

**Thompson Falls Hydroelectric Project
FERC Project No. 1869**

**NorthWestern Energy
Final Study Report
Visitor Use Survey**



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List of Abbreviations and Acronyms

FERC	Federal Energy Regulatory Commission
ILP	Integrated Licensing Process
NorthWestern Project	NorthWestern Energy Thompson Falls Hydroelectric Project
Thompson Falls Project	Thompson Falls Hydroelectric Project
U.S.	United States

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1.0 Introduction

The Thompson Falls Hydroelectric Project (Thompson Falls Project or Project) is located on the Clark Fork River in Sanders County, Montana. Non-federal hydropower projects in the United States (U.S.) are regulated by the Federal Energy Regulatory Commission (FERC) under the authority of the Federal Power Act. The current FERC License expires December 31, 2025. As required by the Federal Power Act and FERC's regulations, on July 1, 2020, NorthWestern Energy (NorthWestern), the current licensee, filed a Notice of Intent to relicense the Thompson Falls Project using FERC's Integrated Licensing Process (ILP). Concurrently, NorthWestern filed a Pre-Application Document.

The ILP is FERC's default licensing process which evaluates effects of a project based on a nexus to continuing Project operations. In general, the purpose of the pre-filing stage of the ILP is to inform Relicensing Participants¹ about relicensing, to identify issues and study needs (based on a project nexus and established FERC criteria), to conduct those studies per specific FERC requirements which are included in the FERC Study Plan Determination, issued May 10, 2021, and to prepare the Final License Application.

This Visitor Use Survey Final Report has been prepared to comply with the requirements of NorthWestern's Revised Study Plan, filed April 12, 2021, as approved in FERC's Study Plan Determination.

1.1 Visitor Use Survey Background

NorthWestern conducted a recreation visitor survey in the Thompson Falls Project area from Memorial Day weekend through Labor Day weekend 2021. The data provided by the visitor survey provides information about recreational use during the peak recreation season. The 2021 visitor use study replicated previous studies, which allows trends and patterns in recreation use to be evaluated. Information was sought regarding:

- Previous use of the site (number of years, visits per year, typical trip duration)
- Current use of the site (length of visit, group size)
- Recreation activities at the site
- Reasons for visiting the site
- Opinions on adequacy of site facilities and/or need for change
- Perceptions of site crowding
- Satisfaction with the site and its amenities/conditions

¹ Relicensing Participants includes local, state, and federal governmental agencies, Native American Tribes, local landowners, non-governmental organizations, and other interested parties.

- Problems, if any, encountered on trip to the site
- Awareness of other recreation areas in the Thompson Falls area
- Use of trails and satisfaction
- Familiarity with no-wake zone regulations
- Geographic origin
- Socio-demographic characteristics

1.2 Goals and Objectives of Study

The goal of the visitor study was to monitor recreational use to help determine whether Project-induced recreation is being adequately accommodated. The study objectives were to collect and update information about use of recreation sites associated with Thompson Falls Reservoir and the Clark Fork River immediately upstream and downstream of the Project.

2.0 Methods

2.1 Study Area

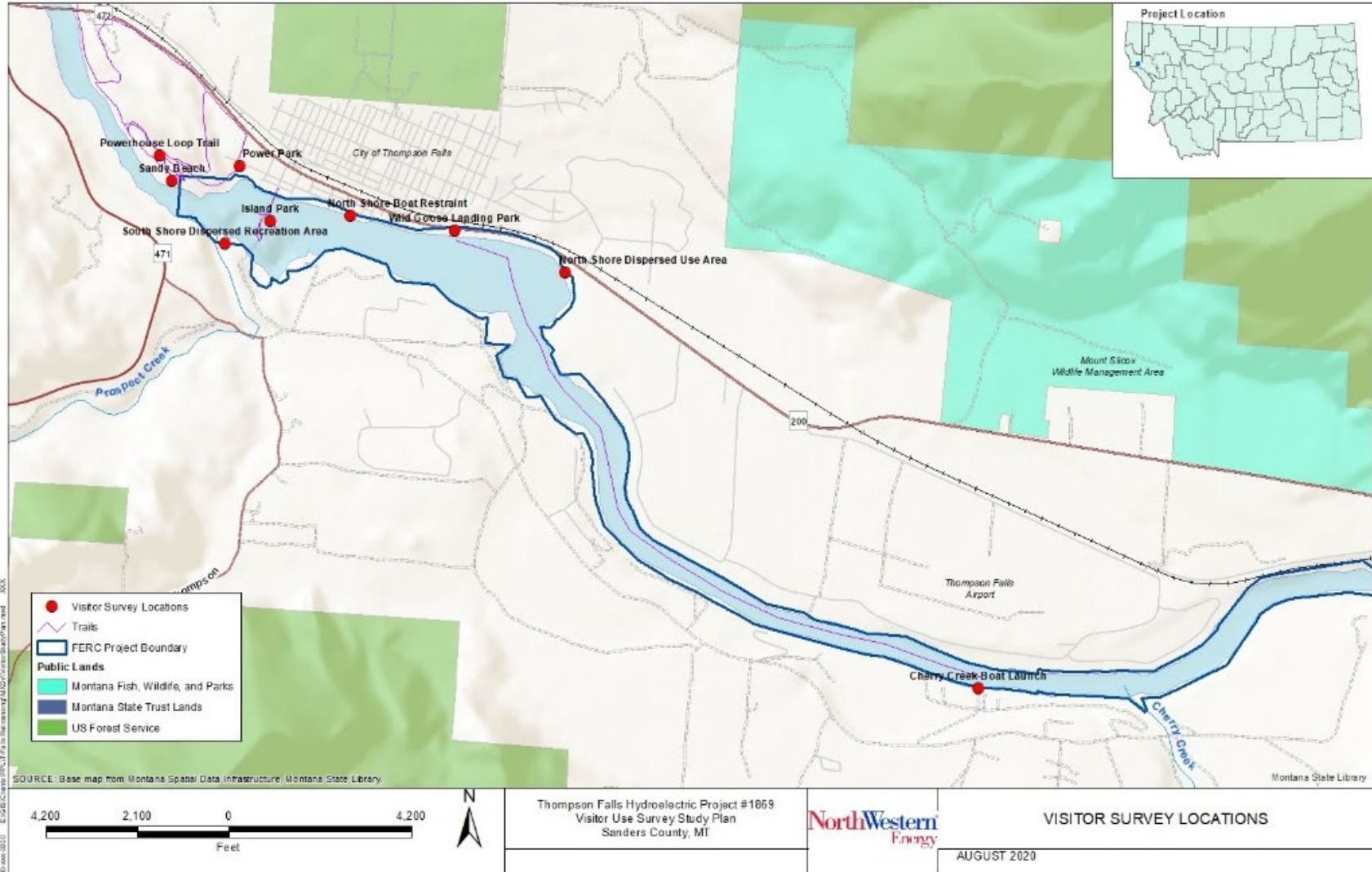
The 2021 Thompson Falls Visitor Survey was administered to visitors at nine recreation sites associated with the Project (**Table 2-1** and **Figure 2-1**). Six of the sites are managed, entirely or in part, by NorthWestern.

Table 2-1: Visitor Survey Sites

Recreation Area	Property Ownership and Managing Entity	Inside Thompson Falls FERC Project Boundary?	Surveyed Areas
Island Park	Located on NorthWestern property. Managed by NorthWestern.	Yes.	All areas within the park.
Cherry Creek Boat Launch	Located on Sanders County property. Managed by Sanders County.	Partially.	Water access site on south shore of reservoir near Cherry Creek.
South Shore Dispersed Recreation Area	Located on NorthWestern property. Managed by NorthWestern.	Partially.	Undeveloped and informal use area along the south shore of the river between High Bridge and the mouth of Prospect Creek.
Wild Goose Landing Park	Located on NorthWestern and city property. Managed by city under management agreement with NorthWestern.	Partially.	All areas within the park.
Power Park	Located on NorthWestern property. Managed by NorthWestern.	No.	All areas within the park.
Powerhouse Loop Trail	Located on NorthWestern and other private property, and within Highway 200 right-of-way. Managed by Thompson Falls Community Trails Group.	Partially; part of this trail is within the Project boundary for Avista's Clark Fork River Project, P-2058.	Trail segment from Power Park downstream to Rimrock Lodge.
Sandy Beach (dispersed)	Dispersed beach area located on NorthWestern property adjacent to Powerhouse Loop Trail.	No; this site is within the Project boundary for Avista's Clark Fork River Project, P-2058.	Undeveloped and informal use area downstream of the original powerhouse on the north side of the river.

Recreation Area	Property Ownership and Managing Entity	Inside Thompson Falls FERC Project Boundary?	Surveyed Areas
North Shore Boat Restraint	Located on NorthWestern property. Managed by NorthWestern.	Partially.	Minimally developed informal use area along shoreline at the north end of boat restraint. The site was undeveloped prior to July 2021.
North Shore Dispersed Use Area (including former sawmill site)	Dispersed shoreline access partially located on NorthWestern property and within Highway 200 right-of-way, and partially on private property.	Partially.	Undeveloped and informal use area along the north shoreline (and Highway 200) between abandoned mill site and Wild Goose Landing Park.

Figure 2-1. Visitor Survey locations



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2.2 Study Methods

2.2.1 Visitor Survey

This survey methodology and questionnaire largely replicated previous Thompson Falls Project surveys conducted in 1999, 2003, 2008, 2014, and 2018. This methodology was developed in cooperation with the city of Thompson Falls, Sanders County, U.S. Forest Service, and Montana Fish, Wildlife and Parks.

Visitor sampling occurred on 60 randomly selected days between the beginning of the Memorial Day weekend through Labor Day, 2021 (May 28–September 6), which is the peak recreation season. Each recreation site was sampled at various times of the day between 8:00 am and 9:00 pm. Systematic random sampling was used to select locations and times to provide a representative sample of times of the day and days of the week over the course of the 102 -day study period. The primary objective of the schedule was to implement a sample that is representative of typical recreation use in the Project area during the study period.

As in past Thompson Falls Project surveys, the study timeframe included the peak recreation season to obtain input from recreationists during the time of year that facilities are most widely utilized. Recreation sites host the largest proportion of visitors during the peak recreation season when water conditions and weather conditions are most ideal for recreation activities, and when all facilities are open for public use. Since the floating docks at Wild Goose Landing and Cherry Creek boat launches are installed in the water after spring runoff and then stored out of the water beginning in early fall, satisfaction with these facilities can only be gauged during the timeframe when they are in the water. Additionally, while boat launches may be utilized outside of the peak recreation season, their functionality does not vary with the season of use; launching in the spring, summer, fall, or winter all carry the same ramp requirement. Conducting the visitor survey during the peak recreation season reveals whether the available facilities are meeting the needs of the recreating public.

Reasonable attempts were made to sample one individual from every group of visitors present at the recreation site during the sampling event. A recreation group is defined as any group of individuals, such as family, friends, or tour group visiting the recreation site together. Non-recreationists, such as NorthWestern employees, were excluded from the sample.

Groups of visitors were approached by the survey technician, briefly informed of the survey's purpose, and asked to participate. The survey respondent was randomly chosen from the group by selecting the person (aged 16 or older) with the most recent past birthday. If the selected person opted not to participate, the survey technician chose the person with the next most recent birthday, and so on. If no one in the group agreed to participate in the survey, the survey technician noted the group refusal for survey response rate calculation.

To limit the amount of participation of any one person or group in the survey and aid in acquiring a diverse sample, the same person was only interviewed 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.

The survey technician used a tablet computer to administer the survey interview. The survey questionnaire was programmed into the tablet and led the survey technician through the sequence of questions; visitor responses were entered directly into the device.

2.2.2 Visitor Use Volume

To gain a better understanding of recreation visitation overall, visitor volume at recreation sites was monitored with the use of automatic traffic and trail counters to supplement visitor and trip characteristics obtained by the visitor survey. This supplemental information was collected to provide a more complete presentation of recreation visitation in the Project area and is an enhancement to the FERC-approved study plan.

At monitored recreation sites, either vehicle counters or trail counters were used to gather use information. At sites where the primary access is via automobile, vehicle counts serve as an indicator of recreation use. Because counting vehicles using the access roads or parking areas is easier than counting recreationists dispersed around a recreation site, using vehicles as proxies for recreationists is a cost-efficient and widely-adopted method for estimating site use (FWHA 2010). Vehicle counts also provide valuable insights into a site's use patterns, such as volume and timing of visitation. At sites where the primary access is on foot, trail counters were deployed to collect counts of individual recreationists. Some trail counters utilized an infrared beam while others consisted of a pressure pad. For the purposes of this analysis, trail counts of individual users were converted to groups by applying the median group size of two people from the visitor survey so that visitation data is comparable across sites.

Throughout this analysis, use information is presented as traffic volume and reflects the number of times a visitor vehicle (or group) accessed a recreation site. It is assumed that each vehicle contained one visitor group. Vehicle counts include any units in tow (such as boat trailers) as a single group count. Estimated administrative and other non-recreational site access has been removed from the counts.

A total of five automatic counters were used to describe visitor use at six of the nine recreation sites included in the visitor survey:

- Wild Goose Landing Park
- Island Park
- Powerhouse Loop Trail, including Sandy Beach
- South Shore Recreation Area
- Cherry Creek Boat Launch

Sandy Beach is only accessible by foot from the Powerhouse Loop Trail, so use of the trail system includes users that ultimately accessed Sandy Beach. Three sites – North Shore Dispersed Use Area, North Shore Boat Restraint, and Power Park – were not monitored. The means to access these three sites, which is by both vehicle and on foot along a wide stretch of terrain, makes monitoring with automatic counters ineffective due to lack of distinct entrance and exit points.

2.3 Variances from the FERC-approved Study Plan

The visitor survey was implemented in accordance with the FERC-approved study plan.

In addition to, and concurrent with, the visitor survey, NorthWestern collected data on visitor use volume to provide detail on visitor use patterns. This information was collected in addition to visitor survey results to present a more comprehensive description of the recreation visitor population overall.

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3.0 Results

3.1 Response Rate and Sample Size

A survey technician administered the visitor survey on 60 days throughout the peak recreation season. It is notable that during this time environmental conditions, including unseasonably warm temperatures, a local wildfire, and the ongoing COVID-19 pandemic may have influenced visitor use. More details regarding these factors are found in **Section 4 – Discussion**. During the sampling events, the technician made 618 total site visits (averaging 69 visits per site) that averaged 31 minutes each, for total sampling events spanning 321 hours and 35 minutes.

Of the 162 visitors intercepted at recreation sites during sampling events, 77 percent (125 visitors) participated in the survey (**Table 3-1**). Response rates for individual sites ranged from 33 percent at the Powerhouse Loop Trail to 100 percent at three other sites. The lower response rate among visitors to the Loop Trail is reasonable considering that most visitors use the trail for walking and biking that would be interrupted had they stopped to participate in the survey. Overall, visitors at study sites were largely willing to participate in the recreation visitor survey.

The sample size of 125 is sufficient to provide reasonable statistical confidence in aggregated results.² Sample sizes at individual recreation sites ranged from a high of 42 at Island Park to a low of four at the boat restraint area and on the Powerhouse Loop Trail. Three of the nine sites – Island Park, Wild Goose Landing Park, and South Shore – contributed 70 percent of the sample.

Sufficient response rates combined with equal sampling intensity (i.e., the time spent sampling at each site was about the same) produced results that provide a reasonable measure of Project-wide recreation.³

Table 3-1: Response Rate and Sample Size by Recreation Site

Recreation Site	Sample Size	Response Rate	Percent of Sample
North shoreline dispersed (between old mill site and Wild Goose Landing Park)	5	100%	4%
Wild Goose Landing Park	22	81%	18%
Boat restraint area	4	100%	3%
Island Park	42	81%	34%
Power Park	10	83%	8%

² For binomial random variables (e.g., the proportion of visitors that participate in an activity or were first-time visitors), at the worst case where $p=0.5$, we are 95% confident that the true proportion is $\pm 8.75\%$.

³ Weighting of site-specific results was not necessary.

Recreation Site	Sample Size	Response Rate	Percent of Sample
Sandy Beach	9	69%	7%
Powerhouse Loop Trail	4	33%	3%
South Shore Dispersed Area	23	85%	18%
Cherry Creek Access Site	6	100%	5%
Total	125	77%	100%

3.2 Visitor Group Characteristics

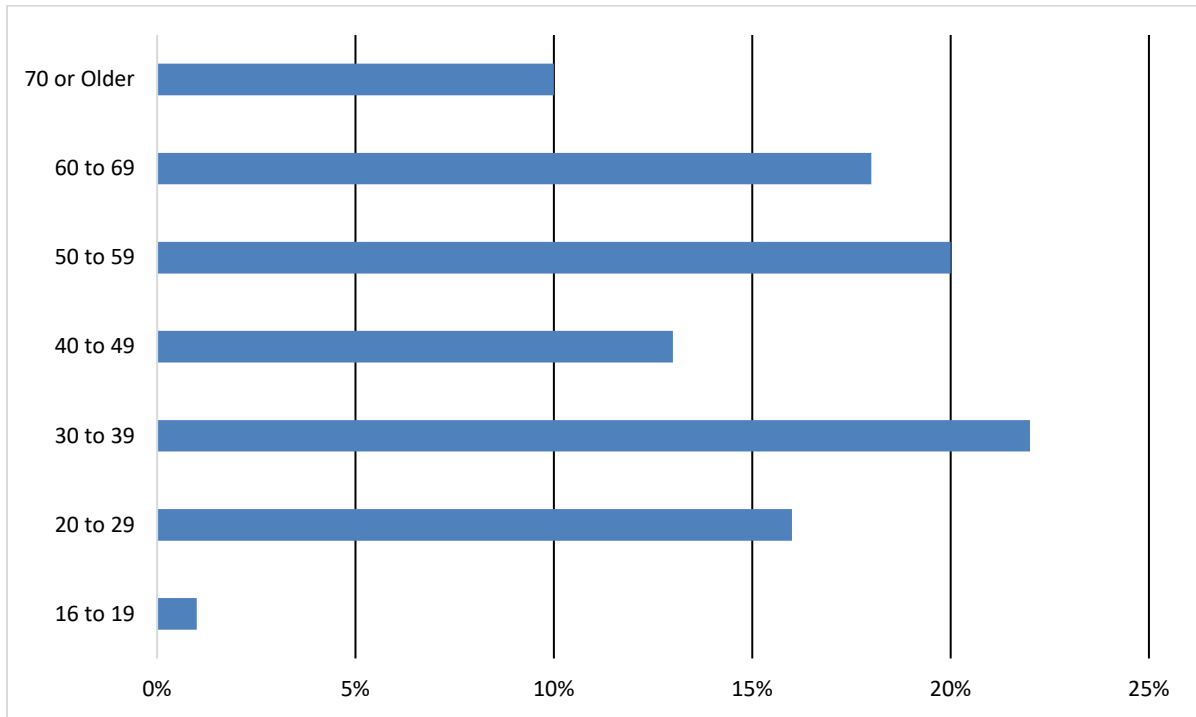
Forty-four percent of survey respondents were male, and 56 percent were female (**Table 3-2**), a continuation of a downward trend in males and upward trend in females since 2008. In 2008, the proportion of females was 40 percent, which then increased to 42 percent in 2014 and 45 percent in 2018 (NorthWestern Energy 2019). This 2021 sample breakdown closely approximates the group composition of adult males and females in 2021, which was 53 percent female and 47 percent male.

Table 3-2: Visitor Gender

Gender	Percent of Survey Respondents	Percent of Group Members
Female	56%	53%
Male	44%	47%

Recreation site users were well distributed among age ranges in 2021 and were very similar to the distribution of ages encountered in prior studies. Older visitors (60+) have consistently comprised about 30 percent of the visitor base, while younger visitors (16-29) have comprised about 15 percent (NorthWestern Energy 2019). Visitors between the ages of 30 and 59 typically make up about 55 percent of all visitors. These proportions were 28, 17, and 55 percent in 2021, respectively (**Figure 3-1**). The median visitor age of 48 in 2021 is consistent with prior studies.

Table 3-3: Percent of Visitors by Age



Seventy-eight percent of visitors were from Montana and 22 percent were from out-of-state (**Table 3-4**). While this relative proportion of in-state and out-of-state visitors is consistent with prior years, the proportion of visitors from the local area (Thompson Falls, Plains, and Trout Creek) was about 10 percent lower in 2021 than in prior years, and the proportion from Missoula and other areas of Montana was about 10 percent higher than in prior years (NorthWestern Energy 2019). This is likely due, at least in part, to the presence of wildfire smoke which likely influenced local residents to remain indoors while visitors from out of the area went ahead with their planned activities away from home, as well as pandemic-related conditions that motivated people to get outdoors in spite of smoky conditions. Surrounding states were represented in 2021 in relatively the same proportion as in prior years.

Table 3-4: Visitor Origin

State of Visitor Origin	Percent of Total	Montana Town of Origin	Percent of Visitors
Montana	78%	Thompson Falls	36%
Washington	10%	Plains	6%
Idaho	6%	Trout Creek	3%
California	2%	Missoula	14%
Oregon	2%	Other Montana	20%
Other States	2%		
Other Countries	--		

The majority of recreation site visitors (60%) were repeat visitors (**Table 3-5**). This is consistent with prior years, though represents the lowest level of repeat visitors in recent years. The proportion of repeat visitors has decreased from 71 percent in 2014 to 66 percent in 2018 and 60 percent in 2021 (NorthWestern Energy 2019). The higher proportion of non-locals comprising the visitor population is linked to this increase in first-time visitors since visitors from other areas of Montana and from outside of Montana are more likely to be first time visitors than are local residents.

Table 3-5: First Time and Repeat Visitors

Site Experience	
First-time Visitors	40%
Repeat Visitor	60%

Visitors tended to stay at recreation sites for 1 hour in 2021 (**Table 3-6**), a median value that is unchanged from recent years. Repeat visitors have typically been visiting the recreation site for 5 years on about 5 days per year and for 2 hours per day (**Table 3-6**). While typical length of stay reported by visitors has remained at 2 hours per day for some time, there has been a downward trend in the number of days per year and number of years visiting, falling from 10 days and 10 years respectively in 2014 to 7 years and 10 days in 2018 to 5 years and 5 days in 2021 (**Table 3-7**; NorthWestern Energy 2019).

Table 3-6: Trip Duration

Trip Duration	2021 Mean	2021 Median
Length of stay at the site on this trip	1.7 hours	1 hour

Table 3-7: Past Trip Experience

Past Trip Experience for Repeat Visitors	2021 Mean	2021 Median
Years respondent has visited the site	10.3 years	5 years
Days per year respondent visits the site	12.6 days/year	5 days/year
Typical length of stay at the site	2 hours/day	2 hours/day

Eighty-two percent of recreation groups contained 4 or fewer people (**Table 3-8**). The median group size was two people (mean = 2.9 people), which is unchanged from prior studies (NorthWestern Energy 2019).

Table 3-8: Group Size

Group Size	Percent	Cumulative Percent
1	21%	21%
2	36%	56%
3	11%	68%
4	15%	82%

Group Size	Percent	Cumulative Percent
5	9%	91%
6	5%	96%
7 or more	4%	100%

Only 1 percent of visitors expressed that a change was needed at recreation sites, and that change was to improve the swimming area at Wild Goose Landing Park (**Table 3-9**). Over time, the need for changes has decreased, from 43 percent of visitors recommending changes in 2008 to 26 percent in 2014 and 15 percent in 2018 before the low of 1 percent in 2021 (NorthWestern Energy 2019).

Table 3-9: Impressions of Recreation Development

Impression of Development at Site	Percent	Preferred Change
Leave it as is	99%	
Prefer Changes	1%	Improve swimming area at Wild Goose Landing Park

3.3 Trip Characteristics

Results indicate crowding is not an issue at Thompson Falls Project area recreation sites, with 96 percent of visitors reporting that sites are not at all or not very crowded (**Table 3-10**). Average ratings on a scale from 1 (not at all crowded) to 5 (extremely crowded) were 1.3 in 2021, slightly less crowded than the 1.4 average rating in 2018 (NorthWestern Energy 2019).

Table 3-10: Crowding

Year	Not at all Crowded (1)	Not very Crowded (2)	Somewhat Crowded (3)	Very Crowded (4)	Extremely Crowded (5)	Average
2021	71%	25%	4%	--	--	1.3
2018	74%	18%	4%	3%	<1%	1.4

The level of importance ascribed to the motivations for visiting recreation sites in 2021 were, on average, lower than prior studies (NorthWestern Energy 2019), though ratings for all motivations other than “for excitement” approximated the “very important” rating (**Table 3-11**). Excitement averaged closer to “somewhat important.” There are several possible reasons or combinations of reasons for these lower ratings, including the COVID-19 pandemic and 2021 environmental conditions, but the results demonstrate that visitor ratings is that the Thompson Falls recreation sites, which provide largely natural, undeveloped settings, offer opportunities for visitors to find what is important to them when they consider recreating outdoors.

Table 3-11: Reasons to Participate in Outdoor Recreation

	Not at all Important (1)	Not very Important (2)	Somewhat Important (3)	Very Important (4)	Extremely Important (5)	2021 Avg	Prior Year Avg
To enjoy nature	--	--	14%	55%	31%	4.2	2018=4.5 2014=4.5
To be with friends or family	2%	2%	21%	53%	23%	3.9	2018=4.2 2014=4.2
To be outdoors	--	--	14%	52%	34%	4.2	2018=4.7 2014=4.6
For excitement	1%	21%	44%	22%	12%	3.2	2018=3.8 2014=3.8
To find some solitude	2%	2%	29%	51%	16%	3.8	2018=4.0 2014=3.9

Visitor satisfaction with the recreation sites overall was high, with an average rating of 4.0 (very satisfied) out of 5 (**Table 3-12**). Ratings of individual site characteristics and amenities ranged from 3.6 to 4.1 on the 1-5 scale. Picnic area conditions (3.6) and maintenance of facilities (3.7) were rated the lowest, though still quite positive on the satisfaction scale. Ratings for boat dock and launch conditions, the quality of interpretive and educational information, and degree of naturalness all averaged 3.8 on the scale. The highest rated site characteristics were cleanliness of the area (3.9) and behavior of other people (4.1).

A few lesser-satisfied ratings (1 or 2 on the scale of 1-5) were recorded at the North Shore Dispersed Use Area for degree of naturalness and cleanliness of the area. These are not surprising given the site's very close proximity to Highway 200. The South Shore Recreation Area received a few low ratings for picnic area conditions, though it is likely these ratings represent a desire for picnic facilities because they are not currently provided at the site. Low ratings for the quality of interpretive and educational information were received at Wild Goose Landing Park.

Table 3-12: Satisfaction with Site and Site Amenities

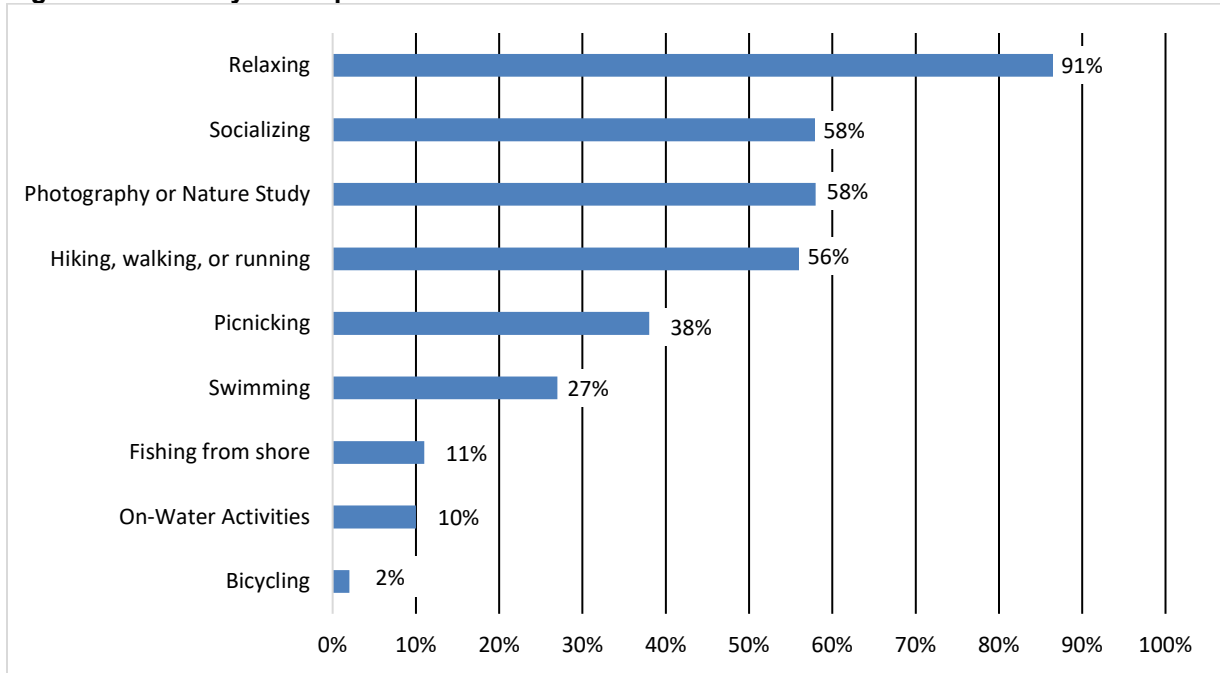
	Not at all Satisfied (1)	Not very Satisfied (2)	Somewhat Satisfied (3)	Very Satisfied (4)	Extremely Satisfied (5)	2021 Avg	2018 Avg
Overall Site Satisfaction	--	--	15%	71%	14%	4.0	4.4
Picnic area conditions	1%	3%	39%	48%	10%	3.6	3.8
Boat dock/ launch conditions	--	3%	31%	48%	17%	3.8	3.7
Quality of interpretive/ educational information	1%	5%	17%	69%	8%	3.8	4.2
Maintenance of facilities	2%	--	33%	56%	9%	3.7	3.9

	Not at all Satisfied (1)	Not very Satisfied (2)	Somewhat Satisfied (3)	Very Satisfied (4)	Extremely Satisfied (5)	2021 Avg	2018 Avg
Cleanliness of area	--	2%	25%	58%	15%	3.9	4.2
Condition or degree of naturalness	1%	1%	29%	56%	14%	3.8	4.2
Behavior of other people	--	--	12%	70%	19%	4.1	4.4

Visitor participation in passive activities (relaxing, socializing, etc.) at recreation sites was high, as was hiking, walking or running, with more than half of all visitor groups participating in these activities (**Figure 3-2**). More than a quarter of all groups utilized sites for swimming or picnicking. About 1 in 10 groups fished from shore at recreation sites or utilized sites to participate in on-water activities such as boating, off-shore fishing, and non-motorized boating such as kayaking. It is likely that on-water activities are under-represented in the sample, since visitors that utilize a recreation site to access the water are generally only at the site for a short duration of time (to launch and load their watercraft).

Relaxing was common at all sites, with at least 75 percent of visitors relaxing at each site. Socializing was also common, with more than 50 percent of visitors to all sites except the North Shore Dispersed Area participating. Photography was also common, with 25 percent or more visitors participating except at North Shore. Wild Goose Landing, South Shore, and Cherry Creek hosted the highest percentage of swimmers (about 50% at each site) and of groups participating in on-water activities. Picnicking was common everywhere, ranging from 17 to 60 percent participation across sites. Fishing from shore was most common at the North Shore Dispersed Area, South Shore Recreation Area, and Cherry Creek Boat Launch.

Figure 3-1. Activity Participation



Familiarity is relatively low regarding Montana No Wake Zone regulations among visitors to recreation sites. In fact, more than half (54%) indicated they were not very or not at all familiar with the regulations, and 46 percent indicated they were somewhat or very familiar (Table 3-13). About a quarter of respondents believe that No Wake Zone regulations apply to Thompson Reservoir while another quarter do not. Half of respondents were unsure (Table 3-14).

Table 3-13: Familiarity with Montana No-Wake Zone Regulations

Not at all Familiar (1)	Not very Familiar (2)	Somewhat Familiar (3)	Very Familiar (4)	Extremely Familiar (5)	Average
29%	25%	31%	15%	--	2.3

Table 3-14: Perceptions of No-Wake Zone Applicability

Believes No Wake applies to Thompson Reservoir	Percent
Yes	24%
No	26%
Unsure	50%

With the high proportion of recreationists being repeat visitors (60%) and from the local surrounding area (45%), it is not surprising that most (78%) were aware of other recreation sites in the area and 67 percent had used the Powerhouse Loop Trail or State Park Trail (Tables 3-15 and 3-16). The most well-known sites on the list are developed recreation sites along the north shore of Thompson Reservoir and the Clark Fork River downstream. The

Cherry Creek Access Site is not as well known. Satisfaction with the trail system is high, with 96 percent of respondents that had used the trail indicating they were very or extremely satisfied.

Table 3-15: Awareness of Other Recreation Areas

Aware of other recreation sites in the area?		Recreation Area	Percent
No	22%		
Yes	78%	Wild Goose Landing Park	75%
		Island Park	75%
		Power Park	73%
		Sandy Beach	71%
		Powerhouse Loop Trail	69%
		Thompson Falls State Park	68%
		South Shore	58%
		Boat Restraint	53%
		Flat Iron Ridge FAS	50%
		Cherry Creek Access Site	40%
		North Shoreline dispersed area	39%
		Other – National Forest and Wilderness	2%

Table 3-16: Use and Satisfaction with Powerhouse Loop or State Park Trail

Had ever used the Powerhouse Loop or State Park Trail		Not at all Satisfied	Not very Satisfied	Somewhat Satisfied	Very Satisfied	Extremely Satisfied	Avg
No	33%						
Yes	67%	1%	1%	1%	74%	22%	4.2

Visitors reported experiencing no problems while on their trip to the site (Table 3-17). However, a few comments were offered regarding improvements for consideration (Table 3-18). Most comments pertained to desired improvements to Wild Goose Landing Park for picnic amenities and restroom availability.

Table 3-17: Problems Experienced

Experienced problems on this trip to this site?	Percent
Yes	--
No	100%

Table 3-18: Visitor Comments

Recreation Site	Comment
Wild Goose Landing Park	It would be nice to have garbage cans, more picnic tables, and maybe some BBQ grills.
Wild Goose Landing Park	It would be nice to have restrooms.
Wild Goose Landing Park	Would like to see garbage cans and have restrooms, also a designated swimming area.
South Shore	Need to clean out the boat ramp.
Power Park	A swing set would be nice.
Cherry Creek	Too many people on jet skis!

3.4 Peak Season Visitation

To gain a better understanding of recreation visitation overall, visitor volume at recreation sites was monitored with the use of automatic traffic and trail counters to supplement visitor and trip characteristics obtained by the visitor survey.

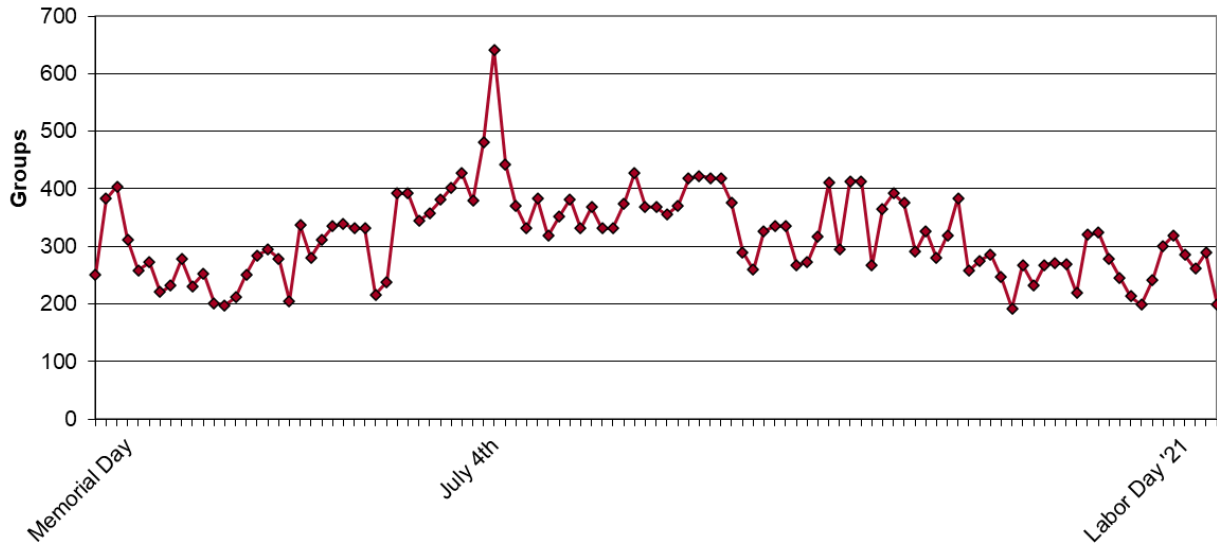
More than 33,000 group visits were made to recreation sites during the peak recreation season May 28 through September 9, 2021⁴ (**Table 3-19**). Wild Goose Landing and Island Park were the two highest-used sites among the six that were monitored. Peak use of all monitored sites combined occurred on the July 4th holiday when 642 groups utilized recreation sites (**Figure 3-4**). All sites combined hosted an average of 318 group visits overall per day.

Table 3-19: Peak Season Visitation Overall and by Site

Recreation Site	Peak Season Visitation (groups)	Percent of Visitation to Sampled Sites	Counter Type
Wild Goose Landing Park	16,649	50%	Two vehicle counters
Island Park	11,091	33%	Two pressure-pad trail counters
Powerhouse Loop Trail, including Sandy Beach	735	2%	Two infrared trail counters
South Shore Recreation Area	2,819	8%	One vehicle counter
Cherry Creek Boat Launch	2,105	6%	One vehicle counter
All Sites	33,399	100%	

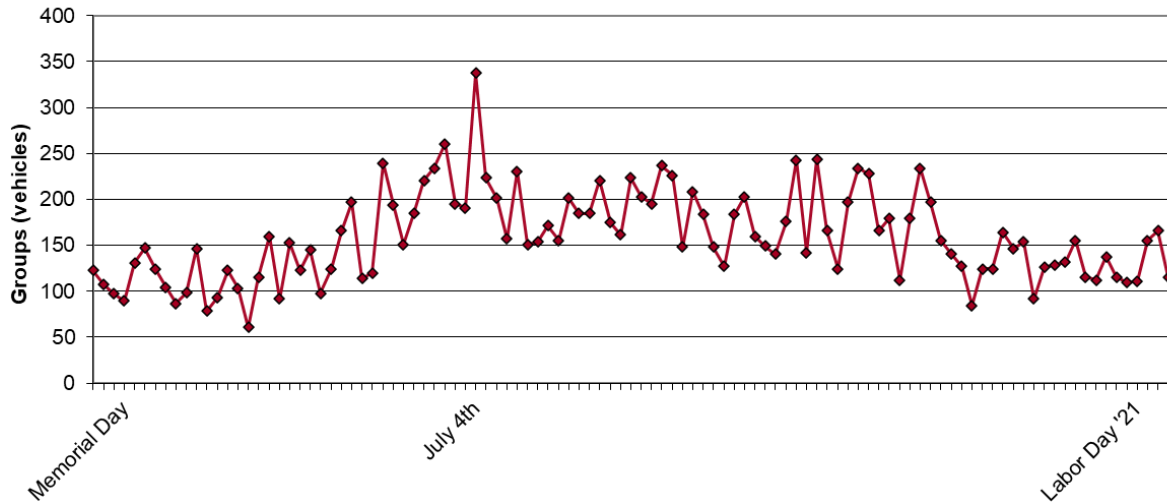
⁴ Visitation volume is collected in whole-week increments, from the Friday before Memorial Day through the Thursday after Labor Day (May 28-Sept 9). This is 3 days longer than the peak recreation season defined for the Visitor Survey (May 28-Sept 6).

Figure 3-2. Peak Season Visitation to All Monitored Sites
All Monitored Sites 2021



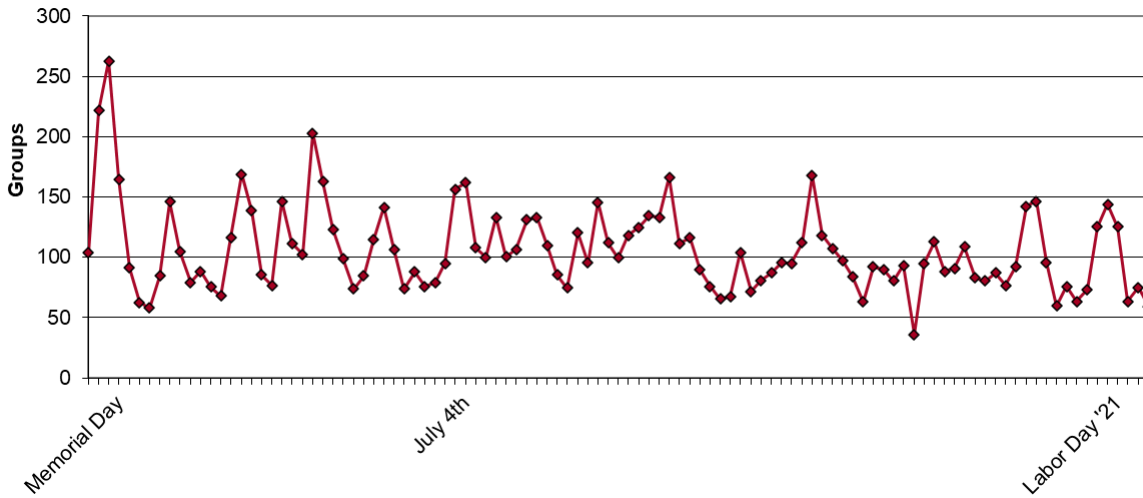
Wild Goose Landing Park hosted more than 16,500 group visits, with peak use occurring on the July 4th holiday with 337 visits (**Figure 3-3**). On average, the site hosted 159 group visits per day throughout the recreation season. Use of this site was lower on Memorial Day weekend than at some of the other recreation sites due to high river flows that made in-water and on-water activities more challenging.

Figure 3-3. Peak Season Visitation to Wild Goose Landing Park
Wild Goose Landing Park 2021



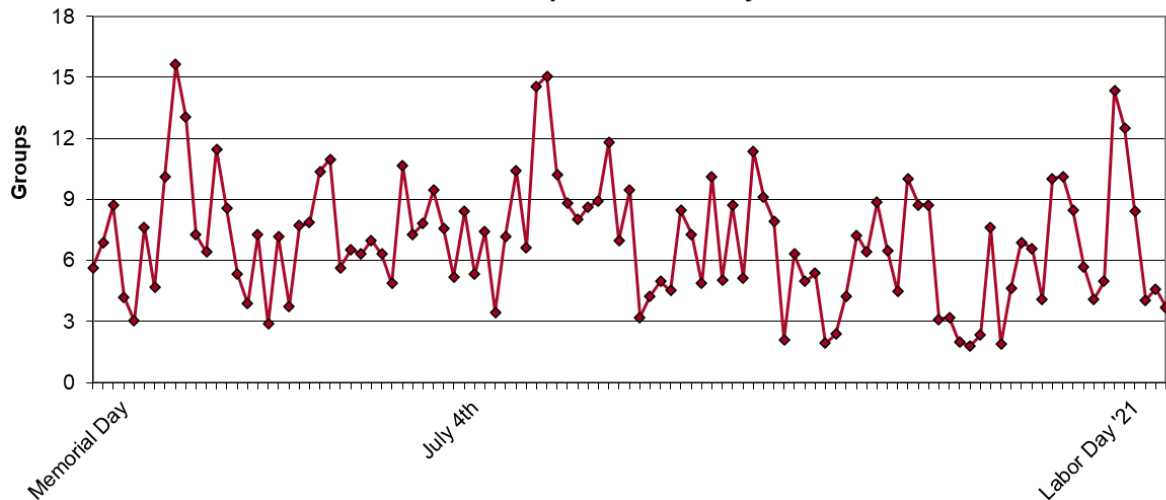
Island Park hosted more than 11,000 group visits during the peak recreation season of 2021, with peak use occurring on May 30 (Sunday of Memorial Day weekend) with 263 group visits (**Figure 3-4**). Use of the site during the early season – and specifically Memorial Day Weekend – was higher than at other monitored sites. This is likely due to spectacular views of high water flowing through the gates of the Main Dam, which is most visible from the island. On average, the island hosted 106 group visits per day.

Figure 3-4. Peak Season Visitation to Island Park
Island Park 2021



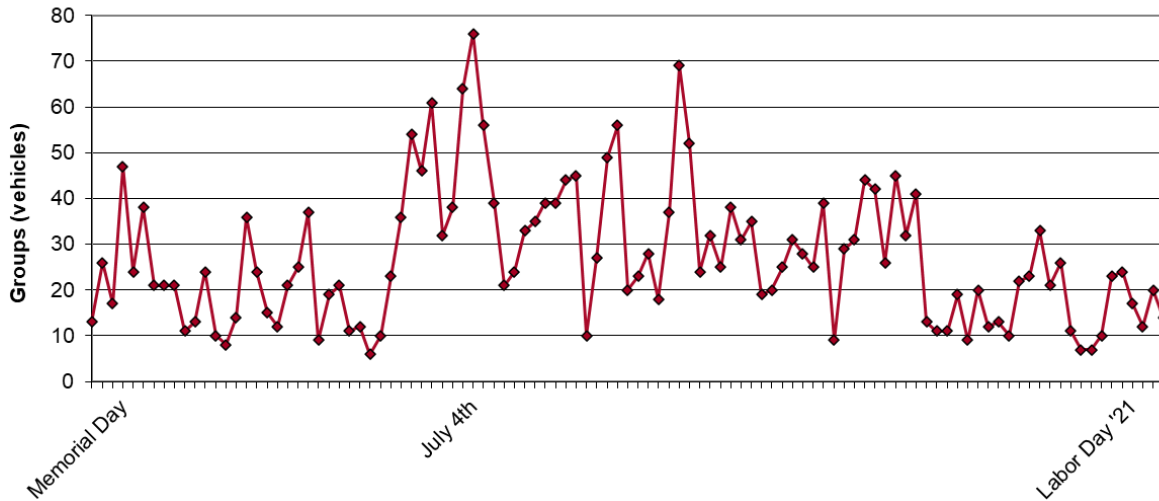
The Powerhouse Loop Trail hosted a total of 735 group visits in 2021 (including visitors to Sandy Beach), averaging 7 groups per day throughout the use season (**Figure 3-5**). Visitation peaked on June 5 with 16 groups, followed by July 10 and 11, and September 4 (the Saturday of Labor Day weekend). While use of the Loop Trail is higher on weekends than weekdays, patterns are more consistent throughout the days of the week than at other recreation sites.

Figure 3-5. Peak Season Visitation to Powerhouse Loop Trail and Sandy Beach
Powerhouse Loop Trail and Sandy Beach 2021



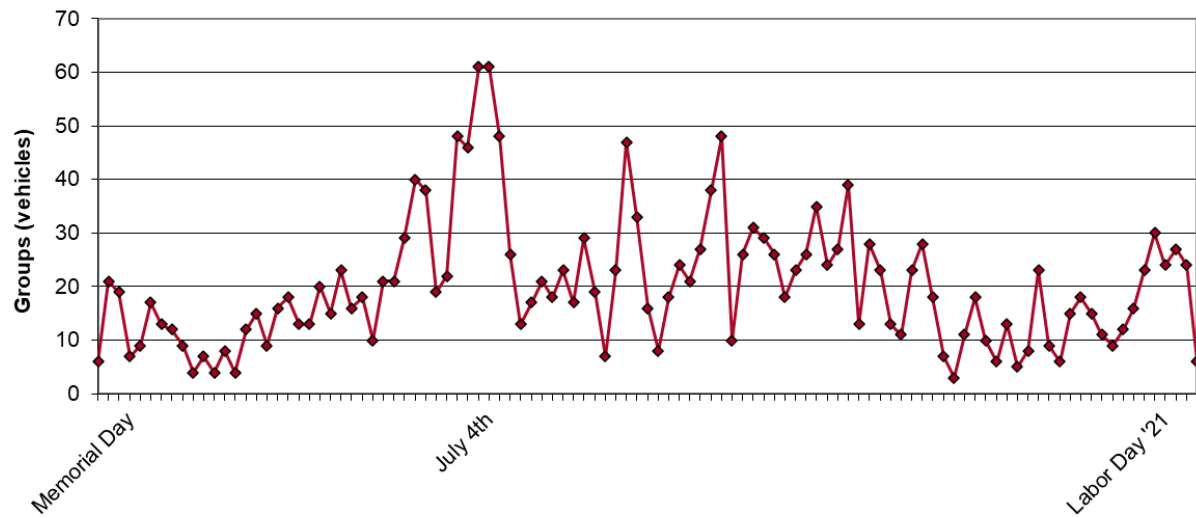
Visitation to the South Shore Recreation Area totaled nearly 3,000 group visits and, on average, the site hosted 27 groups per day (**Figure 3-6**). Visitation peaked on July 4th at 76 group visits, but many high-use days were recorded between June 28 and July 25.

Figure 3-6. Peak Season Visitation to South Shore Recreation Area
South Shore Recreation Area 2021



Cherry Creek Boat Launch hosted about 2,100 group visits and averaged 20 group visits per day (**Figure 3-7**). Peak use of the site occurred on July 3 and 4, with 61 visits each day. High use was also recorded on July 17 and July 26. As with Wild Goose Landing, use of the boat launch site was lower in the early season than at other recreation sites season due to high water restricting access.

Figure 3-7. Peak Season Visitation to Cherry Creek Boat Launch
Cherry Creek Boat Launch 2021

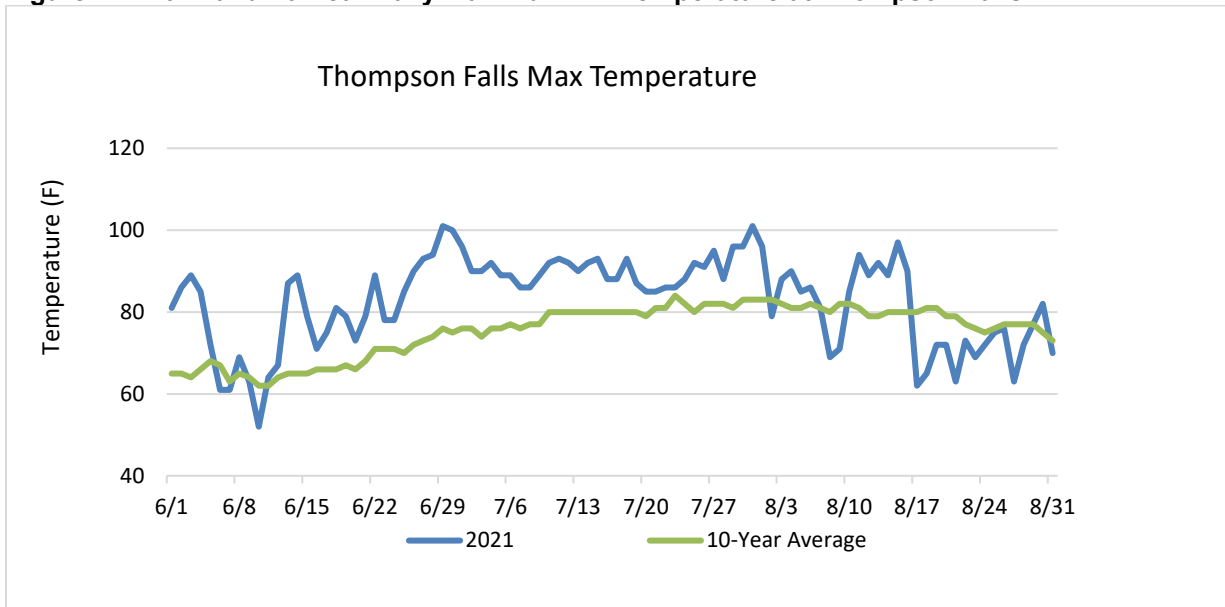


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4.0 Discussion

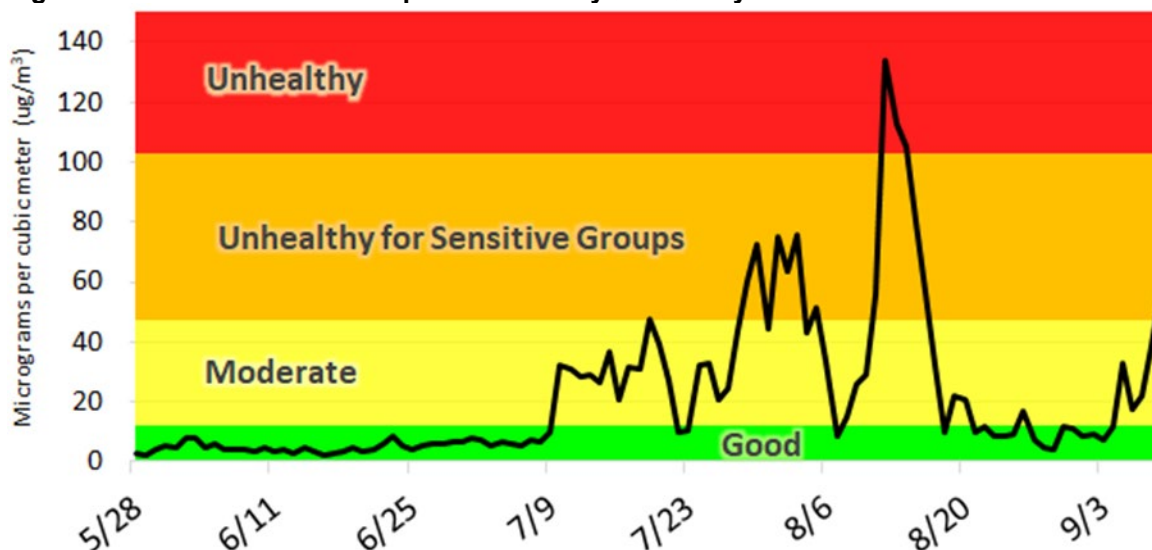
The visitor survey was conducted on 60 randomly-selected days between May 28 and September 6, 2021, known as the peak recreation season. Environmental conditions during this timeframe influenced visitation to and around the Project. Specifically, Thompson Falls recorded higher than normal maximum daily temperatures in June and early July (**Figure 4-1**).

Figure 4-1. 2021 and 10-Year Daily Maximum Air Temperature at Thompson Falls



Additionally, a wildfire ignited by lightning on July 7 burned nearly 40,000 acres and came to within 3 miles of downtown Thompson Falls and Thompson Falls Reservoir. The wildfire burned well into the fall season. The resulting forest fire smoke drove air quality to undesirable and unhealthy levels for much of the peak season (**Figure 4-2**). Additionally, the COVID-19 pandemic was ongoing during the summer which likely influenced visitation as people avoided certain situations where they may have encountered other people. As reflected in the results, these unusual conditions influenced the level of participation in outdoor recreation during the peak season of 2021.

Figure 4-2. Summer 2021 Thompson Falls Daily Air Quality Index



Recreation sites hosted more than 300 group visits per day, on average, during the peak recreation season. Visitation to recreation sites in the later part of the season was likely low due to the unfavorable environmental conditions described above. Wildfire smoke drove air quality to potentially harmful levels for much of the season after July 7 and many recreationists likely avoided outdoor recreation as a result.

Characteristics of visitor groups in 2021 were similar to those of prior years. The trend shifting toward more female than male recreationists continued. The median age of respondents and visitor group size was the same as prior years, and the proportion of Montana residents compared to non-residents was also about the same. However, environmental conditions – especially related to local-area smoke, as discussed above, may have persuaded some local residents to avoid being outdoors and thereby reduced the proportion of the Montana resident recreationists from the local area by about 10 percent in 2021 compared to prior years. In turn, this resulted in the lowest proportion of repeat visitors (*versus* first-time visitors) of recent years and thus less frequent past visits, on average, to area recreation sites.

However, despite these differences, trip characteristics were relatively stable and predictable. Ratings of crowdedness in 2021 improved compared to 2018 and only 1 percent of groups preferred changes to the sites, the lowest ever reported in surveys since 1999. Groups also reported having no problems while on their trip to the site but offered a few suggestions for site improvements.

Provided with five possible reasons for visiting recreation sites, respondents rated all reasons as slightly less important in 2021 than in prior years. Finding solitude was relatively as important in 2021 as in 2014 and 2018, though being outdoors and finding excitement were far less important in 2021 than prior years. However, it is quite possible that these lower ratings were due more to psychosocial factors surrounding the COVID-19 pandemic than the draw visitors have to outdoor recreation sites. For instance, sites may have been chosen for

recreation to avoid crowds and increase social distance compared to other more crowded sites. Regardless of the reason for the decline in ratings, the important message is that ratings remain positive, with all average ratings hovering near or above “very important” except ratings of “for excitement,” which were lower than other reasons and slightly better than “somewhat important.”

Similarly, ratings of satisfaction with site amenities were slightly lower in 2021 than in 2018 with the exception of boat dock and launch conditions, which was slightly higher. Overall, average ratings hovered near the “very satisfied” mark for all site amenities.

In summary, visitors to the Thompson Falls Project area recreation sites are satisfied with the sites and amenities offered, though a few minor improvements were suggested. Visitors do not feel crowded. They are largely repeat visitors from the local area that utilize the sites for both passive and active recreation pursuits.

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5.0 Conclusions

The 2021 visitor study was conducted to update 2018 visitor survey results with the intent of gauging visitor perceptions of recreation amenities during a more “normal” year than 2018. In 2018, spill panels on the Main Channel Dam were removed due to extremely high spring runoff. NorthWestern then lowered the reservoir significantly to replace the spill panels, thereby limiting access to the reservoir for much of the peak recreation season. Results from that visitor survey revealed shifts in activity participation and satisfaction levels that were very likely tied to the atypical drawdown event.

However, 2021 brought its own challenges. Being in the midst of the COVID-19 pandemic and related perceptions of risk and needs for social distancing, as well as extremely high early season temperatures and a large wildfire (and associated smoke) within a short distance of Thompson Falls Reservoir, resulted in visitation patterns that were atypical.

Despite these atypical conditions, visitors remain satisfied with recreation opportunities and amenities, overall, and continue to utilize the public recreation sites associated with the Thompson Falls Project area.

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6.0 Literature Cited

Federal Highway Administration (FHWA). 2010. Traffic Monitoring in Recreational Areas. FHWA-WFL/TD-10-003.

https://www.fhwa.dot.gov/clas/pdfs/traffic_monitoring_recreational_areas.pdf

NorthWestern Energy. 2019. Thompson Falls Project 2018 Recreation Visitor Study Report. April 2019.

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