from mid-May through mid-September 2003. The visitor survey provides PPL Montana and other stakeholders with information on summer-season recreational use associated with PPL Montana's Thompson Falls Hydroelectric Project.

The American Public Land Exchange (APLE) developed the survey methodology and questionnaire in cooperation with staff from PPL Montana, Sanders County, Forest Service, and Fish, Wildlife and Parks. APLE also administered the survey, analyzed the data and provided this summary report.

1.1 Goal

The goal of the study, which is conducted every four years, was to monitor recreational use to help determine whether hydro project-induced recreation is being adequately accommodated.

1.2 Objectives

The survey objectives were to collect and update information about recreational use of Thompson Falls Reservoir and the river immediately downstream. The study was designed to replicate the 1999 survey in order to evaluate trends in recreation use. Information was gathered regarding the visitors':

- Previous use of the site (number of years, visits in past year, typical trip duration)
- Current use of site (length of visit, group size)
- Recreation activities at the site
- Motivations for visiting
- Opinions on the adequacy of the site's facilities and/or need for change
- Perceptions of the surrounding landscape
- Problems encountered, if any
- Geographic origin, age and gender

1.3 Study Area and Survey Sites

The study area included the Thompson Falls Reservoir and the river downstream of the dams and powerhouses to the State's fishing access site at Flat Iron Ridge.

In total, eleven sites were included in the study. Recreationists were interviewed along the north side of the reservoir at the mouth of the Thompson River, along Highway 200

between the abandoned mill and Wild Goose Landing Park, at Wild Goose Landing Park, at the north end of the boat barrier, Island Park and the Power Company Park. Recreationists were also interviewed and observed along the river downstream of the dams at Sandy Beach, Thompson Falls State Park, and Flat Iron Ridge FAS. Along the south side, recreationists were surveyed at South Shore and the Cherry Creek Access Site.

The surveyed sites, ordered beginning at the mouth of the Thompson River and proceeding counter-clockwise around the project were:

Site	Management Agency	Surveyed Area(s)
Thompson River mouth (1)	Montana Department of Transportation	Undeveloped and informal use area at the mouth of Thompson River at the reservoir.
North shoreline between mill and Wild Goose Landing Park	Montana Department of Transportation	Undeveloped and informal use area along north shoreline (and Highway 200) between abandoned mill and Wild Goose Landing Park.
Wild Goose Landing Park (2)	City of Thompson Falls	Day use area within the park.
Boat barrier north shoreline	PPL Montana	Undeveloped and informal use area along shoreline at the north end of boat barrier.
Island Park (3)	PPL Montana	Day use area on the island.
Power Company Park (4)	PPL Montana	Day use area within the park.
Sandy Beach	PPL Montana	Undeveloped and informal use area downstream of the original powerhouse on the north side of the river.
Thompson Falls State Park (5)	Montana Department of Fish, Wildlife and Parks	Campground and day use areas within the state park.
Flat Iron Ridge Fishing Access Site	Montana Department of Fish, Wildlife and Parks	Day use area within the fishing access site.
South Shore (6)	PPL Montana	Undeveloped and informal use area along south shore of the river between High Bridge and the mouth of Prospect Creek.
Cherry Creek Access Site	Sanders County Parks	Mainly undeveloped water access site on south shore of reservoir at Cherry Creek.

Site names followed by a number in () indicate that the site was a potential starting point for the daily interviews, chosen by the roll of a die (details in Section 3).

1.4 Population of Interest

The population of interest consisted of all recreationists aged 16 years or older who visited the study area from mid-May through mid-September 2003.

1.5 Methods Overview

Recreationists were interviewed during their visit to the study sites on 33 randomly selected days during the study period. The interviewer sampled for eight hours each day and traveled in a random systematic manner between sites. One member (aged 16 or over) from each recreation group was randomly selected to answer questions regarding their visit. A structured interview was conducted using the survey questionnaire in Appendix A.

In total, 166 recreationists participated in the survey. Only three people declined to be interviewed, resulting in a survey response rate of 98 percent.

The sample size allows a 90 percent confidence level that study results are within +/- six percent of actual population values.²

The 2003 sample size was about half that of the 1999 study (313), despite the fact that sampling occurred on only 13 percent (five) fewer days. This might in part be explained by the inclusion in the 2003 study of the Cherry Creek access site (which receives little use relative to interviewer travel time) and the potential negative affect on tourism and recreation from regional wildfires during summer 2003.

Section 3 provides details about the study methodology.

² For binomial random variables, at its worst case where $p = 0.5$

2. Results

The following study results describe the visitors, where they went, what they did, and their opinions about the site they visited. Where applicable, 2003 results are compared to the 1999 study results to help identify potential trends in recreation use.

2.1 Typical Visitor

Gender

Seven out of ten visitors were male. This is a greater proportion of males than in 1999, when the split was about 50-50.

Gender	Frequency	Percent
Male	114	69
Female	51	31
Total	165	100

Age

The average (mean and median) age of visitors (age 16 or over) was 43. The mean age reported in 1999 was 46.

	N	Min.	Max.	Mean	Median
Age	163	16	73	43	43

Nearly two-thirds (64 percent) of visitors were between the ages of 30 and 59.

Age by Category	Frequency	Percent	Cumulative Percent
16 to 19	12	7	7
20 to 29	23	14	21
30 to 39	30	18	39
40 to 49	42	26	65
40 to 49	42	26	65
50 to 59	33	20	85
50 to 59	33	20	85
60 to 69	18	11	96
60 to 69	18	11	96

70 or more	5	3	99*
Total	163	99*	

* Total not equal to 100% due to rounding.

Origin

Seventy-one percent of visitors originated from Montana, with 50 percent from Sanders County and 48 percent from Thompson Falls. Six percent of visitors owned or leased a home on Thompson Falls Reservoir.

Twenty-nine percent of visitors were from out-of-state, with Washington and Idaho contributing 18 percent. During the 1999 study, 37 percent were non-residents; this decrease in 2003 might be attributable to wildfire-related impacts on regional tourism and recreation.

Residence	Frequency	Percent	Cumulative Percent
Montana	117	71	71
Washington	19	11	82
Idaho	11	7	89
Oregon	5	3	92
California	3	2	94
Arizona	2	1	95
Other states (one occurrence each)	7	4	99
Other Countries	2	1	100
Total	166	100	

2.2 Site Visited

Nearly one-quarter (24 percent) of the visitors were sampled at Thompson Falls State Park, 15 percent at Wild Goose Landing Park, and 11 percent each at South Shore, Island Park and Flat Iron Ridge. North Shoreline and Power Company Park provided eight and seven percent of the sample respectively. Four of the sites (Cherry Creek Access Site, Thompson River mouth, Sandy Beach, and Boat Barrier north shoreline) contributed a total of only 13 percent of the sample.

The figures provide a general indication of each site's use relative to the other sites.³ Site visited was not reported in 1999.

³ The probability of being included in the sample at Thompson Falls State Park was slightly higher because of longer duration stays there, versus the other ten sites that were day use only.

Site	Frequency	Percent	Cumulative Percent
Thompson Falls State Park	40	24	24
Wild Goose Landing Park	24	15	39
South Shore	19	11	50
Island Park	18	11	61
Flat Iron Ridge Fishing Access Site	18	11	72
North shoreline between mill and Wild Goose Landing Park	13	8	80
Power Company Park	12	7	87
Boat barrier north shoreline	6	4	91
Sandy Beach	6	4	95
Thompson River mouth	5	3	98
Cherry Creek Access Site	5	3	101*
Total	166	101*	

* Total not equal to 100% due to rounding.

2.3 Previous Experience

Past Visits

Two-thirds (67 percent) of visitors had been to the site before. In 1999, 77 percent reported visiting the site previously.

	Frequency	Percent
First Visit to Area	54	33
Not First Visit to Area	112	67
Total	166	100

Amount of Past Experience

In general, recreationists that had used the site before had visited the site for five years and usually visit nine days each year (based on medians).

	N	Min.	Max.	Mean	Median
Years Visiting	112	1	55	9	5
Times Visited in Last Year	112	1	200	26	9

Usual Past Trip Duration

For visitors with past experience in the area, 96 percent typically used the area for day use and four percent usually spent the night.

Visitors that were usually day users typically stayed about two hours.⁴ Visitors that usually camped typically spent two nights.

	N	Percent	Min.	Max.	Mean	Median
Hours if Day Use	107	96	1	14	2.6	2
Nights if Overnight	4	4	1	3	1.8	2
Total	111	100				

2.4 Trip Duration and Group Size

Trip Duration

During their current visit, 93 percent of recreationists were day users and seven percent spent the night. In 1999, almost twice as many respondents (13 percent) reported spending the night; this is consistent with the higher proportion of out-of-state visitors in 1999.

Day use visitors typically stayed about two hours.⁴ Overnight visitors usually spent two nights at the site. These trip durations are similar to 1999.

	N	Percent	Min.	Max.	Mean	Median
Hours if Day Use	155	93	1	14	2.4	2
Nights if Overnight	11	7	1	7	2.6	2
Total	166	100				

⁴ Hours were rounded to the nearest whole number, with one being the minimum.

Group Size

The average group size was two people, with three-quarters (76 percent) of the groups composed of three people or less. Group size is about identical to 1999.

	N	Min.	Max.	Mean	Median
Group Size	165	1	30	2.9	2

Group Size	Frequency	Percent	Cumulative Percent
1	44	27	27
2	59	36	63
3	23	14	77
4	18	11	88
5	9	6	94
6 or more	12	7	101
Total	165	101	

* Total not equal to 100% due to rounding.

2.5 Activities and Experiences Pursued

Activities

Of the 19 recreation activities surveyed, relaxing and socializing were reported most often (90 and 58 percent respectively). This is close to that reported in 1999 (95 and 66 percent respectively).

Not surprisingly, water-based activities were also popular. Along the shoreline, 42 percent of visitors fished and 28 percent swam (36 and 20 percent respectively in 1999). Afloat, four percent motorboated and two percent or less each used a tube, raft, canoe or kayak (in 1999, eight percent motorboated, four percent tubed and three percent or less each rafted, canoed or kayaked).

Nearly half reported hiking or walking and picnicking (45 and 43 percent respectively). In 1999, more hiking or walking and less picnicking were reported (65 and 38 percent respectively).

Twelve percent of visitors were camping in tents and 11 percent were using RVs on their trip, although not necessarily at the site where they were surveyed. In 1999, 16 percent tented and 19 percent used an RV.

Activity	Frequency	Percent
Relaxing	150	90
Socializing	96	58
Hiking or Walking	74	45
Picnicking	72	43
Fishing from Shore	70	42
Swimming	47	28
Photography	28	17
Reading	26	16
Tent Camping	20	12
RV Camping	19	11
Nature Study	19	11
Fishing from a Boat	12	7
Motorboating	7	4
Bicycling	6	4
Tubing	4	2
Rafting	4	2
Canoeing	4	2
Kayaking	2	1
Waterskiing	1	1

When asked about hunting, five percent of visitors said they had hunted along the reservoir in the past, mostly for deer and elk.

Experience Motivations

When asked about the importance of various reasons for visiting, 93 percent of visitors reported that being outdoors was very or extremely important and 84 percent said that enjoying nature was very or extremely important.

Seventy-five percent said that finding solitude was very or extremely important, 69 percent said that being with family or friends was very or extremely important, and 57 percent said that excitement was very or extremely important to their visit.

The rank order of the experience motivations was the same in 1999.

Reason for Visiting	Not at All Important	Not Very Important	Somewhat Important	Very Important	Extremely Important
To be Outdoors	1 % n = 1	1 % n = 1	6 % n = 9	26 % n = 42	67 % n = 108
To enjoy Nature	0 % n = 0	2 % n = 3	14 % n = 22	44 % n = 71	40 % n = 65
To find some Solitude	2 % n = 3	4 % n = 7	19 % n = 31	33 % n = 52	42 % n = 67
To be with Friends or Family	8 % n = 12	5 % n = 8	19 % n = 31	35 % n = 56	34 % n = 54
For Excitement	6 % n = 9	6 % n = 10	32 % n = 51	34 % n = 54	23 % n = 37

2.6 Opinions on Facilities

Need for Change

Nearly half (47 percent) of the visitors preferred to see some changes in recreation development or management at the site. This is relatively high; it was 33 percent in 1999, which also is not a low percentage.

	Frequency	Percent
Prefer No Change	84	53
Prefer Change	75	47
Total	159	100

Desire for change appears to be largely influenced by negative perceptions of the site's condition (restroom cleanliness, presence of litter, weeds, goose droppings, floating debris, hazard trees, etc.) and desire for additional basic facilities (garbage cans, tables and benches, drinking water, boat dock, etc.).

Improvements Desired

Of those visitors wanting facility change (n = 75), the improvements desired most often were better litter control (15 percent), cleaner toilets and better knapweed control (five percent each), improved boating facilities, repairs to the High Bridge and better-maintained access roads (four percent each). Improvements desired in 1999 were similar.

Improvements Desired	Frequency	Percent
Litter control, more trash cans	11	15
Toilets – cleaner or better maintained	4	5
Control knapweed	4	5
Boat launch or dock	3	4
Repair High Bridge	3	4
Roads – better maintained	3	4
Signs	2	3
Remove floating debris, control algae	2	3
Remove hazard trees	2	3
Remove goose droppings	2	3
Trails	2	3
Parking	1	1
Landscaping	1	1

Additions Desired

Of those visitors wanting facility change (n = 75), the additions desired most often were garbage cans (17 percent), tables or benches and showers (seven percent each), and drinking water (four percent). Additions desired in 1999 were similar.

Additions Desired	Frequency	Percent
Garbage cans	13	17
Tables or benches	5	7
Showers	5	7
Drinking water	3	4
Parking	2	3
Restroom	2	3
Dock	2	3
Dock	2	3
Electricity	1	1
Access to other side of river	1	1
Breakwater	1	1
Breakwater	1	1
Fish cleaning station	1	1

Additions Desired	Frequency	Percent
Hot water and mirrors	1	1
Swimming area	1	1
More law enforcement	1	1
Bee traps	1	1

Removals Desired

No visitors reported wanting a facility or amenity removed.

Preferred Changes by Site

Although site sample sizes were too small to allow high statistical confidence in site-specific visitor preferences for improvements and additions, the results help illustrate area needs.

When sites are examined individually and ranked according to the proportion of site visitors that prefer change, three undeveloped north shore sites (Thompson River mouth, Boat Barrier and North Shoreline) top the list. Although high proportions of visitors at these sites desire change, their number is relatively small because of low site visitation.

When the project area is examined as a whole and sites with high numbers of visitors preferring change are identified, Thompson Falls State Park ranks highest (28 percent of the area's visitors that preferred change were here), followed by South Shore, North shoreline, Wild Goose Landing Park, and Island Park (about 11 percent each).

	Site Visitors Preferring Change		
	Frequency	Percent of Site's Visitors	Percent of Area's Visitors
Thompson River mouth	5	100%	7%
Boat barrier (north shore)	4	67%	5%
North shoreline	8	62%	11%
Thompson Falls State Park	21	57%	28%
South Shore	9	50%	12%
Island Park	8	44%	11%
Cherry Creek Access	2	40%	3%
Flat Iron Ridge FAS	6	35%	8%
Wild Goose Landing Park	8	35%	11%

Sandy Beach	2	33%	3%
Power Company Park	2	18%	3%

	Improvements	Frequency	Additions	Frequency
Thompson Falls State Park	Restroom cleanliness	4	Showers	5
	Boat ramp	2	Garbage cans	4
	Signs	1	Dump station	2
			Hot water	1
			Electricity	1
South Shore	Access road	2	Garbage cans	4
			Law enforcement	1
			Dock	1
			Vehicle blockage	1
North shoreline	Litter cleanup	1	Garbage cans	2
			Parking	1
			Dock	1
			Toilet	1
Wild Goose Landing Park	Maintenance	1	Breakwater	1
	Landscaping	1	Picnic tables	1
	Swimming area	1		
	Dock	1		
Island Park	Reopen High Bridge	3	Picnic tables	1
			Garbage cans	1
			Drinking water	1
Flat Iron Ridge FAS	Restroom serviced year round	1	Garbage cans	6
			Fish cleaning station	1
Thompson River mouth	Litter cleanup	2	Fishing education signs	1
	Signs	1		
	Trails	1		
Boat barrier (north shore)	None		Picnic tables or bench	3
			Parking	1
Cherry Creek Access	Parking	1	None	
	Widen access road	1		
Sandy Beach	Litter cleanup	1	Garbage cans	1
			Bench	1
Power Company Park	None		Playground facilities	1
			Water fountain	1
			Bee traps	1

2.7 Opinions about Landscape

Liked about Landscape

When asked what they liked about the landscape, 97 percent of visitors responded and almost unanimously mentioned the area's natural beauty or their positive feelings for the place. These comments ranged from the general (it's awesome,

beautiful, lovely, etc.) to praise for specific landscape elements (trees, river, wildlife, mountains, etc.). Many mentioned appreciating the setting's peacefulness and naturalness.

Disliked about the Landscape

When asked what they disliked about the landscape, 17 percent of visitors responded and expressed their sensitivity to litter (five percent), the closeness of the site to a road or railroad (four percent), and weeds (two percent).

Disliked about Landscape	Frequency	Percent
Litter	9	5
Closeness to road or railroad	7	4
Knapweed	3	2
Heat and dryness	2	1
Dam or power plant	2	1
Clear cuts	2	1
Algae	1	1
Animal droppings	1	1
Barking dogs	1	1
Floating debris	1	1

2.8 Visit Problems

Encountered Problem

Ninety-one percent of visitors reported encountering no problems on their visit. This is almost the same level reported in 1999 (92 percent).

	Frequency	Percent
Didn't Encounter Problem	151	91
Encountered Problem	15	9
Total	166	100
Total	166	100

Types of Problems

For the nine percent of visitors reporting a problem (n = 15), 40 percent of the problems involved the behavior of other people (boaters, rude people, late night disturbance, suspicion of illegal activity).

Problem	Frequency	Percent
Boaters	2	13
Rude people	2	13
Broken glass	2	13
Not enough water access	1	7
Parking	1	7
Car trouble	1	7
Late-night disturbance from park personnel	1	7
Poor signage	1	7
Condition of dock	1	7
Suspicion of drug exchanges	1	7
Bees	1	7
More space for dogs to run	1	7

3. Methodology

The primary objectives of the sampling framework were to:

- Arrive at a sample that was representative of typical recreation use at the sites during the sampling period.
- Use methods that allow results to be aggregated across sites to characterize recreation project wide.

Collecting sufficient data to allow high statistical confidence in site-specific results (about 200 cases at each site) was impractical if not impossible, even with the most rigorous sampling approach. Sufficient data were gathered however, to allow adequate confidence in project-wide results.

In order to best meet study objectives, visitors were randomly selected and interviewed at the recreation sites (identified in Section 1.3) by a roving interviewer using the visitor survey questionnaire (Appendix A). Interviews were conducted during “sampling events,” defined as randomly chosen time periods to sample at randomly chosen recreation sites. The next section describes the rules that created sampling events.

During each sampling event, one member from each group of recreationists present at the site was randomly selected to participate in the survey. Section 2.2 describes how respondents were chosen.

2.1 Selecting Sampling Events

To help optimize efficiency, the framework attempted to maximize the number of sampling events (opportunities to be included in the survey) as much as possible. The dates and times of sampling events were determined in the following manner:

1. Systematic random sampling was used to select sampling days. Groups of three consecutive sampling days, separated by seven non-sampling days, were ordered throughout the survey period (May 15 to September 15, 2003), for a total of 39 initially planned sample dates.
2. On each sampling date, sampling events occurred between 8:00 a.m. and 8:00 p.m. because it was assumed that most visitors would be available and willing to participate in the survey during those hours. Two daily sampling time frames (of eight hours each) were established and one was randomly assigned to each survey date.

Time Frame A: Recreationists interviewed from 8:00 a.m. to 4:00 p.m.

Time Frame B: Recreationists interviewed from 12:00 p.m. to 8:00 p.m.

During the course of survey administration, some adjustments were made to the sampling schedule to accommodate interviewer schedule conflicts, personnel replacement, etc. In particular, some planned sampling was lost in June, which resulted in some under sampling during that month.

Because of the overlap in afternoon sampling, the sampling strategy tended to over-sample recreationists using sites during afternoon hours, but helped ensure a greater number of survey responses. The 1999 study used this strategy and it was replicated in 2003 (with slightly less overlap) to make results as comparable as possible.

Thirty-three days were included in the final sample, which comprised 27 percent of the 124 days of the survey period. All three of the weekday holidays (Memorial Day, July 4th and Labor day) were included in the sample selection.

The location of sampling events were determined using a systematic, random framework:

1. For each sampling date, the interviewer selected the location to begin interviewing by rolling a die. The rolled number corresponded to one of six potential starting sites, identified in the site list (Section 1.3). The interviewer arrived at the selected recreation site at the beginning of the selected daily timeframe (i.e.- 8:00 a.m. or 12:00 p.m.).
2. The interviewer swept through the site conducting interviews until all groups of recreationists were contacted. The interviewer remained at the site for the time necessary to contact all groups, spending a minimum of 15 minutes. When the site was completed the interviewer proceeded to the next site, moving in a counter-clockwise direction around the reservoir, and repeated this step until the sampling time frame was complete (i.e.- it is 4:00 p.m. or 8:00 p.m.).

A sampling schedule in Section 2.4 outlines sampling dates and start times.

2.2 Visitor Sampling Rules

Reasonable attempts were made to include in the sample one individual (aged 16 years or older) from every group of visitors present at the recreation site during the sampling event. A recreation group was defined as any group of individuals, such as family, friends, or tour group, visiting the recreation site together. Non-recreationists, such as PPL Montana or agency employees or volunteers, were excluded from the sample.

Groups of visitors were approached on site, briefly informed of the survey's purpose and asked to participate. Typically this required the following script:

“Hello, my name is (first name). I’m conducting a recreation survey here in cooperation with PPL Montana, Sanders County, and Fish, Wildlife and Parks. Would you mind if I asked a few questions about your visit to this site? It will take about ten minutes.”

If asked for additional information about the survey's purpose, the interviewer added:

"The information will help land managers better understand your needs and opinions."

The survey respondent was randomly selected from the group based on the most recent past birthday. If the selected person chose not to participate, the interviewer repeated the process excluding that person. During each sampling event, the number of recreation groups that refused to participate in the survey was recorded for response rate calculation.

In order to limit the amount of participation of any one person or group in the study and aid in acquiring a diverse sample, the following decision rules applied:

1. The same person could be interviewed only once at each recreation site during the study period. In other words, once a person had been interviewed at a site at any time, they were eliminated from future sampling at that site, but could be included again at other sites.
2. The same group could be interviewed only once per trip, but members of that group could be sampled on another trip at another time. In other words, once a person in a group had participated, no other member of that group was intentionally included in the study unless they were on another trip. For purposes of this study, a trip was defined as any number of consecutive hours or days recreating within the study area.

In total, 166 recreationists participated in the survey over the study period and only three people declined, resulting in a survey response rate of 98 percent.

2.3 Pretest

The survey questionnaire had been used in 1999 at Thompson Falls and hence has been tested in the past.

2.4 Sampling Schedule

Month	Date	Day	Start Time	#
May	17	Saturday	8:00 a.m.	1
	18	Sunday	12:00 p.m.	2
	24	Saturday	8:00 a.m.	3
	25	Sunday	12:00 p.m.	4
	26	Holiday Monday	8:00 a.m.	5
June	13	Friday	8:00 a.m.	6
	14	Saturday	12:00 p.m.	7
	15	Sunday	8:00 a.m.	8
July	3	Thursday	8:00 a.m.	9
	4	Holiday Friday	12:00 p.m.	10
	5	Saturday	8:00 a.m.	11
	13	Sunday	12:00 p.m.	12
	14	Monday	8:00 a.m.	13
	15	Tuesday	12:00 p.m.	14
	23	Wednesday	8:00 a.m.	15
	24	Thursday	12:00 p.m.	16
25	Friday	8:00 a.m.	17	
August	2	Saturday	12:00 p.m.	18
	3	Sunday	8:00 a.m.	19
	4	Monday	12:00 p.m.	20
	12	Tuesday	8:00 a.m.	21
	13	Wednesday	12:00 p.m.	22
	14	Thursday	8:00 a.m.	23
	17	Sunday	12:00 p.m.	24
	18	Monday	8:00 a.m.	25
	19	Tuesday	12:00 p.m.	26
	20	Wednesday	8:00 a.m.	27
	23	Saturday	8:00 a.m.	28
24	Sunday	12:00 p.m.	29	
September	1	Holiday Monday	8:00 a.m.	30
	6	Saturday	12:00 p.m.	31
	7	Sunday	8:00 a.m.	32
	13	Saturday	8:00 a.m.	33
	14	Sunday	12:00 p.m.	34

Weekends and holidays are bolded

Appendix A – Visitor Survey Questionnaire

2003 Thompson Falls Visitor Survey Questionnaire

"Hello, my name is (first name). I'm conducting a recreation survey here in cooperation with PPL Montana, Sanders County, and Fish, Wildlife and Parks. Would you mind if I asked a few questions about your visit to this site? It will only take about ten minutes." (Select respondent from group based on most recent past birthday.)

1. Case #: _____ 2. Month/Day: ____ / ____ 3. Time: _____ (24 hour clock)

4. Site:
- | | |
|---|---------------------------------------|
| 1 Thompson River mouth at reservoir | 7 Sandy Beach |
| 2 North shoreline (between mill and Wild Goose) | 8 Thompson Falls State Park |
| 3 Wild Goose Landing Park | 9 Flat Iron Ridge Fishing Access Site |
| 4 Boat barrier (north shore) | 10 South Shore |
| 5 Island Park | 11 Cherry Creek Access Site |
| 6 Power Company Park | 12 Other _____ |

5. Temp:
- | | | | | |
|-------------|---------------|---------------|----------|--------------|
| 1 20-40 F | 6. Sky Cover: | 1 Clear | 7. Wind: | 1 Calm |
| 2 40-60 F | | 2 <50% Clouds | | 2 Breezy |
| 3 60-80 F | | 3 >50% Clouds | | 3 Windy |
| 4 Over 80 F | | 4 Raining | | 4 Very Windy |

8. Sex: 1 Male 2 Female

9. _____ "What is your age?"

10. "Where do you live?" City/Town: _____ State: _____

11. Do you or anyone in your family own or lease a home on Thompson Falls Reservoir?

- 1 Yes 2 No

12. "Is this your first visit to this recreation site?"

- 1 Yes 2 No



13. _____ "About how many years have you been visiting the site?"

14. _____ "About how many days a year do you visit the site?"

15. "How long do you usually stay?" Hours: _____ (day use) or Nights: _____ (overnight use)

16. "How long will you stay at this site on this trip?" Hours: _____ (day use) or Nights: _____ (overnight use)

17. _____ "How many people are in your group on this trip?"

18. "How do you feel about the recreational development here? Would you like to see the area left as it is or would you prefer any changes?"

- 1 Left as is 2 Prefer changes → "What changes would you prefer to see?"



19. Improved: _____

20. Added: _____

21. Removed: _____

"I am going to read a list of five reasons why people participate in outdoor recreation. Please tell me the number on this card (provide card) that corresponds to how important that reason is to you today."

1	2	3	4	5
Not at all important	Not very important	Somewhat important	Very important	Extremely important

- 22. ___ To enjoy nature
- 23. ___ To be with friends or family
- 24. ___ To be outdoors
- 25. ___ For excitement
- 26. ___ To find some solitude

27. "Have you ever hunted along the reservoir before?"

1 No 2 Yes → 28. "What did you hunt?" _____



"Which of the following activities are you participating in while on this trip?" (Check all that apply)

- | | |
|--------------------------------|--------------------------------|
| 29. ___ Fishing from the shore | 39. ___ Swimming |
| 30. ___ Fishing from a boat | 40. ___ Waterskiing |
| 31. ___ Motorboating | 41. ___ Tubing or air mattress |
| 32. ___ Canoeing | 42. ___ Photography |
| 33. ___ Rafting | 43. ___ Hiking or walking |
| 34. ___ Kayaking | 44. ___ Bicycling |
| 35. ___ Picnicking | 45. ___ Relaxing |
| 36. ___ RV camping | 46. ___ Socializing |
| 37. ___ Tent camping | 47. ___ Reading |
| 38. ___ Nature study | |

"I'd like to know what you think of the scenery or views here."

48. "What do you like about the landscape or views around here?" _____

49. "Are there aspects of the landscape you do not like?" _____

50. "Have you experienced any problems while here on this trip?"

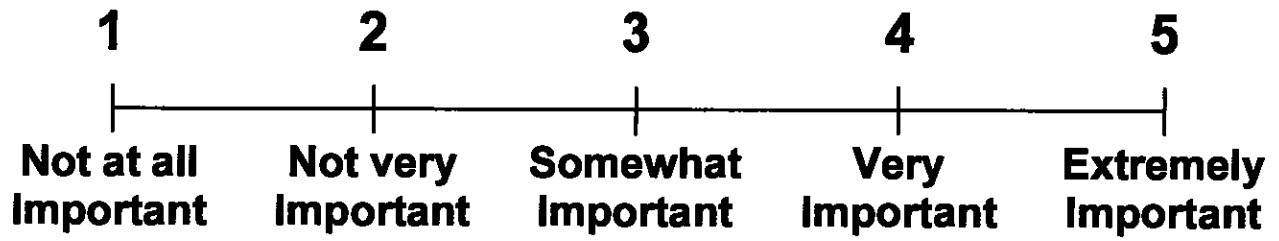
1 No 2 Yes → 51. "What were they?" _____



52. "And finally, is there anything else we should know about the recreational opportunities here?"

"Thanks very much for your help!"

Respondent Reference Card:



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