

# Eklutna Hydroelectric Project Recreation

## Study Report FINAL

Prepared by:  
Taryn Oleson-Yelle, AICP &  
Ben Coleman, AICP  
R&M Consultants, Inc.

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## Terms, Acronyms, and Abbreviations

ADF&G	Alaska Department of Fish & Game
CSP	Chugach State Park
FERC	Federal Energy Regulatory Commission
FY	Fiscal Year
MEA	Matanuska Electric Association
MOA	Municipality of Anchorage
NMFS	National Marine Fisheries Service
NVE	Native Village of Eklutna
Project	Eklutna Hydroelectric Project
Project Area	Eklutna Hydroelectric Project Area
USFWS	U.S. Fish and Wildlife Service

## 1 INTRODUCTION

The 1991 Fish and Wildlife Agreement (1991 Agreement) was executed amongst the Municipality of Anchorage (MOA), Chugach Electric Association, Inc. (Chugach), Matanuska Electric Association, Inc. (MEA) (collectively “Project Owners”), U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), and the State of Alaska as part of the sale of the Eklutna Hydroelectric Project (Project) from the Federal government to the now Project Owners. The 1991 Agreement requires that the Project Owners conduct studies that examine and quantify, if possible, the impacts to fish and wildlife from the Project. The studies must also examine and develop protection, mitigation, and enhancement (PME) measures for fish and wildlife affected by such hydroelectric development. This examination shall consider the impact of fish and wildlife measures on other resources, including recreation, as well as available means to mitigate these impacts. The Project Owners initiated consultation in 2019 and have implemented studies to inform the development of the future Fish and Wildlife Program for the Project. As part of these studies, the Project Owners contracted R&M Consultants to describe and evaluate recreation in the Project area.

The Recreation Study was conducted in 2022 in accordance with Section 3.11 of the May 2022 Final Study Plans.

### 1.1. Background

#### 1.1.1. Chugach State Park – Eklutna Valley & Thunderbird Creek

All lands in the upper watershed of the Eklutna River are located within Chugach State Park. The Eklutna Valley is a heavily used area of Chugach State Park, known for its scenic qualities and diverse year-round recreational opportunities. Visitors enjoy hiking, biking, horseback riding, climbing, picnicking, hunting, fishing, boating, and riding ATVs in the summer and cross-country skiing, dog mushing, and snow machining in the winter. Camping, wildlife and scenic viewing, and photography are enjoyed in any season.

Eklutna Lake is the park’s largest lake. Non-motorized boats and boats powered by an electric motor are allowed on the lake; however, fluctuating water levels (often exposing extensive mud flats) and frequent strong winds creating white-capped waves on the lake can make boating difficult or hazardous to the unprepared boater. Although the lake’s surface freezes in the winter, fluctuating water levels create variations in ice thickness and cause surface irregularities which can result in unsafe ice conditions (ADNR, 2016).

Tent and RV camping is allowed in designated areas, and five public use cabins are available. Eklutna Lake Campground, located at the north end of the lake, includes 50 campsites, water access, latrines, picnic tables, and fire pits and is the most accessible campground in the area. An overflow camping area has an additional 15 campsites, and there is a large group campsite available for reservation, accessed via the AWWU access road. Three smaller, more primitive campgrounds are located at the south end of the lake. The Dolly Varden Public Use Cabin is located near the Day Use Area, and the Rainbow Trout Public Use Cabin is located just south of the Dolly Varden Cabin near Eklutna Lake Dam. Kokanee Cabin is located on the south side of

Eklutna Lake, accessible by crossing the lake. The Yuditna Creek Cabin and the Serenity Falls Hut are accessible via the Eklutna Lakeside Trail.

There are several dedicated recreational trails and routes in the Eklutna Valley, including the Eklutna Lakeside Trail, Twin Peaks Trail, Goldstar Peak Trail, Bold Ridge Trail, East Fork Trail, and various informal social trails that access backcountry. The Eklutna Lakeside Trail generally follows the northeast side of the lake and is a former roadbed constructed by the U.S Army in the 1960s. The roadbed trail is open to motorized use on regulated days in the summer. Roadbed-adjacent footpaths have become dedicated bike and pedestrian routes. Snow machines are allowed in the lake area when snow conditions are adequate to protect underlying vegetation (ADNR, 2016). The trail leads to the west fork of Eklutna Creek and then to the Eklutna Glacier though, due to the glacier's continued receding, reaching the trail's terminus is now more difficult. Bold Airstrip is a small gravel airstrip located at the south end of the lake. It is owned by ADNR and is open to the public.

Guiding, touring, and equipment rental businesses operate in the Eklutna Valley. Most notably, Lifetime Adventures operates a rental facility offering bike and kayak rentals at the north end of the lake near the Lakeside Trailhead and Day Use Area.

The Thunderbird Creek drainage receives very heavy use due to the popular Thunderbird Falls Trail located off the Old Glenn Highway. A parking lot with interpretive panels and restrooms supports a one-mile trail that leads to the Eklutna River Gorge overlook and the Thunderbird Falls overlook. Few people continue beyond the falls overlook due to rough terrain (ADNR, 2016).

### **1.1.2. Lower Eklutna River & Eklutna Tailrace**

Based on observations made during site visits for this project and anecdotal knowledge, there is some recreational activity in the lower river area, including ATV use and subsistence hunting and fishing. Most lands adjacent to the lower Eklutna River are owned by Eklutna, Inc. or the Native Village of Eklutna.

In 1998, ADF&G began annually stocking the Project tailrace with Coho salmon smolts. In 2002, they also started stocking Chinook salmon smolts. These stocking efforts have facilitated a very popular and sustainable salmon fishery since 2003. Salmon originating from the drainages of the Knik and Matanuska Rivers are also harvested at the confluence of the tailrace and the Knik River. Sport fishing for Chinook salmon at the tailrace continues to be a popular recreational fishery for residents and a youth only fishery takes place each year in June (ADFG, 2019).

Developed facilities at the Eklutna Tailrace Day-Use Fishing Access Site include parking, ADA accessible trails, fishing pads, a bridge that provides access to both sides of the tailrace, toilet screens and improved refuse receptacles. ADF&G currently provides dumpster pick-up, a fish cleaning table, vault latrines, and contracts out for patrols and litter pick-up



## 2 STUDY OBJECTIVES

The goal of the Recreation Study was to itemize and quantify the current level of recreation in the Project area. The study included data collection and compilation to establish a comprehensive understanding of recreation in the Project area, including quantifying the use types, locations, and frequencies of recreational activities. Documenting any positive economic impact to the area from the recreation that occurs was a secondary objective of the study.

Recreational uses of interest included but were not limited to:

- Hiking, walking, running
- Biking
- Horseback Riding
- ATV/OHV use
- Boating/kayaking
- Fishing
- Hunting
- Climbing & Mountaineering
- Camping
- Scenic Viewing
- Cross-country Skiing
- Dog Mushing
- Skijoring
- Alpine/Backcountry Skiing
- Snow machining
- Ice Climbing
- Ice Skating

## 3 STUDY AREA

The Recreation Study considered activities occurring throughout the Project area but had the following key focus areas:

- Eklutna Tailrace Day-Use Fishing Access Site & adjacent Knik River (see Figure 3-1)
- Lower Eklutna River (downstream of the Old Glenn Highway)
- Chugach State Park
  - Eklutna Lake Recreation Area (built and designated facilities, see Figure 3-2)
    - Trails
    - Parking & Day-Use Areas
    - Campgrounds
    - Public Use Cabins
  - Thunderbird Falls Trail (see Figure 3-3)

Undeveloped lands accessed by Eklutna Lake Road and maintained/established trails within the Project Area boundary were considered to capture backcountry recreators, but the primary focus was on access routes within the Project Area rather than end destinations. Eklutna Lake Road, Bold Airstrip, and other transportation facilities such as unofficial off-highway vehicle trails within the Project Area were included as well.

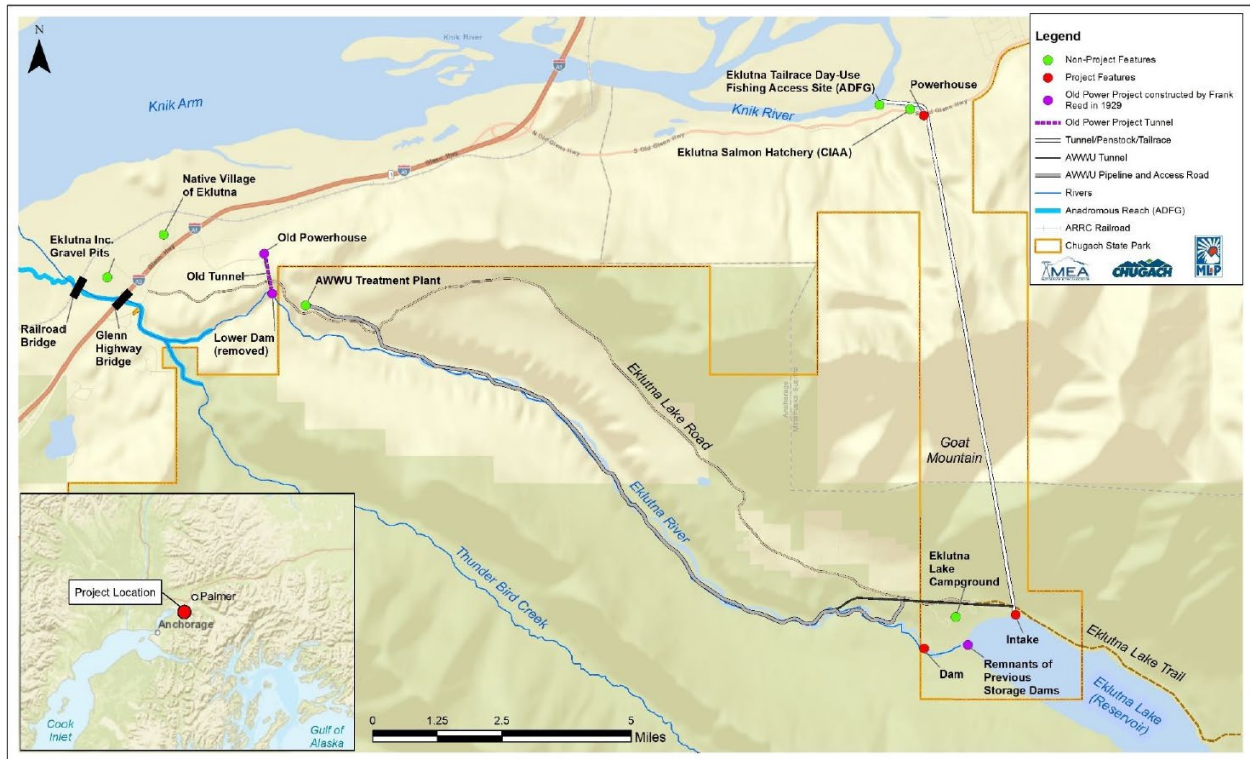


Figure 3-1. Eklutna Hydroelectric Project Area Map, partial Recreation Study Area

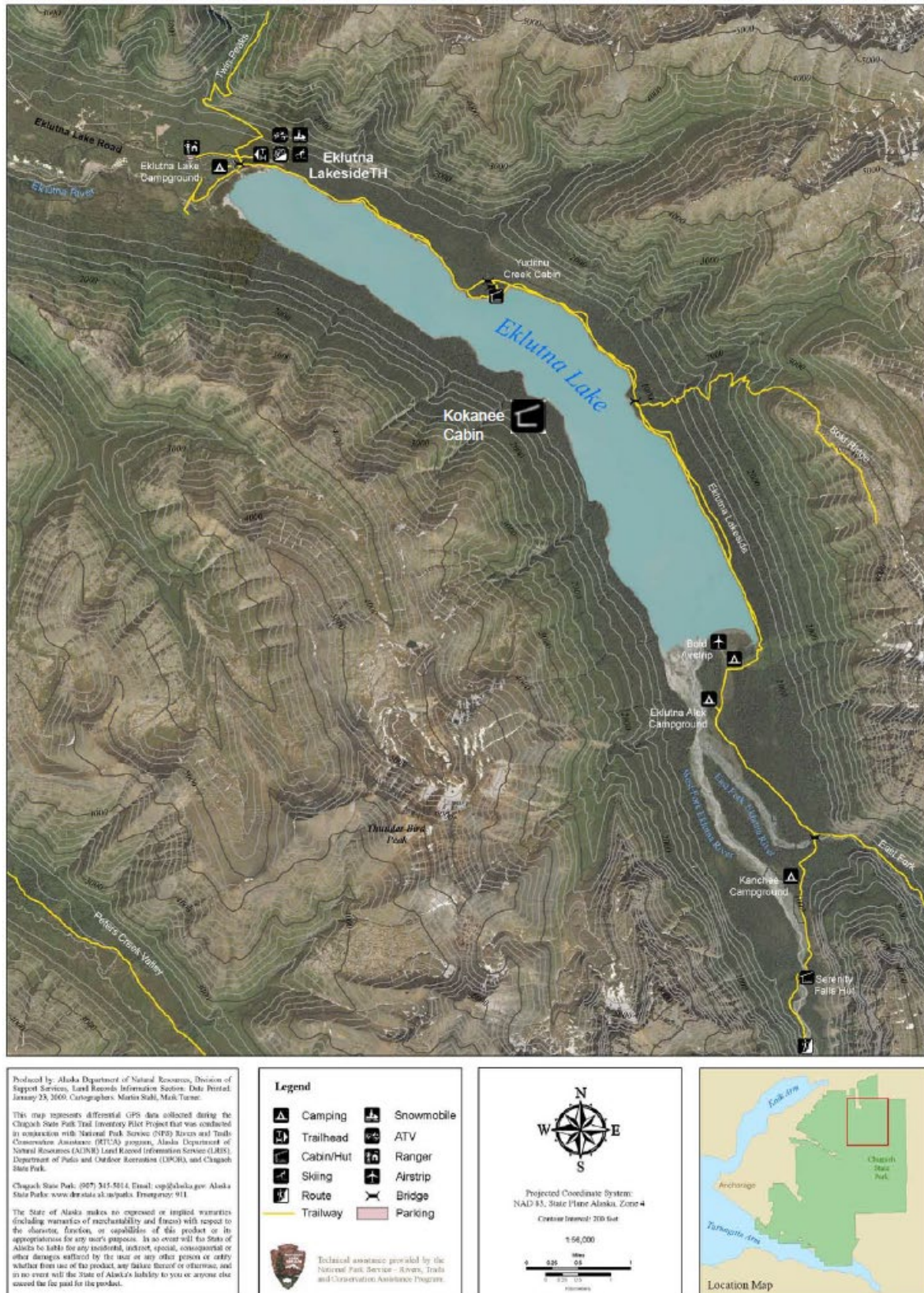


Figure 3-2. Chugach State Park Eklutna Lake Recreation Area Map, partial Recreation Study Area

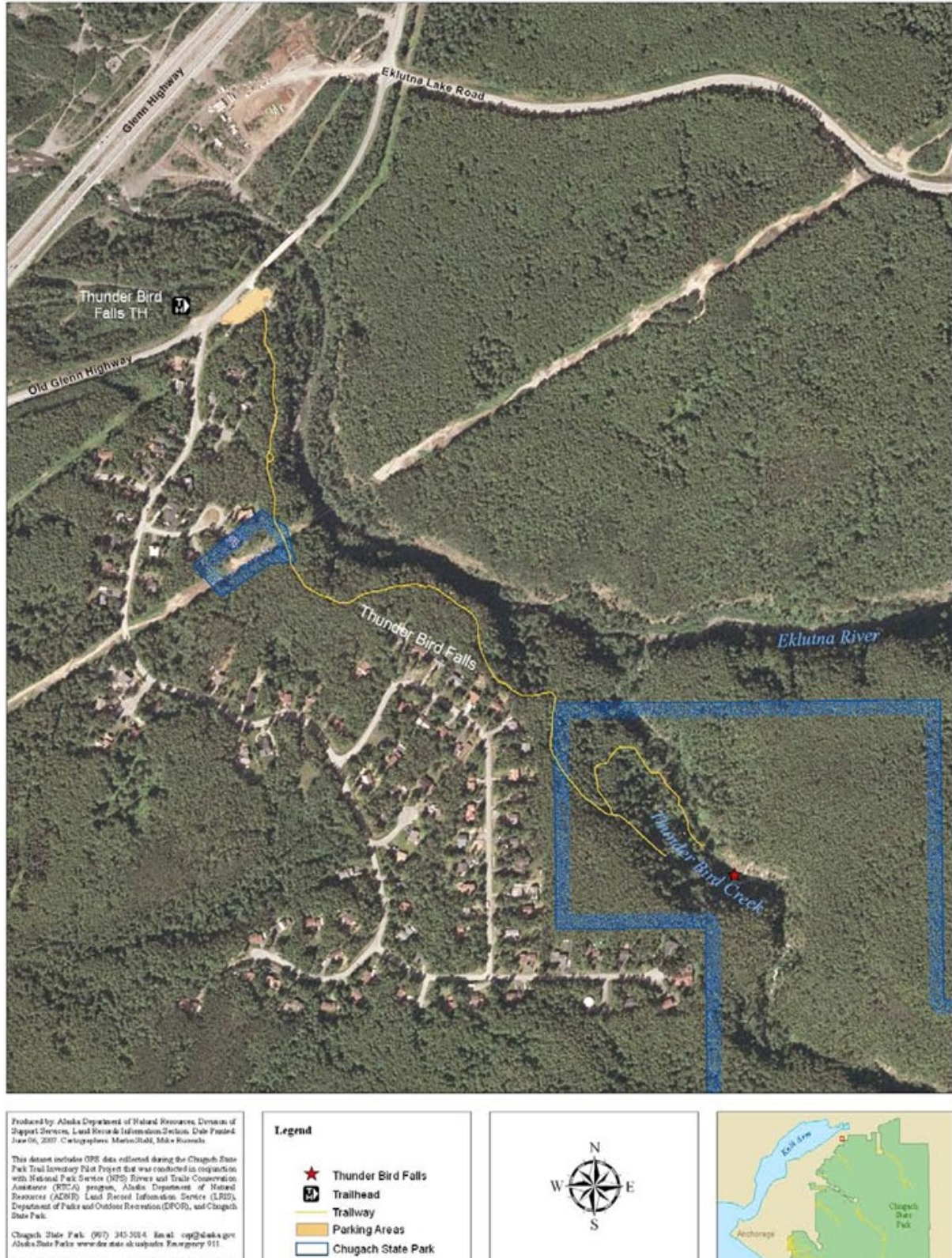


Figure 3-3. Chugach State Park Thunderbird Falls Trail, partial Recreation Study Area

## 4 METHODS

Methods for collecting Recreation Study data included compilation and analysis of existing available data from landowners, managing agencies, and operating businesses, as well as primary data collection from recreators, both on-site and online.

### 4.1. Existing Data Compilation & Analysis

State agencies and local businesses were coordinated with to compile and analyze existing recreational use data. Chugach State Park, Alaska Department of Fish & Game, and local recreation guiding, touring, and rental businesses were queried for quantified information related to use types, locations, and frequencies of activities in the Project Area as well as any documented or perceived economic impacts of recreation in the Project Area.

Chugach State Park (CSP) coordination and data inquiries included:

- Pay station data at parking lots and trailheads
- Campground and Public Use Cabin reservations (Facility Utilization Reports)
- Reporting from businesses holding active commercial use permits for the Project area
- Past visitor data collection effort summaries (including studies conducted by third parties such as APU, UAA, or MOA)
- Meeting(s) with the Chugach State Park Citizens Advisory Board to inform them of the Safety Plan implementation and request their assistance with information gathering and public outreach efforts (see below)

Alaska Department of Fish & Game (ADF&G) coordination and data inquiries included:

- Coordination between the project owners and ADF&G to keep a record of complaints from anglers at the tailrace regarding facility operations or fish counts, which have been documented or anecdotally shared in the past
- Project Tailrace: angler days, sport harvest, fishing reports, facility use and improvements
- Eklutna Lake Managed Area: hunting tags, reported harvests, modes of allowed and known access, and small game hunting or trapping insights

Local businesses, primarily including State Park Commercial Use Permit holders, fishing charters, hunting, hiking, sightseeing and other guiding companies, and equipment rental businesses operating within the Project area were contacted for data inquiries including:

- Locations and frequencies of guided trips/tours
- Number of rentals and guided trips/tours
- Out-of-state vs. resident customer demographics
- General employment data pertinent to the Project area
- Significance of Project area to the business operation

In 2019, seven Chugach State Park commercial use permit holders submitted an end-of-season report that included activities in the Eklutna Lake area (Chugach State Park, 2021). Commercial

use permits may have been applied for or re-applied for in 2022, and other businesses may have operated in the Project area without filing a report with State Parks. Recreation-based businesses holding a 2022 State Park commercial use permit and/or operating in the 2022 season were coordinated with regarding current levels and types of recreation.

## **4.2. Primary Data Collection**

New recreational data from residents and visitors was collected primarily through an online, interactive comment map and online and in-person surveys. All methods were developed to collect distinct information on the types, seasons, frequencies, and locations of recreation activities within the Project area, focusing on existing recreation, not desired opportunities. Data was solicited from area recreators of all skill levels and frequencies, from the one-time visitor to the daily trail user; therefore, solicitation methods varied depending on peak seasonal use and the intended survey and comment map participants.

### **4.2.1. Online Interactive Comment Map**

An online interactive comment map was developed using Esri products and existing data layers, including roads, waterways, topography, aerial imagery, and applicable land use and boundaries. The public interactive comment map allowed recreators to submit geolocated information about the types, frequencies, and locations of their chosen activities. Map users could draw routes, drop informational points, provide detailed comments, and import GPS coordinates from mapping devices (e.g., smart watches, Garmin activity tracking, and Strava maps). The detailed data collected from the online platform was intended to be especially advantageous for documenting activities of high frequency recreators, those who traverse outside of developed facilities, and recreators with in-depth knowledge of the Eklutna area.

The interactive comment map was posted to the Project website, [www.eklutnahydro.com](http://www.eklutnahydro.com), and was active from July through October 2022. Notices advertising the map were shared via email, social media, as well as physical flyers posted within the Project area including at the Day Use Areas, trailheads, on informational kiosks, and on or near parking payment stations. Flyers and digitally distributed notices included the project website URL and a QR code linked to the Project website. Notice distribution was supported by the Chugach State Park Citizens Advisory Board, the Federation of Community Councils, Eklutna Valley Community Council, Alaska Trails, and recreation-based Facebook groups (including Hiking in Alaska, Girls Who Hike Alaska, Alaska Paddlers, and Camping in Alaska). Flyers were posted in mid-July, emails and social media posts were shared in August, and the Federation of Community Councils email was sent municipality-wide on August 24<sup>th</sup>, 2022. Reminder notices were distributed in October ahead of map and online survey closure.

### **4.2.2. Online Survey**

An online survey was conducted using Survey123, an Esri tool that allows for location-/map-based, multiple-choice, single-choice, grid, rating, ranking and open-ended questions. Questions were developed to capture information intended to fill gaps in existing data and to collect representative user-reported data on the types, locations, and frequencies of recreation. A link to the online survey was posted on the project website, and links and QR codes to the survey were

distributed via the same methods as the online interactive comment map described in the section above. The online survey was active from July 13<sup>th</sup> through November 1<sup>st</sup>, 2022.

### **4.2.3. Intercept Surveys**

To supplement data provided by agencies, businesses, and the public through online tools, targeted intercept surveys were conducted at key locations in the Project area during peak times of use. Questions included in the intercept survey were similar to those included in the online survey but included more site-specific questions to facilitate detailed conversations with recreators. One staff person was on location to conduct intercept surveys using clipboards, copies of the survey, and informational signage. Surveys were conducted for four to five hours per field session, with some variation due to time of day initiated or weather conditions. In addition to survey results, staff also recorded observations of recreation activities occurring during their time on location (see Attachment 1. Intercept Survey, Field Notes & Results).

Intercept Surveys were conducted at three locations:

- Eklutna Tailrace Day-Use Fishing Access Site (4 days)
  - June 18<sup>th</sup>, 2022
  - June 21<sup>st</sup>, 2022
  - June 22<sup>nd</sup>, 2022
  - August 26<sup>th</sup>, 2022
- Thunderbird Falls Trailhead (3 days)
  - August 5<sup>th</sup>, 2022 (cut short due to weather)
  - August 19<sup>th</sup>, 2022
  - August 20<sup>th</sup>, 2022
  - August 29<sup>th</sup>, 2022
- Eklutna Lake Day-Use Parking Lot and Boat Launch Site (4 days)
  - July 31<sup>st</sup>, 2022
  - August 2<sup>nd</sup>, 2022
  - September 24<sup>th</sup>, 2022
  - September 30<sup>th</sup>, 2022

### **4.2.4. Native Village of Eklutna Resident Survey**

Recreation in the lower Eklutna River, defined for the purposes of this study as the land downstream or west of the Old Glenn Hwy bridge, occurs on land owned by Eklutna Inc. It is assumed that the majority of recreators are members of the Native Village of Eklutna (NVE), Eklutna Inc. shareholders, or are otherwise permitted by Eklutna Inc. to be on their land; however, there is anecdotal evidence that non-permitted users recreate in this area for ATV riding, hiking, fishing, hunting, or other activities. It was not the goal of this study to quantify non-permitted recreation in the lower river; therefore, data collection efforts focused on recreation conducted by NVE or authorized by Eklutna Inc.

Coordination with NVE and Eklutna Inc. determined the appropriate and reasonable methods for quantifying existing recreational activities in the lower river. An anonymous recreational and subsistence use survey was developed for NVE members to collect data on the types of use, locations, time of year, frequency, and access for recreational and subsistence activities in the lower Eklutna River area. Survey questions were similar to those in the online public survey but included subsistence use-specific questions and modifications based on known activities. Two maps of the lower river area were also included in the survey for members to draw and write on to provide locational and access information, one for recreational activities and one for subsistence activities. Paper copies of the survey were delivered to the NVE office for distribution by NVE on November 7<sup>th</sup>, 2022, with prepaid return envelopes for completed surveys to be mailed back to R&M Consultants, Inc. Responses were requested by December 2<sup>nd</sup>, 2022.

#### **4.2.5. Traffic Counters**

To supplement available Chugach State Park and ADF&G visitation data, specifically pay station data at parking lots and trailheads, traffic counters were placed in recreational access areas within the Project area to help determine total visitation numbers. Fee station data reflects the vehicle counts for visitors who choose to comply with day-use fee requirements. However, it does not capture those who choose not to pay or those who hold an annual State Park Pass. State Park Pass holders pay a one-time fee to obtain their pass that is valid at all fee areas in the Project area for the calendar year. Placing traffic counters at strategic locations allowed for a more complete understanding of the number of vehicles visiting recreation facilities in the Project area and establishing a ratio of visitors who pay at the pay station and those who do not. Manual traffic counts, which were conducted by a staff person(s) on a day the radar traffic counter or hose counter was in place, provided additional data including general vehicle classification and if a vehicle was towing a trailer. This was intended to inform the analysis of use type.

Traffic counters were placed at each location for approximately one week during the summer. Scheduling of the counters considered peak season vs. off-season, days where motorized uses are allowed vs. restricted within areas of Chugach State Park, and holidays. Counters were placed at the following locations:

- Eklutna Tailrace Day-Use Fishing Access Site
  - Radar Detector Data Collection occurred partially on 6/8/22, fully from 6/9/22 to 6/14/22, partially on 6/17/22, and fully from 6/18 to 6/23/22
  - Manual Data Collection occurred on 6/11/22 from 2:00 PM to 4:00 PM
- Eklutna Lake Recreation Area (captured all parking areas including ATV lot, campgrounds, day use, and overflow campground)
  - Hose Data Collection occurred in the afternoon of 7/26/22 through noon on 8/9/22
  - Manual Data Collection occurred on 8/6/22 from 11:00 AM to 1:00 PM
- Thunderbird Falls Trailhead
  - Hose Data Collection occurred in the afternoon of 7/29/22 through the afternoon of 8/9/22



- Manual Data Collection occurred on 7/30/22 from 2:00 PM to 4:15 PM and on 8/5/22 from 7:08 PM to 7:38 PM

For detailed methodology for the traffic counters, manual traffic counts and observations, please see Attachment 2. Traffic Count Reports.

## **5 RESULTS**

### **5.1. Existing Data Analysis**

#### **5.1.1. Chugach State Park Data**

Chugach State Park (CSP) manages developed facilities within the Eklutna Lake Recreation Area, including public use cabins, campgrounds, and day-use areas. Camping, whether at a public use cabin or at a campground, requires a fee and permit, and parking in the area requires a fee payment or annual state park pass. CSP keeps records of reservations made and fees collected, providing reliable data on recreational use.

##### **5.1.1.1. *Campground and Public Use Cabins***

Public Use Cabins require a reservation which can be made online or over the phone. The Serenity Falls Hut, located south of Eklutna Lake along the West Fork of Eklutna Creek near the terminus of Eklutna Glacier, is an outlier cabin facility as it was closed for a number of years and reopened in 2021 with reservations available by bunk or the entire cabin. The following data was provided by CSP as part of their Facility Utilization Reports. 2019-2020 data is provided by calendar year, and 2021 and 2022 data are provided as fiscal years (e.g., FY 2021 was July 1, 2020, through June 30, 2021).

**Table 5.1-1.** CSP Eklutna Lake Recreation Area Facility Utilization Summary, 2018

Facility	Days Occupied	Total Usage	% Usage Weekdays (Mon-Thurs)	% Usage Weekends (Fri-Sun)	Number of Visitors	Total Reservations	Total Rec Use Fees
Canyon Group Camping Site	0	0%	0%	0%	0	0	\$0.00
Group Camping Area A	0	0%	0%	0%	0	0	\$0.00
Group Camping Area B	0	0%	0%	0%	0	0	\$0.00
Dolly Varden Cabin	183	50.55%	30.77%	77.27%	955	127	\$16,702
Yuditna Creek Cabin	232	64.62%	48.04%	86.45%	721	171	\$14,900
Kokanee Cabin	157	43.37%	28.99%	62.58%	426	107	\$9,695
Rainbow Trout Cabin (closed 51 days)	47	14.97%	7.78%	24.63%	157	32	\$3,780
<b>Total</b>					2,259	436	\$45,077

**Table 5.1-2.** CSP Eklutna Lake Recreation Area Facility Utilization Summary, 2019

Facility	Days Occupied	Total Usage	% Usage Weekdays (Mon-Thurs)	% Usage Weekends (Fri-Sun)	Number of Visitors	Total Reservations	Total Rec Use Fees
Canyon Group Camping Site	0	0%	0%	0%	0	0	\$0.00
Group Camping Area A (closed 222 days)	52	36.36%	18.52%	59.68%	1,484	32	\$7,800
Group Camping Area B (closed 228 days)	38	27.74%	8.75%	54.39%	1,780	22	\$5,700
Dolly Varden Cabin	192	54.24%	35.64%	78.95%	887	123	\$19,000
Yuditna Creek Cabin	214	61.32%	43.50%	85.23%	639	166	\$18,360
Kokanee Cabin	140	38.36%	26.32%	54.59%	364	104	\$11,160
Rainbow Trout Cabin	198	54.70%	38.46%	76.62%	662	144	\$18,640
<b>Total</b>					5,006	591	\$80,660

**Table 5.1-3.** CSP Eklutna Lake Recreation Area Facility Utilization Summary, 2020

Facility	Days Occupied	Total Usage	% Usage Weekdays (Mon-Thurs)	% Usage Weekends (Fri-Sun)	Number of Visitors	Total Reservations	Total Rec Use Fees
Canyon Group Camping Site	0	0%	0%	0%	0	0	\$0.00
Group Camping Area A (closed 229 days)	42	30.66%	5.13%	64.41%	766	25	\$6,300
Group Camping Area B (closed 229 days)	41	29.93%	3.85%	64.41%	689	21	\$6,150
Dolly Varden Cabin	246	67.58%	52.15%	88.39%	1,025	168	\$24,600
Yuditna Creek Cabin	280	76.50%	64.76%	92.31%	810	204	\$27,310
Kokanee Cabin	158	43.89%	30.10%	62.34%	428	118	\$15,200
Rainbow Trout Cabin	275	75.14%	62.38%	92.31%	797	174	\$27,500
<b>Total</b>					4,515	710	\$107,060

**Table 5.1-4.** CSP Eklutna Lake Recreation Area Facility Utilization Summary, FY 2021

Facility	Days Occupied	Total Usage	% Usage Weekdays (Mon-Thurs)	% Usage Weekends (Fri-Sun)	Number of Visitors	Total Reservations	Total Rec Use Fees
Canyon Group Camping Site	0	0%	0%	0%	0	0	\$0.00
Group Camping Area A (closed 233 days)	52	39.39%	13.33%	73.68%	1,048	32	\$7,800
Group Camping Area B (closed 237 days)	45	35.16%	10.67%	69.81%	823	23	\$6,750
Dolly Varden Cabin	255	71.43%	56.44%	90.97%	1,034	168	\$25,300
Yuditna Creek Cabin	298	82.09%	71.50%	96.15%	803	213	\$29,610
Kokanee Cabin	190	52.05%	37.32%	71.79%	477	132	\$18,940
Rainbow Trout Cabin	291	80.17%	68.60%	95.51%	800	186	\$29,100
Serenity Falls Hut	-	-	-	-	82	24	-
<b>Total</b>					5,067	778	\$117,500

**Table 5.1-5.** CSP Eklutna Lake Recreation Area Facility Utilization Summary, FY 2022

Facility	Days Occupied	Total Usage	% Usage Weekdays (Mon-Thurs)	% Usage Weekends (Fri-Sun)	Number of Visitors	Total Reservations	Total Rec Use Fees
Canyon Group Camping Site	0	0%	0%	0%	0	0	\$0.00
Group Camping Area A (closed 236 days)	55	42.64%	27.03%	63.64%	1,296	31	\$8,250
Group Camping Area B (closed 225 days)	64	45.71%	28.40%	69.49%	1,128	33	\$9,600
Dolly Varden Cabin	251	70.70%	55.50%	90.32%	894	164	\$25,100
Yuditna Creek Cabin	291	79.95%	70.19%	92.95%	793	202	\$29,100
Kokanee Cabin	205	56.16%	46.41%	69.23%	566	139	\$20,500
Rainbow Trout Cabin	260	73.03%	59.31%	91.45%	762	173	\$26,000
Serenity Falls Hut	-	-	-	-	316	106	-
<b>Total</b>					5,755	848	\$118,550

Table 5.1-6 compares total numbers from 2019-2020 and FY 2021 and 2022 and provides the average number of visitors included in reservations for occupied sites during the reporting period, number of reservations and total fees. 2018 was excluded from the averaging as total facility utilization was less than half of sequential years with no Group Camping data reported and is, therefore, considered an outlier. On average, 5,086 visitors stayed at a campground or public use cabin in the Eklutna Recreation Area.

**Table 5.1-6.** CSP Eklutna Recreation Area Facility Utilization Summary 2019-2022

	2019	2020	FY 2021	FY 2022	Average
Total Number of Visitors	5,006	4,515	5,067	5,755	5,086
Total Number of Reservations	591	710	778	848	732
Total Recreational Use Fees	\$80,660	\$107,060	\$117,500	\$118,550	\$105,943

### 5.1.1.2. Fee Stations

Fee stations are located at the Thunderbird Falls Trailhead, and multiple locations in the Eklutna Lake Recreation Area including the two campground loops, the ATV/overflow parking lot, and Day-Use/Boat Launch parking lot. Daily parking is \$5.00 per vehicle, camping is \$20 per site per night with a limit of two vehicles per site. State Park Pass holders are exempt from paying the daily parking fee at the stations, as they paid a one-time fee to obtain their pass that is valid at all fee areas in the Project area for the calendar year. State Park Pass holders are not exempt from

the camping fee; therefore, all collections made at fee stations within the Project area represent visitors who do not have an annual State Park Pass, complied with parking area fee requirements, and/or camped at a designated camping area.

The following table summarizes the total number of collections by fee station (collections are successful transactions where payment was received) and revenue by fiscal year (July 1 through June 30). Incomplete data was provided by CSP; “NA” in the table indicates where data was insufficient. The review of daily collection rates revealed collections trended seasonally, as anticipated, with a significant reduction in total transactions in the winter months (November through March) and an influx in the spring, summer, and fall.

**Table 5.1-7.** CSP Fee Station Collections and Revenue, FY 2021 and FY 2022

Fee Station	FY 2021		FY 2022	
	Collections	Revenue	Collections	Revenue
Eklutna Lake (Day Use/Boat Launch)	8,355	\$45,520	9,489	\$52,520
Eklutna ATV / Overflow	NA	NA	1,589	\$9,489
Eklutna Campground (*6/22/22 through 10/01/22 only)	NA	NA	1,275*	\$29,310*
Thunderbird Falls	11,128	\$56,070	12,598	\$63,610
Total	NA	NA	24,951	\$154,929

## 5.1.2. ADF&G Data

### 5.1.2.1. Fishing

The ADF&G Eklutna Tailrace hatchery produced and stocked coho from 1983-1998. Anchorage area hatcheries have taken over coho production and stocking since 1998. In 2002, ADF&G also started stocking Chinook salmon smolts. These stocking efforts have facilitated a very popular and sustainable salmon fishery since 2003. Salmon originating from the drainages of the Knik and Matanuska Rivers are also harvested at the confluence of the tailrace and the Knik River. ADF&G manages the Eklutna Tailrace Day Use Fishing Access Site to support sport fishing, which includes parking, ADA-accessible trails, fishing pads, a bridge providing access to both sides of the tailrace, toilet screens and improved refuse receptacles. ADF&G currently provides dumpster pick-up, a fish cleaning table, vault latrines and contracts out for patrols and litter pick-up.

Per the 2022 Southcentral Sport Fishing Regulations, fresh waters of the Knik Arm are closed to king salmon fishing, except the Little Susitna drainage and Eklutna Tailrace. There was a combined annual limit of 5 king salmon 20 inches or longer, 1 per day, 1 in possession; less than 20 inches is 10 per day, 10 in possession. At the Eklutna Tailrace, salmon 16 inches or longer may be harvested; 3 per day, 3 in possession, all 3 may be coho (silver) salmon. Regulations were the same in 2021. King salmon fishing is open year-round.

King salmon are usually present from May through August, with peak availability in June and July. Sockeye and coho salmon are usually present June through September, with sockeye peaking in July and August, and coho peaking in August.

There are two youth-only fisheries for king and coho at the Eklutna Tailrace, which are open to fishing for anglers 15 years of age or younger. They take place the third Saturday in June and the third Saturday in August from 6 AM to 6 PM. The dates of the 2022 youth-only fisheries were June 18, 2022, and August 20, 2022.

ADF&G publishes sport fish harvest estimates for the Tailrace (also known as the Eklutna Power Plant Raceway). Table 8 shows the estimated harvest from 2012 through 2021. 2022 estimates were not available at the time of this report. ADF&G also has a draft 2022 Update to the Region II Statewide Stocking Plan for Sport Fish 2022-2026 available which includes estimates of sport angler days and stocking objectives. The draft Stocking Plan reports, Eklutna Tailrace supported over 13,485 angler days of fishing effort, according to 2018 Statewide Harvest Survey estimates. The draft 2022-2026 Stock Plan objectives for the Eklutna Tailrace are to generate 6,000 and 10,000 angler days of annual sportfishing opportunity for coho and Chinook salmon, respectively, and produce a return of 7,500 and 4,000 adult coho and Chinook salmon to the Eklutna Tailrace, respectively.

**Table 5.1-8.** ADF&G Knik Arm Sport Fish Harvest Estimates for Eklutna Power Plant Raceway

Species	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Chinook Salmon	76	159	589	956	1,367	551	559	524	440	576
Coho Salmon	394	1,521	4,103	2,224	1,054	913	2,439	1,881	747	592
Sockeye Salmon	45	248	557	286	441	47	92	18	81	151
Total Salmon	515	1,978	5,308	3,502	2,964	1,511	3,127	2,519	1,308	1,359
Dolly Varden / Arctic Char	127	515	232	39	203	0	77	0	0	0
Total Fish	1,157	4,421	10,789	7,007	6,029	3,022	6,294	4,942	2,576	2,678

Access to the Tailrace is free, therefore no economic data for the site from fee stations can be determined. Regional and statewide economic impacts for sport fishing are also difficult to fully quantify for many reasons. For example, the amounts of time and money residents and visitors spend for the opportunity to sport fish in Alaska can vary significantly and it is not necessarily the number of fish harvested that drives economic impact of sport fishing (just as much money might be spent for sport harvest of five salmon as for ten). According to a 2018 publication by McDowell Group (now McKinley Research Group) *Economic Impact of Alaska’s Salmon Hatcheries*, non-residents spent an estimated \$25 million in the sport harvest of hatchery salmon and accounted for \$16 million in annual labor income created directly or indirectly by Alaska’s hatcheries statewide in 2016. “This number is limited to impacts resulting from non-resident sport harvest of hatchery salmon and should be considered conservative. Clearly, resident sport/personal use/subsistence harvest of hatchery salmon have additional economic impacts as well as very significant social and cultural impacts in Alaska.”

ADF&G and the Eklutna Hydroelectric Project owners have anecdotally shared past complaints from anglers at the tailrace regarding facility operation’s impacts on fishing success and harvest.

Anglers have claimed more fish are present in the Tailrace when water is flowing or believe the fish do not move into the Tailrace fishery when the water flow is decreased or disrupted, such as during annual maintenance of the hydroelectric plan in late May. During the 2022 season, two inquiries were received through the Project website regarding operation of the hydroelectric facility as it pertains to sport fishing at the Tailrace.

1. Received on June 9, 2022:  
 “Is there a schedule of operations for the hydro plant? Or perhaps a hotline number to call to find out on any given day whether or not the dam is operating? Quick run down: I live in Anchorage and really like fishing for kings from my boat in the Knik River. When the dam is operating and releasing Eklutna lake water (very blue) into the tail race, the fishing is greatly improved. The fish prefer to swim in the small channel of blue water as it flows down the Knik. When they stop operation and water release, the fishing is essentially impossible. It would be nice to know if the Eklutna water is flowing before I drag my boat all the way up there. It’s a bummer to make the drive up there just to find out that there’s no water coming out of the tail race and it’s not even worth trying to fish. Does that make sense? I appreciate any info you might have for me!”
  
2. Received on June 15, 2022:  
 “Hi, I would like to know why the power plant [*sic*] is shut down and no water is flowing through the tailrace. Thanks”

### 5.1.2.2. *Hunting*

The Eklutna Project is within the ADF&G Eklutna Lake Game Management Area, which is entirely within Game Management Unit 14C. Other Game Management Areas and permitted hunts border the Eklutna watershed and may be accessed from near the project area (see Appendix 3: ADF&G Eklutna Project Area Game Management Units). ADF&G manages the number of hunting permits given out for game within this unit and these areas. Table 9 summarizes the hunts available within or could be reasonably accessed from the Eklutna project area, according to the ADF&G published 2023-2024 Alaska Drawing Permit Hunt Supplement, which includes results of the 2022 permit hunt drawing, and 2022-2023 Alaska Hunting Regulations.

**Table 5.1-9.** ADFG 2022 Hunt Permits by Species for Eklutna Project Area

Species & Units	Tag / Type	Permits Given	Applications Received (applicable for draw tag hunts)	Revenue from Applications (\$5 per entry)
Goat, Unit 14C East Eklutna	DG852	3	1,025	\$5,125
Dall Sheep, Unit 14C Northeast	DS024, DS124, DS125, DS216, DS224	10	1,041	\$5,205
Dall Sheep, Unit 14C Northwest	DS111, DS112, DS130, DS131, DS132, DS230, DS231, DS232	21	2,730	\$13,650

<b>Species &amp; Units</b>	<b>Tag / Type</b>	<b>Permits Given</b>	<b>Applications Received (applicable for draw tag hunts)</b>	<b>Revenue from Applications (\$5 per entry)</b>
Dall Sheep, Unit 14C West Eklutna	DS141, DS241 (bow only)	25	964	\$4,820
Brown/Grizzly Bear, Unit 14C Eklutna Lake Management Area	DB468 (bow only)	20	237	\$1,185
<b>Total Draw Tags</b>		<b>79</b>	<b>5,997</b>	<b>\$29,985</b>
Black Bear, Unit 14C Eklutna Lake Management Area	Bow only, Harvest Ticket	NA	NA	NA
Black Bear, Unit 14C Chugach State Park Management Area	Harvest Ticket	NA	NA	NA
Moose, Unit 14C Eklutna Lake Management area	RM445 (bull only, bow only, Registration Tag)	NA	NA	NA

Draw tags are chosen through a lottery system, and prospective hunters pay \$5 for each entry into any given applicable draw. The number of applications received for draw tags reflects the desirability for these hunting tags, as most have a less than 1% change of being selected. The combination of accessibility from Anchorage and the Matanuska Susitna Valley and the developed recreation and recreational support facilities within the Eklutna Lake Recreation Area are likely attractants for these hunts.

### 5.1.3. Municipality of Anchorage Data

The Municipality of Anchorage Traffic Engineering Department conducted counts along the Eklutna Lakeside Trail in 2019 and the Thunderbird Falls Trail in 2021. The trail counters were posted on the trail and tracked recreational users in the summer and in the winter. No methodology for the collection or analysis of the data was provided by the Municipality. A counter was anticipated to be placed on the Eklutna Lakeside Trail again in 2022 but was not successful this season; MOA intends to try to collect trail counts again in 2023.

**Table 5.1-10.** Trail Count of Pedestrians Per Day by MOA Traffic Department

<b>Location</b>	<b>Summer Volume Field Data</b>	<b>Summer Volume Average Daily Traffic</b>	<b>Winter Volume Field data</b>	<b>Winter Volume Average Daily Traffic</b>	<b>Annual Average Daily Traffic</b>
Eklutna Lakeside Trail (2019)	407 peds/day	230 peds/day	22 peds/day	160 peds/day	200 peds/day
Thunderbird Falls Trail (2021)	888 peds/day	670 peds/day	115 peds/day	60 peds/day	370 peds/day



### 5.1.4. Recreational Business Operations

A portion of the recreational activity in the Eklutna area is facilitated by outdoor recreation businesses, which primarily includes guided trips of various types and recreational equipment rentals. Without Eklutna-specific data available, sourcing businesses that operated in the Eklutna area began with reviewing the 2020, 2021, and 2022 lists of State Park commercial use permit holders, then sorting for businesses operating within Chugach State Park. These businesses were sent electronic requests to participate in a survey requesting data about their Eklutna-specific recreation services. Of the list of permit holders, many did not respond and several that did respond reported that they did not operate specifically in the Eklutna area; however, five businesses that operate partially or fully in the Eklutna Area provided survey responses. See Table 5.1-11.

**Table 5.1-11.** Business Operation Survey Results Summary

	<b>Alaska Guide Collective</b>	<b>Alaska Photo Treks</b>	<b>Outdoor Adventure Program (Military)</b>	<b>Premier Alaska Tours</b>	<b>Vast Alaska</b>
Types of service in Eklutna area	Ice climbing in Eklutna Canyon	Photography day tours	Guided trips to military service members and their families; ATV, kayak, bike	Transportation to Eklutna Lake, connections for ship/tour travelers with other guiding and equipment rental companies.	Archery sheep hunting
Location/vicinity of services provided	Thunderbird Falls Trail, Eklutna Valley	Eklutna Tailrace Day Use Fishing Access Site	Eklutna Lakeside: main parking area/boat launch, Eklutna Lakeside Trail, Eklutna Lake	Eklutna Lakeside	Eklutna Lakeside east of lake. In Eklutna Valley to Bold Peak Airstrip.
Operating months	Late November to Mid-March	August 17 to April 24; avoid tailrace during salmon fishing season	May to October	Summer only (late May through mid-September)	October
Frequency of operations	0-2 times per month	A few times per week	A few times per month	Once per week	Once every few years
Average customers per trip (#)	1-2	7-10	10 (up to 20)	20-40 per bus (almost all customers utilize services provided by Lifetime Adventures at the Eklutna Lakeside.	1
Estimated total annual customers (or 2022, and recent years if	2022: 5 (to date) 2021: 13	N/A Eklutna-specific data unavailable	2022: 49 2021: 159 2020: 58	2022: 500	1 (10 user days)

	<b>Alaska Guide Collective</b>	<b>Alaska Photo Treks</b>	<b>Outdoor Adventure Program (Military)</b>	<b>Premier Alaska Tours</b>	<b>Vast Alaska</b>
available)			2019: 143 2018: 142		
Customer ration of Alaska resident vs. out-of-state (approx..)	60% Visitor 40% Resident	95% Visitor	All are living/working locally, but unsure how many with AK residency	100% Visitor	100% Visitor
Employees providing Eklutna area services	2	4 part-time	6	Not provided	2 per trip
Significance of accessing Eklutna are for business	Use of Eklutna Canyon is important. Provides reasonable access to variety of different ice climbs for different skill levels.	It has been a reliable location, but one of several possible areas for aurora viewing.	Very important to our operation, this is the location we offer our 'beginner' ATV ride. Throughout the summer we are there 1-2 times per week running ATV trips. Losing access to this area would significantly hinder our program and what we can offer our clientele.	Premier is considering phasing out of using State Park facilities due to price increases for commercial operators and the outcome of Lifetime Adventures selling or closing. From an industry standpoint, this is a critical location for this accessibility to have customers get outside and have pristine picture opportunities.	Not really, we have an air taxi so if vehicle or foot access changes, we can adapt.

Escaping Alaska, a new business as of 2022, submitted partial data. They guided about 20-25 people to and within the Eklutna area in the summer months of 2022 and expect to have a higher number of operations in the coming year.

Two other recreation businesses operating the summer of 2022 within the Eklutna area were 907EBike, an electric assist bicycle rental company located next to Twin Peaks Treats adjacent to the intersection of Eklutna Lake Road and Raymond Ave, and Lifetime Adventures, a kayak and bike rental outfitter also offering guided trips to recreators, located north of the Eklutna Lake boat launch and parking area accessible via trail. Both businesses were not able to be contacted due to lack of current, publicly available contact information; however, during intercept surveys conducted by R&M staff at the Eklutna Lakeside area, 907EBikes were observed being ridden, and Lifetime Adventures was open and operating most of the times staff were onsite. Based on

Premier Alaska’s survey response, it is probable that Lifetime Adventures served at least as many customers as Premier Alaska reported.

Survey data from the recreation businesses indicated that, in aggregate, the Eklutna area has year-round significance. While these businesses generally did not operate exclusively in the Eklutna area, reliable access to the area was important to most for the broad range of accessible opportunities available in the area. Most of the customer base for each company that responded was non-local, bringing in tourism revenue from outside of the State of Alaska.

Customer data provided by Outdoor Adventure Program highlighted the impact of COVID-19. It was the only response that included customer data prior to 2021, showing a 59% decrease in 2020 for customers served, followed by a full recovery in 2021. While the data received are insufficient to draw more specific conclusions about the overall impact of COVID-19 on local recreation across businesses operating in the Eklutna area, external tourism data suggested that these businesses are likely to have been similarly affected. Additionally, multiple businesses listed as current commercial use permit holders were found to be closed.

## **5.2. Primary Data Analysis**

### **5.2.1. Online Interactive Comment Map Results**

The online interactive comment map was available via the Project website from July through October 2022. As anticipated, the map feature was used primarily by Alaska residents who are familiar with the Eklutna area and recreators who partake in both short and long-distance activities in the area. Map users could submit their recreational activities either as a Destination (point) or as a Route (line). A total of 17 Destination comments and 60 Route comments were submitted via the map. Nine users submitted Destination comments and 12 users submitted Route comments; users were encouraged to submit a new comment for each individual activity or route they participate in.

An online Dashboard presenting a summary of all data collected is available for review here: <https://rmconsult.maps.arcgis.com/apps/dashboards/41d77633b4bc4383b7f52088633293fd> Within the Dashboard (shown generally below in Figure 5.2-1), the map may be navigated, and individual points or lines may be selected to view the data submitted as part of the entry including primary activity, secondary activity if any, frequency of activity, season of use, number of people who participated, and any additional comments provided.

Eklutna Hydroelectric Project Recreation Survey Dashboard

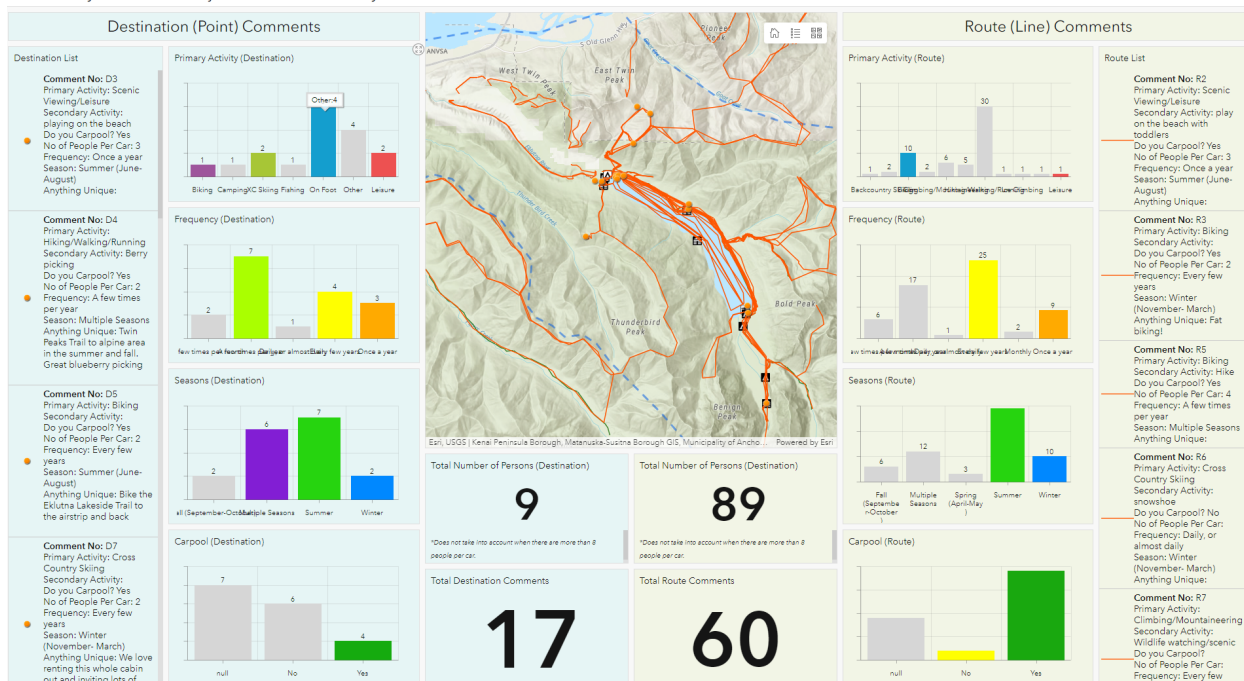


Figure 5.2-1. Display of Online Interactive Comment Map Dashboard

Summer was reported as the most active season by both Destination (7 activities) and Route (29 activities) comments, followed by multiple seasons with 6 Destination comments and 12 Route comments, then winter with 2 Destination and 10 Route comments.

Hiking, walking, and/or running was the most selected primary activity for both Destinations and Routes (30 and 6 respectively). Biking was the second most selected activity for Route comments, and scenic viewing and leisure was the second most selected activity for Destination comments. Comments provided also indicated cross-country skiing, fat biking, and snowshoeing were preferred winter activities in the area.

Most recreational activities provided on the map indicate use of developed facilities including the Eklutna Lakeside Trail, Twin Peaks Trail, Bold Peak Trail, and Gold Star Peak whether for their entire trip or in part to access other areas (see Figure 5.2-2. Interactive Comment Map Summary). One user reported cross-country skiing in the winter and hiking during multiple seasons within the Eklutna River downstream of the lake and following the water pipeline right-of-way. The same user also indicated they hike, walk and/or run in or adjacent to the Eklutna River starting at the Old Glenn Hwy traveling up stream in the Spring. Ice skating, fat biking, skiing, and boating were reported activities on Eklutna Lake itself, with additional comments indicating some swimming occurs in the summer season.

Activities submitted as Route comments were most reported to be done every few years (25 Comments), followed by a few times per year (17 comments), and once a year (9 comments). Activities submitted as Destination comments were reported to be mostly done a few times per year (7 comments), followed by every few years (4 comments) and once a year (3 comments).



**Figure 5.2-2.** Interactive Comment Map Summary

## 5.2.2. Online Survey Results

The following section discusses results from the Eklutna Recreational Study Online Survey, which was available between July 13<sup>th</sup>, 2022, and November 1<sup>st</sup>, 2022, via Survey123. Survey participants were asked about their recreation experience(s) in the Eklutna Area. There were 283 total participants in the survey. See Appendix 4. Online Survey & Survey Results.

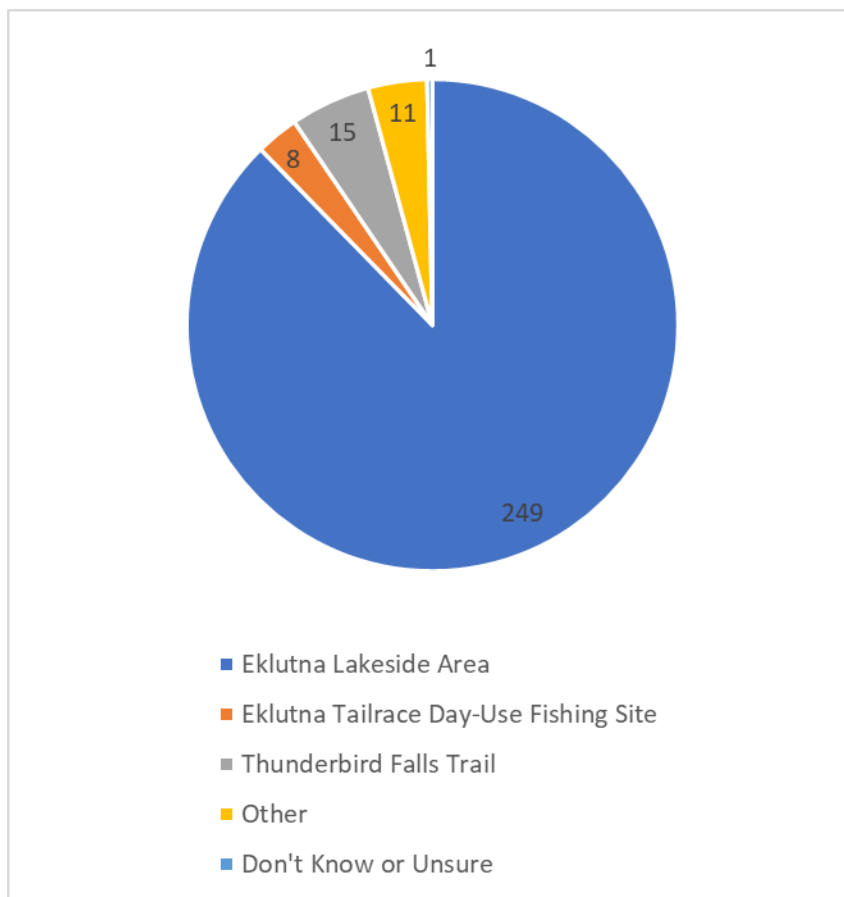
### 5.2.2.1. Time of most recent visit

Most survey participants had most recently visited the Eklutna area in 2022, with a high concentration visiting between June and September; however, there were some respondents who had not visited the area since 2006, 2013, and 2014.

### 5.2.2.2. Location of most recent visit

Of the named locations in the survey, almost 88% of the 283 survey participants stated that they had visited the Eklutna lakeside area during their most recent visit, followed by Thunderbird Falls (5.3%) and then the Eklutna Tailrace Day-Use Area (2.83%). For those who selected “other,” typed responses included Mt. Bold, Pepper Peak, Gold Star Peak, and the Twin Peaks trail, all of which are located within or accessed from Eklutna Lake Road or Eklutna lakeside area.

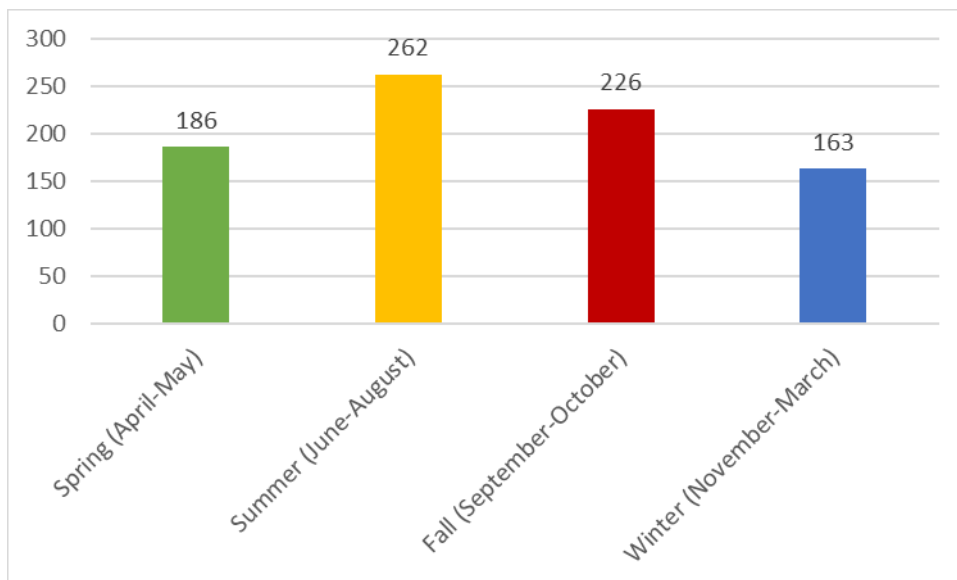
Of these participants, 280 (98.94%) stated they had previously visited the location they selected, indicating that the participants primarily resided in Alaska.



**Figure 5.2-3.** Location of Most Recent Eklutna Area Visit

### 5.2.2.3. *Seasons of Past Visits*

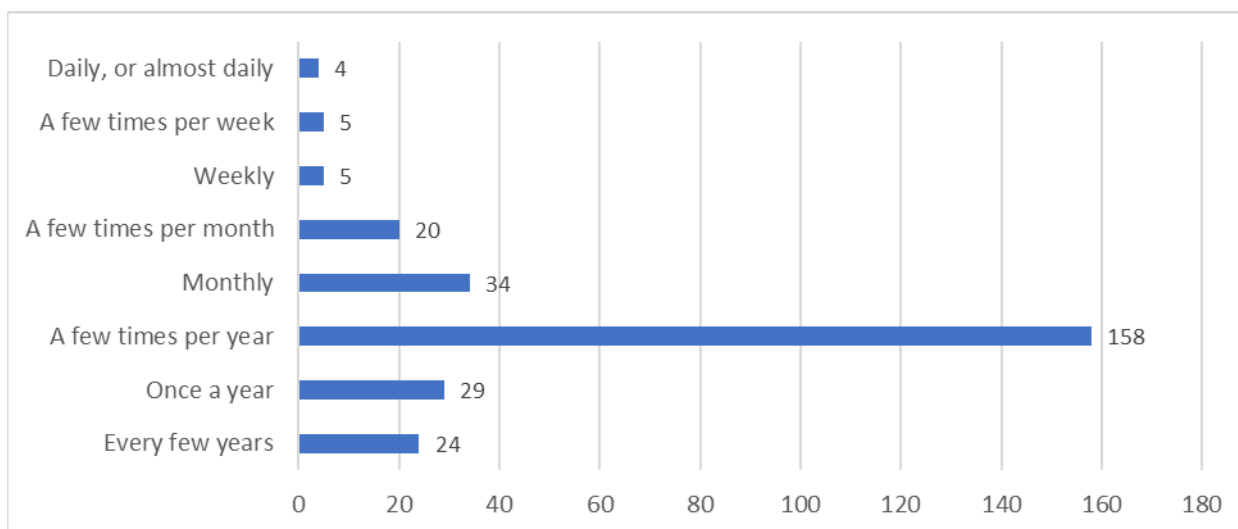
Participants who indicated they have visited the selected location in the past were asked which seasons they have recreated in; they could select all applicable seasons. Instead of the traditional 3-month season, the months were grouped based on general weather patterns for the Eklutna area (shorter spring and fall seasons with a longer winter) which also impact the range of activities that typically occur during these months. Most participants visited multiple seasons during the year, with summer the most popular time to visit, followed by fall, spring, then winter.



**Figure 5.2-4.** Seasons Participants Have Visited Eklutna Area

#### 5.2.2.4. *Frequency of Visits*

Participants have generally visited the location of their most recent visit multiple times, with a few times per year being the most common frequency.



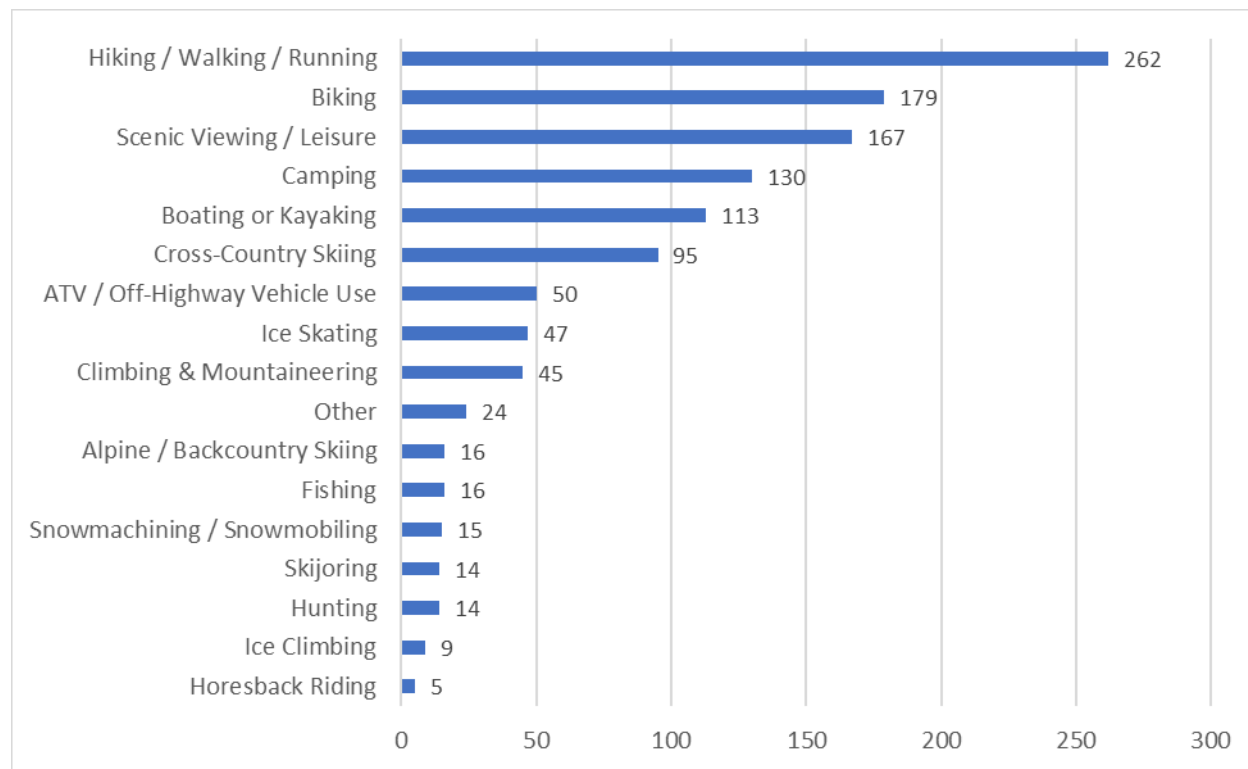
**Figure 5.2-5.** Frequency of Recreation in Eklutna Area

#### 5.2.2.5. *Recreational Activities*

Participants were asked to select one or more applicable recreational activities they have participated in at their selected location. The most popular activities were hiking, walking or running, biking, and scenic viewing, followed by camping, boating/kayaking, and cross-country skiing. Figure 9 below shows all listed activities. Other activities mentioned by participants not

listed below include berry picking, bird watching, dog walking, flying, bikejoring, cabin rental, swimming, snowshoeing, paragliding, and paddle boarding.

Participants were also asked to select their primary recreational activity during their most recent visit. Results aligned well with the figure below in terms of relative popularity of activities. The hiking, walking, or running option was most popular, accounting for 49.82% of the most recent recreational activities reported in the area. For those that participated in multiple recreational activities, hiking, walking or running, biking, scenic viewing, and camping were the most likely activities to be grouped together.



**Figure 5.2-6.** Recreational Activities in Eklutna Area

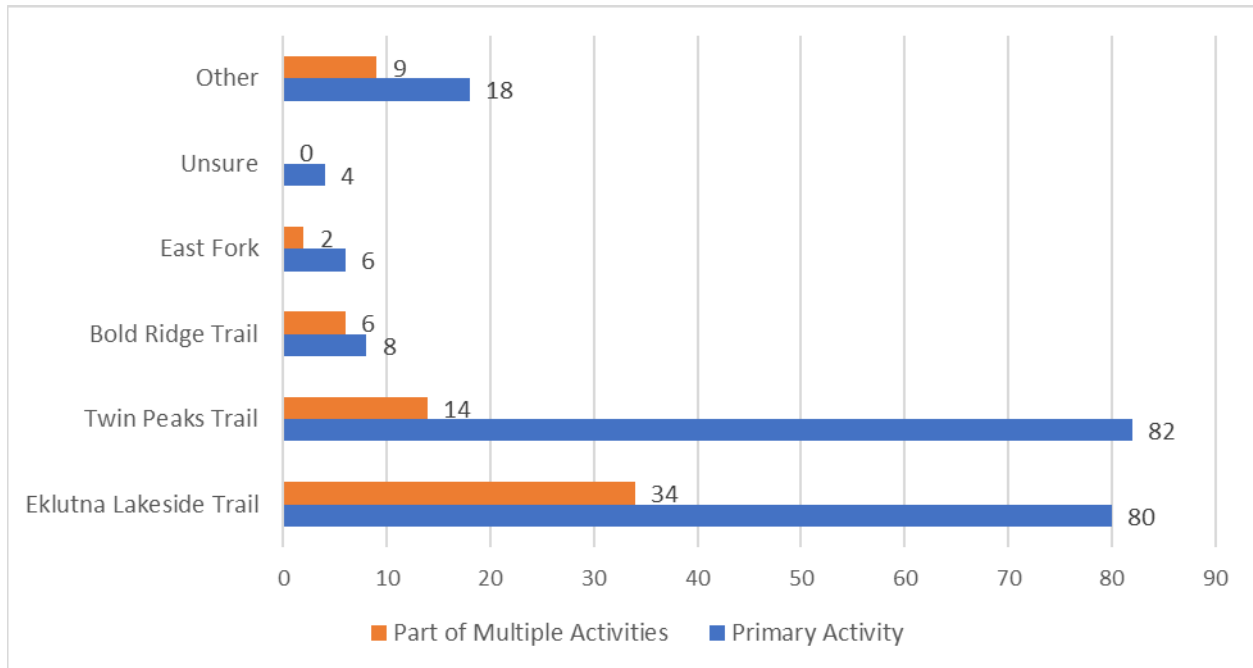
#### 5.2.2.6. Trails Used

Participants who hiked as their primary recreational activity were asked which trail(s) they used. For the participants who used trails as part of their hike, walk or run during their most recent visit, the most popular trail was the Twin Peaks Trail, followed closely by the Eklutna Lakeside Trail.

Notably, for the participants who hiked, walked, or ran as part of multiple recreational activities conducted during their most recent visit (but did not select it as their primary activity), significantly more had hiked the Eklutna Lakeside Trail (a lower-difficulty trail) than the Twin Peaks Trail. Participants who had biked as their primary or secondary activity were not asked which trail(s) they used, as only the Eklutna Lakeside Trail is suitable for typical bicycle use.



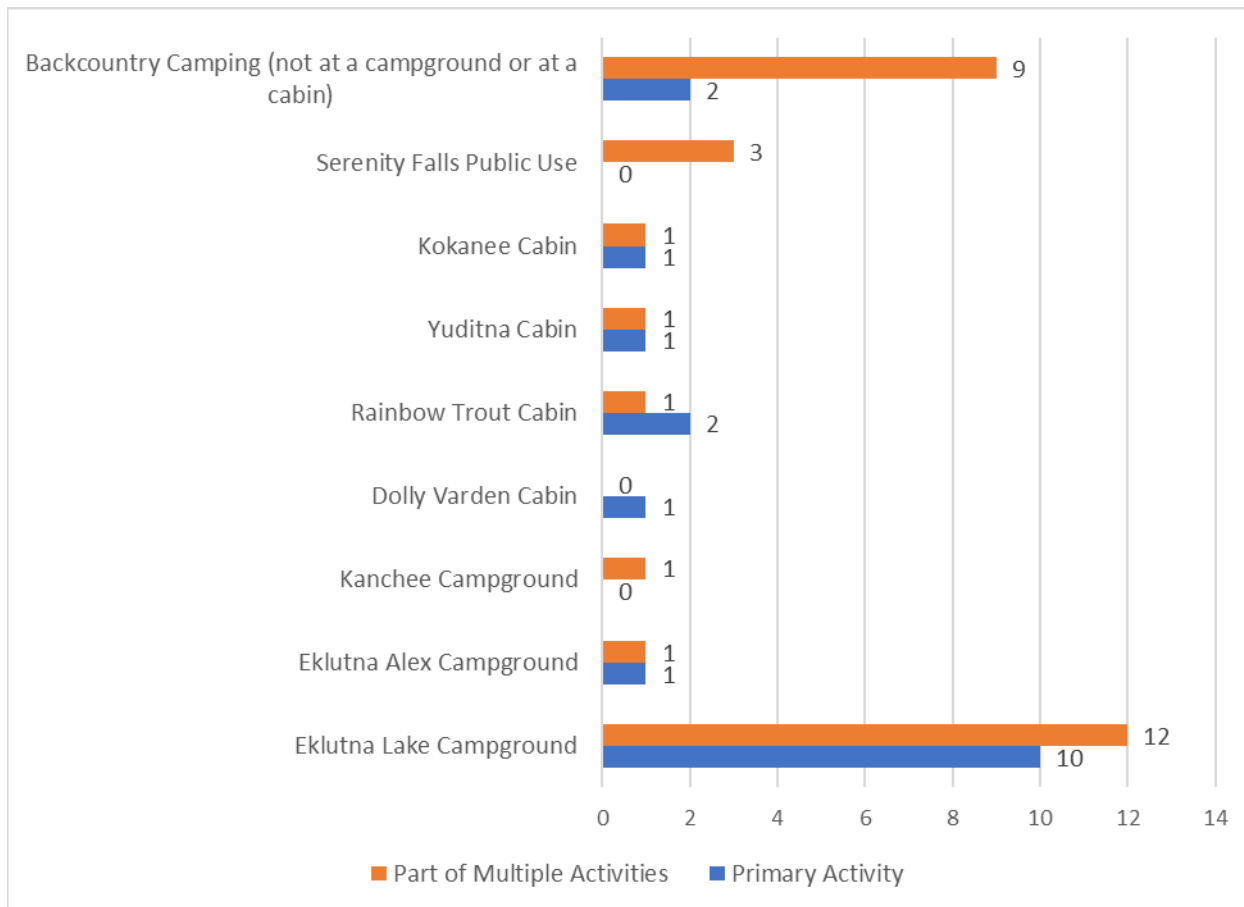
Therefore, the Eklutna Lakeside Trail was the most frequently used trail identified through this survey.



**Figure 5.2-7. Trails Used**

### 5.2.2.7. Campgrounds Used

As with trails, participants were asked about the campground or public use cabin used if camping was selected as their primary activity, or in conjunction with multiple activities. Participants were more likely to camp as part of multiple activities in the Eklutna area, with the Eklutna Lake Campground being the most visited destination. For the cabins, survey results did not indicate that one location was significantly more popular than another.



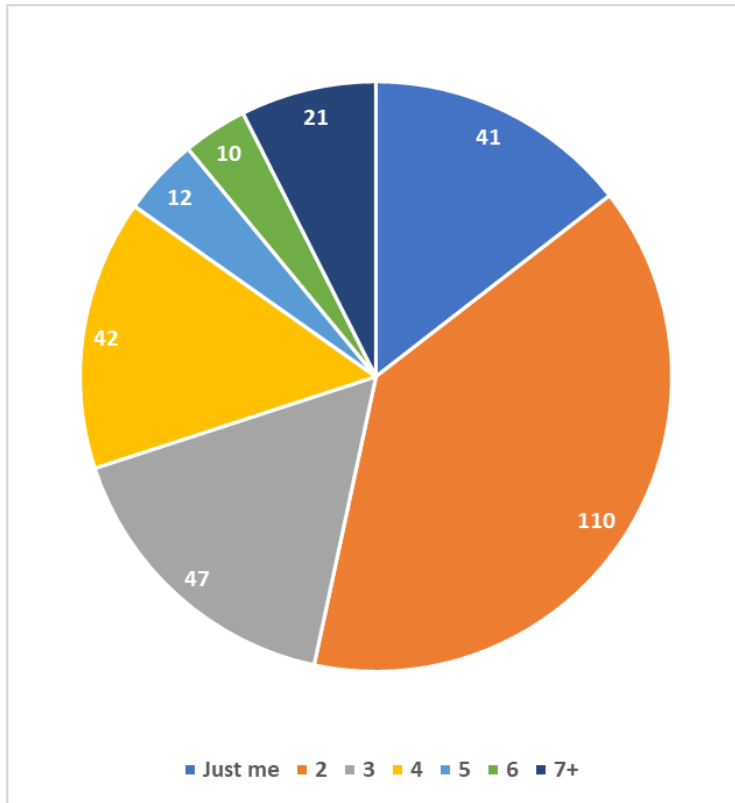
**Figure 5.2-8.** Campgrounds Used

### 5.2.2.8. *Equipment Rentals*

273 of the 283 survey participants (96.47%) stated that they had not rented equipment while visiting the Eklutna area. Of the ten affirmative responses, 9 rented kayaks, and 1 rented an e-bikes. Lifetime Adventure has a location near the lake and supplied most of the kayak rentals. Backcountry Adventures was also mentioned by one participant for kayak rental. 907-E-Bike had a presence in the Eklutna area in 2022 and was the vendor for the participant who rented an e-bike.

### 5.2.2.9. *People Per Group for Most Recent Visit*

During participants’ most recent trip, visitors most commonly arrived in groups of two. Individuals and groups of three or four were the next most common group sizes. Groups of seven or more occurred more commonly than groups of five or six.

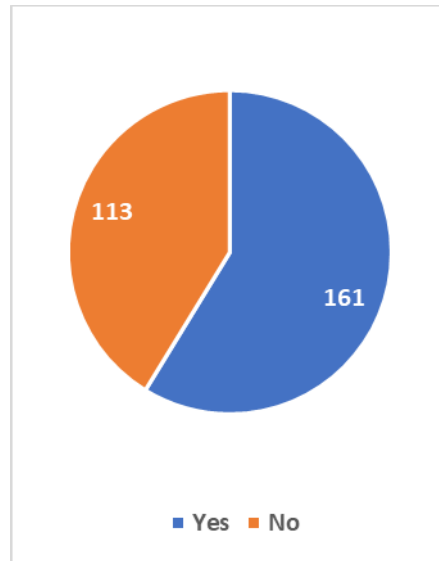


**Figure 5.2-9.** Group Size During Recent Visit

#### 5.2.2.10. *Transportation Mode*

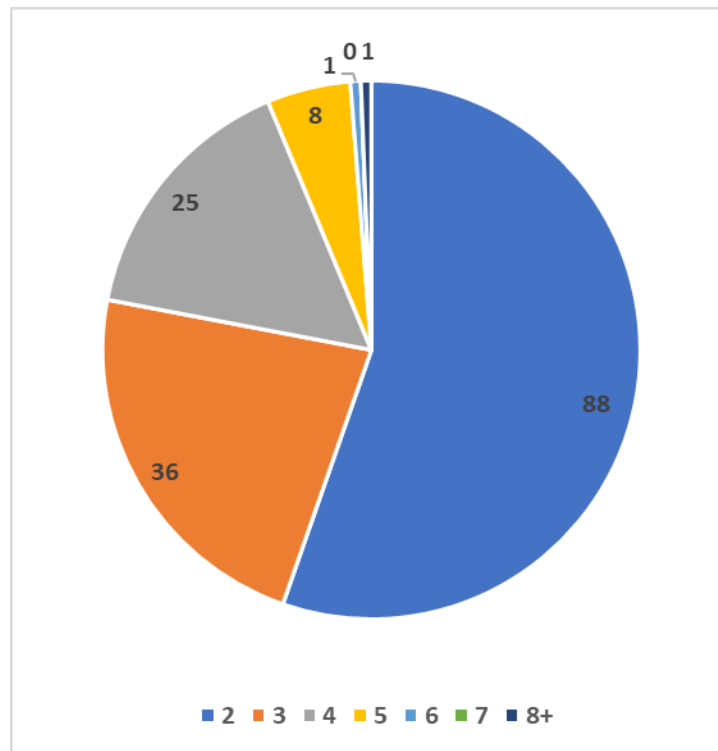
279 of the 283 participants (98.59%) drove a personal or rental vehicle to access the Eklutna area. Three had used a bicycle or other non-motorized mode, and one arrived via aircraft at the Bold Airstrip. None of the participants stated that they arrived as part of a tour group.

Of the 274 participants who drove, 161 had carpoled (56.89%), and 113 had not (39.93%).



**Figure 5.2-10.** Did You Carpool?

Of those who carpoled, the majority (55.35%) were groups of two, followed by groups of three (22.64%) and four (15.72%).



**Figure 5.2-11.** Carpool Size

### 5.2.2.11. *Plans to Return*

84% of the survey participants indicated that they planned to return to the Eklutna area within a year, with most planning to return in the fall, followed by winter, summer, then spring. Spring's relatively lower popularity makes sense in the context of snow melt affecting trail and campground quality.

For the 239 participants who stated that they plan to return, 135 indicated they would participate in a combination of the same and different activities, followed by 67 who would repeat the same activities, and 37 who would exclusively do different activities.

### 5.2.2.12. *Additional Information*

At the end of the survey, participants were given an opportunity to include additional information about their recreational activity in the Eklutna area. Additional insights gained from comments included:

- Winter fat biking on the ice at the lake
- Camping near the airstrip
- Professional pictures taken at the tailrace
- Visiting upper dam site; watching the water release
- Cookouts at the picnic area
- Biking to Serenity Falls, then hiking the glacier, camping at Pichler's Perch. Plans to cross country ski to Serenity Falls in the winter.
- Using ATVs to access berry picking areas
- Trails used by homeschool groups
- Mountaineering route from Eklutna to Girdwood
- A lot of biking/hiking and camping combination trips

### 5.2.3. **Intercept Survey Results**

The recreation study data collection included staffed intercept surveys at three primary recreation destinations in the Eklutna area: Eklutna Lakeside, Eklutna Tailrace Day Use Fishing Access Site, and Thunderbird Falls. Intercept surveys allowed for staff to engage in conversation with active recreators in the area within which they are recreating and collect data via paper survey. Staff were stationed onsite in a location that allowed for passive interaction with recreators, adjacent to high-traffic locations but not blocking throughways. Solicitation for participation from staff was minimal to not interrupt or detract from area user's experience, which was also requested from Chugach State Park Staff during development of the Study Plan.

At the Eklutna Lakeside location, the survey station was placed near the boat launch, adjacent to the one-way road joining the two halves of the parking area. The fee station and trails to the campgrounds, lakeshore for the boat launch, and connection to the Lakeside Trail were visible to staff from this location; the direct connection to the Lakeside Trail and Twin Peaks Trail from the north half of the parking area was not visible, but all passengers in vehicles observed the

survey station as they entered or exited the parking area. The Eklutna Tailrace Day Use Fishing Access Site intercept survey station was located near the northwest portion of the parking lot, adjacent to the access road, and close to the ADA river access. The Thunderbird Fall intercept survey station was set up in the parking lot near the trailhead.

In addition to data collected through survey forms, staff also recorded observations of activities, numbers of recreators within view, and vehicles when practical. Intercept Survey Field Notes are provided as Appendix 1. Table 5.2-1 below summarizes the dates, locations and number of intercept surveys completed during the field season.

**Table 5.2-1.** Intercept Survey Dates, Locations, Response Counts

<b>Date</b>	<b>Day</b>	<b>Location</b>	<b>Weather Conditions</b>	<b>Number of Completed Surveys</b>	<b>Estimated Number of Recreators Observed*</b>
June 18, 2022	Saturday	Eklutna Tailrace	Cloudy, light rain	22	121
June 21, 2022	Tuesday	Eklutna Tailrace	Clear, sunny	7	88
June 22, 2022	Wednesday	Eklutna Tailrace	Sunny	5	145
July 31, 2022	Sunday	Eklutna Lakeside	Cloudy	17	320
August 2, 2022	Tuesday	Eklutna Lakeside	Cloudy	12	208
August 19, 2022	Friday	Thunderbird Falls	Rainy, cloudy	4	90
August 20, 2022	Saturday	Thunderbird Falls	Rainy	9	128
August 26, 2022	Friday	Eklutna Tailrace	Rainy, cloudy	3	28
August 29, 2022	Monday	Thunderbird Falls	Clear, sunny	9	51
September 24, 2022	Saturday	Eklutna Lakeside	Partly cloudy	37	428
September 30, 2022	Friday	Eklutna Lakeside	Partly cloudy	2	143
<b>Total</b>				<b>127</b>	<b>1,750</b>

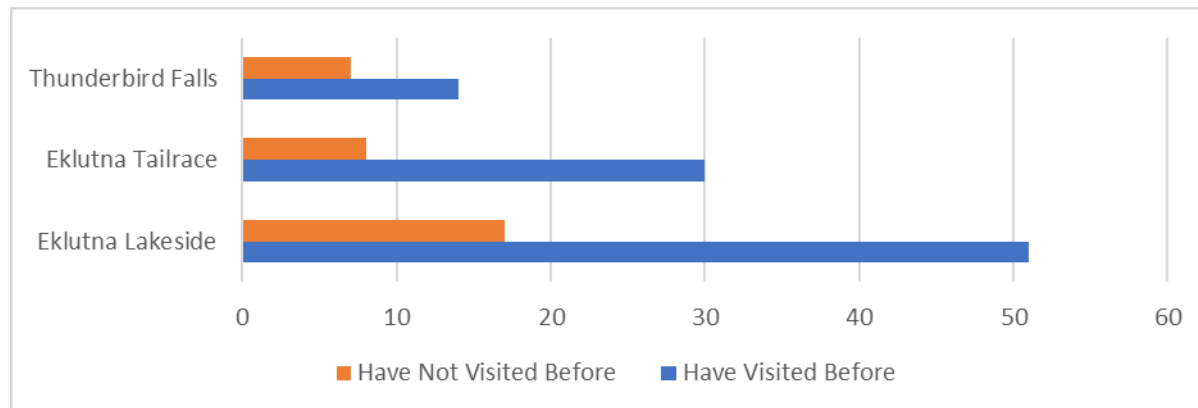
*\*Pedestrian counts were not conducted for full length of all field sessions and were limited to practical visibility of the staff member conducting intercept surveys; therefore, they are considered estimates and are not an accurate representation of total recreators during the time in the field. See Intercept Survey Field Notes for details.*

Intercept surveys were intentionally varied by date, day of week, location, and weather condition to gain a broader understanding of how these factors may have affected recreational activities. While the number of surveys completed was significantly smaller than the number of visitors observed at each location by staff, these remained largely proportional to each other.

Weekend days tended to have higher visitor counts than weekdays. Regarding weather conditions, rainy days resulted in the fewest visitors and surveys completed at the Eklutna Lakeside and Thunderbird Falls; a notable exception was that rain appeared to have little effect on visitors to the Eklutna Tailrace, who primarily engaged in fishing and did not appear to reduce their time at this location because of rain.

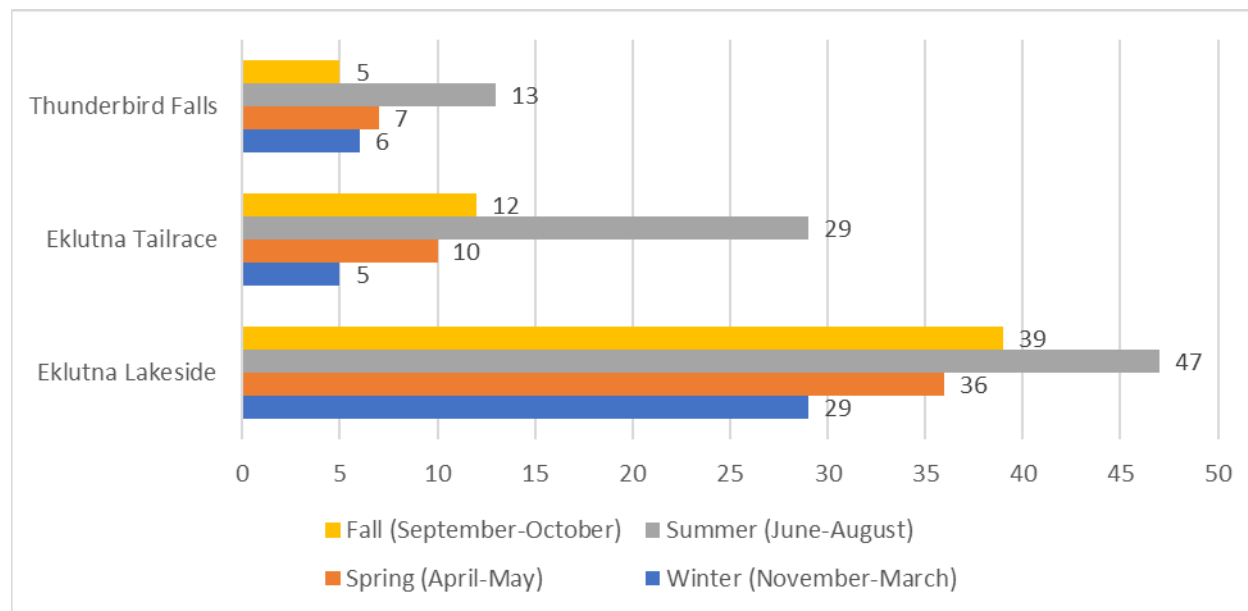
### 5.2.3.1. New vs. Recurring Visitors

At all three locations, the majority of survey participants had previously visited. Of the three locations, Thunderbird Falls had the highest proportion of new visitors, and the Eklutna Tailrace had the lowest proportion of new visitors. New visitors tended to be non-Alaska residents, whereas returning visitors tended to reside in State, and anecdotally through conversations with participants, most of resident visitors were local to southcentral Alaska.



**Figure 5.2-12.** New vs. Returning Visitors by Intercept Survey Location

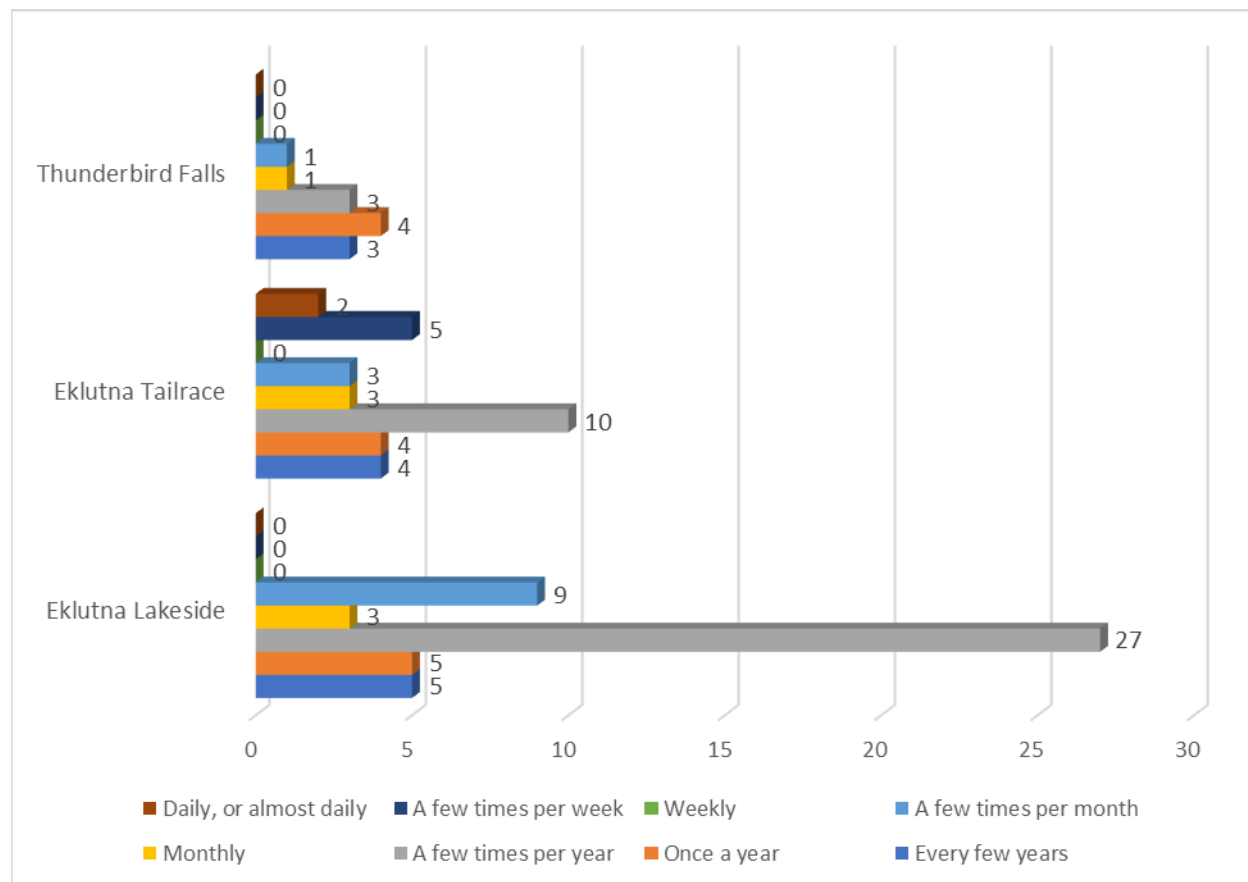
Of returning visitors, the Eklutna Tailrace had the most seasonality, followed by Thunderbird Falls. These results align well with the types of recreational activities available at these locations. The Eklutna Tailrace primarily includes fishing, specifically salmon fishing, which is concentrated in June and August. Thunderbird Falls is frequented primarily by hikers, who are more likely to visit during the summer months. Survey responses at the Eklutna Lakeside location indicated less seasonality, likely due to the broader range of activities available across seasons at this location.



**Figure 5.2-13.** Season of Prior Visits by Location

### 5.2.3.2. Frequency of Recreation

Intercept survey participants at Thunderbird Falls and the Eklutna Lakeside tended to recreate in this area less frequently, mostly between every few years and up to a few times per year. The Eklutna Tailrace had a more even distribution with participants claiming to visit more often. The Eklutna Tailrace was the only location with survey participants who visited a few times per week or up to daily. However, this data point is assumed to apply primarily to the summer months or during the active salmon fishing season.



**Figure 5.2-14.** Frequency of Recreation by Location

### 5.2.3.3. Past Recreational Activities

Hiking/walking/running was the most selected recreational activity type at the Eklutna Lakeside and Thunderbird Fall, whereas fishing was the most popular activity at the Eklutna Tailrace. Participants at the Eklutna Lakeside survey location reported the most diverse recreation types. The Tailrace typically included fishing, scenic viewing/leisure, hiking/walking/running, and boating/kayaking. Thunderbird Falls typically included hiking/walking/running and scenic viewing/leisure. The Eklutna Lakeside was the only location with participants who had engaged in camping, cross-country skiing, climbing/mountaineering, ATV/Off-Highway-Vehicle use, Ice Skating, Alpine/Backcountry Skiing, and Snowmachining. It was also the location where most of the biking occurred.



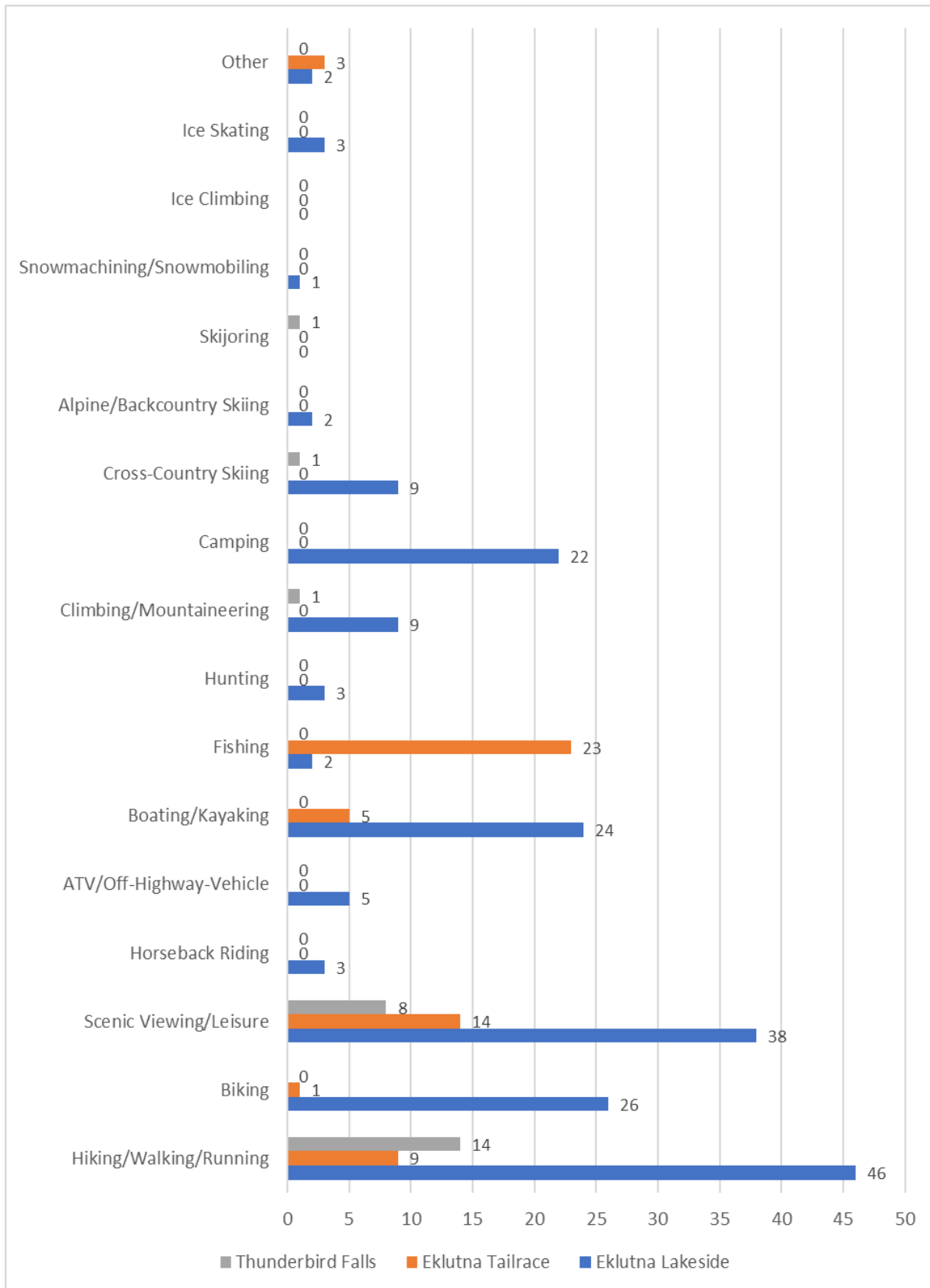
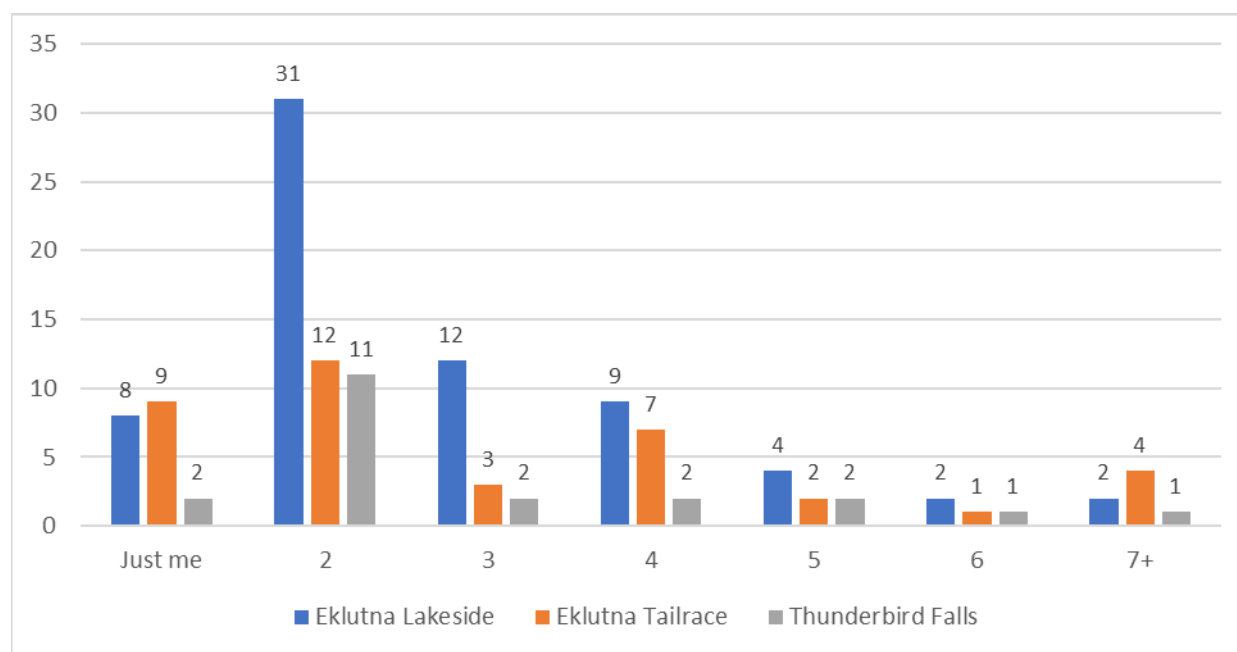


Figure 5.2-15. Recreational Activity by Location

In addition to past recreation at their respective locations, participants were asked about their primary recreational activity during the current outing. Since the intercept surveys occurred during the summer and fall months, typical winter activities were not selected. Otherwise, the data were similar to the previous question. Hiking/walking/running was the most selected activity for Eklutna Lakeside and Thunderbird Falls, followed by scenic viewing/leisure. Participants primarily selected fishing at the Eklutna Tailrace.

#### 5.2.3.4. Group Size and Mode of Transportation

The most common group size at all locations was two people. The Eklutna Tailrace had the most instances of large groups of 7+ visitors. One survey participant at the Eklutna Lakeside were part of a tour group that arrived by bus, which included 40 people; this group size was an outlier compared to other survey participants.



**Figure 5.2-16.** Group Size by Location

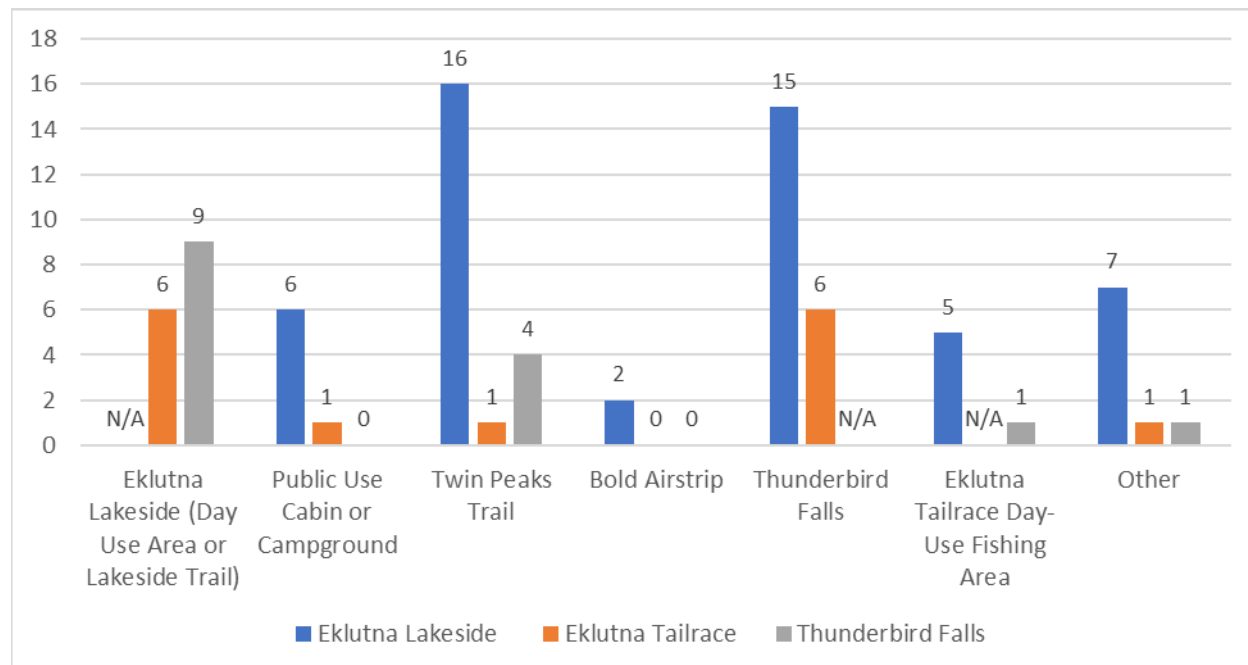
Of the 127 participants, 116 drove a personal vehicle to their respective location (91.34%), nine drove a rental vehicle (7.09%), one arrived as part of a tour group, and one selected ‘other’. Based on conversations with participants, staff assumes the number of rental vehicles may be higher than reported; non-resident visitors would have read ‘personal vehicle’ first and without reading below to see a distinction for rental vehicle, thought that option was synonymous. For those who drove, 68 did not carpool and 55 carpooled with others in their group. The one participant who arrived as part of a tour group was part of a Disney Adventures tour.

#### 5.2.3.5. Multilocation Trips

For survey participants who had visited or planned to visit other locations within the Eklutna area during the same trip, it was most common for those at the Eklutna Lakeside to include a hike along the Twin Peaks Trail or to stop at the Thunderbird Falls Trailhead for a hike. For

those who took the survey at the Eklutna Tailrace, they were most likely to also visit the Eklutna Lakeside or Thunderbird Falls. Those at Thunderbird Falls were most likely to visit the Eklutna Lakeside. Seven of the nine participants who selected ‘other’ included that they would visit the Bold Ridge Trail.

Figure 5.2-17 shows the additional locations that were, or were to be, part of participants’ trips, based on the location they completed the survey. Note that ‘N/A’ is used where a survey location and additional recreation location would be the same (e.g., a participant at the Tailrace cannot count the Tailrace as an additional location).



**Figure 5.2-17.** Additional Recreation Locations by Survey Location

#### 5.2.3.6. Rental Equipment and Return Trips

Only three of the 127 participants indicated that they had rented recreational equipment as part of their trip. Of those three, two rented kayaks and one rented a bike. All rentals were from Lifetime Adventures, adjacent to the Eklutna Lakeside Trail.

100 of the 127 survey participants selected that they planned to return to the same location again within the year, with summer being the most selected season. The paper survey stated calendar year, but it was communicated by staff and understood by participants that one year from the survey date was the intended question to capture expected recreation for all seasons.

#### 5.2.4. Native Village of Eklutna Resident Survey Results

As of December 9<sup>th</sup>, 2022, one survey response had been received from a member of the Native Village of Eklutna. Survey questions focused on recreational and subsistence activities occurring in the Lower Eklutna River, which this study defined as the land downriver of the Old Glenn Hwy Bridge. The following is a summary of the response received.

- They, or members of their household, participate in the following *subsistence* activities:
  - Fishing in June, July, and August
  - Hunting in September
  - Gathering in August and September
- They participate in those activities a few times per month, during the applicable months.
- They, or members of their household, primarily access the Lower Eklutna River area using ATVs or other Off-Highway-Vehicles.
- They, or members of their household participate in the following *recreational* activities:
  - Hiking
  - Biking
  - Scenic Viewing
  - ATVing
  - Camping
- They do these activities in the summer months of June, July, and August a few times a year.

Two maps were provided as part of the survey, one requesting participants mark and label where they primarily conduct subsistence activities, including access routes, and the second requesting the same of recreational activities. Figure 5.2-18 provides a summary of the map responses received by the NVE member. Lands shown on the map are owned by the Native Village of Eklutna or Eklutna Inc. and are not open to the public without landowner permission. Routes and activities areas shown on the summary map are informational for the purposes of this study only and should not be used for navigation or other uses.

EKLUTNA RECREATION STUDY  Subsistence Activities Recreation Activities

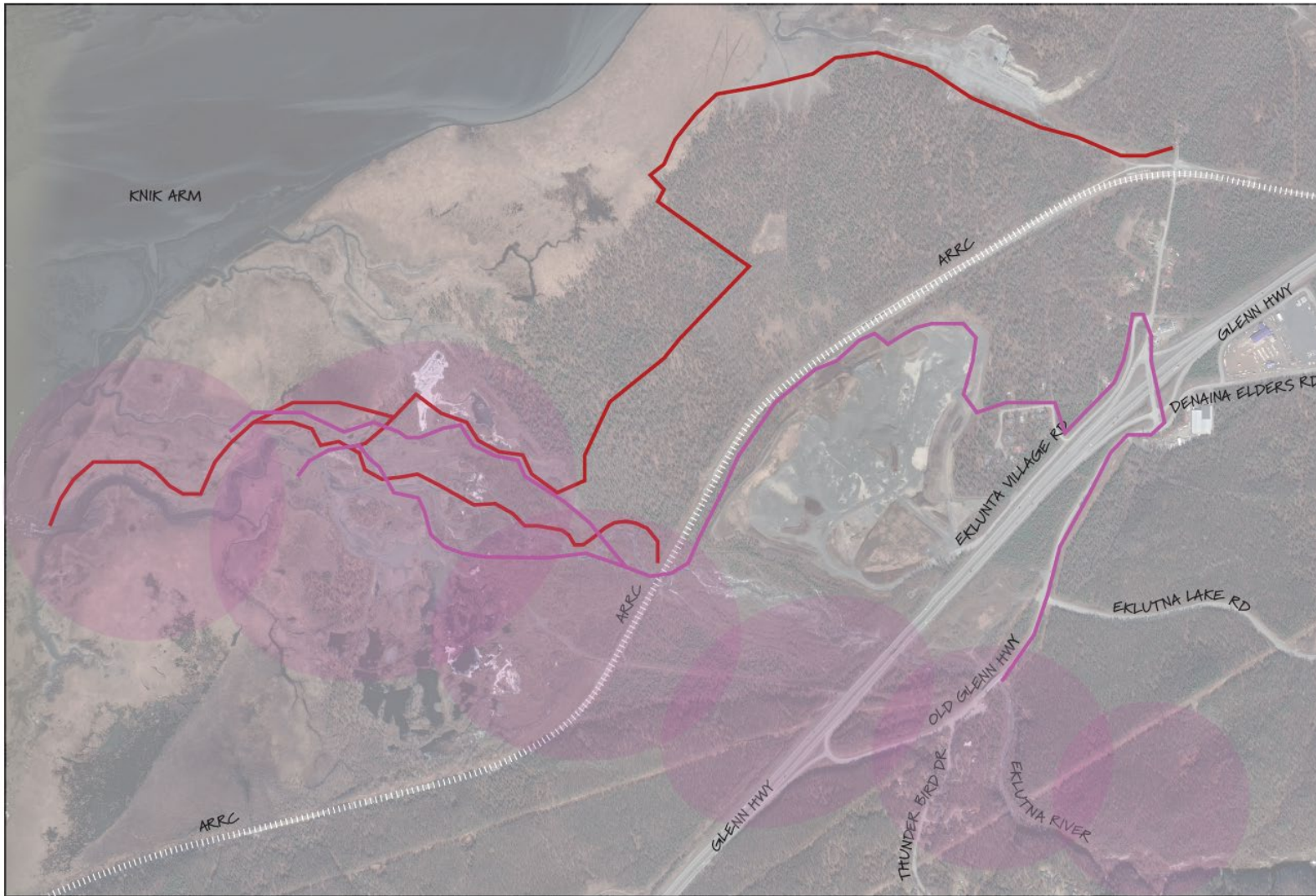


Figure 5.2-18. NVE Survey Map Response Summary

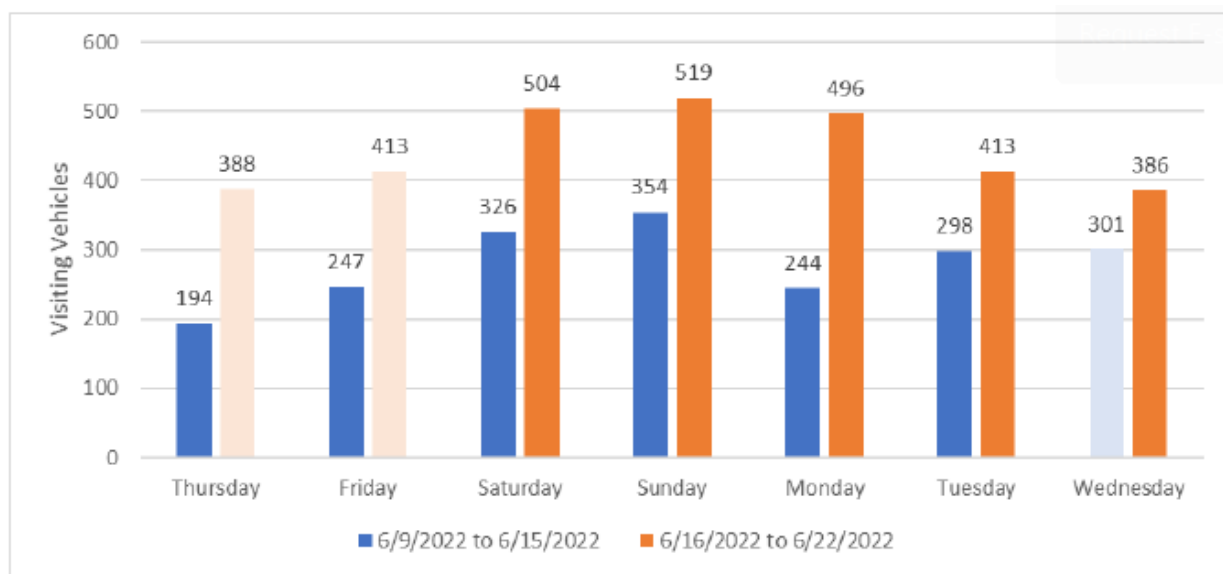
### 5.2.5. Traffic Counter Results

The following summarizes the results of traffic counts conducted at three primary recreation areas. For full traffic count reports by area, see Appendix 2. Traffic Count Reports.

#### 5.2.5.1. Eklutna Tailrace Day Use Fishing Access Site

Traffic Counts at the Eklutna Tailrace were conducted in June 2022 by Kinney Engineering (KE), LLC via a radar detector to count vehicles entering and existing the site. The radar detector was mounted on the ADF&G sign and counted all vehicles driving in or out along the driveway. Counts were collected for 12 full days and two additional partial days; the radar machine stopped collecting data ahead of the planned full week, as such it was redeployed to collect additional data.

A total of 4,716 vehicles were counted from Wednesday, June 8 to Thursday, June 23, with an estimated total of 5,082 vehicles from partial count days. Visiting traffic was approximately 60% higher during the second week of the study (Friday, June 17 to Thursday, June 23) with an estimated 3,119 vehicles. Activity was consistently about 25% higher on the weekends than on weekdays during both weeks of counts with the highest activity observed on Sunday. Figure 21 below indicates full day counts in solid colors and estimates based on partial day counts in faded color.



**Figure 5.2-19.** Observed and Estimated Visiting Vehicles per Day

Relatively small volumes of vehicles arrived in the early morning hours between 4 and 8 AM; volumes gradually increased throughout the day until a peak in the mid-afternoon period of 2 to 4 PM. Regular activity was observed until midnight.

The radar counter estimates vehicle length. Vehicles were classified by length, either vehicles less than 20 feet long (presumed to be pickup trucks or smaller) and vehicles longer than 20 feet

(presumed to be RVs or vehicles pulling trailers). Of the 4,716 total vehicles counted, 143 of them were over 20 feet long (3%).

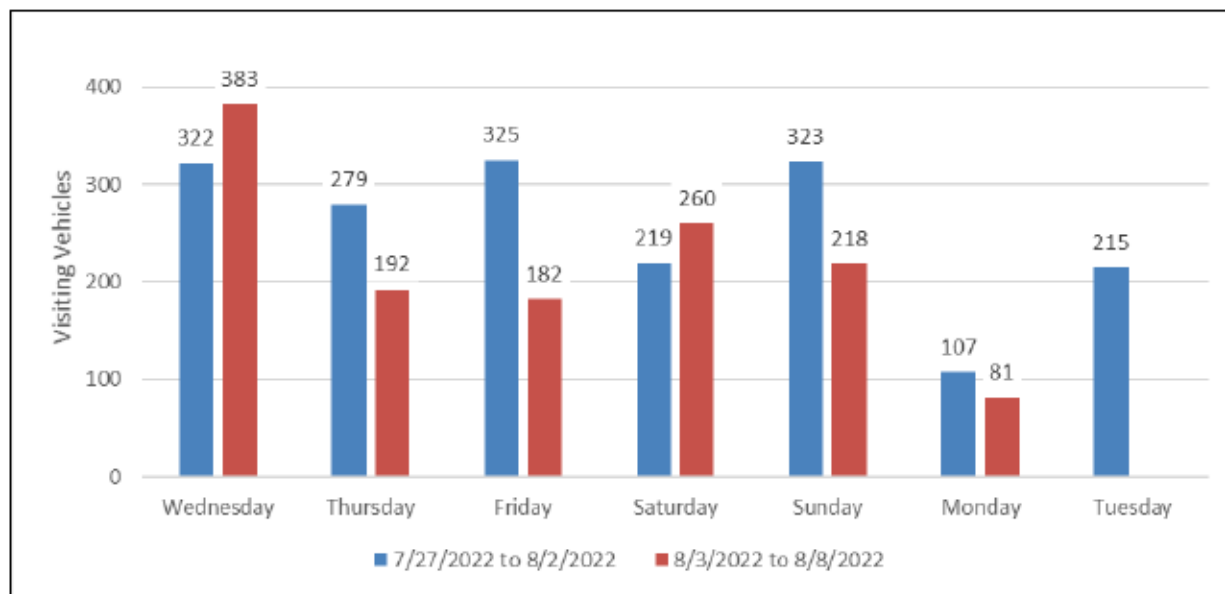
KE performed manual traffic counts to determine the percentage of vehicles with trailers using the parking area, as radar counters do not detect vehicle axles, and hose nor radar counters can distinguish vehicles with or without trailers. No vehicles pulling trailers were observed entering or exiting the Tailrace during the manual counts on Saturday, June 11 from 2 to 4 PM, however numerous vehicles pulling trailers traveled on the Old Glenn Hwy during that period.

Although peak days for visits to the Tailrace were shown to be on the weekend, Friday traffic had a higher percentage of large vehicles and trailers. Additionally, although there was a 60% increase in overall visitor activity between the first and second weeks of observations, the heavy vehicle volumes for the two weeks were relatively consistent.

### 5.2.5.2. Eklutna Lake Recreation Area

Traffic Counts were conducted by KE at the Eklutna Lake Recreation Area from July 26 to August 9, 2022. A hose counter was deployed on Eklutna Lake Road near the speed limit sign east of the former ranger hut and west of the overflow parking lot and counted all vehicles entering and exiting the recreation area.

A total of 3,217 vehicles were counted, including partial day counts. Low volumes were observed on both Mondays. Days with high activity varied by week.



**Figure 5.2-20.** Observed Visiting Vehicles per Day

There was little activity in the late night to early morning hours between 11 PM and 6 AM followed by gradual increase in arrival activity throughout the day until a peak around the afternoon 1 to 3 PM period. Exiting vehicles followed a similar trend as entering vehicles and

peak later in the day between the 2 to 4 PM period. Regular activity was observed to continue until midnight.

The hose counters classify entering and exiting traffic based on vehicle classification defined by the Federal Highway Administration, but they cannot distinguish vehicles with trailers from those without trailers. Manual counts to determine the percentage of vehicles pulling trailers entering or existing the Eklutna Lake Recreation Area observed three vehicles pulling trailers exiting the area, while zero were observed entering; approximately 3% of vehicles were pulling trailers. A comparison of manual counts with the hose counts for the same time period indicated that most of the vehicles pulling trailers were classified as large multi-axle vehicles (Class 6 through 13, such as single or multi-unit trucks), as these larger vehicles were not observed during the manual counts but do show up on the hose counts. As such, vehicles that were classified as class 6 through 13 were likely to have been vehicles pulling trailers.

Class 1 and 2 made up almost 50% of the total visiting vehicles.

**Table 5.2-2.** Vehicle Classification Description

Vehicle Classification	Vehicle Description
Class 1-2	Motorcycles and passenger cars, short pick-up trucks
Class 3	Long pick-up trucks, truck campers, box trucks, small conversion/camper vans
Class 4-5	Buses, motorhomes, RVs, large conversion/camper vans. Possible some box trucks and pick-up trucks
Class 6-13	Normally larger, multi-axle vehicles. Possibly vehicles pulling trailers or longer motorhomes and RVs

**Table 5.2-3.** Overall Vehicle Classification Distribution, Eklutna Lake Recreation Area

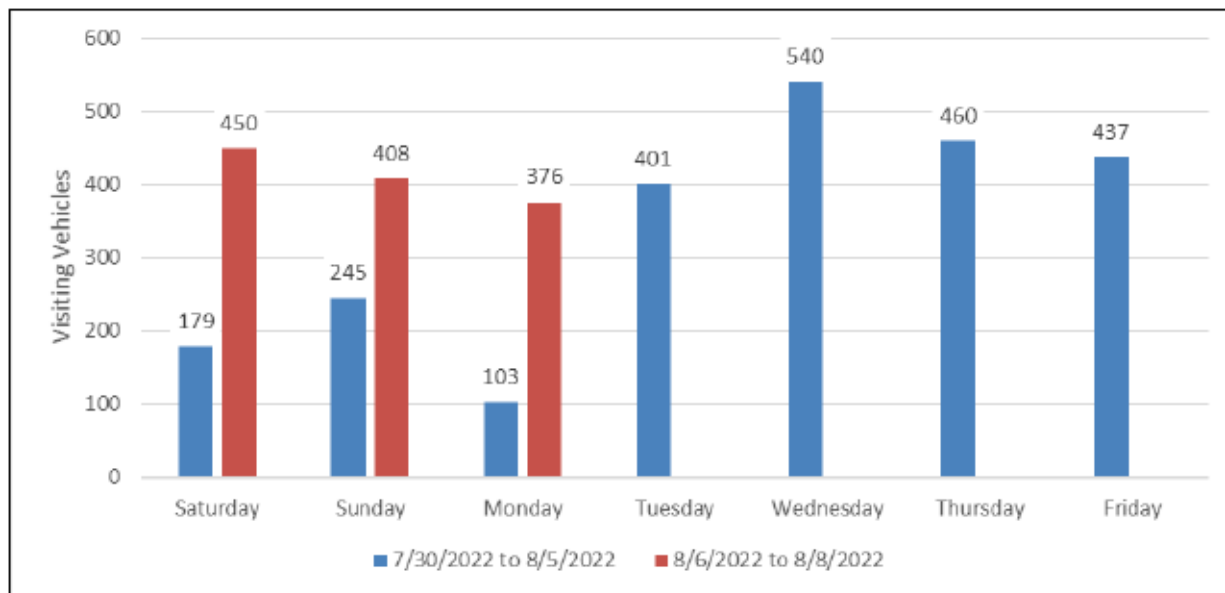
Vehicle Classification	Distribution
Class 1-2	49%
Class 3	25%
Class 4-5	20%
Class 6-13	5%

### 5.2.5.3. *Thunderbird Falls Trailhead*

Traffic counts were conducted by KE at Thunderbird Fall Trailhead from June 29 through August 9, 2022. Due to the short driveway length into the trailhead parking lot and effectiveness limitations of hose counters, two hose counters were deployed on the Old Glenn Hwy, one on either side of the trailhead driveway, to capture vehicles using the Thunderbird Falls parking lot. Vehicles detected by both counters were considered passing vehicles on the Old Glenn Hwy, while vehicles detected by only one counter were considered either entering or exiting the trailhead parking lot.



A total of 3,866 vehicles were counted, including partial day counts. Observed volumes during the second weekend counts were almost double or more the volume of the first weekend.



**Figure 5.2-21.** Observed Visiting Vehicles per Day

Arrival activity gradually increased throughout the day until it peaked in the Noon to 2 PM period with regular activity observed to continue until midnight. On weekends there tend to be fewer visiting vehicles in the morning (6 AM to Noon), and then similar volumes to the rest of the week for the remainder of the day.

The same type of hose counter used at the Eklutna Lake Recreation Area was used at Thunderbird Falls as well as manual counts. Class 1 and 2 make up about 60% of total visiting vehicles. For vehicle classification descriptions, please reference Table 15.

**Table 5.2-4.** Overall Vehicle Classification Distribution, Thunderbird Falls Trailhead

Vehicle Classification	Distribution
Class 1-2	61%
Class 3	25%
Class 4-5	12%
Class 6-13	2%

KE staff observed no vehicles pulling trailers entering or existing the Thunderbird Falls trailhead parking lot.

## 6 CONCLUSIONS

The results and conclusions from this study will be utilized during alternatives analysis, to evaluate any potential impacts to recreation that may result from future water management changes.

### 6.1. Locations

Recreation within the Project Area was primarily focused at developed areas within Chugach State Park, mainly the Eklutna Lake Recreation Area and Thunderbird Falls, as well as the ADF&G Eklutna Tailrace-Day Use Fishing Access Site.

Within the Eklutna Lake Recreation Area, most reported activities included use of established trails for either all or part of recreational outings; Eklutna Lakeside Trail, Twin Peaks Trail and campground or cabin access trails were most often observed or reported. When used for part of an outing, the Eklutna Lakeside Trail likely provided connections from the parking area to the backcountry destination, public use cabin, or to other established trails such as the Bold Peak trail. The results of the online survey, interactive comment map, and intercept surveys reflect the high use of established trails and is further supported by the 2019 trail counts of the Eklutna Lakeside Trail provided by the MOA, which concluded an annual average of 200 pedestrians using the trail per day. Recreation on Eklutna Lake itself was also significantly reported for boating in the summer and cross-country skiing, ice skating, and fat tire biking in the winter.

Recreation within the Thunderbird Falls area is limited to either the established and maintained Thunderbird Falls Trail, the primary location, or to traversing the Thunderbird Creek or Eklutna River east of the Old Glenn Hwy, which was infrequently reported. Recreation at the Eklutna Tailrace Day-Use Fishing Access Site occurred on either side of the Tailrace and along social trails extending half a mile south along the bank of the Knik River and on the developed trail on the north side of the Tailrace.

Activities, whether recreational or subsistence, in the Lower Eklutna River area (considered areas downstream of the Old Glenn Hwy bridge) are conducted by members of the Native Village of Eklutna or Eklutna Inc. or are otherwise permitted by those entities. No activities were reported in the intercept surveys, online survey, or interactive comment map. One NVE member submitted a survey response that included both recreational and subsistence activities that they or members of their household participate in within the Lower Eklutna River area.

### 6.2. Activities

Hiking, walking, and/or running was the most selected activity across study methods for recreators who participated in the study through the online comment map, online survey, or intercept surveys. Biking and scenic viewing and leisure were the next most popular activities in the Eklutna Lake Recreation Area and at Thunderbird Falls. Fishing was the most selected primary activity at the Eklutna Tailrace. The largest variety of activities was reported in the Eklutna Lake Recreation Area, which was anticipated due to its size, multiple established trails, and physical features (lake, alpine terrain, flat or elevation, etc.) which allow recreators of all skill levels to find an activity that could provide leisure or challenge.

The public use cabins and campgrounds in the Eklutna Lake Recreation Area are a significant attraction for multiple recreational activities within one trip. Many who camped also hiked, skied, biked, or boated to access the cabin or campground. For more information on activities and rates of reporting, see sections 4.2.1 Online Interactive Comment Map Results, 4.2.2 Online Survey, and 4.2.3 Intercept Survey.

### 6.3. Frequencies

Recreational activities were reported for the three main areas, Thunderbird Falls, Eklutna Lake Recreation Area, and Eklutna Tailrace year-round. The summer season, generally from June through August, was the most frequently reported time of the year for recreation at all three locations; the Eklutna Tailrace had the largest difference in seasonal use, according to results of the intercept survey and online survey. The review of daily collection rates at CSP fee stations (Eklutna Lake Recreation Area and Thunderbird Falls) revealed collections trended seasonally, as anticipated, with significant reduction in total transactions in the winter months (November through March) and an influx in the spring, summer, and fall. The Tailrace's seasonal flux is consistent with the primary use of the Tailrace for salmon fishing which have annual runs from June through August. The fall season, generally September through October, was the second most frequently reported time of the year to recreate within the Project area.

Most recreational activities (57%) were reported by participants in the online survey, interactive comment map and intercept surveys to be done a few times per year. Reported frequencies are summarized in Table 16 below. The Eklutna Tailrace had the highest rate of participants reporting higher frequency visits including a few times per month, a few times per week, and daily during peak fishing season.

**Table 6.3-1.** Reported Frequencies of Recreational Activity

Frequency of Activity	Total Responses
Every Few Years	65
Once a Year	54
A Few Times Per Year	222
Monthly	49

Eklutna Lakeside had higher frequency visits reported than Thunderbird Falls, though traffic counter data collected by KE and fee station data provided by CSP indicate a higher rate of use at Thunderbird Falls than Eklutna Lakeside. Online survey participants indicated that there is a strong rate of return within the next year (84%) with most intending to do a combination of the same and different activities at their selected location. This and other data reported through the online tools and intercept surveys indicate most participants in this study's primary data collection efforts, excluding traffic counts, were Alaska residents. A higher rate of resident participation was expected based on the advertisement methodology used, lack of cell service available throughout the Eklutna Lake Recreation Area, and anticipated level of interest.

## 6.4. Quantities

Quantifying total recreation in the project area is limited to the data collected using the methodology described in Section 3 of this report and the data provided by collaborating agencies. Correlations between data provided by CSP, traffic counts collected by KE, and carpooling data provided by survey participants provide the strongest insights into total quantities of recreational activity in the Project area.

### 6.4.1. Vehicles in Recreational Areas

Fee station collections within CSP is the only year-round data source available that provides information on the quantity of vehicles, and therefore recreators, that utilize recreational facilities in the Project area. Fee station data do not account for annual State Park Pass holders, recreators who chose not to comply with parking area fees, or those who otherwise are not recreating such as CSP staff, Anchorage Water and Wastewater Utility staff, or contractors conducting work in the area. Disabled Alaska Veterans can obtain separate camping passes and thus may not be accounted for in fee station reports. CSP provided fee station data for fiscal year 2022, summarized in the table below, as well as daily data by fee station.

**Table 6.4-1.** CSP Fee Station Collections and Revenue for FY 2022

Fee Station	FY 2022	
	Collections	Revenue
Eklutna Lake (Day Use/Boat Launch)	9,489	\$52,520
Eklutna ATV / Overflow	1,589	\$9,489
Eklutna Campground (*6/22/22 through 10/01/22 only)	1,275*	\$29,310*
Thunderbird Falls	12,598	\$63,610
Total	24,951	\$154,929

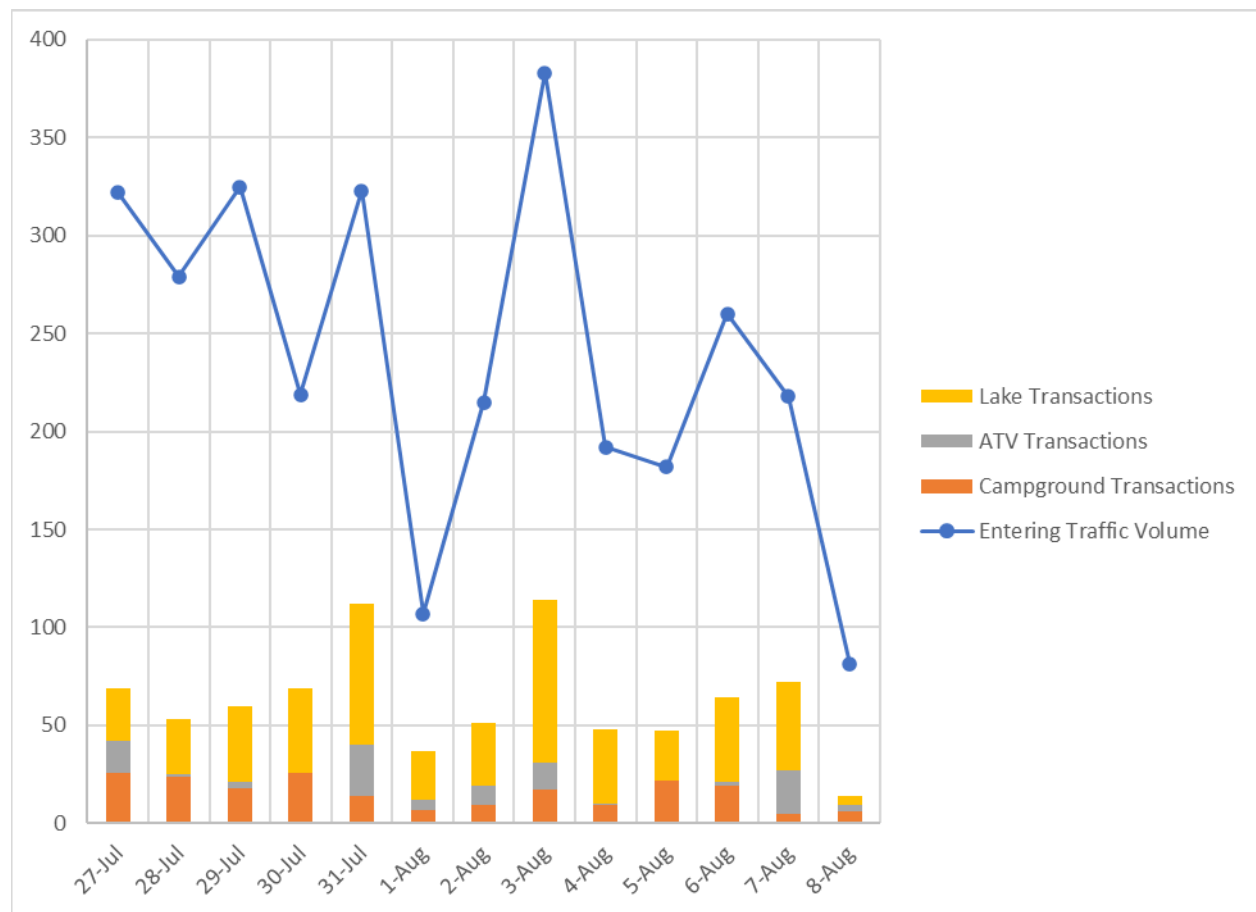
Detailed fee station data was pulled for the same days as full day traffic counts were taken in the Eklutna Lake Recreation Area and Thunderbird Falls. A comparison of the total number of entering vehicles the area to the number of collections at fee stations shows a correlation and significant insight into total number of estimated vehicles.

The Eklutna Lake Recreation Area fee station collections and traffic count comparison showed an average of 26.1% of all entering traffic paid a daily parking fee or campground fee.

**Table 6.4-2.** Comparison of CSP Eklutna Lake Recreation Area Fee Station Transactions and Traffic Counts

Date	Day	Entering Traffic Count	Fee Station Transactions				Transactions of Total Traffic
			Campground	ATV	Lake	Total	
27-Jul	Wed	322	26	16	27	69	21.4%
28-Jul	Thu	279	24	1	28	53	19.0%
29-Jul	Fri	325	18	3	39	60	18.5%

Date	Day	Entering Traffic Count	Fee Station Transactions				Transactions of Total Traffic
			Campground	ATV	Lake	Total	
30-Jul	Sat	219	26	0	43	69	31.5%
31-Jul	Sun	323	14	26	72	112	34.7%
1-Aug	Mon	107	7	5	25	37	34.6%
2-Aug	Tue	215	9	10	32	51	23.7%
3-Aug	Wed	383	17	14	83	114	29.8%
4-Aug	Thu	192	9	1	38	48	25.0%
5-Aug	Fri	182	22	0	25	47	25.8%
6-Aug	Sat	260	19	2	43	64	24.6%
7-Aug	Sun	218	5	22	45	72	33.0%
8-Aug	Mon	81	6	3	5	14	17.3%
<b>Average</b>							<b>26.1%</b>

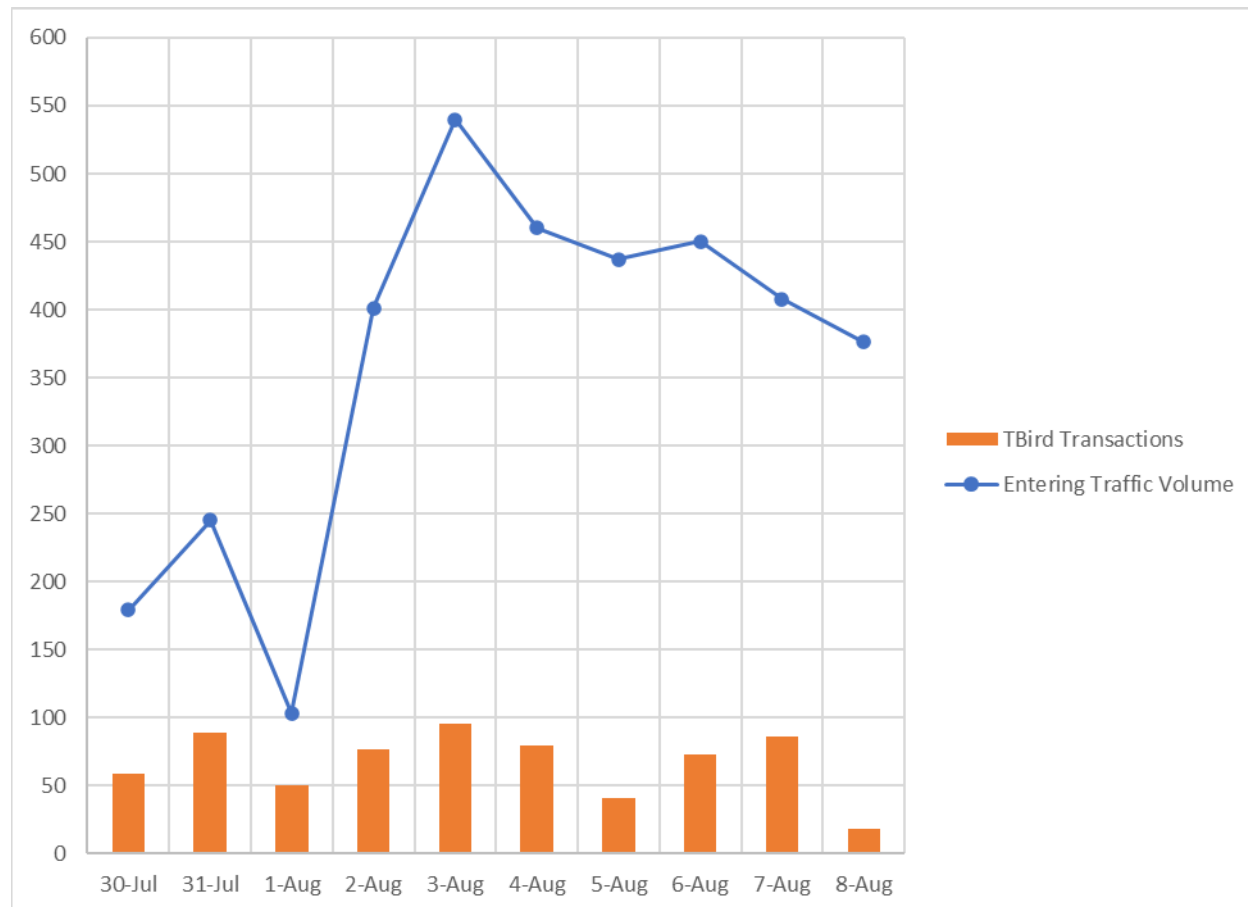


**Figure 6.4-1.** Comparison of CSP Eklutna Lake Recreation Area Fee Station Transactions and Traffic Counts

The Thunderbird Falls fee station collections and traffic count comparison showed an average of 22.3% of all entering traffic paid a daily parking fee.

**Table 6.4-3.** Comparison of CSP Thunderbird Falls Fee Station Transactions and Traffic Counts

Date	Day	Entering Traffic Count	Fee Station Transactions	Transactions of Total Traffic
30-Jul	Sat	179	59	33.0%
31-Jul	Sun	245	89	36.3%
1-Aug	Mon	103	50	48.5%
2-Aug	Tue	401	77	19.2%
3-Aug	Wed	540	95	17.6%
4-Aug	Thu	460	79	17.2%
5-Aug	Fri	437	41	9.4%
6-Aug	Sat	450	73	16.2%
7-Aug	Sun	408	86	21.1%
8-Aug	Mon	376	18	4.8%
<b>Average</b>				<b>22.3%</b>



**Figure 6.4-2.** Comparison of CSP Thunderbird Falls Fee Station Transactions and Traffic Counts

Based on the data provided and its limitations, it is generalized that approximately 25% of all vehicles entering the Eklutna Lake Recreation Area or the Thunderbird Falls trailhead pay a fee at an applicable fee station. It is assumed that campground fees are more adhered to, since State

Park Pass holders are not exempt from camping fees, however, Eklutna Lake Campground is a first-come-first-served facility where reservations are not required and up to two vehicles are allowed per campsite fee. By applying the 25% rate of fee station use to the fiscal year 2022 data provided by CSP for the Eklutna Lake, ATV, and Thunderbird Falls fee stations and a 50% rate of fee station use for the Eklutna Campground, an approximate total number of vehicles can be determined. Seasonal influx is considered as the FY 2022 collections include data for all seasons and is likely to be underrepresented using the current assumptions as less out-of-state visitors are recreating in the off-peak seasons and residents who are likely annual State Park Pass holders make up a higher percentage of recreators.

**Table 6.4-4.** Estimated Total Vehicles for CSP FY 2022

Fee Station	FY 2022 Collections	Approximate Fee Station Use	Approximate Total Vehicles
Eklutna Lake (Day Use/Boat Launch)	9,489	25%	37,956
Eklutna ATV / Overflow	1,589	25%	6,356
Eklutna Campground (*6/22/22 through 10/01/22 only)	1,275*	50%	2,550
Thunderbird Falls	12,598	25%	50,392
Total	24,951	25.65%	97,254

As there is no fee station at the Eklutna Tailrace, a correlation between the total number of vehicles counted as part of KE’s traffic data collection and year-round traffic cannot be determined using the same methodology as for the CSP areas.

Salmon are present at the Tailrace from June through August and fishing is the primary recreational activity reported at the Tailrace. There are two peak runs of salmon at the Eklutna Tailrace, according to ADF&G, one in mid-June and one in mid-August. KE collected traffic counts in June 2022 which included the dates typical of peak king salmon running at the Tailrace. Therefore, the same rates of vehicles observed during the June peak run are assumed for the August peak salmon run.

An estimated total of 5,082 vehicles were counted from Wednesday, June 8 to Thursday, June 23 with approximately 60% higher traffic during the second week (peak king run). Activity was also consistently about 25% higher on the weekends than weekdays during both weeks of counts. Approximately 5,000 vehicles are assumed to have visited the tailrace August 10 through August 23, 2022. The first week counts collected by KE were prior to peak salmon run; therefore, the vehicle counts from June 8 through June 15 are applied to the remaining summer weeks where fish are present (June 24 through August 9) to get an estimated total of vehicle traffic. Approximately 23,823 vehicles are estimated to have visited the Eklutna Tailrace from June 8 through August 23.

### 6.4.2. Rate of Carpooling or People Per Group Per Reported Activity

Driving, whether in a personal or rental vehicle, was the predominant way recreators accessed locations within the Project area.

The Online Comment Map reported the following:

- Route Comments (60 activities total): 58.33% of reported activities included groups that carpoled. A total of 89 people were reported to be in those groups. 9 of the 35 activities had 3 or more people per group (26 activities had 2 people per group).
- Destination Comments (17 activities total): 23.53% of reported activities included groups that carpoled. A total of 8 people were reported to be in those. 3 activities had 2 people per group, one had 3 in the group.

The Online Survey reported the following:

- Of the 274 participants who drove, 161 had carpoled (56.89%). 41 participants reported recreating by themselves on their most recent visit.
- 736+ people were part of groups that carpoled during their most recent visit; for a total of 778 recreators counted as part of the online survey; this number does not include those who participated as part of a group or tour of more than 7 people, which is why the '+' is included.

The Intercept Surveys reported the following:

- Of the 125 participants who drove, 55 reported carpooling with others in their group (44%).
- 387+ people were part of groups of recreators who participated in an intercept survey; this number does not include those who participated as part of a tour group of more than 7 people, which is why the '+' is included.

A generalized carpool rate of 50% can be applied across study methods; 50% of vehicles entering the Project Area for recreation have two or more people in them. When applying the generalized carpool rate at only two people per carpooling vehicle to the approximate total vehicles in the CSP fee area for FY 2022, **a minimum of 145,881 recreators partook in activities** within CSP fee areas in FY 2022 and drove a personal or rental vehicle to get there.

Approximately 23,823 vehicles are estimated to have visited the Eklutna Tailrace from June 8 through August 23 (about 283 vehicles per day on average). Applying the 44% carpool rate determined by intercept survey results from the Tailrace at only two people per carpooling vehicle results in **a minimum of 31,447 recreators partook in activities at the Eklutna Tailrace** between June 8 and August 23, 2022.

### 6.5. Significance of Project Area for Recreation

The Eklutna Tailrace provides one of two opportunities to fish for king salmon in the fresh waters of the Knik River and hosts a youth-only fishery twice a year. It features ADA access and provides amenities that make it a highly accessible and desirable place to fish for residents of



Alaska's two most populated areas, the Municipality of Anchorage, and the Matanuska Susitna Borough. According to ADF&G Statewide Harvest Survey estimates, 13,485 angler days of fishing effort occurred at the Tailrace in 2018 and the most recent ADF&G Stocking Plan includes the objective to generate 6,000 angler-days of annual sport fishing opportunity directed at stocked coho salmon. This, combined with the primary data collected through this study, indicates continued significant sport fishing at the Tailrace.

The Eklutna Lake Recreation Area features the highly popular Eklutna Lakeside Trail which offers opportunities for wide variety of recreation types including hiking, walking, or running, biking, ATV/OHV riding, horseback riding, skiing, skijoring, snowshoeing, and snowmachining in the winter. Flat or easy rolling hills make this trail accessible for most skill levels with opportunities for challenge and elevation-gaining hikes on adjacent trails. The boat launch and beach access at Eklutna Lake is an attractive feature for paddleboarders and kayakers as well as families with young children or the elderly to get out and enjoy the natural setting on the water without significant effort. Public use cabins and campgrounds in the area are popular destinations which see regular use annually. For fiscal year 2022, Chugach State Park collected \$273,497 in revenue from recreational use fee (campground and cabin reservations) and parking lot fee stations in the Project Area. Fee stations in the Project Area accounted for approximately 45% of all daily parking fee revenue to the Chugach/Southwest Region of Alaska State Parks in FY 2022.

Premier Alaska Tours and other recreational and educational guiding companies use the Eklutna Lake Recreation Area to provide visitors an accessible outdoor experience. Premier Tours expressed limitations, such as difficulty navigating the road up to the area, lack of sufficient parking for tour buses when the parking lot is full, lack of cell service and a reliance on rentals and guided trips provided by Lifetime Adventures. Without Lifetime Adventures as a partner, Premier will likely explore other options for their customers than coming to Eklutna Lake. Other recreational equipment rental companies have seen a viable market for rentals in the Eklutna Lake Recreation Area and one business opened in 2022 to provide electric assist bicycles for recreation on the Eklutna Lake Trail. Backcountry guides and hunting guides also use the area and established trails for accessibility into backcountry and alpine terrain.

Thunderbird Falls Trail is easily accessible from the Parks Hwy which offers a short hike with relatively little elevation change and an attractive physical feature (the falls) at its terminus, making this trail enticing to a wide range of visitors. The falls provide unique ice climbing experiences that are accessible for all levels of climbers and at least one business utilizes the area for guided climbs.

## **7 VARIANCES FROM FINAL STUDY PLAN**

Very few variances from the final study plan were needed or made to successfully complete study objectives. Two modifications were made:

- Launching of Online Interactive Comment Map and Online Survey occurred later than identified in the study plan; opening and advertising the tool's availability began July 13<sup>th</sup>, 2022, instead of early June per the study plan. The delay was due to longer than

anticipated reviews by multiple parties, additional coordination with subcontractors who managed the Project website, and the development of two separate online platforms that was lengthened due to unanticipated restrictions on staff availability.

- NVE engagement occurred in November 2022 and was conducted via mailed paper surveys. Surveys were distributed by NVE members from the Village Office. While this survey and its methodology are not a deviation from the study plan, the study plan was intentionally vague to allow for appropriate engagement methods to be developed based on consultations with NVE representatives.

## 8 REFERENCES

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## **Appendix 1: Intercept Survey, Field Notes, & Results**



# Eklutna Hydroelectric Project

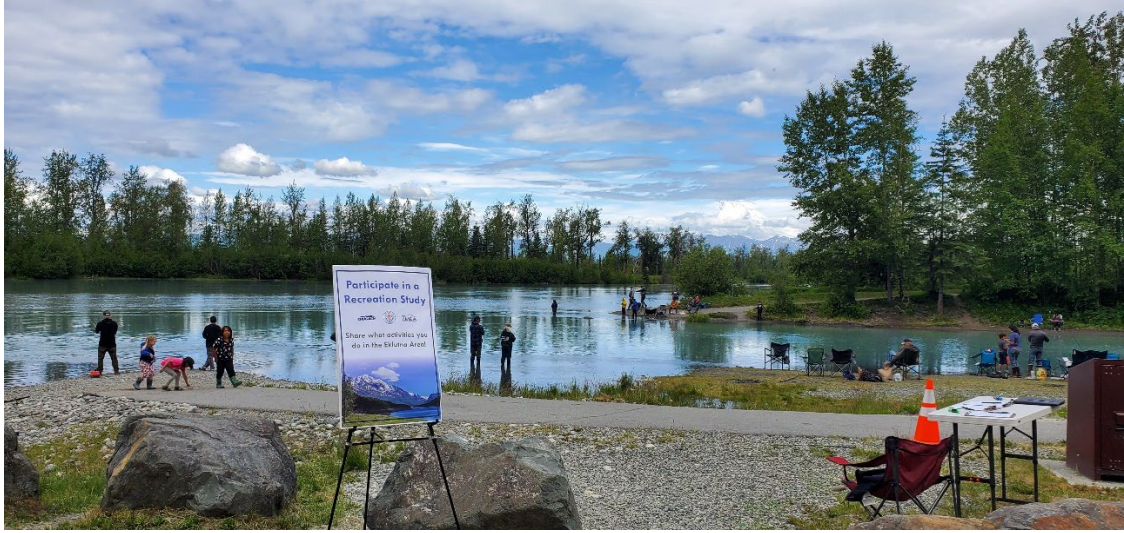
FISH & WILDLIFE PROGRAM DEVELOPMENT

**Subject:** Recreation Study | Intercept Survey Field Notes

**Location:** Eklutna Tailrace Day-Use Fishing Access Site

**Date:** June 18, 2022 | Survey Start: 12:00 PM End: 5:30 PM

- Youth-Only fishery was occurring from 6:00 AM to 6:00 PM at the Tailrace.
  - Anglers 15 years of age or younger are encouraged to come out and take a shot at catching a king salmon.
  - Youth-Only area applied from fish cleaning table to pedestrian bridge
- A Fish and Game employee and a State Trooper were present at the start of surveys
  - Trooper had been there since open of the Youth-Only fishery and left before 1:00 PM
- Adults were present fishing in areas outside of the youth-only area
- Family groups were significantly more present than individuals fishing
- Cars (full and partially full) stop for short visits to do scenic viewing consistently
- 2:20 PM walk of the tailrace (access road to far side of pedestrian bridge) counted 15 family groups on the tailrace, each with at least 3 people per group.
  - Estimating about 75 total individuals
- Family floated the Knik river and took out at the Tailrace where they had dropped a vehicle earlier. (kayak, packrafts, and paddleboard)
  - Per conversations with owner of the watercraft: taking out at the Tailrace occurs about 1/3 of their float trips down the Knik. Put in is at the Old Glenn Hwy bridge (Old Knik River Bridge) and other 2/3<sup>rd</sup>s of takeouts are at the main Glenn Hwy bridge which allows for a longer float.
- Conversation with a survey respondent said canoes and kayakers decorate their watercraft and have done Christmas/Holiday floats and have bonfires on the ice/sandbars (heard about it from AK Paddler's Facebook group)
- Observed 2 women harvesting ferns on far side of tailrace
- 4:20 PM walk of tailrace counted 10 family groups of 4 or more people per group and 3 couples/pairs of recreators. At least 46 people.



**Location:** Eklutna Tailrace Day-Use Fishing Access Site

**Date:** June 21, 2022 | **Survey Start:** 6:00 AM **End:** 10:00 AM

- 32 people present at start of survey.
- Campfire was being held on south shore of tailrace
- Two visitors from Kentucky stopped to sight-see on their way to Fairbanks
- Observed primarily individuals and small family groups, frequently a single adult and child(ren)
- 56 people observed at end time, with consistent turnover during time on site
- Eklutna Tailrace is the only area open to harvest for kings in the Northern Cook Inlet management area
  - Deshka and Little Susitna rivers were closed at 6:00 AM on June 20<sup>th</sup>



**Location:** Eklutna Tailrace Day-Use Fishing Access Site

**Date:** June 22, 2022 | **Survey Start:** 4:45 PM **End:** 7:50 PM

- 26 fishermen observed at start of survey, mix of families and individuals
- Steady turnover of people coming and going to fish, scenic view and walk
  - Cars coming in and out every 2-5 minutes, consistent gravel movement
  - Parking lot was approximately 50% full at all times
- 28 people observed throughout the duration of the survey scenic viewing, doing reconnaissance for future fishing outing at Tailrace, or walking/observing fishermen
- 6:45 to 7:02 PM walk of the tailrace counted 91 active fishermen (included walking trails downriver of the parking lot a short distance)

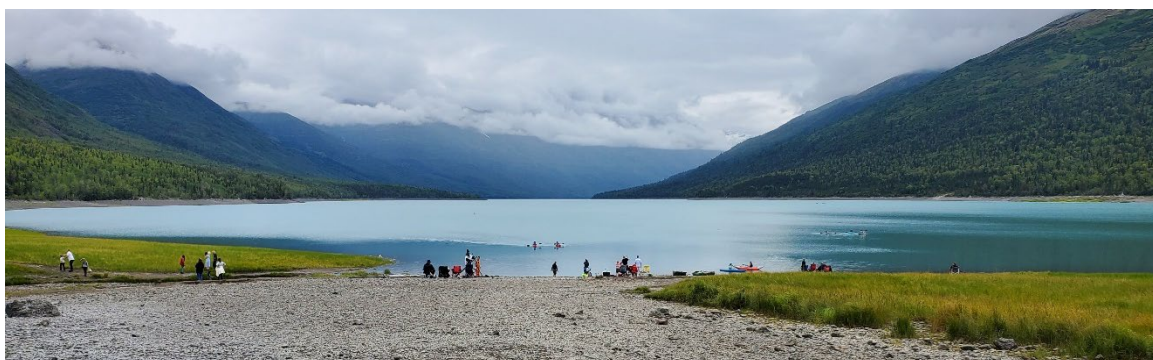




**Location:** Eklutna Lakeside – set up between parking areas adjacent to informational kiosk

**Date:** July 31, 2022 | **Survey Start:** 1:15 PM **End:** 6:00 PM

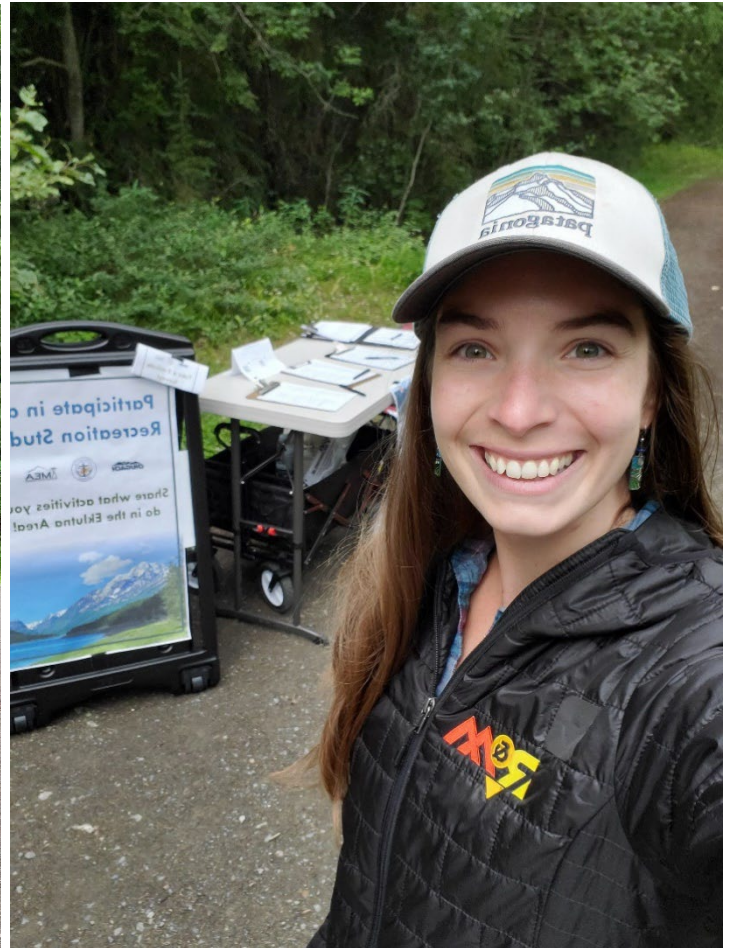
- Pedestrian count started at 1:45 pm and included people able to be seen from table which included the boat launch, fee station and trail to campgrounds/cabins.
  - 95 people from 1:45 – 2:30 PM
  - 97 people from 2:31 – 3:55 PM
  - 100 people observed from 3:56 – 5:40 PM
  - 28 people from 5:40 – 6:00 PM
  - Total = 320 people
- Parking lot observed at approximately 60% capacity, ATV lot was busy
- Personal use kayaking observed – four different boats/families at start of observations and more arrived throughout the day.
- Heard gunshots consistently for approximately 20 min at start of observation within close proximity – assumed target practice type discharges, could be on private property as it is not allowed in the park outside of designated ranges or for lawful hunting.
- Talked to two area residents who said they are here everyday (gave them a flyer and encouraged them to tell their neighbors)
- Heard ATV traffic occasionally, about 4 an hour (could be groups or individuals, unable to tell)
- At least 4 bike rentals from go7EBikes observed



**Location:** Eklutna Lakeside – set up between parking areas adjacent to informational kiosk

**Date:** August 2, 2022 | **Survey Start:** 1:40 PM **End:** 6:30 PM

- Pedestrian count started at 2:20 pm, stopped at 6:30 PM - Total = 208
- BAC tour van with two staff (one driver, one guide) and 6 guests observed at 3:30 PM
- Family who was observed on Sun. July 31<sup>st</sup> going out to public use cabin via boats returned and was observed again today (family of 4)
- Premier Tour Bus was observed at 3:34 PM, not may observed from the survey table location, but the bus was pickup up a group who was kayaking or biking with Lifetime Adventures



**Location:** Thunderbird Falls Trailhead

**Date:** August 5, 2022 | **Survey Start:** 3:58 PM **End:** 4:45 PM Due to Rain

- Pedestrians observed: 28
- 10 vehicles present, one RV
- Significant and sudden shift in weather to strong rainfall and wind forced survey opportunity to close

**Location:** Thunderbird Falls Trailhead

**Date:** August 19, 2022 | **Survey Start:** 7:31 AM **End:** 11:45 AM

- Pedestrians observed: 90
  - Stopped for bathroom breaks but did not hike the trail: 8, including a utility worker
  - 8 people who took a survey were from out of state visitors
- Vehicles observed: 41
  - Including 5 RVs
  - Zero at start of survey

**Location:** Thunderbird Falls Trailhead

**Date:** August 20, 2022 |  
**Survey Start:** 9:03 AM  
**End:** ?

- Pedestrians observed: 128
- Vehicles observed: 51
  - Including 2 RVs
  - 8 vehicles at start of survey window
- Weather was cloudy and light rain



**Location:** Eklutna Tailrace Day-Use Fishing Access Site

**Date:** August 26, 2022 | Survey Start: 8:48 AM End: 12:48 PM

- Fisherman and scenic viewers observed: 28
- Vehicles observed: 22
- Salmon were still running

**Location:** Thunderbird Falls Trailhead

**Date:** August 29, 2022 | Survey Start: 12:00 PM End: 4:00 PM

- Pedestrians observed: 51
- Vehicles observed: 24

**Location:** Eklutna Lakeside – set up between parking areas adjacent to informational kiosk

**Date:** September 24, 2022 | Survey Start: 11:30 AM End: 4:45 PM

- Pedestrians observed: 428
- Activities observed included: hiking, biking, running, paddleboarding, kayaking, photography (couples and family photoshoots and a wedding party having photos taken)
- 45 degrees F and mostly sunny, leaves were changing colors



**Location:** Eklutna Lakeside – set up between parking areas adjacent to informational kiosk

**Date:** September 30, 2022 | **Survey Start:** 12:25 PM **End:** 5:30 PM

- Vehicles in parking lot at start: 23
- Pedestrians observed: 143
- Two bow hunters on bike heading down Eklutna Lakeside Trail observed at 1:15pm
- 6 women bikepacking to Serenity Falls cabin
- Two kayakers observed



# Eklutna Hydroelectric Project | Recreation Study | Intercept Survey

Location: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Weather Conditions: \_\_\_\_\_

**1. Have you visited this location before?**

- a. Yes
- b. No (if no, skip to Question 5)

**2. If so, during which seasons have you recreated at this location? (select all that apply)**

- a. Winter (November -March)
- b. Spring (April-May)
- c. Summer (June-August)
- d. Fall (September-October)

**3. Approximately how often do you recreate at this location?**

- a. Every few years
- b. Once a year
- c. A few times per year
- d. Monthly
- e. A few times per month
- f. Weekly
- g. A few times per week
- h. Daily, or almost daily

**4. Which activities have you done at this location? (select all that apply)**

- a. Hiking, Walking, Running
- b. Biking
- c. Scenic Viewing / Leisure
- d. Horseback Riding
- e. ATV/ OHV Use
- f. Boating or Kayaking
- g. Fishing
- h. Hunting
- i. Climbing & Mountaineering
- j. Camping
- k. Cross-Country Skiing
- l. Alpine/Backcountry Skiing
- m. Skijoring
- n. Snowmachining
- o. Ice Climbing
- p. Ice Skating
- q. Other

**5. How did you get here today?**

- a. Drove a Personal or Rental Vehicle

**Did you carpool?** Yes No

- b. As part of a Tour Group

**Which outfitter?** \_\_\_\_\_

- c. Bike or other nonmotorized transportation

- d. Other \_\_\_\_\_

**6. How many people are in your group? \_\_\_\_\_**

**7. What is your primary activity for this outing? (choose one).**

- a. Hiking, Walking, Running
- b. Biking
- c. Scenic Viewing / Leisure
- d. Boating or Kayaking
- e. ATV/ OHV Use
- f. Horseback riding
- g. Fishing
- h. Hunting
- i. Climbing & Mountaineering
- j. Camping
- k. Alpine/Backcountry Skiing
- l. Other \_\_\_\_\_

**8. Are you going to do any other activities this visit? (select all that apply)**

- a. Hiking, Walking, Running
- b. Biking
- c. Scenic Viewing / Leisure
- d. Boating or Kayaking
- e. ATV/ OHV Use
- f. Horseback riding
- g. Fishing
- h. Hunting
- i. Climbing & Mountaineering
- j. Camping
- k. Alpine/Backcountry Skiing
- l. Other \_\_\_\_\_

**9. Is there anywhere else in the Eklutna Area you have or are planning to recreate at this trip? (select all that apply)**

- a. Eklutna Lakeside (Day-Use Area or Lakeside Trail)
- b. Public Use Cabin or Campground
- c. Twin Peaks Trail
- d. Bold Ridge Trail
- e. Bold Airstrip
- f. Thunderbird Falls
- g. Eklutna Tailrace Day-Use Area

# Eklutna Hydroelectric Project | Recreation Study | Intercept Survey

**10. Did you, or do you plan to, rent any recreational equipment for today (ex. kayaks, bikes, fishing gear, etc.)?**

a. Yes

What did you rent? \_\_\_\_\_

Where did you rent it from? \_\_\_\_\_

b. No

**11. Do you plan to return to this location to recreate again within the calendar year?**

a. Yes

**I plan to return in:**

a. Summer (June-August)

b. Fall (September-October)

c. Winter (November -March)

b. No (*if no skip to last question*)

**12. If you return to this location, do you plan to repeat the same activities or participate in a different type of recreation?**

a. Same activities

b. Different activities

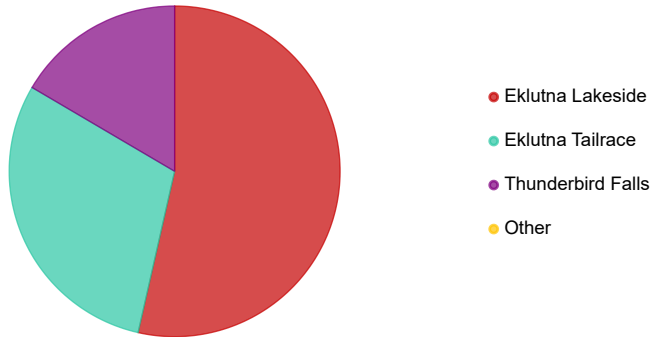
c. Combination of same and different activities

**13. Is there anything unique about your recreation activity or trip you want to share with us? Write your response or notes in the space below:**

# Eklutna Recreational Survey123 - Intercept Results Summary

*\*minor reporting errors in automatically generated Survey123 summary were corrected in raw data and accounted for in analysis.*

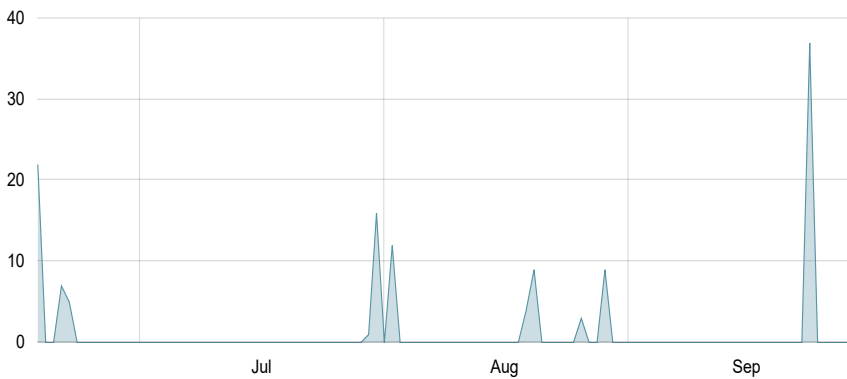
## Location of Intercept Survey \*



Answers	Count	Percentage
Eklutna Lakeside	68	53.54%
Eklutna Tailrace	38	29.92%
Thunderbird Falls	21	16.54%
Other	0	0%

Answered: 127 Skipped: 0

## Enter date and time of survey completion \*



Date and time	Count
Jun 18, 2022, 12:00:00 AM - Jun 19, 2022, 12:00:00 AM	22
Jun 21, 2022, 12:00:00 AM - Jun 22, 2022, 12:00:00 AM	7
Jun 22, 2022, 12:00:00 AM - Jun 23, 2022, 12:00:00 AM	5
Jul 30, 2022, 12:00:00 AM - Jul 31, 2022, 12:00:00 AM	1
Jul 31, 2022, 12:00:00 AM - Aug 1, 2022, 12:00:00 AM	16
Aug 2, 2022, 12:00:00 AM - Aug 3, 2022, 12:00:00 AM	12

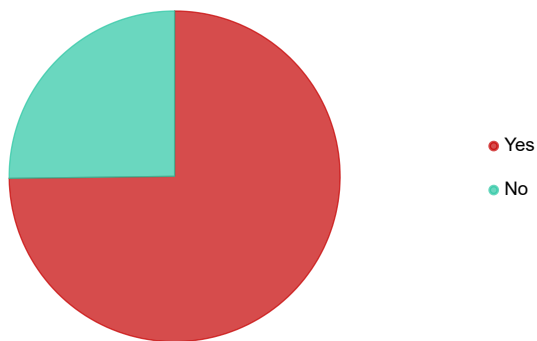




Nice and Clear	1
Nice	1
Mostly Sunny	1
Mostly Cloudy	1
Good/Rain	1
Good, Sunny	1
Good, partly cloudy	1
Fair	1
Cool/Wet/Cloudy	1
Cool	1
Cloudy-storms rolling in	1
Cloudy/Wet	1
Cloudy/Light Rain	1
A Little Rain	1

Answered: 73 Skipped: 54

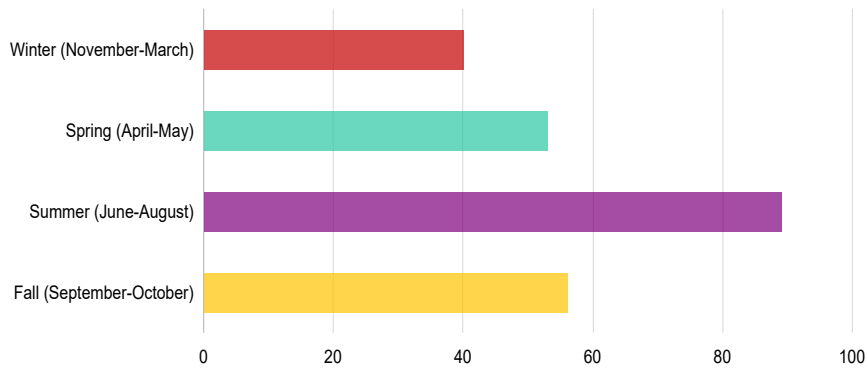
Have you visit this location before? \*



Answers	Count	Percentage
Yes	95	74.8%
No	32	25.2%

Answered: 127 Skipped: 0

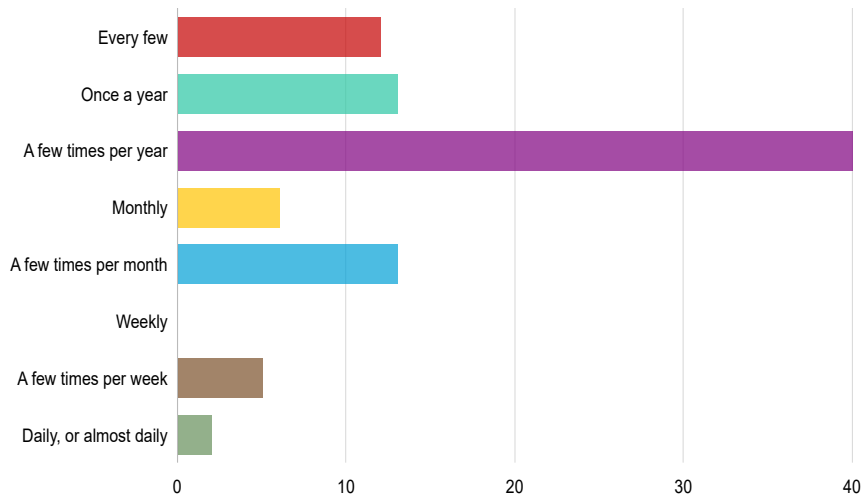
If so, during which seasons have you recreated at this location in the past?



Answers	Count	Percentage
Winter (November-March)	40	31.5%
Spring (April-May)	53	41.73%
Summer (June-August)	89	70.08%
Fall (September-October)	56	44.09%

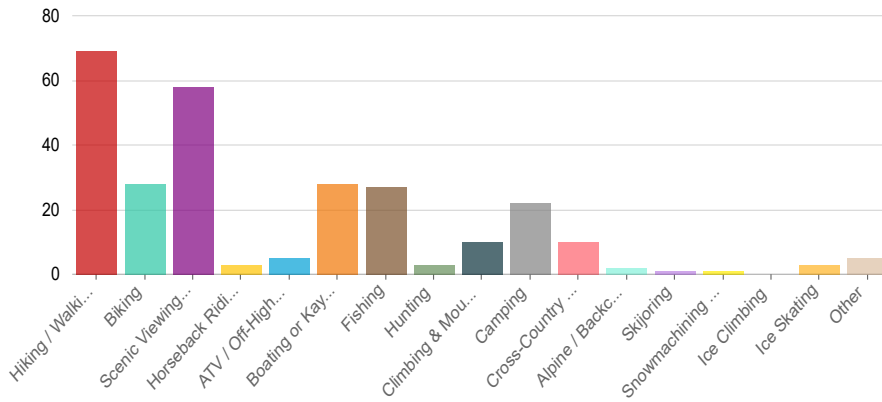
Answered: 94 Skipped: 33

**Approximately how often do you recreate at this location?**



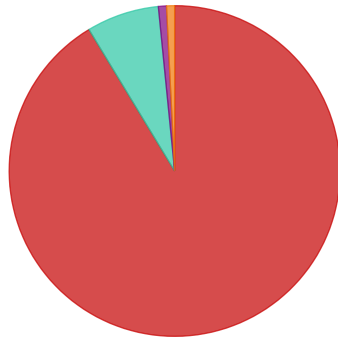
Answers	Count	Percentage
Every few years	12	9.45%
Once a year	13	10.24%
A few times per year	40	31.5%
Monthly	6	4.72%
A few times per month	13	10.24%
Weekly	0	0%
A few times per week	5	3.94%
Daily, or almost daily	2	1.57%

**Which activities have you done at this location in the past?**



Answers	Count	Percentage
Hiking / Walking / Running	69	54.33%
Biking	28	22.05%
Scenic Viewing / Leisure	58	45.67%
Horseback Riding	3	2.36%
ATV / Off-Highway Vehicle Use	5	3.94%
Boating or Kayaking	28	22.05%
Fishing	27	21.26%
Hunting	3	2.36%
Climbing & Mountaineering	10	7.87%
Camping	22	17.32%
Cross-Country Skiing	10	7.87%
Alpine / Backcountry Skiing	2	1.57%
Skijoring	1	0.79%
Snowmachining / Snowmobiling	1	0.79%
Ice Climbing	0	0%
Ice Skating	3	2.36%
Other	5	3.94%

**How did you get here today? \***

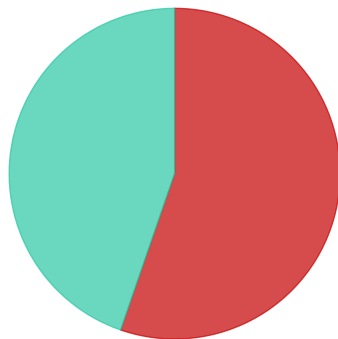


- Drove a Personal Vehicle
- Drove a Rental Vehicle
- As part of a Tour Group
- Bike or other non-motorized mode of transportation
- Aircraft via Bold Airstrip
- Other

Answers	Count	Percentage
Drove a Personal Vehicle	116	91.34%
Drove a Rental Vehicle	9	7.09%
As part of a Tour Group	1	0.79%
Bike or other non-motorized mode of transportation	0	0%
Aircraft via Bold Airstrip	0	0%
Other	1	0.79%

Answered: 127 Skipped: 0

**If you drove, did you carpool with others in your group?**



- No
- Yes

Answers	Count	Percentage
No	68	53.54%
Yes	55	43.31%

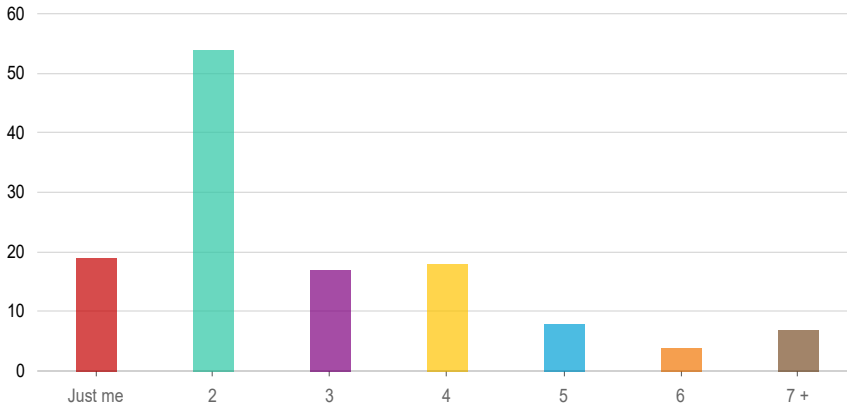
Answered: 123 Skipped: 4

**Which outfitter or tour company were you with?**

The word cloud requires at least 20 answers to show.

Response	Count
Disney Adventures	1

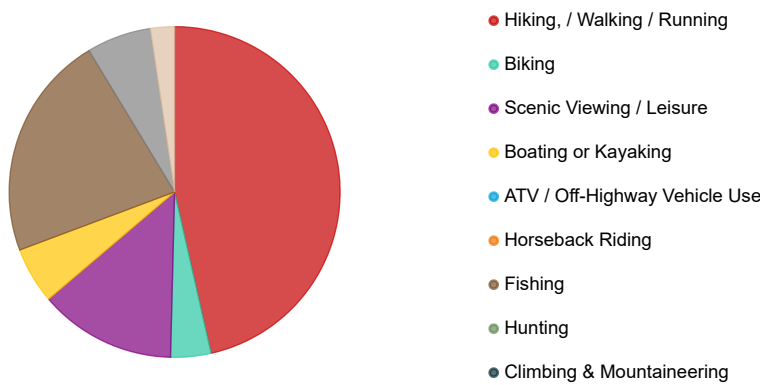
How many people were in your group on this trip? \*



Answers	Count	Percentage
Just me	19	14.96%
2	54	42.52%
3	17	13.39%
4	18	14.17%
5	8	6.3%
6	4	3.15%
7 +	7	5.51%

Answered: 127 Skipped: 0

What is your primary recreational activity for this outing? \*

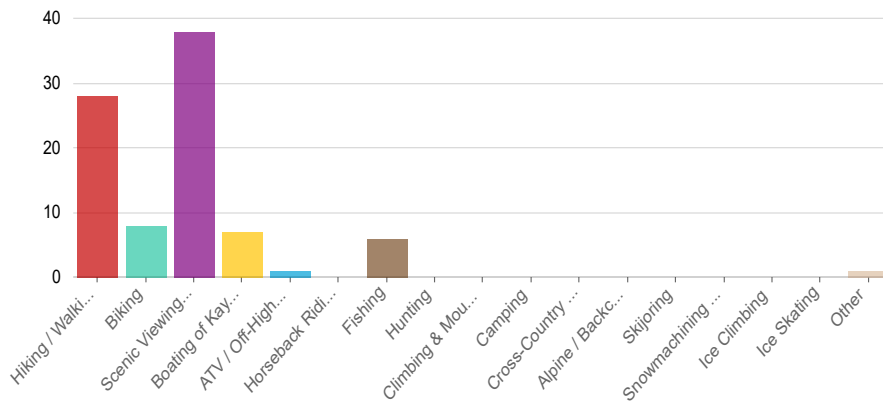


Answers	Count	Percentage
Hiking, / Walking / Running	59	46.46%
Biking	5	3.94%
Scenic Viewing / Leisure	17	13.39%
Boating or Kayaking	7	5.51%

ATV / Off-Highway Vehicle Use	0	0%
Horseback Riding	0	0%
Fishing	28	22.05%
Hunting	0	0%
Climbing & Mountaineering	0	0%
Camping	8	6.3%
Cross-Country Skiing	0	0%
Alpine / Backcountry Skiing	0	0%
Skijoring	0	0%
Snowmachining / Snowmobiling	0	0%
Ice Climbing	0	0%
Ice Skating	0	0%
Other	3	2.36%

Answered: 127 Skipped: 0

### Are you going to do any other activities this visit?

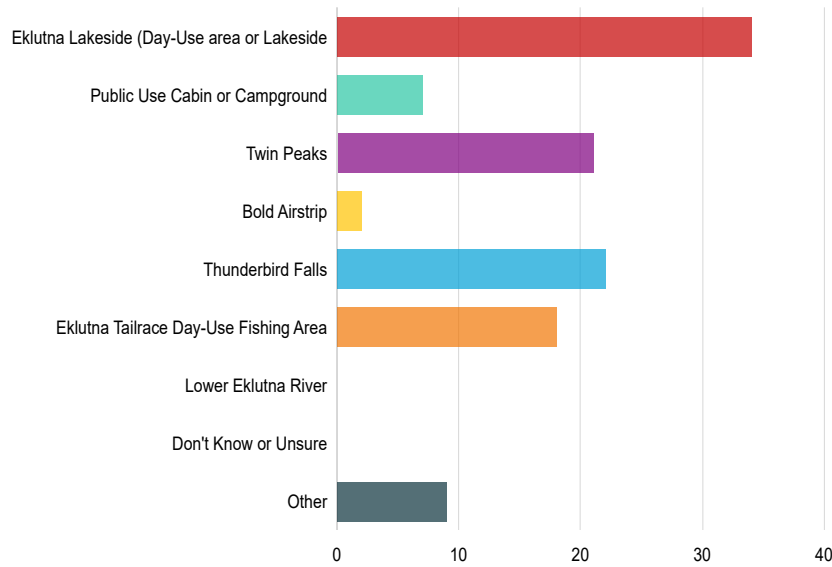


Answers	Count	Percentage
Hiking / Walking / Running	28	22.05%
Biking	8	6.3%
Scenic Viewing / Leisure	38	29.92%
Boating of Kayaking	7	5.51%
ATV / Off-Highway Vehicle Use	1	0.79%
Horseback Riding	0	0%
Fishing	6	4.72%
Hunting	0	0%
Climbing & Mountaineering	0	0%
Camping	0	0%

Cross-Country Skiing	0	0%
Alpine / Backcountry Skiing	0	0%
Skijoring	0	0%
Snowmachining / Snowmobiling	0	0%
Ice Climbing	0	0%
Ice Skating	0	0%
Other	1	0.79%

Answered: 70 Skipped: 57

**Is there anywhere else in the Eklutna Area you have or are planning to recreate at this trip?**

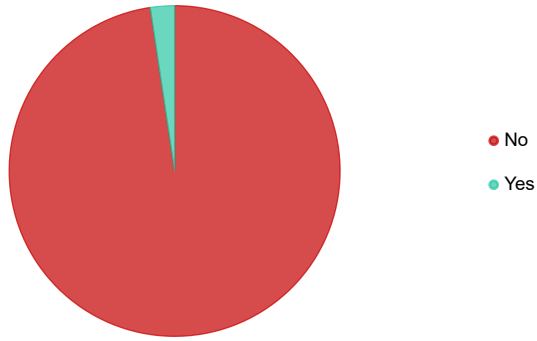


Answers	Count	Percentage
Eklutna Lakeside (Day-Use area or Lakeside Trail)	34	26.77%
Public Use Cabin or Campground	7	5.51%
Twin Peaks Trail	21	16.54%
Bold Airstrip	2	1.57%
Thunderbird Falls	22	17.32%
Eklutna Tailrace Day-Use Fishing Area	18	14.17%
Lower Eklutna River	0	0%
Don't Know or Unsure	0	0%
Other	9	7.09%

Answered: 72 Skipped: 55

**Did you, or do you plan to, rent any recreational equipment while you were here... \***





Answers	Count	Percentage
No	124	97.64%
Yes	3	2.36%

Answered: 127 Skipped: 0

#### If yes, what did you rent?

The word cloud requires at least 20 answers to show.

Response	Count
Kayak	2
Bikes	1

Answered: 3 Skipped: 124

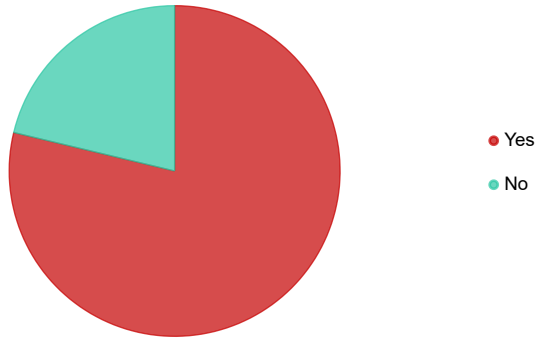
#### Where or who did you rent the equipment from?

The word cloud requires at least 20 answers to show.

Response	Count
Part of the Tour	1
Next Summer	1
Lifetime Adventures	1

Answered: 3 Skipped: 124

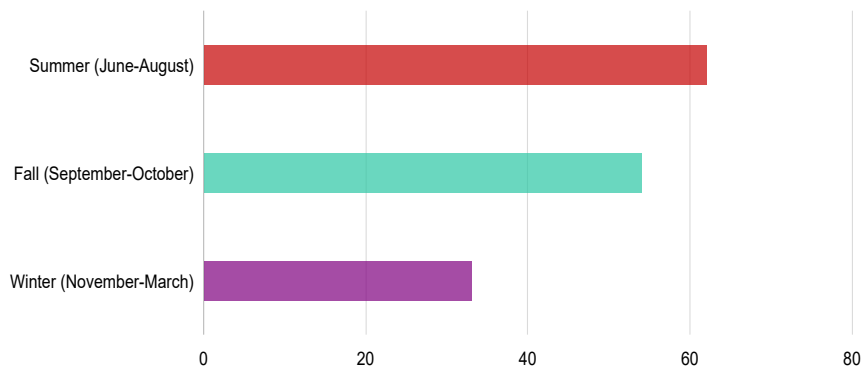
#### Do you plan to return to this location to recreate again within the calendar year? \*



Answers	Count	Percentage
Yes	100	78.74%
No	27	21.26%

Answered: 127 Skipped: 0

#### If so, when do you plan to return?



Answers	Count	Percentage
Summer (June-August)	62	48.82%
Fall (September-October)	54	42.52%
Winter (November-March)	33	25.98%

Answered: 83 Skipped: 44

#### If you return to this location, do you plan to repeat the same activities as you did th...



No thanks.	1
Nice and clear. Very nice people to be around.	1
Make a bigger parking lot. More campsites.	1
Love the access to the trail-short, sweet, and accessible when you don't want to go way out or too long.	1
Love it and dogs do too!	1
Love for waterfalls	1
King salmon today	1
Keep the Hatchery going	1
It's a fun lake.	1
Here to help with the youth fishery!	1
Great place to learn to fish - calmer, less confusing regulations, etc.	1
Great place for kids to hook 1st King.	1
Generator hours at the campground please!	1
Fabulous times when the fish are biting. Fish on!!	1
Excited to kayak here for the first time.	1
Enforce the Parking Law!	1
Did Alltrails search. Here on vacation from Ohio.	1
-Close to home so we can come down after work to fish. -Beautiful photography spot year round.	1
Camping up @ Eklutna Campground; will return to fish in the next few days.	1
Bike a lot out here and ski in the winter.	1
Bigger campground and more parking plz.	1
Bathrooms need cleaning.	1
Bathrooms and keep up the improvements.	1
Great Fishing for Kids	1

Answered: 34 Skipped: 93

## **Appendix 2: Traffic Count Reports**

# Volume Counts for Eklutna Hydroelectric Project

## Eklutna Tailrace Day-Use Fishing Access Site

Counts in June 2022



Prepared For:  
R&M Consultants  
McMillen Jacobs Associates

Prepared By:  
Jeanne M Bowie, PE, PhD, PTOE  
Shelley Giraldo, EIT  
Kinney Engineering, LLC  
3909 Arctic Blvd, Ste 400  
Anchorage, AK 99503  
907-346-2373  
AECL1102

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## 1 Data Collection

Kinney Engineering, LLC (KE) installed a radar detector to count traffic entering and exiting the Eklutna Tailrace Day-Use Fishing Access site. The radar detector was mounted on the Department of Fish & Game sign and counted all vehicles driving in or out along the driveway. Table 1 shows the dates and times that data was collected using the radar detector. (The radar machine stopped collecting data early on the morning of Wednesday, June 15. The machine was redeployed again on Friday, June 17<sup>th</sup>, to collect additional data.)

Additionally, a manual count of vehicles on the Old Glenn Highway and turning in and out of the driveway was made to facilitate vehicle classification. Table 2 shows the date and time of the manual collection.

**Table 1: Radar Detector Data Collection Dates and Times**

Day of Week	Date	Time Start	Time End
Wednesday	6/8/2022	6:15 PM	11:59 PM
Thursday	6/9/2022	12:00 AM	11:59 PM
Friday	6/10/2022	12:00 AM	11:59 PM
Saturday	6/11/2022	12:00 AM	11:59 PM
Sunday	6/12/2022	12:00 AM	11:59 PM
Monday	6/13/2022	12:00 AM	11:59 PM
Tuesday	6/14/2022	12:00 AM	11:59 PM
Wednesday	6/15/2022	12:00 AM	1:20 AM
Thursday	6/16/2022	No Data Collected	
Friday	6/17/2022	1:30 PM	11:59 PM
Saturday	6/18/2022	12:00 AM	11:59 PM
Sunday	6/19/2022	12:00 AM	11:59 PM
Monday	6/20/2022	12:00 AM	11:59 PM
Tuesday	6/21/2022	12:00 AM	11:59 PM
Wednesday	6/22/2022	12:00 AM	11:59 PM
Thursday	6/23/2022	12:00 AM	11:32 PM

NOTE: Only partial counts were collected on shaded days

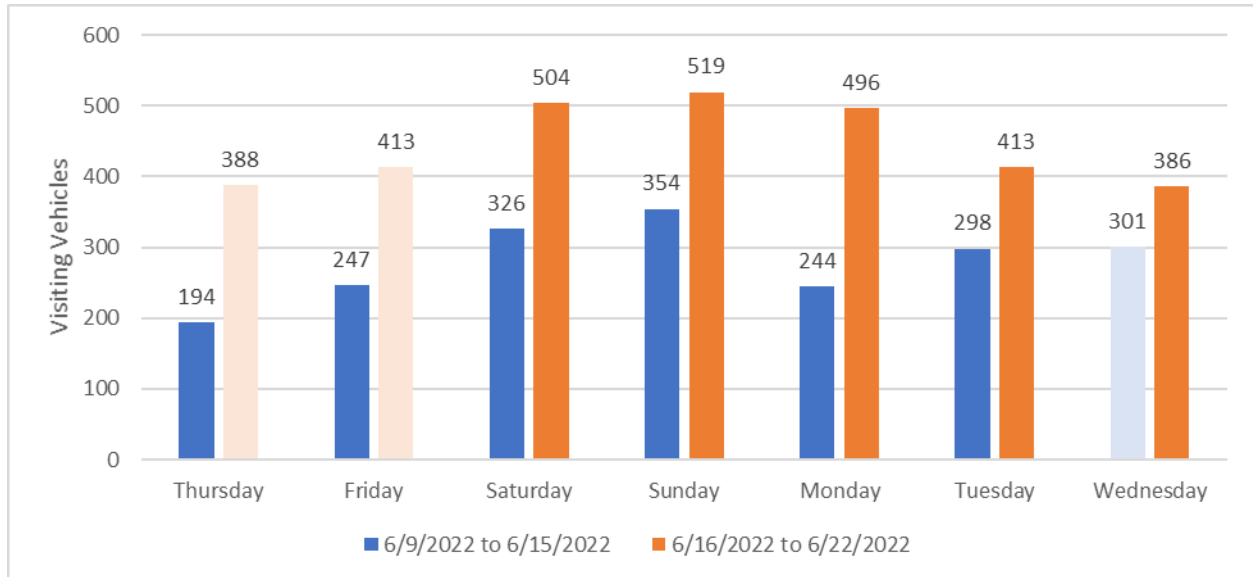
**Table 2: Manual Data Collection Dates and Times**

Day of Week	Date	Time Start	Time End
Saturday	6/11/2022	2:00 PM	4:00 PM



## 2 Visiting Vehicle Volumes

A total of 4,716 visiting vehicles were counted from Wednesday, June 8 to Thursday, June 23 (5,082 visiting vehicles with estimated traffic from partial count days). Figure 1 shows the total number of visitors by day. The darker bars represent days where a full count was made, and the lighter bars represent estimated volumes based on the available data.

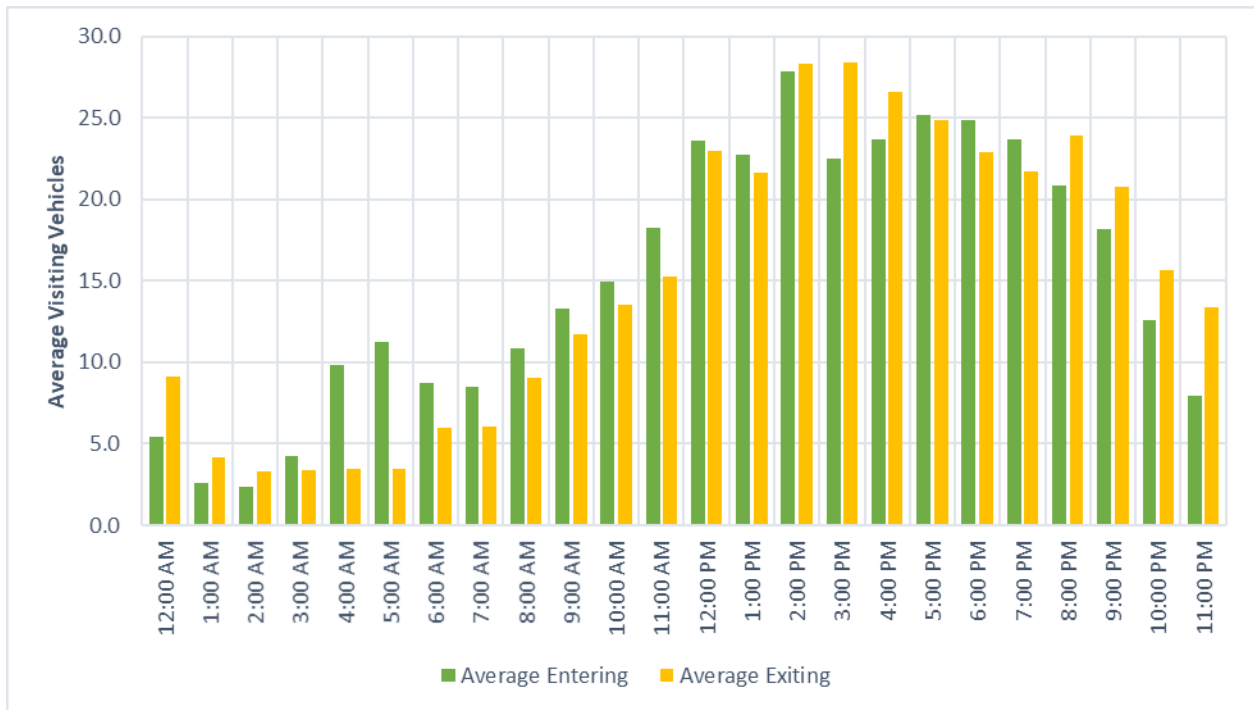


**Figure 1: Observed and Estimated Visiting Vehicles per Day**

Note that the traffic visiting the site was approximately 60% higher during the second week of the study. The activity was consistently about 25% higher on the weekends than on weekdays during both weeks of counts. In both weeks of counts, the highest activity was observed on Sunday.

Figure 2 shows how the volume of entering and exiting vehicles changed over the day.

Volume Counts for Eklutna Hydroelectric Project  
Eklutna Tailrace Day-Use Fishing Access Site  
Counts in June 2022



**Figure 2: Average Entering and Existing Vehicles per Hour**

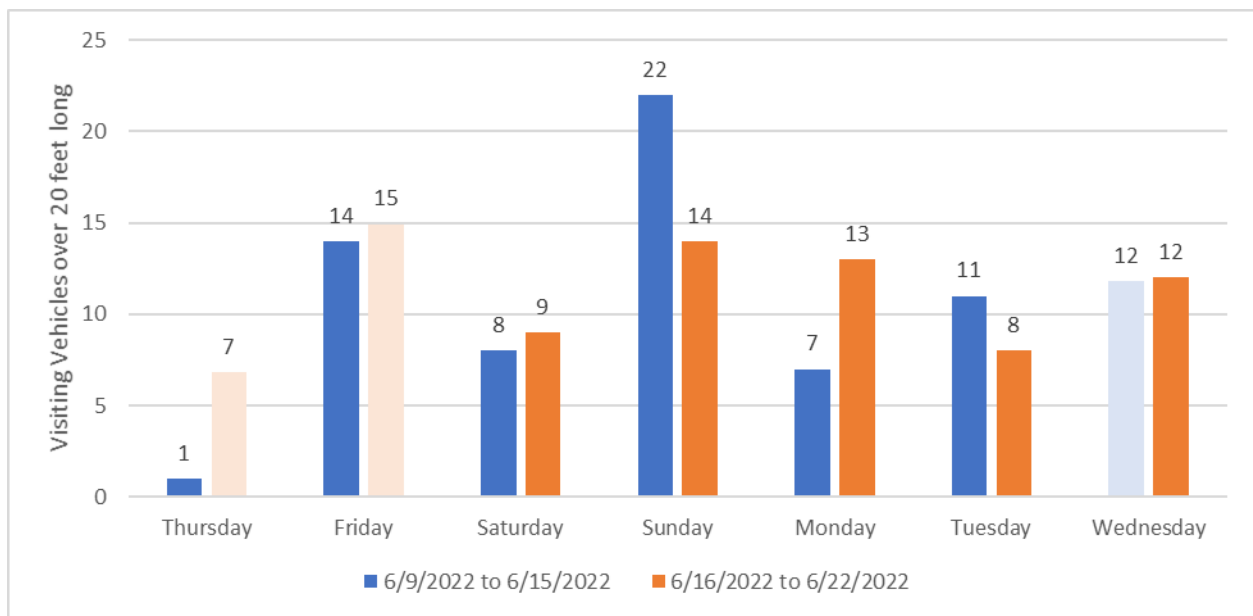
There is a relatively small volume of vehicles arriving in the early morning hours between 4 and 8 AM followed by a gradual increase in activity throughout the day until a peak in the mid-afternoon 2 to 4 PM period. Regular activity was observed to continue until midnight.

### 3 Visiting Vehicle Classification

Traditional hose counters that provide vehicle classification could not be used at this location because the driveway is gravel. As such, KE used a radar counter. The radar counter does not detect vehicle axles, but it does estimate vehicle length. Vehicles were classified by length into two sets: vehicles less than 20 feet long (presumed to be pickup trucks or smaller passenger vehicles) and vehicles longer than 20 feet (presumed to be RVs). Neither hoses nor radar detectors can distinguish vehicles with trailers from other trailers. As such, KE performed a manual count to determine the percentage of vehicles with trailers using the parking area. Table 3 presents the percentage of larger visiting vehicles. Figure 3 shows the total number of vehicles over 20 feet long per day. The darker bars represent days where a full count was made, and the lighter bars represent estimated volumes based on the available data. Figure 4 shows how the average number of larger vehicles entering and exiting changed over a day.

**Table 3: Percentage of Visiting Vehicles Over 20 Feet**

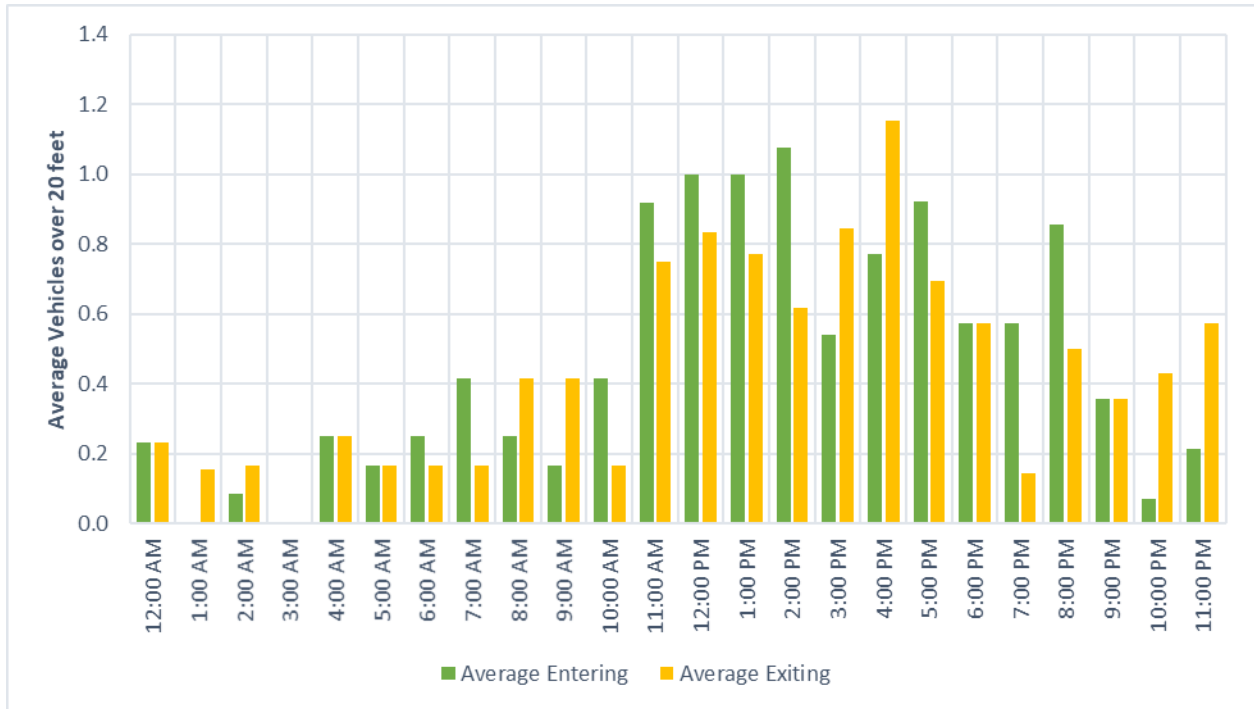
<b>All Vehicles (count)</b>	4,716
<b>Vehicles over 20 feet (count)</b>	143
<b>Vehicles over 20 feet (percentage)</b>	3%



**Figure 3: Observed and Estimated Visiting Vehicles Over 20 Feet Long per Day**

Volume Counts for Eklutna Hydroelectric Project  
 Eklutna Tailrace Day-Use Fishing Access Site  
 Counts in June 2022

Although the peak days for visiting the site were shown in Figure 1 to be on the weekend, Figure 3 shows that the Friday traffic has a higher percentage of large vehicles and trailers. Additionally, although there was a 60% increase in overall visitor activity between the first and second weeks of observations, the heavy vehicle volumes for the two weeks were relatively consistent.



**Figure 4: Average Entering and Existing Vehicles Over 20 Feet per Hour**

During the manual count on Saturday, June 11, 2022, from 2 to 4 PM, KE observed no vehicles pulling trailers entering or exiting the Eklutna Tailrace Day-Use Fishing Access Site; however, numerous vehicles pulling trailers traveled on the Old Glenn Highway during that period. Figure 5 shows the number of vehicles making each movement, including trailers.

Volume Counts for Eklutna Hydroelectric Project  
Eklutna Tailrace Day-Use Fishing Access Site  
Counts in June 2022

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**Figure 5: Vehicles on Old Glenn Highway and Turning into and out of Tailrace Access (6/11/2022 from 2 to 4 PM)**

## **4 Data**

Volume Counts for Eklutna Hydroelectric Project  
 Eklutna Tailrace Day-Use Fishing Access Site  
 Counts in June 2022

**Table 4: Entering Vehicles**

	Wednesday, June 8, 2022	Thursday, June 9, 2022	Friday, June 10, 2022	Saturday, June 11, 2022	Sunday, June 12, 2022	Monday, June 13, 2022	Tuesday, June 14, 2022	Wednesday, June 15, 2022	Thursday, June 16, 2022	Friday, June 17, 2022	Saturday, June 18, 2022	Sunday, June 19, 2022	Monday, June 20, 2022	Tuesday, June 21, 2022	Wednesday, June 22, 2022	Thursday, June 23, 2022
12:00 AM		2	2	4	1	2	4	5			6	11	5	9	7	13
1:00 AM		2	1	1	2	4	2	2			1	4	3	6	2	4
2:00 AM		3	3	1	1	1	0	0			1	1	3	8	6	3
3:00 AM		0	0	2	0	4	5				3	4	8	7	9	9
4:00 AM		5	4	6	4	4	5				13	6	27	11	12	21
5:00 AM		0	7	8	8	11	8				15	11	21	15	13	18
6:00 AM		3	3	8	4	5	3				10	22	17	16	7	7
7:00 AM		3	2	9	9	8	5				11	13	12	13	7	10
8:00 AM		6	7	7	4	4	4				21	20	21	10	10	16
9:00 AM		10	4	16	18	7	14				24	16	19	10	13	9
10:00 AM		11	14	15	14	13	10				25	16	18	29	7	7
11:00 AM		9	11	18	19	8	17				39	28	30	10	20	10

Volume Counts for Eklutna Hydroelectric Project  
 Eklutna Tailrace Day-Use Fishing Access Site  
 Counts in June 2022

	Wednesday, June 8, 2022	Thursday, June 9, 2022	Friday, June 10, 2022	Saturday, June 11, 2022	Sunday, June 12, 2022	Monday, June 13, 2022	Tuesday, June 14, 2022	Wednesday, June 15, 2022	Thursday, June 16, 2022	Friday, June 17, 2022	Saturday, June 18, 2022	Sunday, June 19, 2022	Monday, June 20, 2022	Tuesday, June 21, 2022	Wednesday, June 22, 2022	Thursday, June 23, 2022
12:00 PM		10	19	21	34	9	24				41	32	29	20	20	24
1:00 PM		22	13	16	28	25	20			11	24	39	36	22	24	16
2:00 PM		17	21	26	24	16	26			24	34	51	41	18	33	31
3:00 PM		22	13	24	37	13	22			19	25	33	24	20	16	24
4:00 PM		14	21	23	34	10	15			26	34	39	27	23	19	23
5:00 PM		14	26	16	31	23	17			28	32	28	34	19	33	26
6:00 PM	20	9	13	21	16	14	22			33	26	40	43	33	31	27
7:00 PM	22	11	20	20	18	11	20			28	25	34	22	40	26	35
8:00 PM	13	9	18	22	12	16	18			17	35	30	20	25	30	27
9:00 PM	13	6	9	19	14	16	15			29	36	20	15	15	20	27
10:00 PM	10	5	9	15	18	13	12			19	8	9	15	18	15	10
11:00 PM	4	1	7	8	4	7	10			11	15	12	6	16	6	4



Volume Counts for Eklutna Hydroelectric Project  
 Eklutna Tailrace Day-Use Fishing Access Site  
 Counts in June 2022

**Table 5: Exiting Vehicles**

	Wednesday, June 8, 2022	Thursday, June 9, 2022	Friday, June 10, 2022	Saturday, June 11, 2022	Sunday, June 12, 2022	Monday, June 13, 2022	Tuesday, June 14, 2022	Wednesday, June 15, 2022	Thursday, June 16, 2022	Friday, June 17, 2022	Saturday, June 18, 2022	Sunday, June 19, 2022	Monday, June 20, 2022	Tuesday, June 21, 2022	Wednesday, June 22, 2022	Thursday, June 23, 2022
12:00 AM		6	2	5	8	8	4	10			10	19	19	6	8	14
1:00 AM		1	1	2	2	3	3	1			8	4	3	6	12	8
2:00 AM		1	2	1	2	1	4	0			3	6	2	6	8	7
3:00 AM		0	1	0	1	3	2				3	15	2	5	6	3
4:00 AM		1	2	1	2	6	2				4	3	5	3	2	11
5:00 AM		2	1	2	1	1	4				8	4	3	5	6	5
6:00 AM		3	4	6	1	4	5				10	1	8	12	7	11
7:00 AM		1	2	6	4	5	3				7	10	15	4	8	8
8:00 AM		4	3	6	11	7	3				8	19	21	11	6	10
9:00 AM		9	7	11	17	4	10				12	14	17	17	12	11
10:00 AM		7	12	15	11	7	5				31	14	23	17	10	10
11:00 AM		8	8	20	21	4	16				38	14	19	15	11	9

Volume Counts for Eklutna Hydroelectric Project  
 Eklutna Tailrace Day-Use Fishing Access Site  
 Counts in June 2022

	Wednesday, June 8, 2022	Thursday, June 9, 2022	Friday, June 10, 2022	Saturday, June 11, 2022	Sunday, June 12, 2022	Monday, June 13, 2022	Tuesday, June 14, 2022	Wednesday, June 15, 2022	Thursday, June 16, 2022	Friday, June 17, 2022	Saturday, June 18, 2022	Sunday, June 19, 2022	Monday, June 20, 2022	Tuesday, June 21, 2022	Wednesday, June 22, 2022	Thursday, June 23, 2022
12:00 PM		13	19	25	31	12	20				34	27	33	20	25	17
1:00 PM		16	10	20	32	21	16			17	24	27	36	25	17	20
2:00 PM		7	17	24	24	15	28			24	50	56	39	22	44	18
3:00 PM		29	21	24	40	20	31			23	25	49	42	20	24	21
4:00 PM		15	24	24	36	15	22			23	38	41	38	24	22	24
5:00 PM		14	16	16	35	17	15			28	40	31	38	20	33	20
6:00 PM	15	10	18	20	20	22	17			27	30	27	38	31	26	20
7:00 PM	20	8	9	23	21	9	21			18	18	46	27	28	18	38
8:00 PM	26	9	24	23	20	12	24			27	32	41	24	25	23	25
9:00 PM	11	10	11	28	16	21	14			28	35	22	21	25	18	31
10:00 PM	8	5	10	11	16	11	16			20	14	16	20	29	22	21
11:00 PM	5	2	12	12	8	9	14			28	15	17	12	19	18	16

# Volume Counts for Eklutna Hydroelectric Project

## Eklutna Lake Recreation Area

Counts in July/August 2022



Prepared For:  
R&M Consultants  
McMillen Jacobs Associates

Prepared By:  
Aiza Miguel, PE  
Jeanne M Bowie, PE, PhD, PTOE  
Kinney Engineering, LLC  
3909 Arctic Blvd, Ste 400  
Anchorage, AK 99503  
907-346-2373  
AECL1102

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## 1 Data Collection

Kinney Engineering, LLC (KE) deployed hose counters to count traffic entering and exiting the Eklutna Lake Recreation Area. The hose counter was stationed near the speed limit sign west of the overflow parking lot and counted all vehicles entering and exiting the recreation area.

The hose counter was deployed in the afternoon on Tuesday, July 26, 2022, and was taken down at noon on Tuesday, August 9, 2022.

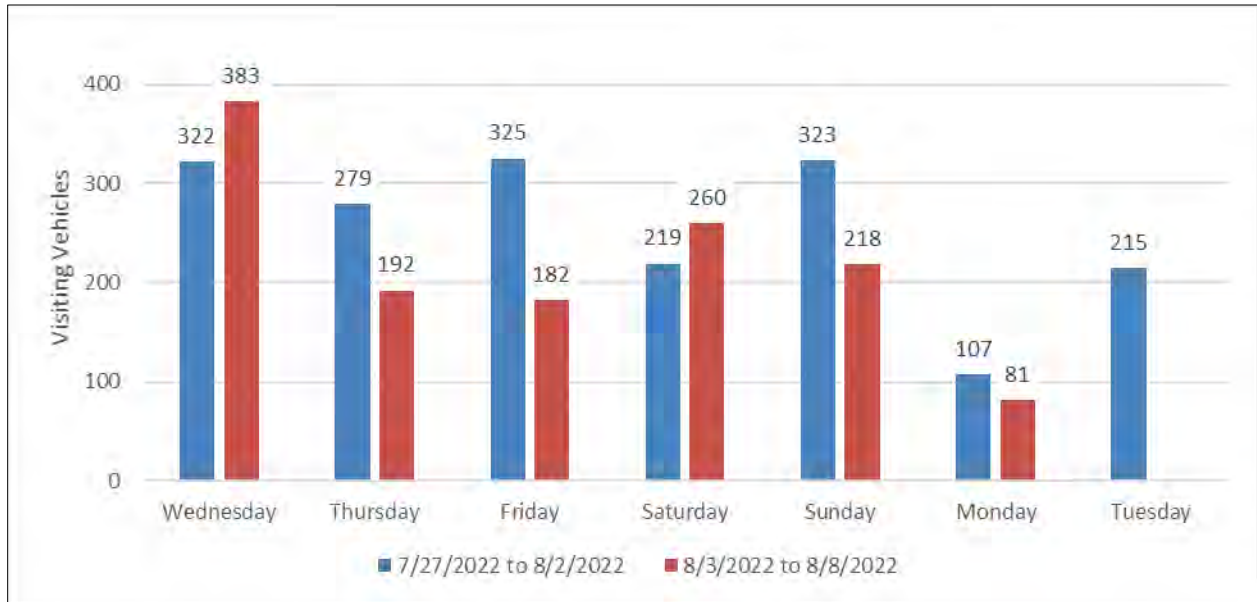
Additionally, a manual count of vehicles on Eklutna Lake Road were made to facilitate vehicle classification. Table 1 shows the date and time of the manual collection.

**Table 1: Manual Data Collection Dates and Times**

<b>Day of Week</b>	<b>Date</b>	<b>Time Start</b>	<b>Time End</b>
Saturday	8/6/2022	11:00 AM	1:00 PM

## 2 Visiting Vehicle Volumes

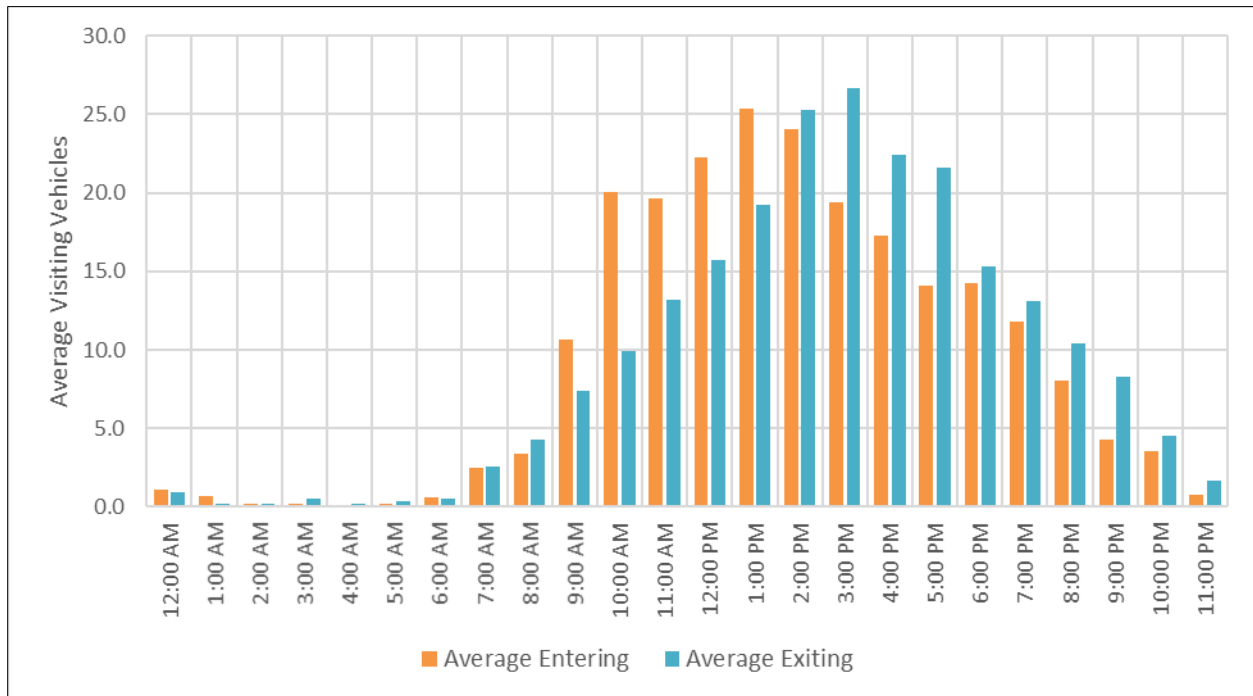
A total of 3,217 visiting vehicles were counted from Tuesday, July 26 to Tuesday, August 9, including partial day counts. Figure 1 shows the total number of visitors by day. Low volumes were observed on both Mondays. Days with high activity varied by week.



**Figure 1: Observed Visiting Vehicles per Day**

Figure 2 shows how the volume of entering and exiting vehicles changed over the day.

Volume Counts for Eklutna Hydroelectric Project  
 Eklutna Lake Recreation Area  
 Counts in July/August 2022



**Figure 2: Average Entering and Exiting Vehicles per Hour (7/27/2022 to 8/8/2022)**

There is little activity in the late night to early morning hours between 11 PM and 6 AM followed by a gradual increase in arrival activity throughout the day until a peak around the afternoon 1 to 3 PM period. Exiting vehicles following a similar trend as entering vehicles and peak later in the day between the 2 to 4 PM period. Regular activity was observed to continue until midnight.

### 3 Visiting Vehicle Classification

The hose counters classify entering and exiting traffic based on Federal Highway Administration (FHWA) vehicle classification. However, the hose detectors cannot distinguish vehicles with trailers from those without trailers. As such, KE performed a manual count to determine the percentage of vehicles with trailers using the parking area.

During the manual count on Saturday, August 6, 2022, from 11 AM to 1 PM, KE observed approximately 3% of vehicles pulling trailers entering or exiting the Eklutna recreation area; three vehicles pulling trailers were observed exiting the recreation area, while zero were observed entering the area.

A comparison of the manual counts with the hose counts for the same time period indicated that most of the vehicles pulling trailers were classified as large multi-axle vehicles (Class 6 through 13, such as single or multi-unit trucks), as these larger vehicles were not observed during the manual counts, but do show up in the hose counts. As such, vehicles that were classified as Class 6 through 13 were likely to have been vehicles pulling trailers.

**Table 2: Vehicle Classification Description**

Vehicle Classification	Vehicle Description
Class 1-2	Motorcycles and passenger cars, short pick-up trucks
Class 3	Long pick-up trucks, truck campers, box trucks, small conversion/camper vans
Class 4-5	Buses, motorhomes, RVs, large conversion/camper vans. Possibly some box trucks, and pick-up trucks.
Class 6-13	Normally larger, multi-axle vehicles. Possibly vehicles pulling trailers or longer motorhomes and RVs

Table 3 presents the overall percentage of vehicles by classification. Class 1 and 2 make up almost 50% of the total visiting vehicles.

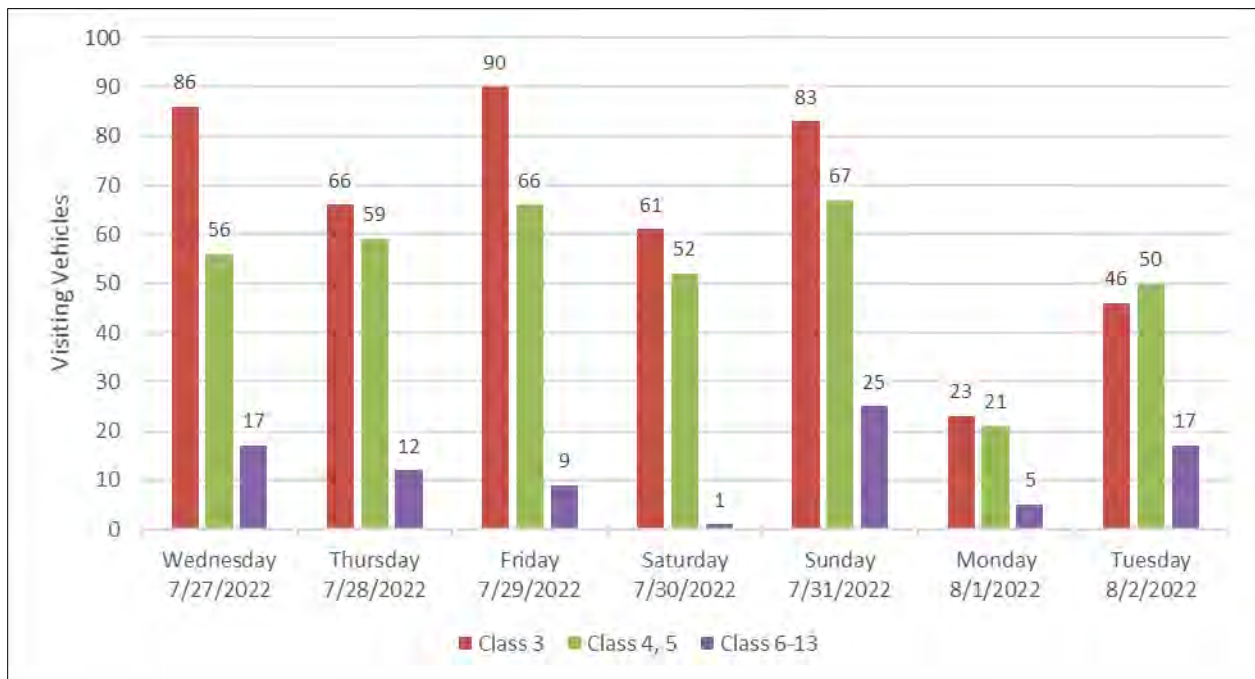
**Table 3: Overall Vehicle Classification Distribution**

Vehicle Classification	Distribution
Class 1 & 2	49%
Class 3	25%
Class 4 & 5	20%
Class 6 to 13	5%

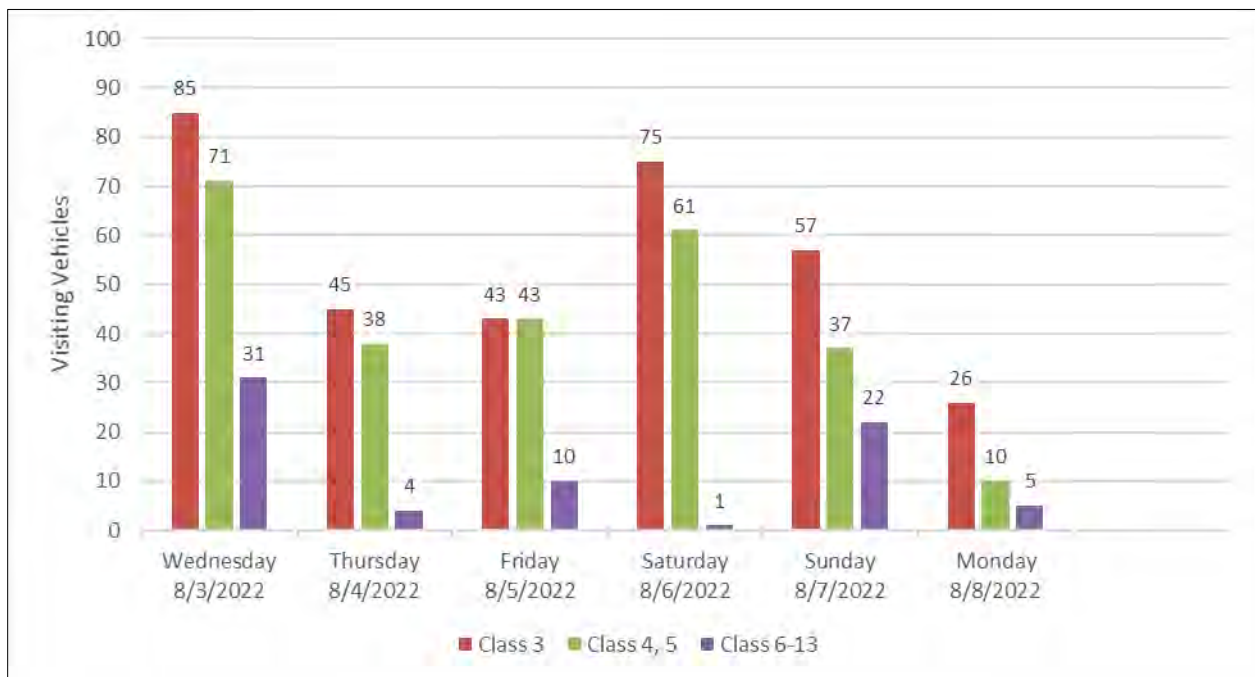
Figure 3 presents the number of visiting vehicles classified between Class 3 and 13 from July 27 through August 2, while Figure 4 presents the visiting vehicles from August 3 through August 8. To better see the distribution among the larger vehicle classifications, Class 1 and 2 were excluded from the figures.



Volume Counts for Eklutna Hydroelectric Project  
 Eklutna Lake Recreation Area  
 Counts in July/August 2022



**Figure 3: Observed Visiting Vehicles by Classification per Day, 7/27/2022-8/2/2022**



**Figure 4: Observed Visiting Vehicles by Classification per Day, 8/3/2022-8/8/2022**

## **4 Data**

Volume Counts for Eklutna Hydroelectric Project  
 Eklutna Lake Recreation Area  
 Counts in July/August 2022

**Table 4: Entering Vehicles**

	Tuesday, July 26, 2022	Wednesday, July 27, 2022	Thursday, July 28, 2022	Friday, July 29, 2022	Saturday, July 30, 2022	Sunday, July 31, 2022	Monday, August 1, 2022	Tuesday, August 2, 2022	Wednesday, August 3, 2022	Thursday, August 4, 2022	Friday, August 5, 2022	Saturday, August 6, 2022	Sunday, August 7, 2022	Monday, August 8, 2022	Tuesday, August 9, 2022
12:00 AM		4	2	1	0	2	0	1	0	0	1	3	1	0	0
1:00 AM		0	3	0	1	0	0	1	0	0	2	2	0	0	1
2:00 AM		2	0	0	1	0	0	0	0	0	0	0	0	0	0
3:00 AM		0	0	0	0	0	0	0	0	0	3	0	0	0	0
4:00 AM		0	0	0	0	0	1	0	0	1	0	0	0	0	0
5:00 AM		0	0	1	0	0	0	0	2	0	0	0	0	0	0
6:00 AM		0	0	3	0	0	0	0	2	3	0	0	0	0	0
7:00 AM		2	10	0	1	2	0	2	0	5	4	2	1	1	5
8:00 AM		1	2	4	7	3	4	3	7	1	6	4	6	0	0
9:00 AM		11	4	16	11	10	5	8	31	11	4	11	14	5	8
10:00 AM		43	9	21	14	37	7	14	34	23	6	17	34	8	14
11:00 AM		29	24	33	16	25	7	23	26	16	8	24	26	7	11

Volume Counts for Eklutna Hydroelectric Project  
 Eklutna Lake Recreation Area  
 Counts in July/August 2022

	Tuesday, July 26, 2022	Wednesday, July 27, 2022	Thursday, July 28, 2022	Friday, July 29, 2022	Saturday, July 30, 2022	Sunday, July 31, 2022	Monday, August 1, 2022	Tuesday, August 2, 2022	Wednesday, August 3, 2022	Thursday, August 4, 2022	Friday, August 5, 2022	Saturday, August 6, 2022	Sunday, August 7, 2022	Monday, August 8, 2022	Tuesday, August 9, 2022
12:00 PM		38	22	25	22	39	10	21	45	18	9	26	26	10	0
1:00 PM		44	32	35	20	45	14	22	35	23	10	36	27	12	0
2:00 PM		25	35	29	26	36	19	25	38	16	23	30	25	10	0
3:00 PM		15	27	25	17	33	15	21	28	20	23	24	18	5	0
4:00 PM	4	23	28	30	22	31	5	15	26	14	11	27	19	4	0
5:00 PM	23	22	16	18	9	23	9	13	28	10	17	14	4	5	0
6:00 PM	17	25	16	27	12	15	6	18	26	12	23	11	2	4	0
7:00 PM	12	13	18	22	17	10	2	13	28	4	17	10	7	4	0
8:00 PM	10	15	15	14	10	7	1	5	14	9	6	10	1	4	0
9:00 PM	2	2	7	6	9	5	1	4	9	4	5	5	4	1	0
10:00 PM	4	5	7	15	2	0	1	6	3	1	4	4	1	0	0
11:00 PM	0	3	2	0	2	0	0	0	1	1	0	0	2	1	0

Volume Counts for Eklutna Hydroelectric Project  
 Eklutna Lake Recreation Area  
 Counts in July/August 2022

**Table 5: Exiting Vehicles**

	Tuesday, July 26, 2022	Wednesday, July 27, 2022	Thursday, July 28, 2022	Friday, July 29, 2022	Saturday, July 30, 2022	Sunday, July 31, 2022	Monday, August 1, 2022	Tuesday, August 2, 2022	Wednesday, August 3, 2022	Thursday, August 4, 2022	Friday, August 5, 2022	Saturday, August 6, 2022	Sunday, August 7, 2022	Monday, August 8, 2022	Tuesday, August 9, 2022
12:00 AM		4	2	2	1	0	1	0	0	0	0	3	0	0	0
1:00 AM		0	0	0	1	0	0	1	0	0	0	0	1	0	0
2:00 AM		0	0	0	0	1	0	0	0	0	1	0	0	0	1
3:00 AM		0	0	1	0	0	0	1	0	1	2	1	1	0	0
4:00 AM		0	0	0	1	0	1	0	0	0	1	0	0	0	0
5:00 AM		0	0	0	0	0	0	0	2	3	0	0	0	0	0
6:00 AM		1	2	0	0	0	0	0	0	3	1	0	0	0	0
7:00 AM		0	3	2	4	5	2	1	1	5	6	2	2	3	0
8:00 AM		1	4	3	12	3	6	5	8	3	5	2	6	2	0
9:00 AM		5	7	6	8	13	8	2	2	7	19	5	17	1	4
10:00 AM		6	11	16	22	13	5	7	8	10	4	14	14	5	4
11:00 AM		15	17	14	9	19	7	6	17	15	6	32	11	7	10

Volume Counts for Eklutna Hydroelectric Project  
 Eklutna Lake Recreation Area  
 Counts in July/August 2022

	Tuesday, July 26, 2022	Wednesday, July 27, 2022	Thursday, July 28, 2022	Friday, July 29, 2022	Saturday, July 30, 2022	Sunday, July 31, 2022	Monday, August 1, 2022	Tuesday, August 2, 2022	Wednesday, August 3, 2022	Thursday, August 4, 2022	Friday, August 5, 2022	Saturday, August 6, 2022	Sunday, August 7, 2022	Monday, August 8, 2022	Tuesday, August 9, 2022
12:00 PM		21	24	23	14	15	3	16	20	18	12	21	26	7	
1:00 PM		31	15	18	19	29	11	17	30	28	5	28	26	12	
2:00 PM		30	22	37	13	45	19	20	47	24	11	32	48	6	
3:00 PM		47	34	33	31	49	18	22	43	14	9	27	31	15	
4:00 PM	7	28	24	29	31	43	11	20	43	18	21	24	25	12	
5:00 PM	25	25	40	22	23	34	11	15	35	16	26	25	23	4	
6:00 PM	22	22	14	30	13	32	6	14	28	8	9	18	11	3	
7:00 PM	18	27	22	18	12	21	2	11	23	4	10	13	10	5	
8:00 PM	13	12	17	12	13	15	4	20	31	6	4	5	2	2	
9:00 PM	8	20	9	15	13	9	2	5	19	9	6	7	1	1	
10:00 PM	6	6	5	10	5	7	0	8	11	2	4	3	1	0	
11:00 PM	0	4	2	4	1	1	0	2	5	0	4	2	0	0	

# Volume Counts for Eklutna Hydroelectric Project

## Thunderbird Falls Trailhead

Counts in July/August 2022



Prepared For:  
R&M Consultants  
McMillen Jacobs Associates

Prepared By:  
Jeanne M Bowie, PE, PhD, PTOE  
Aiza Miguel, PE  
Kinney Engineering, LLC  
3909 Arctic Blvd, Ste 400  
Anchorage, AK 99503  
907-346-2373  
AECL1102

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## 1 Data Collection

Kinney Engineering, LLC (KE) deployed hose counters to count traffic entering and exiting the Thunderbird Falls Trailhead. Two hose counters were deployed, one on either side of the trailhead driveway, to capture vehicles using the Thunderbird Falls parking lot. Vehicles detected by both counters were considered to be passing vehicles on Old Glenn Highway, while vehicles detected by only one counter were considered either entering or exiting the trailhead parking lot. This set up was used because the driveway is very short, and hose counters do not work as effectively in locations where vehicles are stopping and or crossing the hoses at an angle.

The hose counters were deployed the afternoon of Friday, July 29, 2022, and were taken down the afternoon of Tuesday, August 9, 2022.

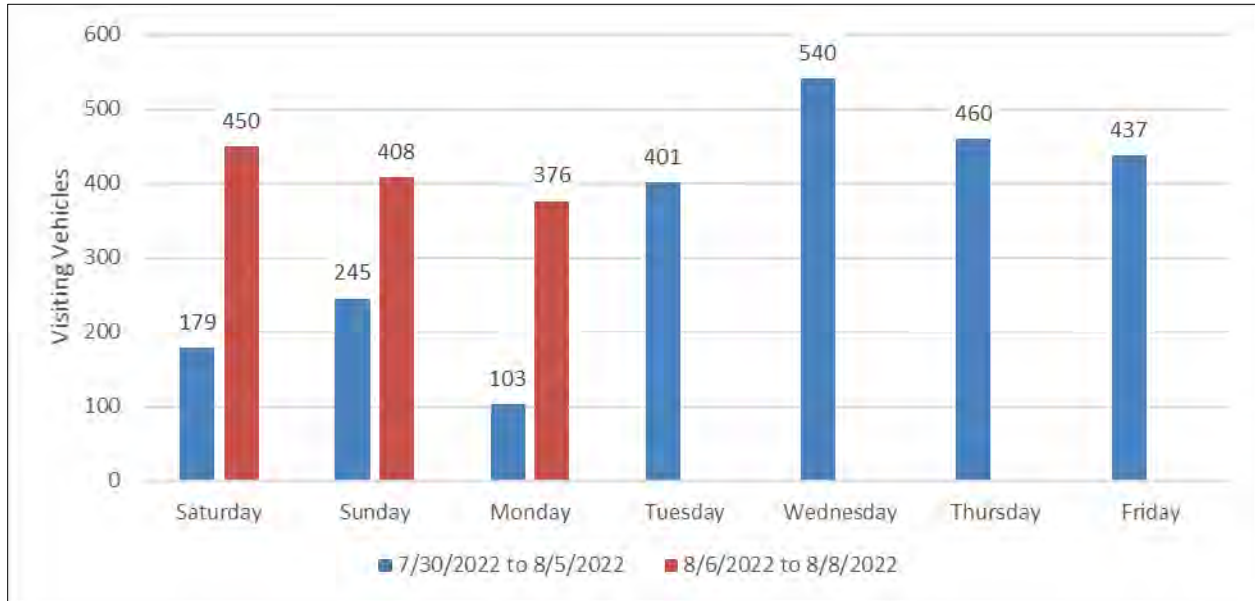
Additionally, a manual count of vehicles on the Old Glenn Highway and those turning in and out of the trailhead driveway was made to facilitate vehicle classification. Table 1 shows the date and time of the manual collection.

**Table 1: Manual Data Collection Dates and Times**

<b>Day of Week</b>	<b>Date</b>	<b>Time Start</b>	<b>Time End</b>
Saturday	7/30/2022	2:00 PM	4:15 PM
Friday	8/5/2022	7:08 PM	7:38 PM

## 2 Visiting Vehicle Volumes

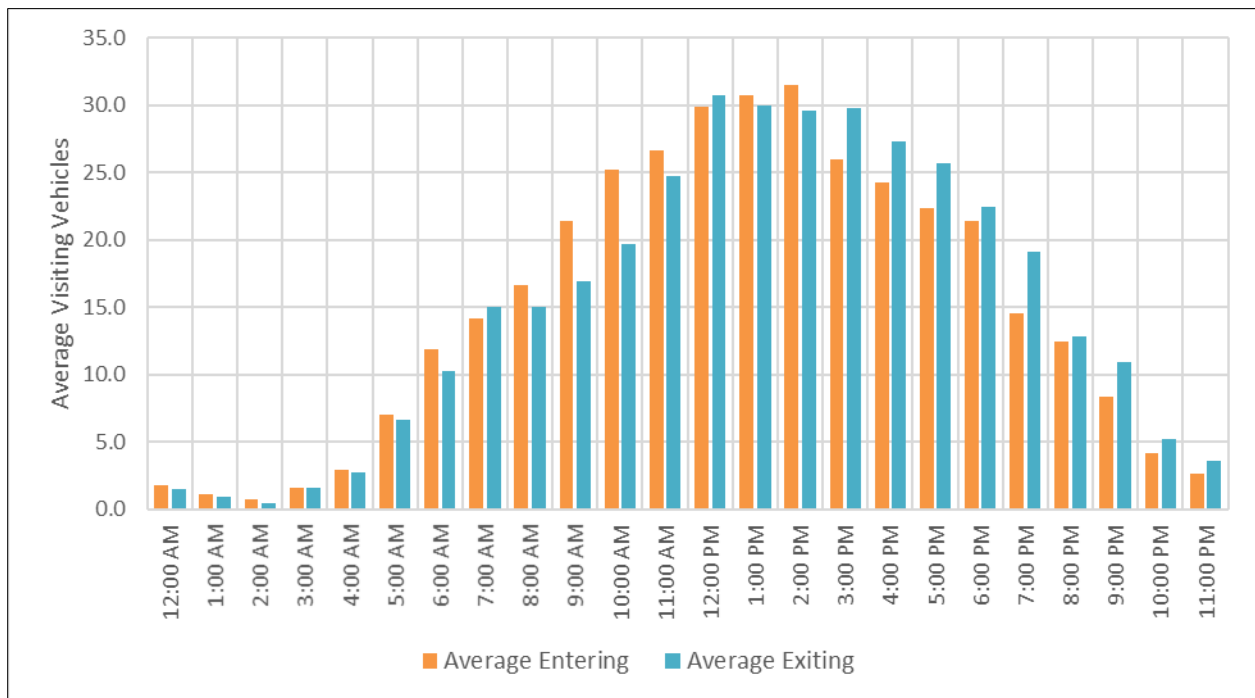
A total of 3,866 visiting vehicles were counted from Wednesday, July 29 to Tuesday, August 9, including partial day counts. Figure 1 shows the total number of visitors by day. Observed volumes during the second weekend counts were almost double or more of the volume of the first weekend.



**Figure 1: Observed Visiting Vehicles per Day (7/30/2022 to 8/8/2022)**

Figure 2 shows how the volume of entering and exiting vehicles changed over the day.

Volume Counts for Eklutna Hydroelectric Project  
 Thunderbird Falls Trailhead  
 Counts in July/August 2022



**Figure 2: Average Entering and Exiting Vehicles per Hour (7/29/2022 to 8/9/2022)**

The arrival activity gradually increases through the day until it peaks in the 12 Noon to 2 PM period with regular activity observed to continue until midnight. On weekends, there tend to be fewer visiting vehicles in the morning (6 AM to Noon), and then similar volumes to the rest of the week for the remainder of the day.

### 3 Visiting Vehicle Classification

The hose counters classify entering and exiting traffic based on Federal Highway Administration (FHWA) vehicle classification. However, the hose detectors cannot distinguish vehicles with trailers from other large vehicles. As such, KE performed a manual count to determine the percentage of vehicles with trailers using the Thunderbird Falls parking lot.

During the manual counts on Saturday, July 30, 2022, from 2 PM to 4:15 PM and on Friday, August 5, 2022, from 7:08 PM to 7:38 PM, KE observed no vehicles pulling trailers entering or exiting the Thunderbird Falls trailhead. Therefore, it is assumed that little to no vehicles pulling trailers use the trailhead parking lot.

Table 2 describes the general types of vehicles that fall in each vehicle classification.

**Table 2: Vehicle Classification Description**

Vehicle Classification	Vehicle Description
Class 1-2	Motorcycles and passenger cars, short pick-up trucks.
Class 3	Long pick-up trucks, truck campers, box trucks, small conversion/camper vans.
Class 4-5	Buses, motorhomes, RVs, large conversion/camper vans. Possibly some box trucks, and pick-up trucks.
Class 6-13	Larger, multi-axle vehicles. Possibly longer motorhomes and RVs.

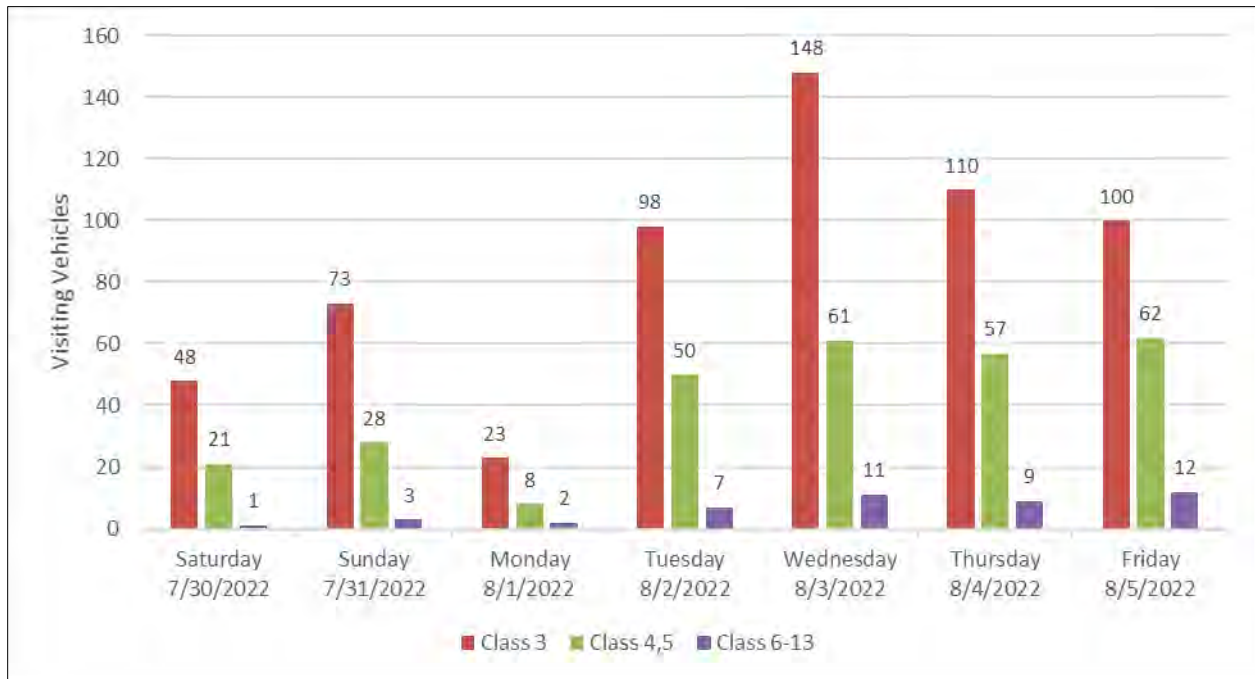
Table 3 presents the overall percentage of vehicles by classification. Class 1 and 2 make up about 60% of the total visiting vehicles.

**Table 3: Overall Vehicle Classification Distribution**

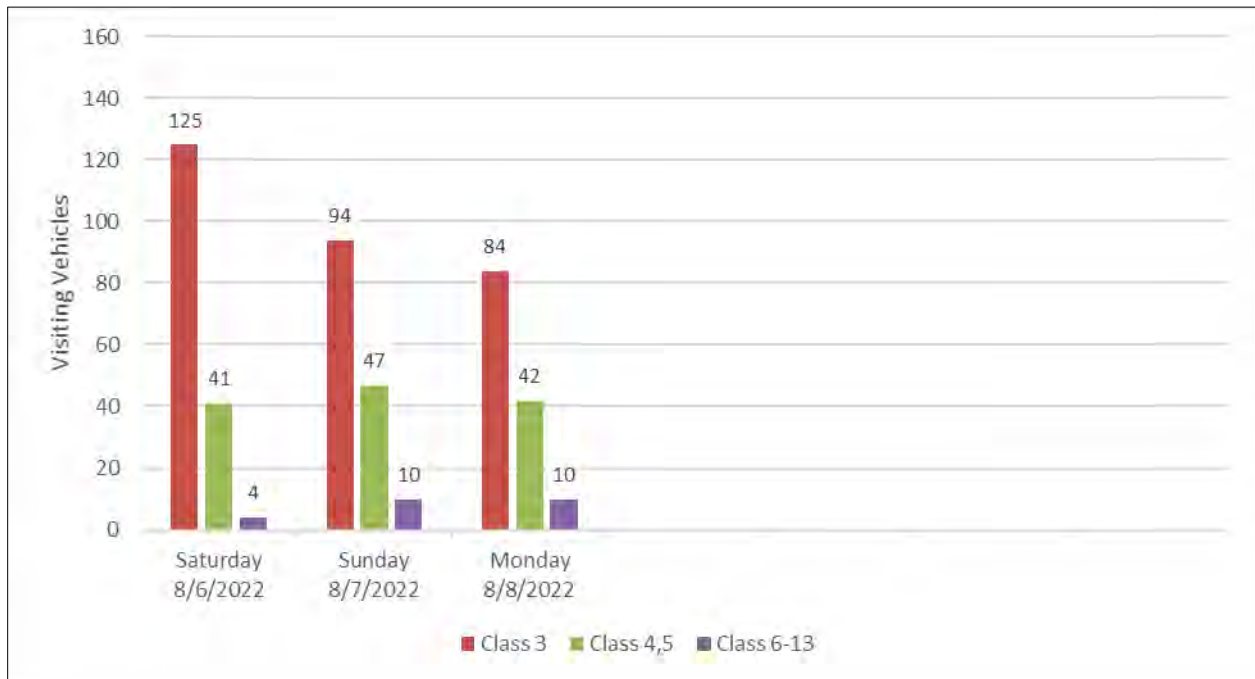
Vehicle Classification	Distribution
Class 1-2	61%
Class 3	25%
Class 4-5	12%
Class 6-13	2%

Figure 3 presents the number of visiting vehicles classified between Class 3 and 13 from July 30 through August 5, while Figure 4 presents the visiting vehicles from August 6 through August 8. To better see the distribution among the larger vehicle classifications, Class 1 and 2 were excluded from the figures.

Volume Counts for Eklutna Hydroelectric Project  
 Thunderbird Falls Trailhead  
 Counts in July/August 2022



**Figure 3: Observed Visiting Vehicles by Classification per Day (7/30/2022 to 8/5/2022)**



**Figure 4: Observed Visiting Vehicles by Classification per Day (8/6/2022 to 8/8/2022)**

## **4 Data**

Volume Counts for Eklutna Hydroelectric Project  
 Thunderbird Falls Trailhead  
 Counts in July/August 2022

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**Table 4: Entering Vehicles**

	Friday, July 29, 2022	Saturday, July 30, 2022	Sunday, July 31, 2022	Monday, August 1, 2022	Tuesday, August 2, 2022	Wednesday, August 3, 2022	Thursday, August 4, 2022	Friday, August 5, 2022	Saturday, August 6, 2022	Sunday, August 7, 2022	Monday, August 8, 2022	Tuesday, August 9, 2022
12:00 AM		0	0	0	1	3	4	1	7	1	3	0
1:00 AM		0	1	2	1	1	1	1	3	1	0	1
2:00 AM		0	0	0	1	2	1	0	1	2	1	0
3:00 AM		0	1	0	1	2	2	3	2	1	4	2
4:00 AM		0	1	1	5	3	5	5	3	3	2	4
5:00 AM		0	0	0	11	18	12	11	4	1	11	9
6:00 AM		0	2	2	18	35	13	15	8	4	13	21
7:00 AM		1	1	1	25	24	23	21	12	10	15	23
8:00 AM		4	1	6	24	25	22	18	13	24	24	22
9:00 AM		7	13	5	25	31	30	23	24	28	29	20
10:00 AM		12	14	10	34	46	33	21	31	29	28	19
11:00 AM		18	11	13	27	37	37	19	36	42	23	30

Volume Counts for Eklutna Hydroelectric Project  
Thunderbird Falls Trailhead  
Counts in July/August 2022

	Friday, July 29, 2022	Saturday, July 30, 2022	Sunday, July 31, 2022	Monday, August 1, 2022	Tuesday, August 2, 2022	Wednesday, August 3, 2022	Thursday, August 4, 2022	Friday, August 5, 2022	Saturday, August 6, 2022	Sunday, August 7, 2022	Monday, August 8, 2022	Tuesday, August 9, 2022
12:00 PM		17	27	9	40	36	31	39	40	40	27	23
1:00 PM		25	28	11	25	43	33	28	42	39	33	
2:00 PM		15	29	11	31	37	39	33	42	50	28	
3:00 PM		11	29	8	23	36	27	36	30	34	26	
4:00 PM	3	21	15	12	23	32	33	34	35	31	28	
5:00 PM	14	13	18	4	23	27	40	34	38	15	20	
6:00 PM	26	13	17	1	23	38	25	27	25	20	21	
7:00 PM	16	15	11	2	13	22	19	17	18	11	16	
8:00 PM	15	3	11	4	11	19	16	24	15	9	10	
9:00 PM	13	2	7	0	6	14	9	13	13	5	10	
10:00 PM	5	2	4	1	4	4	4	9	4	7	2	
11:00 PM	1	0	4	0	6	5	1	5	4	1	2	



Volume Counts for Eklutna Hydroelectric Project  
Thunderbird Falls Trailhead  
Counts in July/August 2022

**Table 5: Exiting Vehicles**

	Friday, July 29, 2022	Saturday, July 30, 2022	Sunday, July 31, 2022	Monday, August 1, 2022	Tuesday, August 2, 2022	Wednesday, August 3, 2022	Thursday, August 4, 2022	Friday, August 5, 2022	Saturday, August 6, 2022	Sunday, August 7, 2022	Monday, August 8, 2022	Tuesday, August 9, 2022
12:00 AM		0	0	0	0	2	3	0	8	1	2	0
1:00 AM		0	0	1	1	1	1	1	3	1	0	1
2:00 AM		0	0	0	1	2	1	0	1	0	0	0
3:00 AM		0	0	0	1	2	2	3	2	1	5	2
4:00 AM		0	0	1	5	3	5	5	2	3	2	4
5:00 AM		0	0	0	11	16	10	11	4	1	11	9
6:00 AM		0	3	3	18	15	15	14	8	4	13	20
7:00 AM		0	0	1	21	44	22	20	11	8	16	22
8:00 AM		3	1	1	21	23	20	19	15	20	22	20
9:00 AM		1	6	4	21	28	25	21	16	18	24	22
10:00 AM		16	10	5	24	31	25	20	19	29	27	11
11:00 AM		8	14	9	25	29	31	23	43	36	26	28

Volume Counts for Eklutna Hydroelectric Project  
 Thunderbird Falls Trailhead  
 Counts in July/August 2022

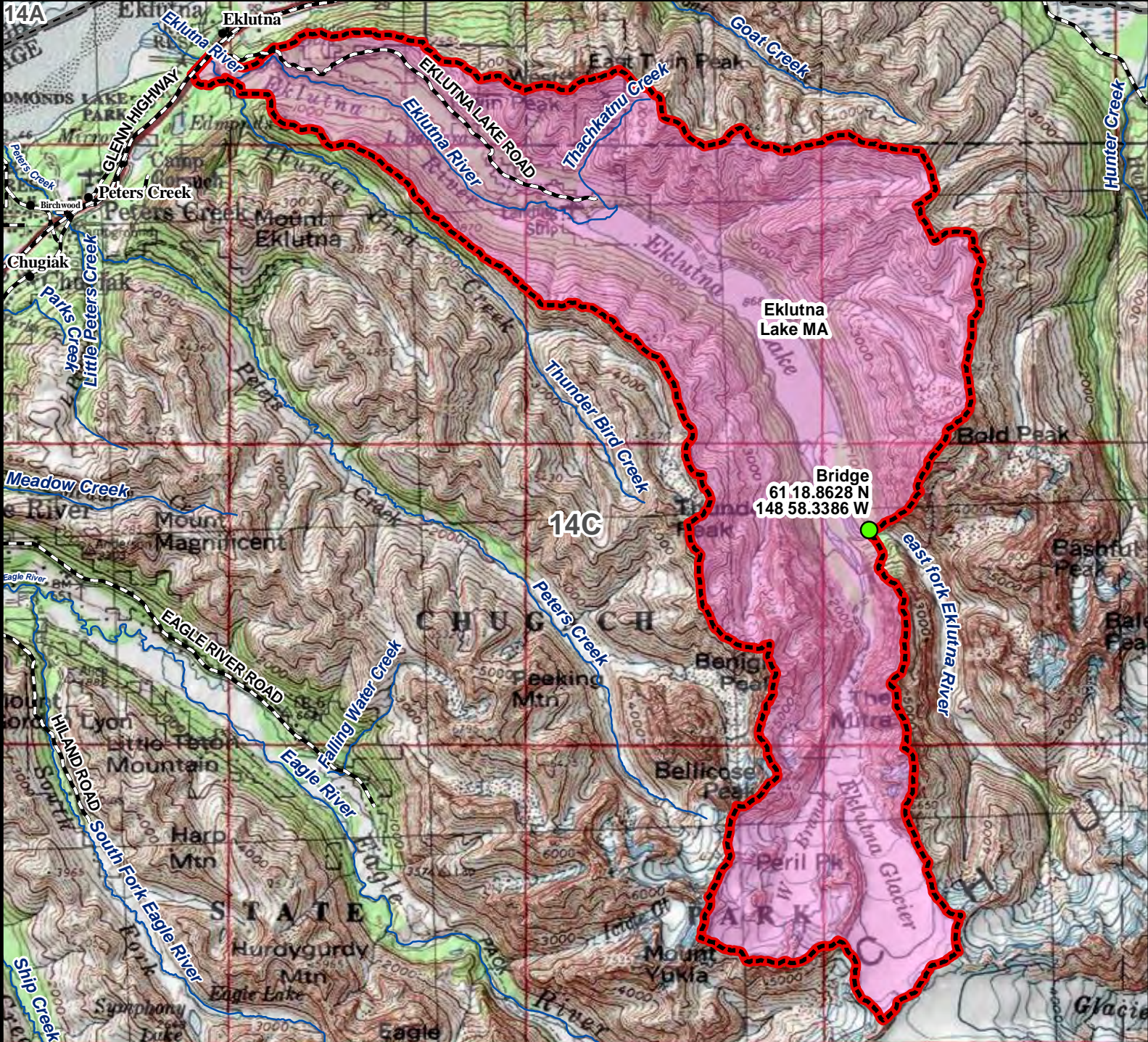
	Friday, July 29, 2022	Saturday, July 30, 2022	Sunday, July 31, 2022	Monday, August 1, 2022	Tuesday, August 2, 2022	Wednesday, August 3, 2022	Thursday, August 4, 2022	Friday, August 5, 2022	Saturday, August 6, 2022	Sunday, August 7, 2022	Monday, August 8, 2022	Tuesday, August 9, 2022
12:00 PM		18	25	16	43	43	34	34	34	39	25	27
1:00 PM		26	23	9	28	41	35	28	41	37	32	
2:00 PM		12	29	12	24	40	35	34	41	47	22	
3:00 PM		15	30	12	32	36	37	27	36	41	32	
4:00 PM	6	26	24	10	24	28	35	42	41	35	29	
5:00 PM	17	13	23	6	20	39	38	37	42	27	21	
6:00 PM	28	16	17	3	29	32	34	22	26	20	20	
7:00 PM	24	15	16	1	15	34	23	27	23	13	19	
8:00 PM	13	7	8	6	12	21	16	23	15	12	8	
9:00 PM	20	6	14	1	8	16	11	12	15	6	11	
10:00 PM	6	3	5	1	5	7	4	10	6	7	3	
11:00 PM	2	0	2	1	8	9	2	6	5	2	2	

## **Appendix 3: ADF&G Game Management Units in Eklutna Project Area**

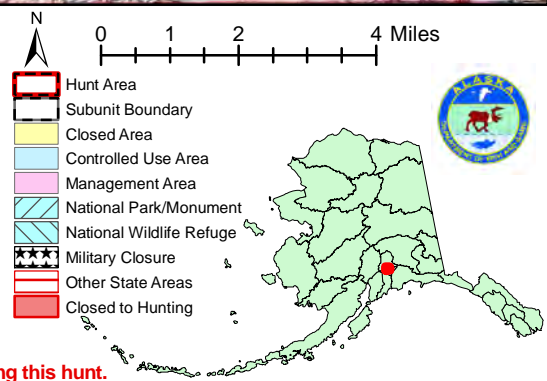
# Unit 14C, Eklutna Lake Management Area Black Bear - General Hunt

**Residents and Nonresidents - Harvest Ticket Required**

This map is intended for hunt planning use, not for determining legal property or regulatory boundaries. Content is compiled from various sources and is subject to change without notice. See current hunting regulations for written descriptions of boundaries. Hunters are responsible for knowing the land ownership and regulations of the areas they intend to hunt.



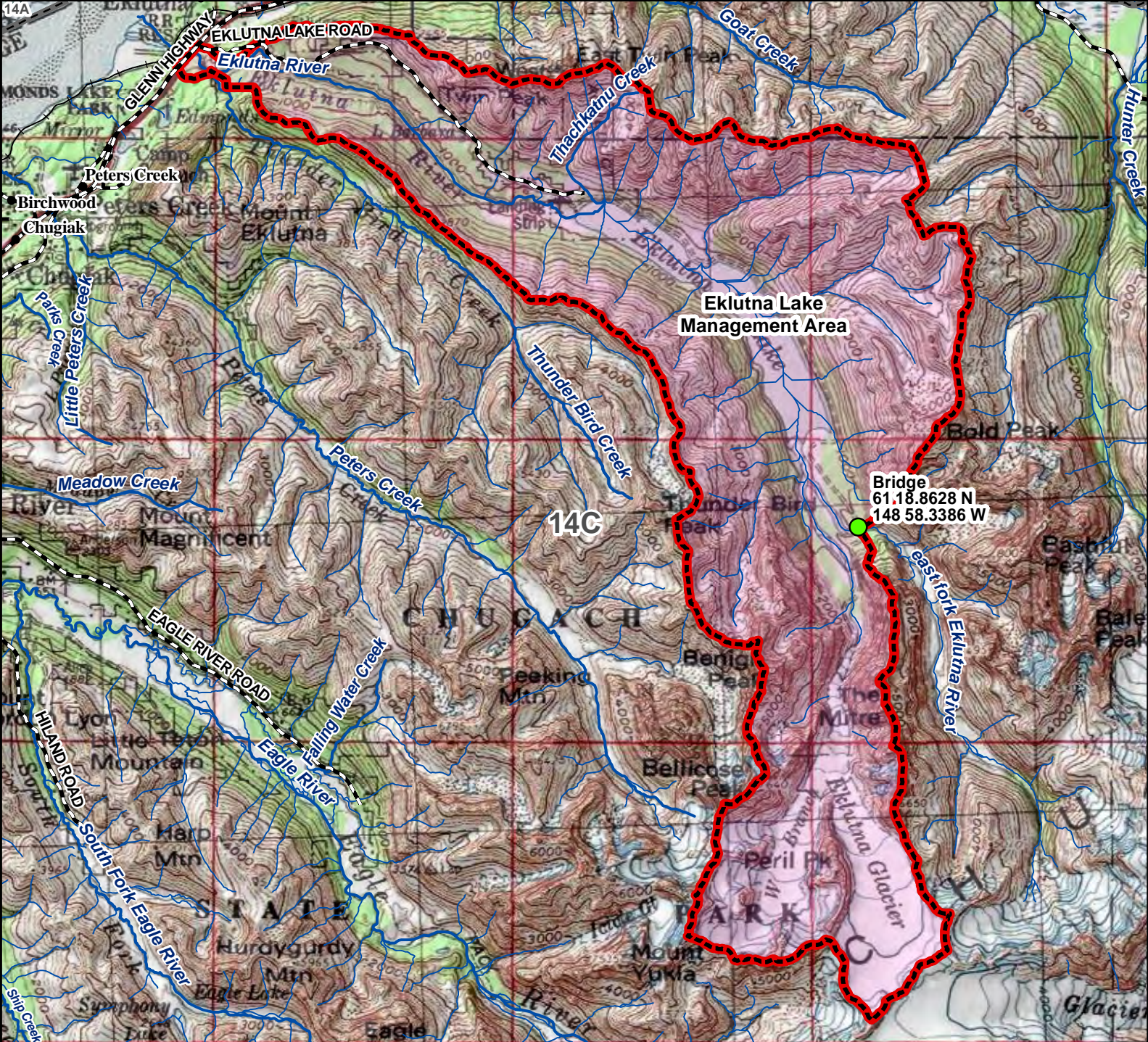
**AREA DESCRIPTION:** Unit 14C, Eklutna Lake Management Area.



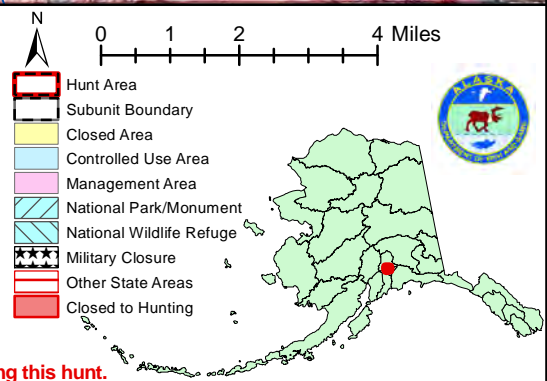
Please refer to the Alaska Hunting Regulations booklet for bag type, seasons, and additional regulations concerning this hunt.

# RM445 Moose Registration Permit Hunt

This map is intended for hunt planning use, not for determining legal property or regulatory boundaries. Content is compiled from various sources and is subject to change without notice. See current hunting regulations for written descriptions of boundaries. Hunters are responsible for knowing the land ownership and regulations of the areas they intend to hunt.



**AREA DESCRIPTION:** Unit 14C, Eklutna Lake Management Area, the drainages of Eklutna River and Eklutna Lake upstream from the Old Glenn Highway, excluding those drainages flowing into the east fork of the Eklutna River upstream from the bridge (61 18.8628 N, 148 58.3386 W) above the lake.



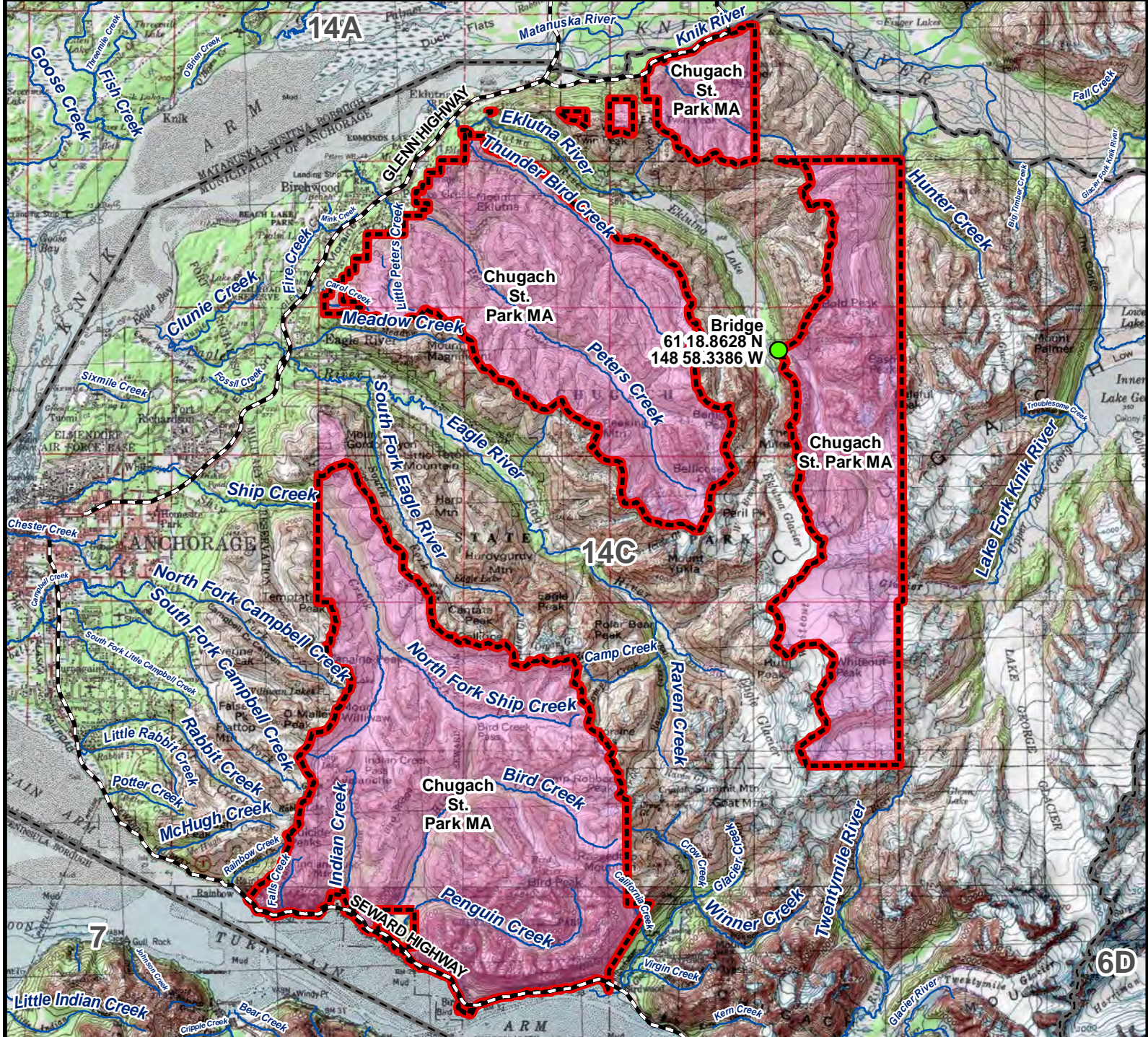
Please refer to the Alaska Hunting Regulations booklet for bag type, seasons, and additional regulations concerning this hunt.

# Unit 14C, Chugach State Park Management Area

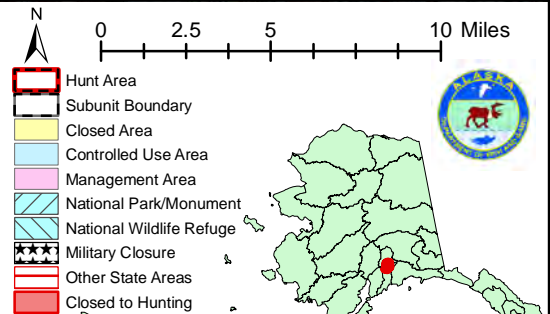
## Black Bear - General Hunt

**Residents and Nonresidents - Harvest Ticket Required**

This map is intended for hunt planning use, not for determining legal property or regulatory boundaries. Content is compiled from various sources and is subject to change without notice. See current hunting regulations for written descriptions of boundaries. Hunters are responsible for knowing the land ownership and regulations of the areas they intend to hunt.



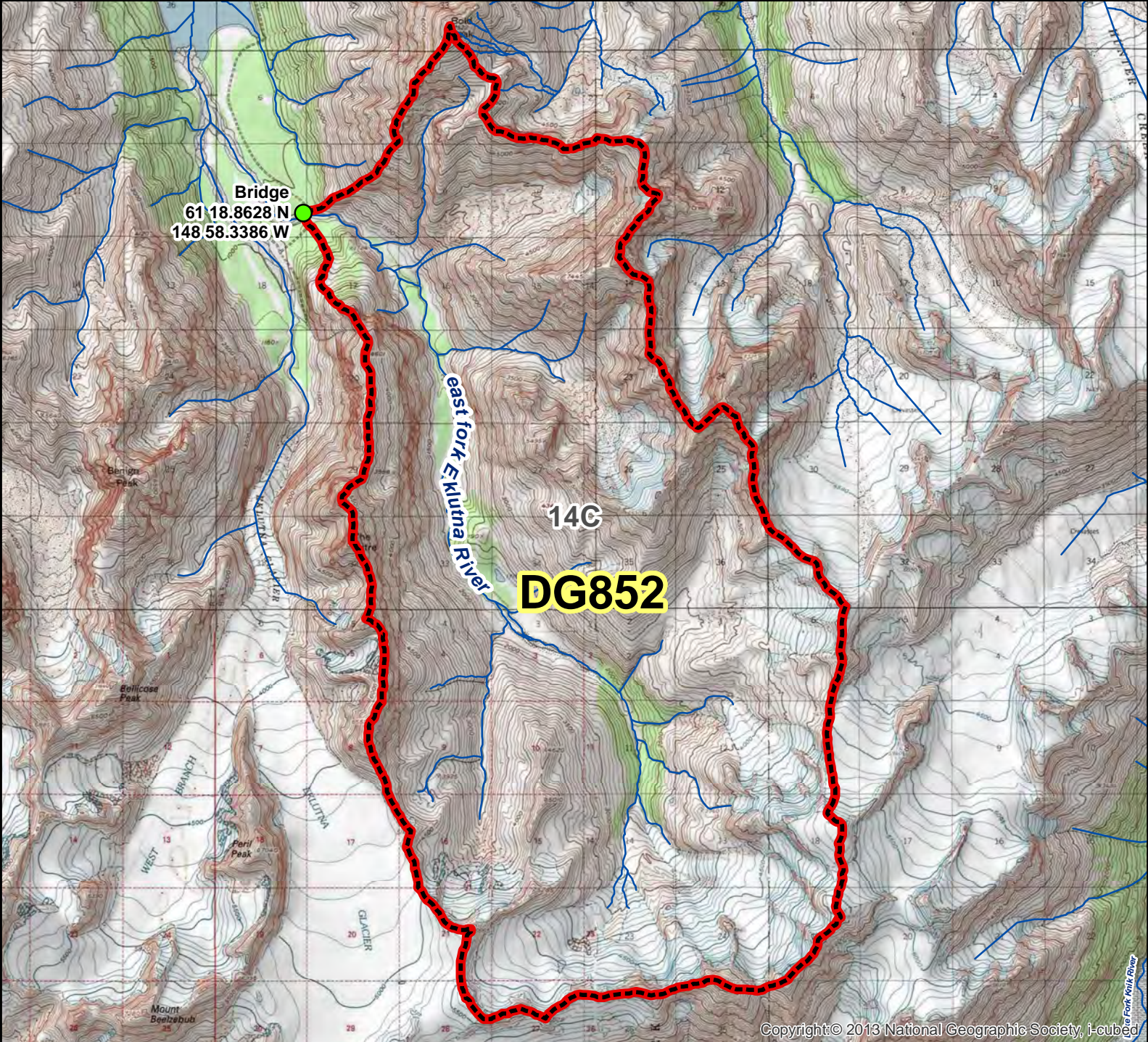
**AREA DESCRIPTION:** Unit 14C, Chugach State Park Management Area.



Please refer to the Alaska Hunting Regulations booklet for bag type, seasons, and additional regulations concerning this hunt.

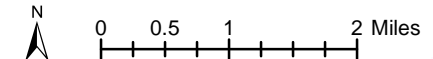
# DG852 Mountain Goat Drawing Permit Hunt

This map is intended for hunt planning use, not for determining legal property or regulatory boundaries. Content is compiled from various sources and is subject to change without notice. See current hunting regulations for written descriptions of boundaries. Hunters are responsible for knowing the land ownership and regulations of the areas they intend to hunt.



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**AREA DESCRIPTION:** Unit 14C, East Eklutna, within the drainage of the east fork of the Eklutna River.



- Hunt Area
- Subunit Boundary
- Closed Area
- Controlled Use Area
- Management Area
- National Park/Monument
- National Wildlife Refuge
- Military Closure
- Other State Areas
- Closed to Hunting

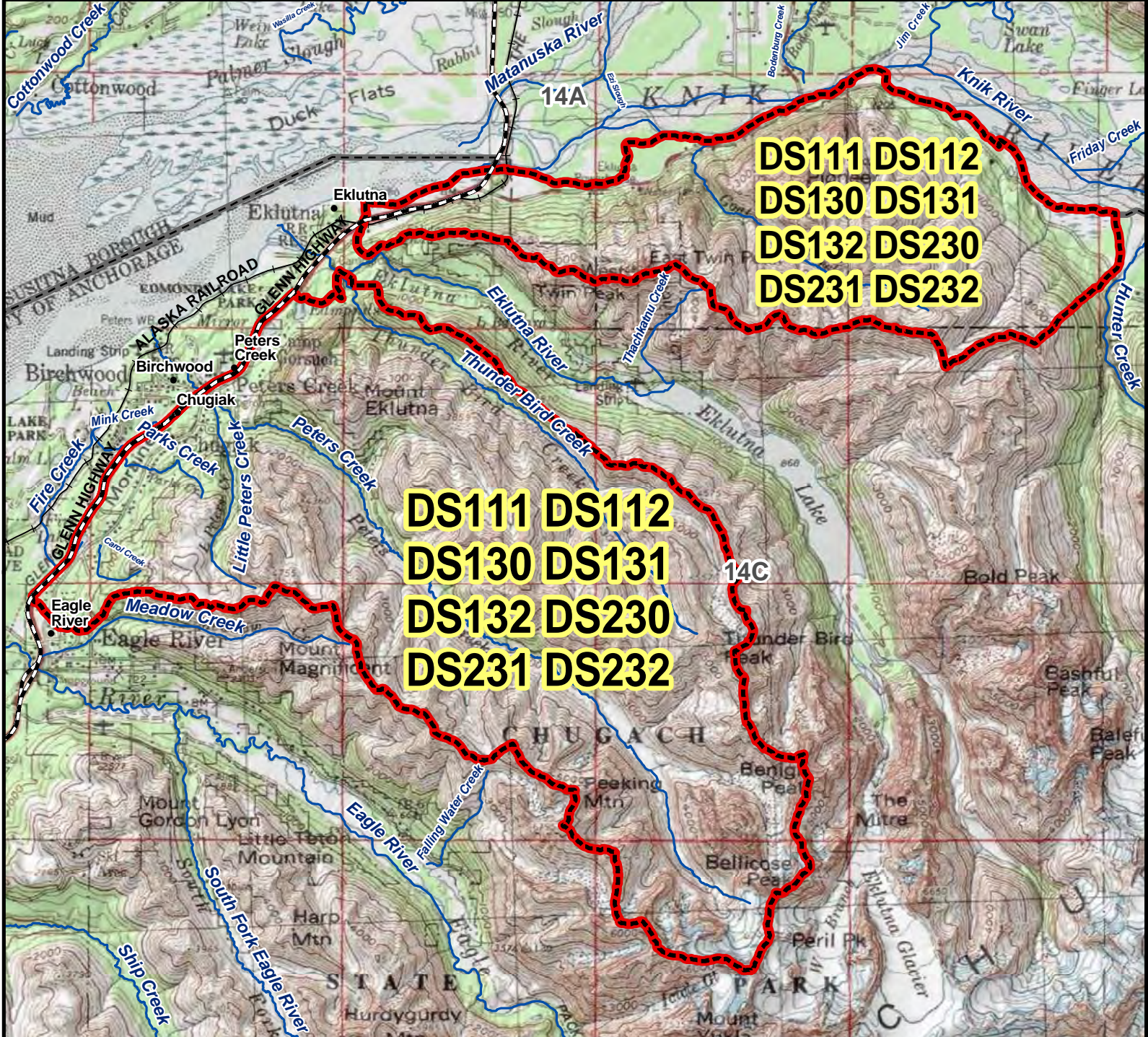


Please refer to the Alaska Hunting Regulations booklet for bag type, seasons, and additional regulations concerning this hunt.

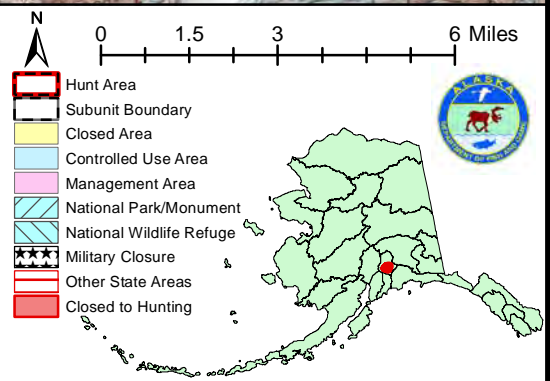
# DS111 DS112 DS130 DS131 DS132 DS230 DS231 DS232

## Sheep

### Drawing Permit Hunt



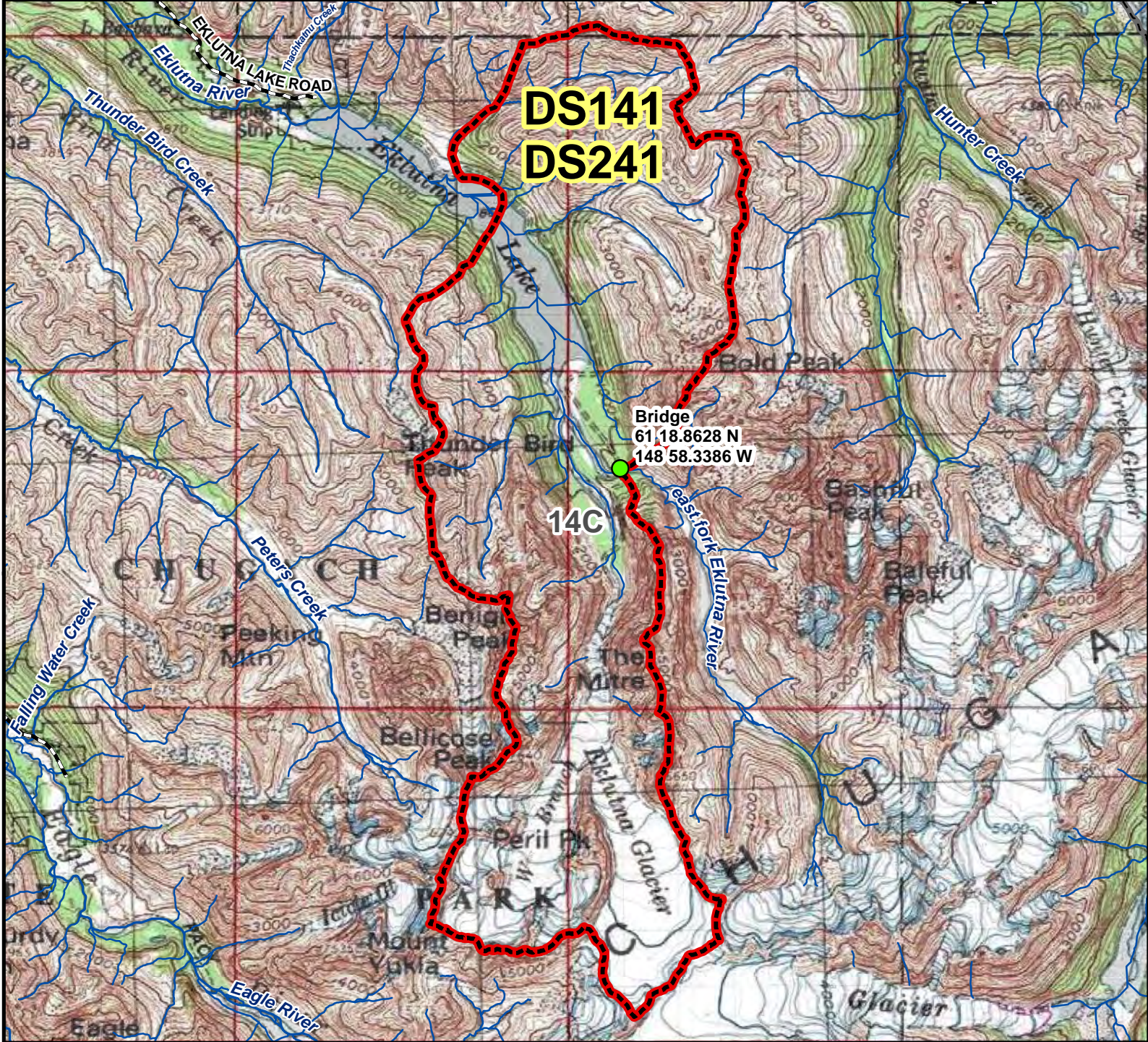
**AREA DESCRIPTION:** Unit 14C, that portion within the drainages of Peters Creek, Thunderbird Creek, Goat Creek and Knik River downstream from the Hunter Creek drainage.



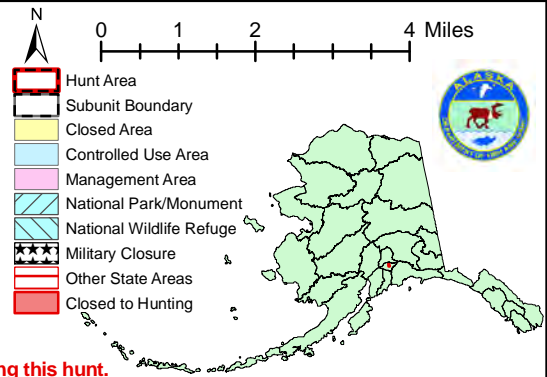


# DS141 DS241 Sheep Drawing Permit Hunt

This map is intended for hunt planning use, not for determining legal property or regulatory boundaries. Content is compiled from various sources and is subject to change without notice. See current hunting regulations for written descriptions of boundaries. Hunters are responsible for knowing the land ownership and regulations of the areas they intend to hunt.



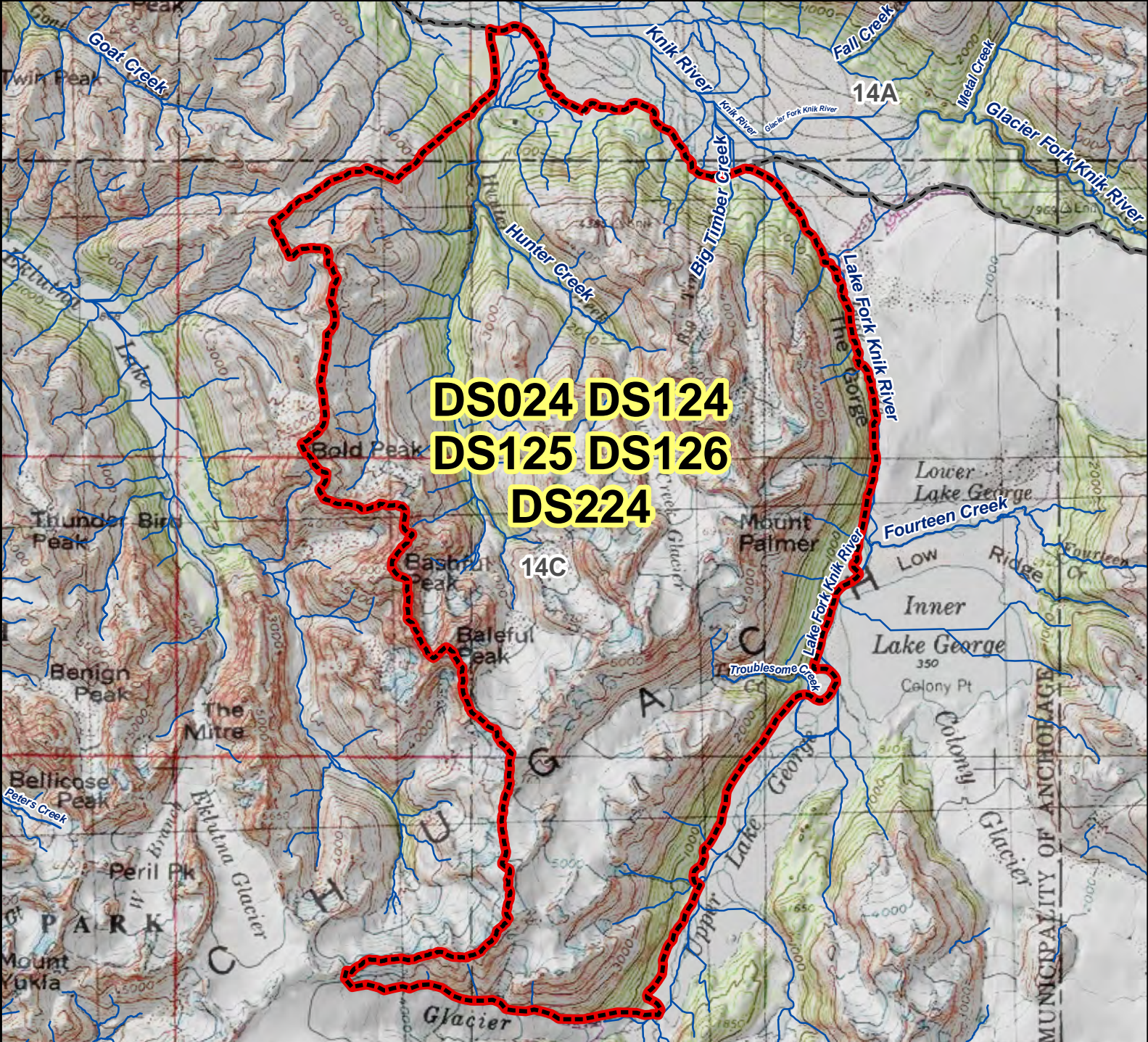
**AREA DESCRIPTION:** Unit 14C, that portion within the Eklutna River drainage upstream of the Eklutna River Closed Area excluding the east fork of the Eklutna River. Certified Bowhunters Only.



Please refer to the Alaska Hunting Regulations booklet for bag type, seasons, and additional regulations concerning this hunt.

# DS024 DS124 DS125 DS126 DS224 Sheep Drawing Permit Hunt

This map is intended for hunt planning use, not for determining legal property or regulatory boundaries. Content is compiled from various sources and is subject to change without notice. See current hunting regulations for written descriptions of boundaries. Hunters are responsible for knowing the land ownership and regulations of the areas they intend to hunt.



**AREA DESCRIPTION:** Unit 14C, Hunter Creek and Big Timber Creek drainages, and the west side Lake George drainages.

N  
0 1 2 3 4 5 Miles

- Hunt Area
- Subunit Boundary
- Closed Area
- Controlled Use Area
- Management Area
- National Park/Monument
- National Wildlife Refuge
- Military Closure
- Other State Areas
- Closed to Hunting

Please refer to the Alaska Hunting Regulations booklet for bag type, seasons, and additional regulations concerning this hunt.

## **Appendix 4: Online Survey & Results**

## Eklutna Area Recreation Survey

A Recreation Study is being conducted to quantify the current level of recreational use in the Eklutna Area (which includes Eklutna Lake, Thunderbird Falls, the Eklutna Valley, and the Eklutna Tailrace). Your participation in this survey will help inform the development of a Fish & Wildlife Program for the [Eklutna Hydroelectric Project](#).

Please complete this 5-minute, anonymous survey to let us know about the recreational activities you did on your *most recent trip* to the Eklutna Area!

### When did you most recently visit the Eklutna area?\*

Please select a date and time that indicates when you approximately started your visit in the area.

### Where did you primarily recreate on your most recent visit?\*

Select one location

 Eklutna Lake Area Thunderbird Falls Trail Eklutna Tailrace Day-Use Fishing Site Don't Know or Unsure Other

Have you visited this location before?\*

Yes No

### During which seasons have you recreated at this location in the past?

Select all that apply

 Spring (April-May) Summer (June-August) Fall (September-October) Winter (November-March)

### Approximately how often do you recreate at this location?

 Every few years Once a year A few times per year Monthly A few times per month

Weekly A few times per week Daily, or almost daily

### Which activities have you done at this location in the past?

Select all that apply

 Hiking / Walking /  
Running Biking Scenic Viewing /  
Leisure Horseback Riding ATV / Off-  
Highway Vehicle  
Use Boating or  
Kayaking Fishing Hunting Climbing &  
Mountaineering Camping Cross-Country  
Skiing Alpine /  
Backcountry  
Skiing Skijoring Snowmachining /  
Snowmobiling Ice Climbing Ice Skating Other

**Select your primary recreational activity during your most recent visit.\***

Choose one activity

 Hiking, / Walking  
/ Running Biking Scenic Viewing /  
Leisure Boating or  
Kayaking ATV / Off-  
Highway Vehicle  
Use Horseback Riding Fishing Hunting Climbing &  
Mountaineering Camping Cross-Country  
Skiing Alpine /  
Backcountry  
Skiing Skijoring Snowmachining /  
Snowmobiling Ice Climbing Ice Skating Other**Which trail(s) did you use?**

Select all that apply.

 Eklutna Lakeside Trail Twin Peaks Trail

Bold Ridge Trail East Fork Trail Unsure Other

### If you did more than one activity that visit, what else did you do?

Select all activities that apply. If you only did your primary activity selected in the question above, please skip this question

 Hiking / Walking / Running Biking Scenic Viewing / Leisure Boating or Kayaking ATV / Off-Highway Vehicle Use Horseback Riding Fishing Hunting Climbing & Mountaineering Camping Cross-Country Skiing Alpine / Backcountry Skiing Skijoring Snowmachining / Snowmobiling Ice Climbing



Ice Skating

 Taryn

Other

### Which trail(s) did you use?

Select all that apply.

Eklutna Lakeside Trail

Twin Peaks Trail

Bold Ridge Trail

East Fork

Unsure

Other

Did you rent any recreational equipment while you were here (ex. kayakes, bikes, other)?\*

Yes

No

What did you rent?

Where or who did you rent the equipment from?

How many people were in your group on this trip?\*

Just me ▼

How did you get to this location on your most recent visit?\*

- Drove a Personal or Rental Vehicle
- As part of a Tour Group
- Bike or other non-motorized mode of transportation
- Aircraft via Bold Airstrip
- Other

If you drove, did you carpool with others in your group?

Yes  No

Do you plan to return to this location to recreate again within the calendar year?\*

Yes

 Taryn

No

### If so, when do you plan to return?

Select all that apply

Spring (April-May)

Summer (June-August)

Fall (September-October)

Winter (November-March)

### Do you plan to repeat the same activities as you did this trip or will you participate in a different type of recreation?

Same activities

Different activities

Combination of same and different activities

### Did you recreate at any other location(s) in the Eklutna area during this trip?

Select all locations you visited

Eklutna Lake Area

Thunderbird Falls Trail Eklutna Tailrace Day-Use Fishing Area Don't Know or Unsure Other

**Is there anything unique about your recreational activity or trip you want to share?**

Ex. If you fat biked on the Eklutna Lakeside Trail and camped at the Kanchee campground overnight and went mountaineering the next morning, please tell us!

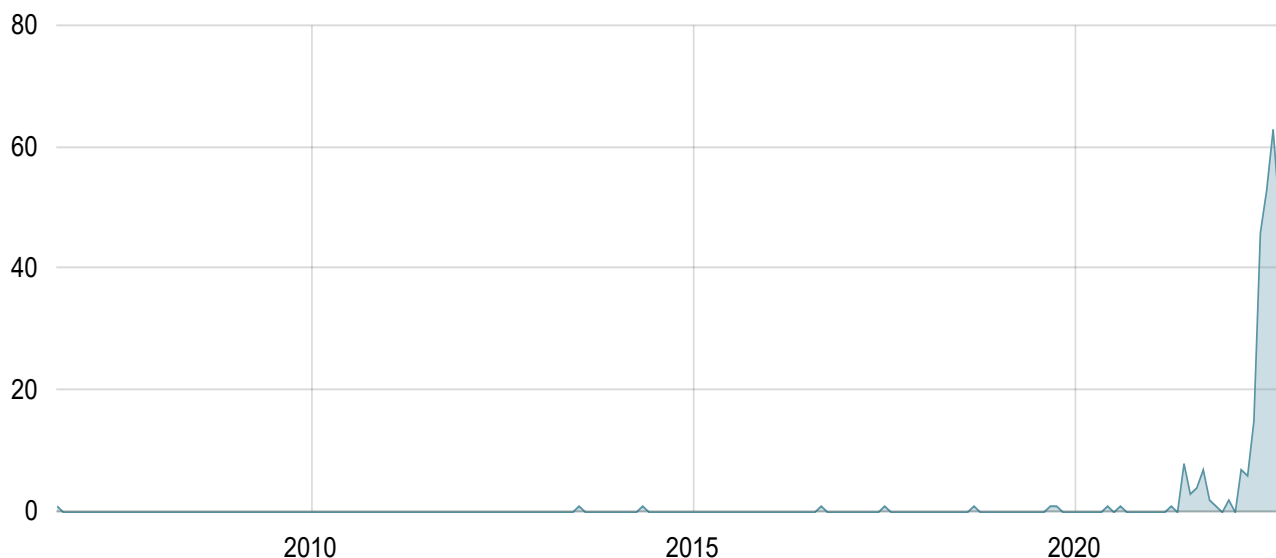
  
1000

Submit

# Eklutna Recreational Survey123 - Visitor Results Summary

*\*reporting errors in automatically generated Survey123 summary were corrected in raw data and accounted for in analysis.*

## When did you most recently visit the Eklutna area? \*



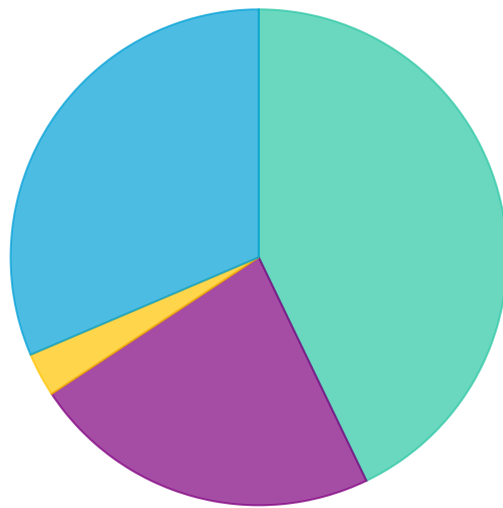
Date and time	Count
Sep 1, 2006, 12:00:00 AM - Oct 1, 2006, 12:00:00 AM	1
Jul 1, 2013, 12:00:00 AM - Aug 1, 2013, 12:00:00 AM	1
May 1, 2014, 12:00:00 AM - Jun 1, 2014, 12:00:00 AM	1
Sep 1, 2016, 12:00:00 AM - Oct 1, 2016, 12:00:00 AM	1
Jul 1, 2017, 12:00:00 AM - Aug 1, 2017, 12:00:00 AM	1
Sep 1, 2018, 12:00:00 AM - Oct 1, 2018, 12:00:00 AM	1
Sep 1, 2019, 12:00:00 AM - Oct 1, 2019, 12:00:00 AM	1
Oct 1, 2019, 12:00:00 AM - Nov 1, 2019, 12:00:00 AM	1
Jun 1, 2020, 12:00:00 AM - Jul 1, 2020, 12:00:00 AM	1
Aug 1, 2020, 12:00:00 AM - Sep 1, 2020, 12:00:00 AM	1

Apr 1, 2021, 12:00:00 AM - May 1, 2021, 12:00:00 AM	1
Jun 1, 2021, 12:00:00 AM - Jul 1, 2021, 12:00:00 AM	8
Jul 1, 2021, 12:00:00 AM - Aug 1, 2021, 12:00:00 AM	3
Aug 1, 2021, 12:00:00 AM - Sep 1, 2021, 12:00:00 AM	4
Sep 1, 2021, 12:00:00 AM - Oct 1, 2021, 12:00:00 AM	7
Oct 1, 2021, 12:00:00 AM - Nov 1, 2021, 12:00:00 AM	2
Nov 1, 2021, 12:00:00 AM - Dec 1, 2021, 12:00:00 AM	1
Jan 1, 2022, 12:00:00 AM - Feb 1, 2022, 12:00:00 AM	2
Mar 1, 2022, 12:00:00 AM - Apr 1, 2022, 12:00:00 AM	7
Apr 1, 2022, 12:00:00 AM - May 1, 2022, 12:00:00 AM	6
May 1, 2022, 12:00:00 AM - Jun 1, 2022, 12:00:00 AM	15
Jun 1, 2022, 12:00:00 AM - Jul 1, 2022, 12:00:00 AM	46
Jul 1, 2022, 12:00:00 AM - Aug 1, 2022, 12:00:00 AM	53
Aug 1, 2022, 12:00:00 AM - Sep 1, 2022, 12:00:00 AM	63
Sep 1, 2022, 12:00:00 AM - Oct 1, 2022, 12:00:00 AM	49
Oct 1, 2022, 12:00:00 AM - Oct 31, 2022, 11:59:59 PM	6

Answered: 283 Skipped: 0

### Where did you primarily recreate on your most recent visit? \*

*\*reporting error in automatically generated Survey123 summary: Eklutna Lake Area responses are not shown but were recorded in raw data.*

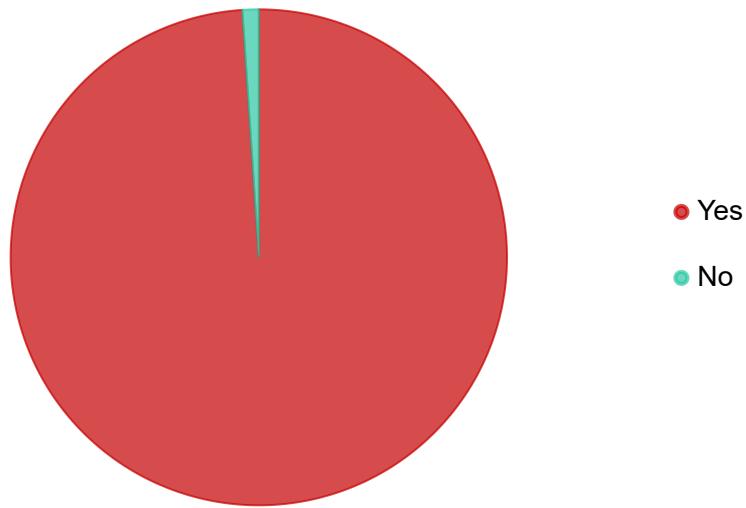


- Eklutna Lake Area
- Thunderbird Falls Trail
- Eklutna Tailrace Day-Use Fishing Site
- Don't Know or Unsure
- Other

Answers	Count	Percentage
Eklutna Lake Area	0	0%
Thunderbird Falls Trail	15	5.3%
Eklutna Tailrace Day-Use Fishing Site	8	2.83%
Don't Know or Unsure	1	0.35%
Other	11	3.89%

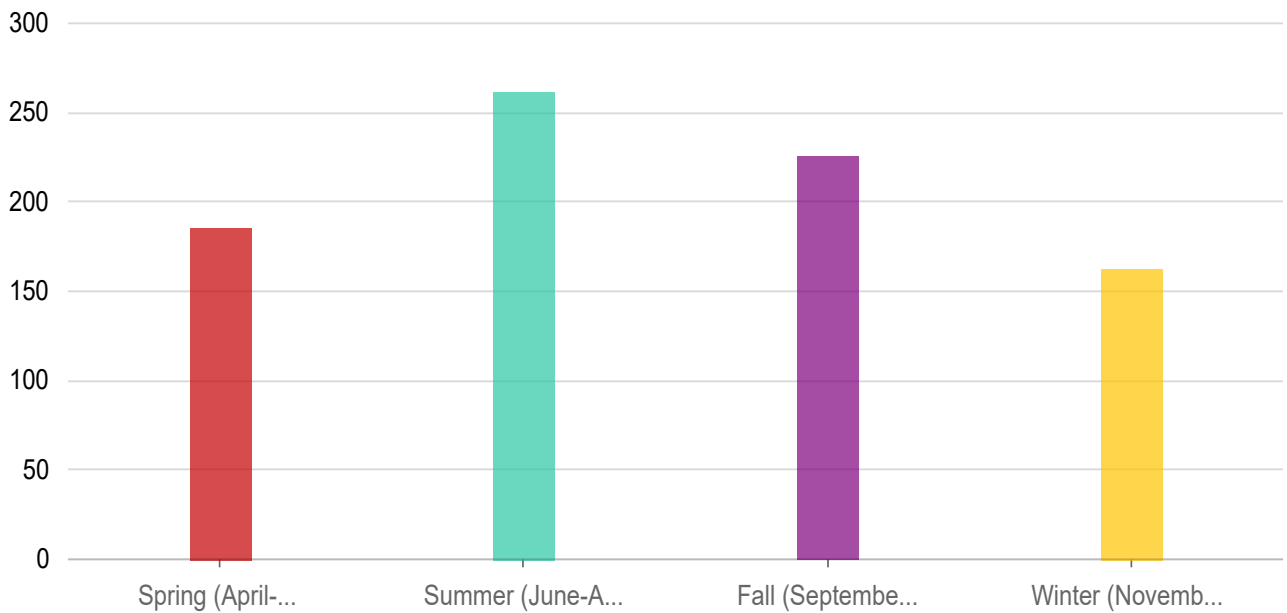
Answered: 283 Skipped: 0

Have you visited this location before? \*



Answered: 283 Skipped: 0

### During which seasons have you recreated at this location in the past?



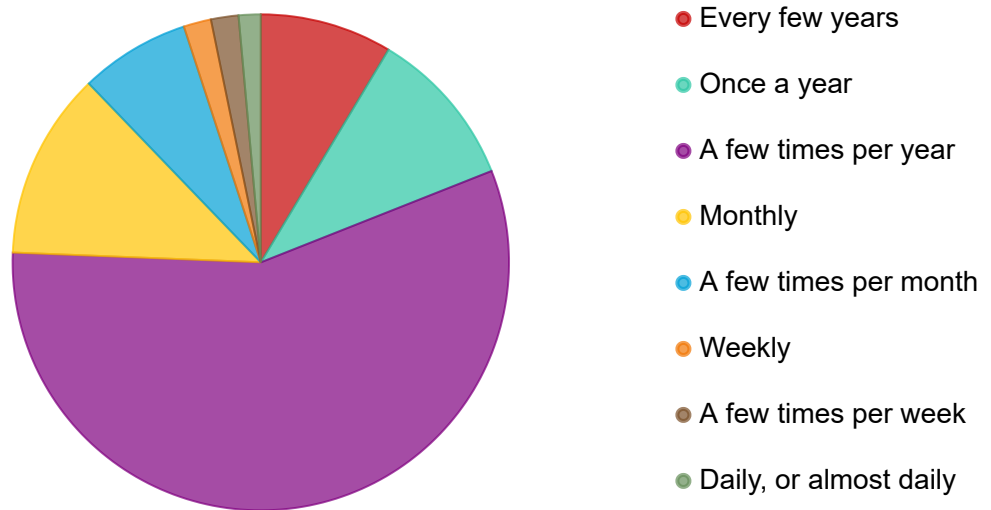
Answers Count Percentage



Spring (April-May)	186	65.72%
Summer (June-August)	262	92.58%
Fall (September-October)	226	79.86%
Winter (November-March)	163	57.6%

Answered: 279 Skipped: 4

### Approximately how often do you recreate at this location?



Answers	Count	Percentage
Every few years	24	8.48%
Once a year	29	10.25%
A few times per year	158	55.83%
Monthly	34	12.01%
A few times per month	20	7.07%
Weekly	5	1.77%
A few times per week	5	1.77%

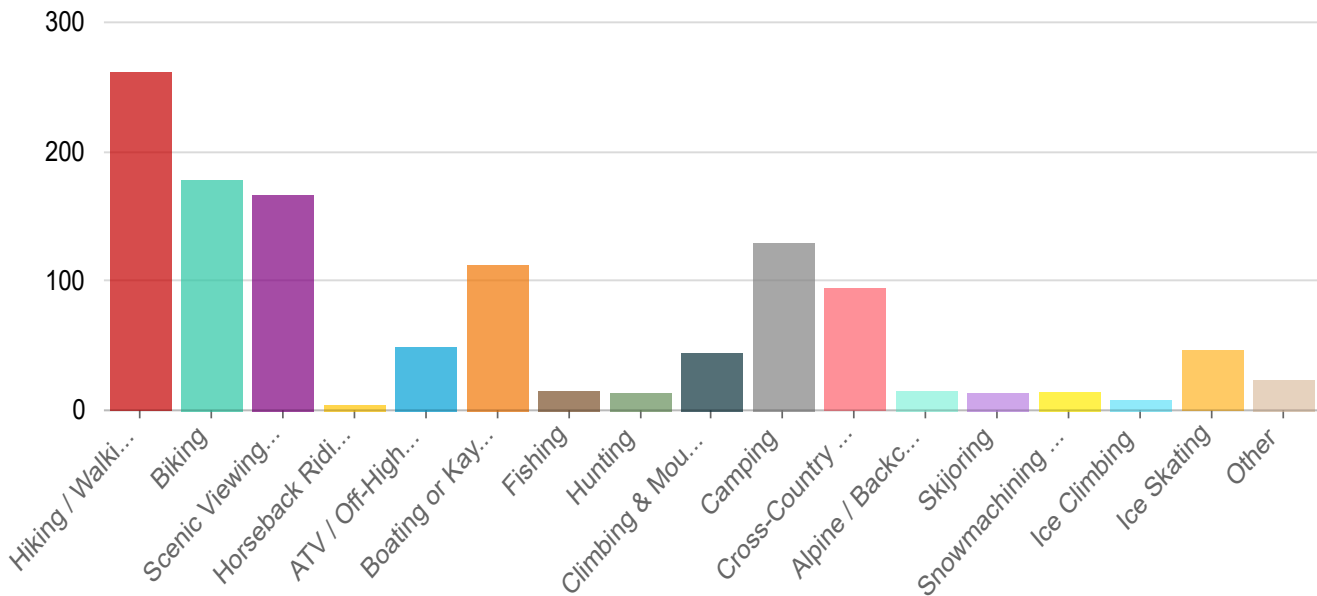
Daily, or almost daily

4

1.41%

Answered: 279 Skipped: 4

### Which activities have you done at this location in the past?

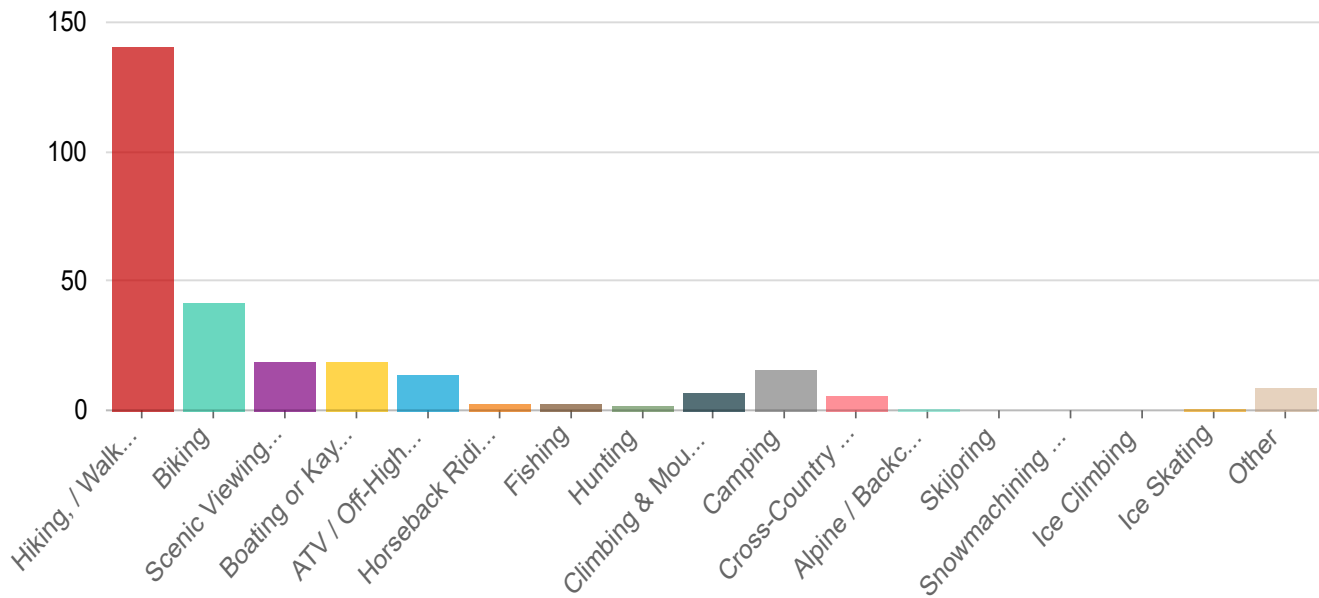


Answers	Count	Percentage
Hiking / Walking / Running	262	92.58%
Biking	179	63.25%
Scenic Viewing / Leisure	167	59.01%
Horseback Riding	5	1.77%
ATV / Off-Highway Vehicle Use	50	17.67%
Boating or Kayaking	113	39.93%
Fishing	16	5.65%
Hunting	14	4.95%
Climbing & Mountaineering	45	15.9%
Camping	130	45.94%

Cross-Country Skiing	95	33.57%
Alpine / Backcountry Skiing	16	5.65%
Skijoring	14	4.95%
Snowmachining / Snowmobiling	15	5.3%
Ice Climbing	9	3.18%
Ice Skating	47	16.61%
Other	24	8.48%

Answered: 279 Skipped: 4

Select your primary recreational activity during your most recent visit. \*

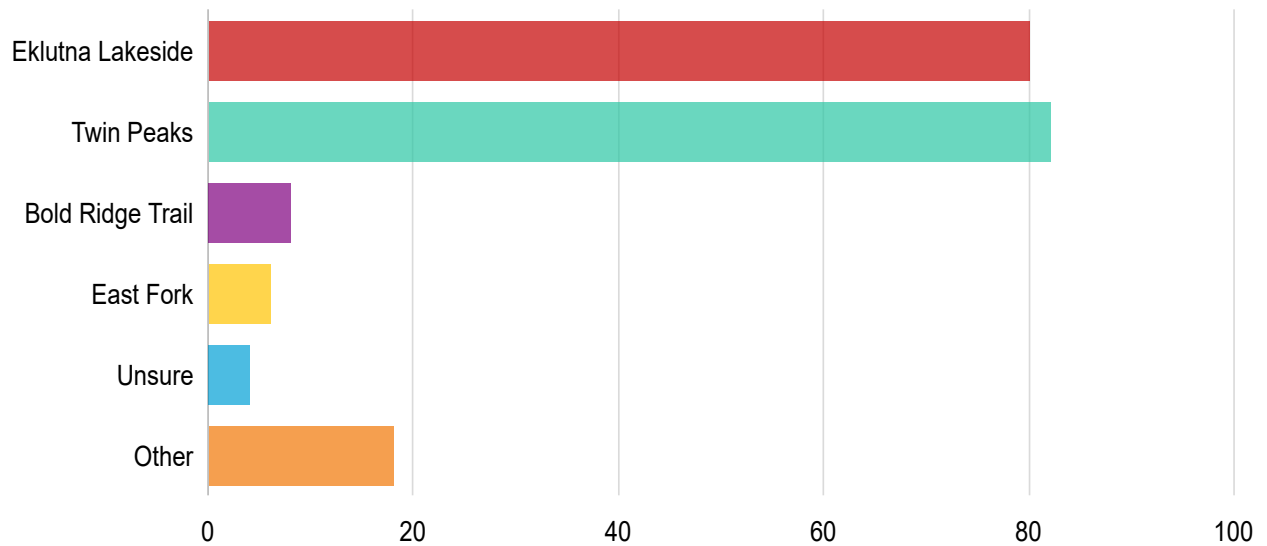


Answers	Count	Percentage
Hiking, / Walking / Running	141	49.82%
Biking	42	14.84%
Scenic Viewing / Leisure	19	6.71%
Boating or Kayaking	19	6.71%

ATV / Off-Highway Vehicle Use	14	4.95%
Horseback Riding	3	1.06%
Fishing	3	1.06%
Hunting	2	0.71%
Climbing & Mountaineering	7	2.47%
Camping	16	5.65%
Cross-Country Skiing	6	2.12%
Alpine / Backcountry Skiing	1	0.35%
Skijoring	0	0%
Snowmachining / Snowmobiling	0	0%
Ice Climbing	0	0%
Ice Skating	1	0.35%
Other	9	3.18%

Answered: 283 Skipped: 0

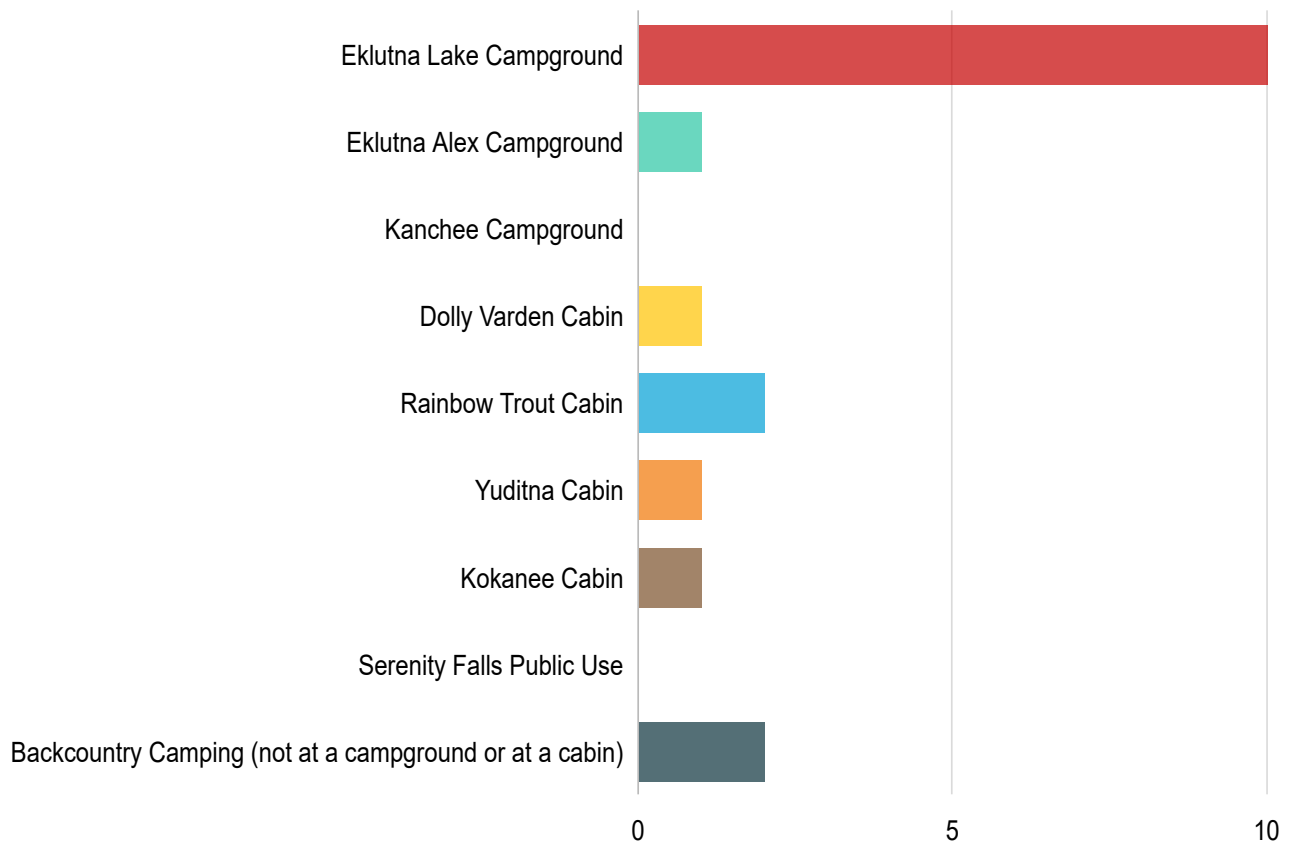
### Which trail(s) did you use?



Eklutna Lakeside Trail	80	28.27%
Twin Peaks Trail	82	28.98%
Bold Ridge Trail	8	2.83%
East Fork Trail	6	2.12%
Unsure	4	1.41%
Other	18	6.36%

Answered: 140 Skipped: 143

### Which campground or public use cabin did you stay at?

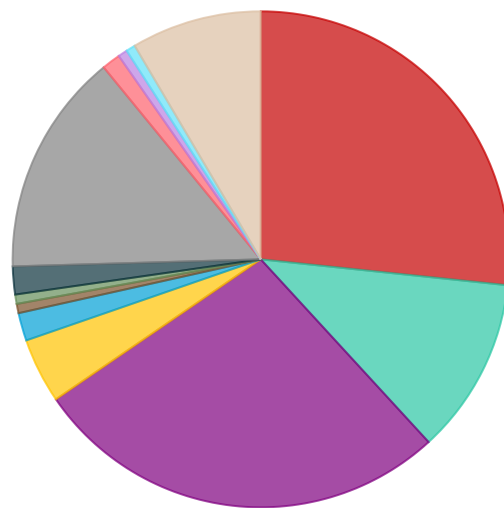


Answers	Count	Percentage
Eklutna Lake Campground	10	3.53%

Eklutna Alex Campground	1	0.35%
Kanchee Campground	0	0%
Dolly Varden Cabin	1	0.35%
Rainbow Trout Cabin	2	0.71%
Yuditna Cabin	1	0.35%
Kokanee Cabin	1	0.35%
Serenity Falls Public Use Hut	0	0%
Backcountry Camping (not at a campground or at a cabin)	2	0.71%

Answered: 15 Skipped: 268

### If you did more than one activity that visit, what else did you do?



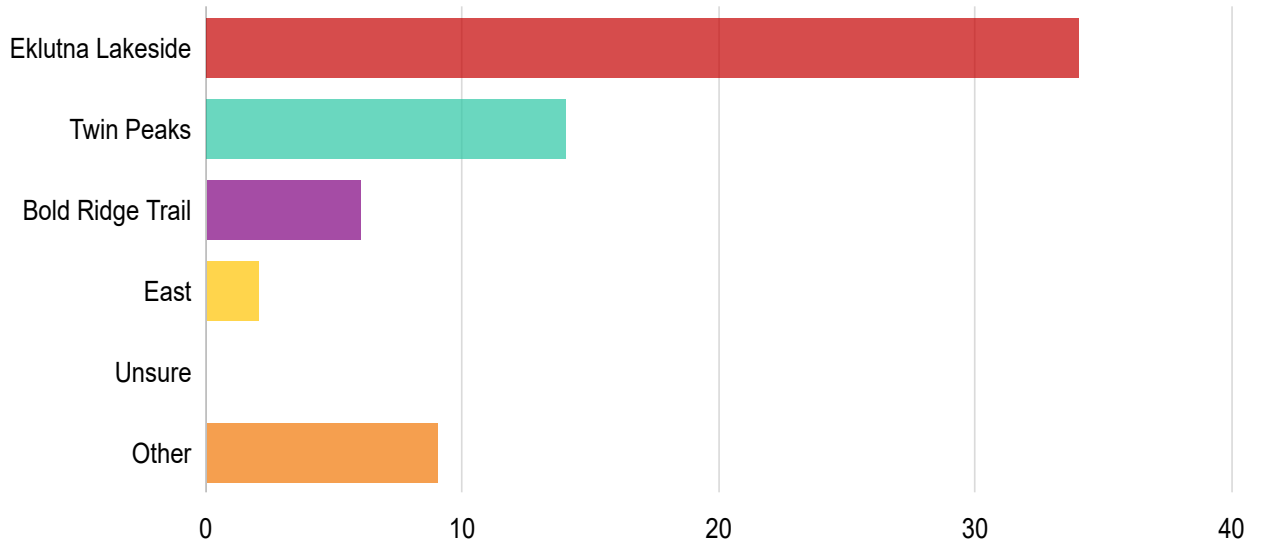
- Hiking / Walking / Running
- Biking
- Scenic Viewing / Leisure
- Boating or Kayaking
- ATV / Off-Highway Vehicle Use
- Horseback Riding
- Fishing
- Hunting
- Climbing & Mountaineering

Answers	Count	Percentage
Hiking / Walking / Running	44	15.55%
Biking	19	6.71%
Scenic Viewing / Leisure	45	15.9%

Boating or Kayaking	7	2.47%
ATV / Off-Highway Vehicle Use	3	1.06%
Horseback Riding	0	0%
Fishing	1	0.35%
Hunting	1	0.35%
Climbing & Mountaineering	3	1.06%
Camping	24	8.48%
Cross-Country Skiing	2	0.71%
Alpine / Backcountry Skiing	0	0%
Skijoring	1	0.35%
Snowmachining / Snowmobiling	0	0%
Ice Climbing	1	0.35%
Ice Skating	0	0%
Other	14	4.95%

Answered: 165 Skipped: 118

**Which trail(s) did you use?**

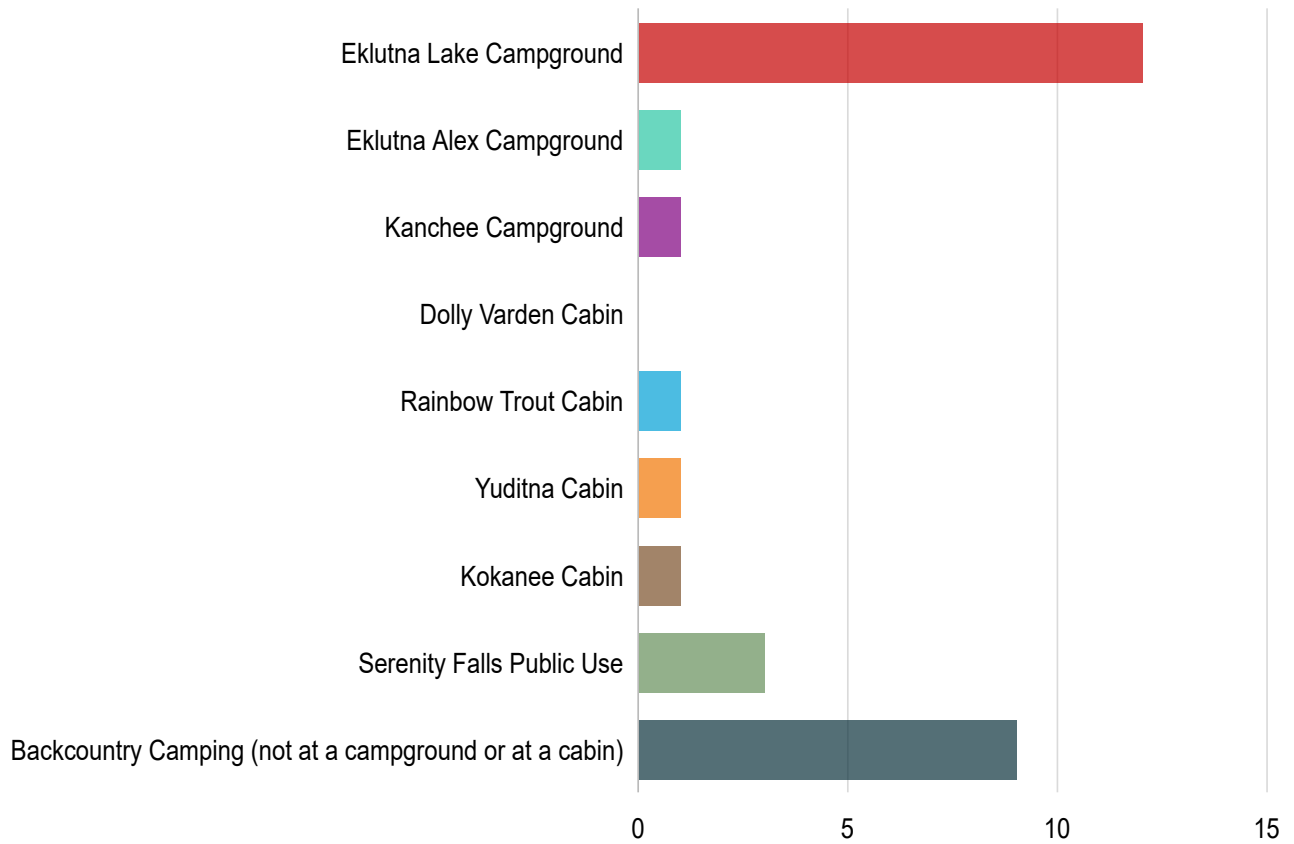


Answers	Count	Percentage
Eklutna Lakeside Trail	34	12.01%
Twin Peaks Trail	14	4.95%
Bold Ridge Trail	6	2.12%
East Fork	2	0.71%
Unsure	0	0%
Other	9	3.18%

Answered: 43 Skipped: 240

**Which campground or public use cabin did you stay at?**

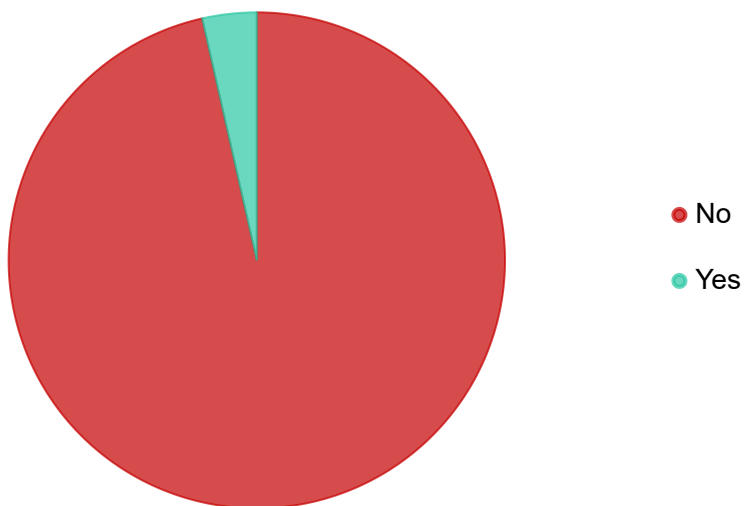




Answers	Count	Percentage
Eklutna Lake Campground	12	4.24%
Eklutna Alex Campground	1	0.35%
Kanchee Campground	1	0.35%
Dolly Varden Cabin	0	0%
Rainbow Trout Cabin	1	0.35%
Yuditna Cabin	1	0.35%
Kokanee Cabin	1	0.35%
Serenity Falls Public Use Hut	3	1.06%
Backcountry Camping (not at a campground or at a cabin)	9	3.18%

Answered: 24 Skipped: 259

## Did you rent any recreational equipment while you were here (ex. kayakes,...) \*



Answers	Count	Percentage
No	273	96.47%
Yes	10	3.53%

Answered: 283 Skipped: 0

## What did you rent?

The word cloud requires at least 20 answers to show.

Response	Count
Kayak	5
Kayaks	4
E-Bike	1

Answered: 10 Skipped: 273

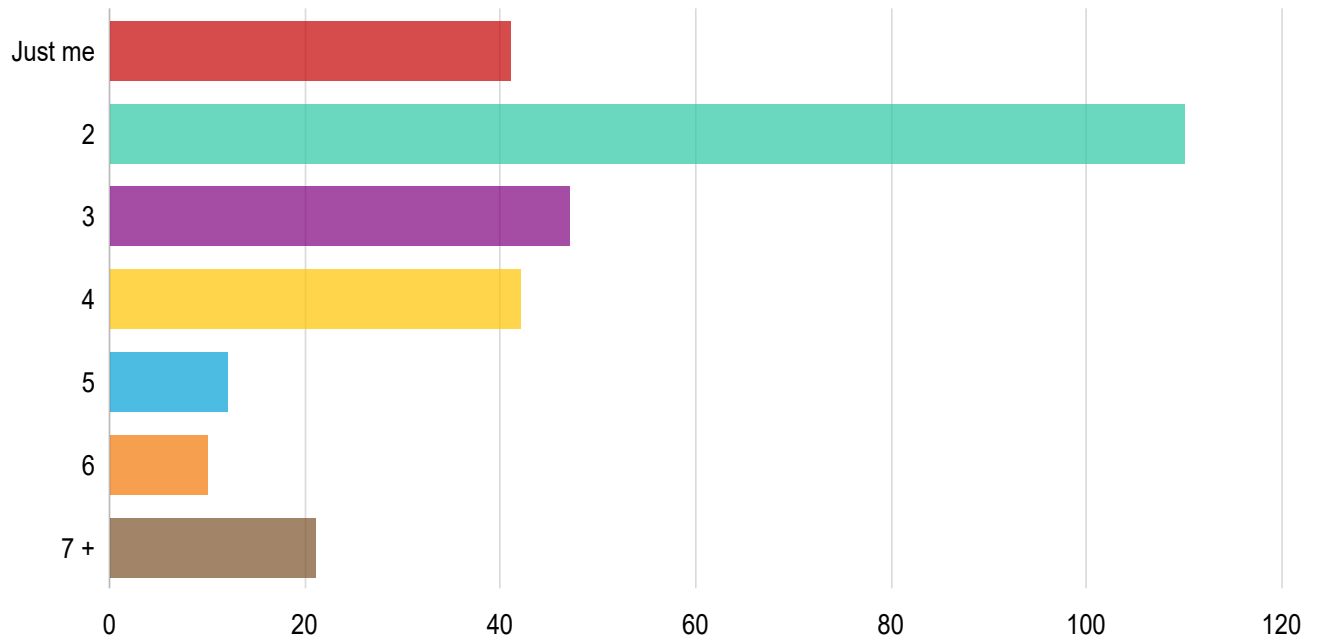
## Where or who did you rent the equipment from?

The word cloud requires at least 20 answers to show.

Response	Count
Lifetime adventure	2
The place on the lake	1
The lakeside rentals	1
place at the lake	1
Operator right at Eklutna	1
lifetime adventures	1
Eklutna rental shack	1
Backcountry Adventures	1
907-E-Bike	1

Answered: 10 Skipped: 273

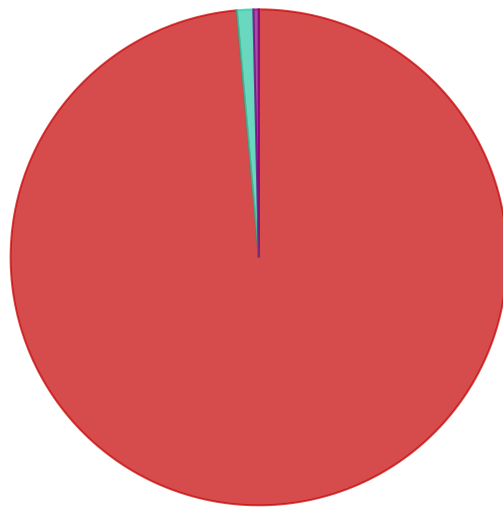
## How many people were in your group on this trip? \*



Answers	Count	Percentage
Just me	41	14.49%
2	110	38.87%
3	47	16.61%
4	42	14.84%
5	12	4.24%
6	10	3.53%
7 +	21	7.42%

Answered: 283 Skipped: 0

How did you get to this location on your most recent visit? \*

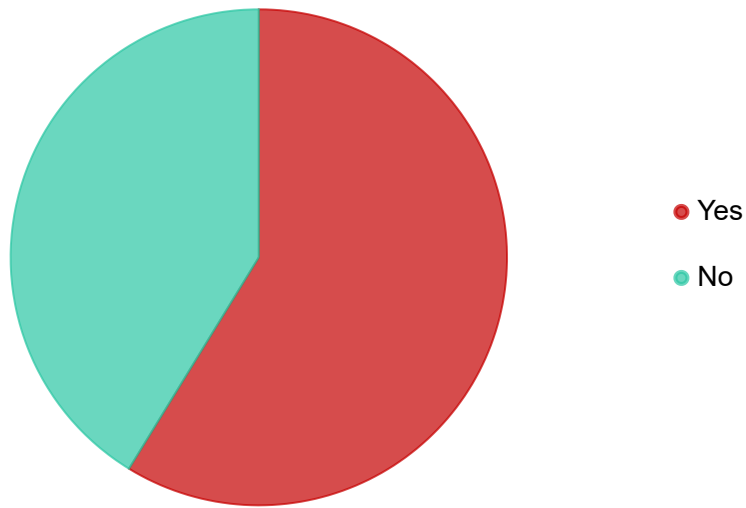


- Drove a Personal or Rental Vehicle
- Bike or other non-motorized mode of transportation
- Aircraft via Bold Airstrip
- As part of a Tour Group
- Other

Answers	Count	Percentage
Drove a Personal or Rental Vehicle	279	98.59%
Bike or other non-motorized mode of transportation	3	1.06%
Aircraft via Bold Airstrip	1	0.35%
As part of a Tour Group	0	0%
Other	0	0%

Answered: 283 Skipped: 0

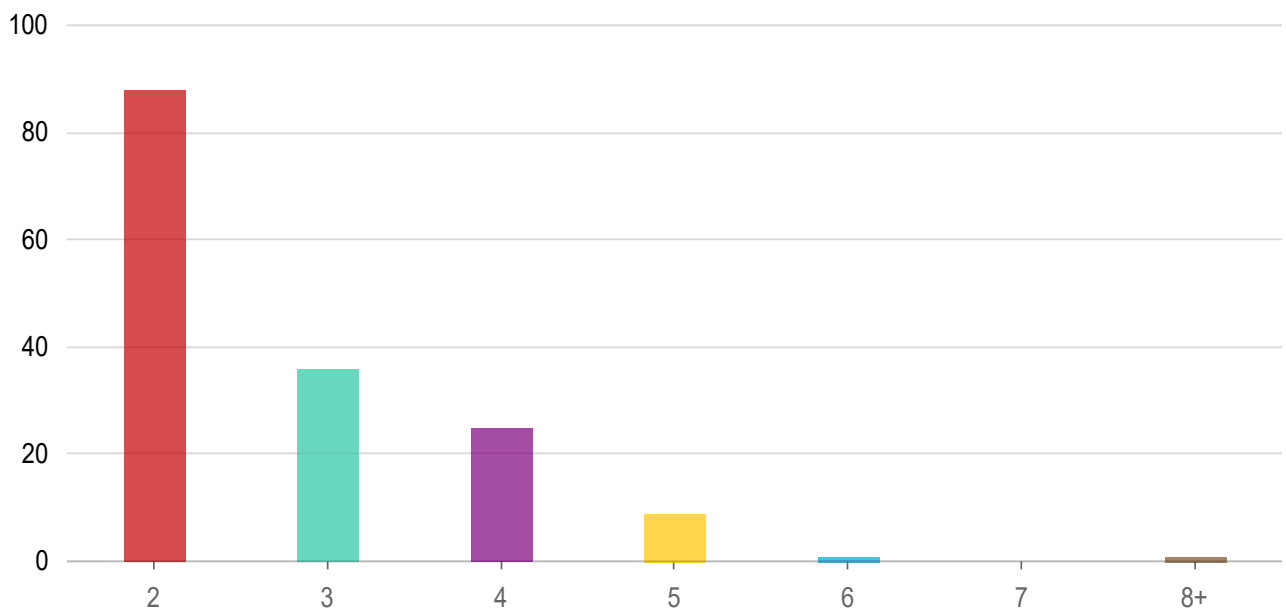
**If you drove, did you carpool with others in your group?**



Answers	Count	Percentage
Yes	161	56.89%
No	113	39.93%

Answered: 274 Skipped: 9

### How many people were in your vehicle (including yourself)?



Answers	Count	Percentage
---------	-------	------------

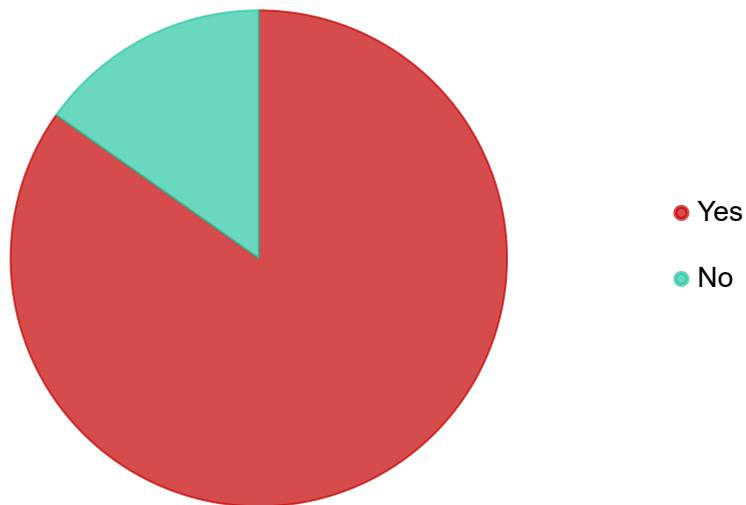
2	88	31.1%
3	36	12.72%
4	25	8.83%
5	9	3.18%
6	1	0.35%
7	0	0%
8+	1	0.35%

Answered: 160 Skipped: 123

### Which outfitter or tour company were you with?

There are no answers to this question yet.

### Do you plan to return to this location to recreate again within the calendar... \*



Answers	Count	Percentage
Yes	240	84.81%

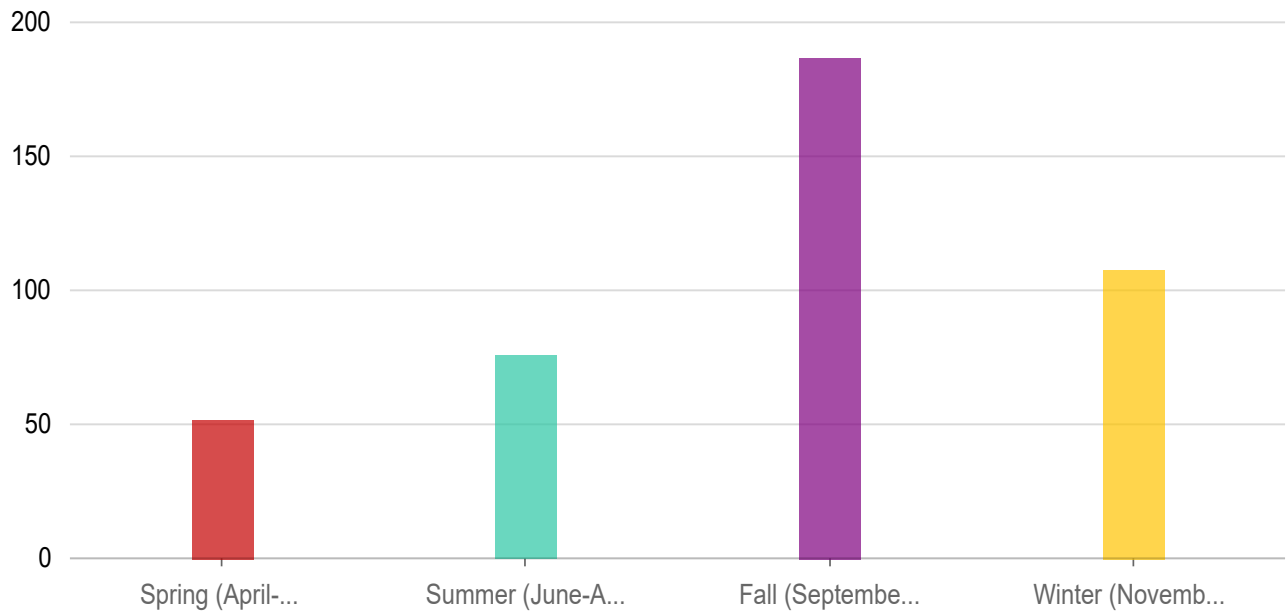
No

43

15.19%

Answered: 283 Skipped: 0

### If so, when do you plan to return?



#### Answers

#### Count

#### Percentage

Spring (April-May)

52

18.37%

Summer (June-August)

76

26.86%

Fall (September-October)

187

66.08%

Winter (November-March)

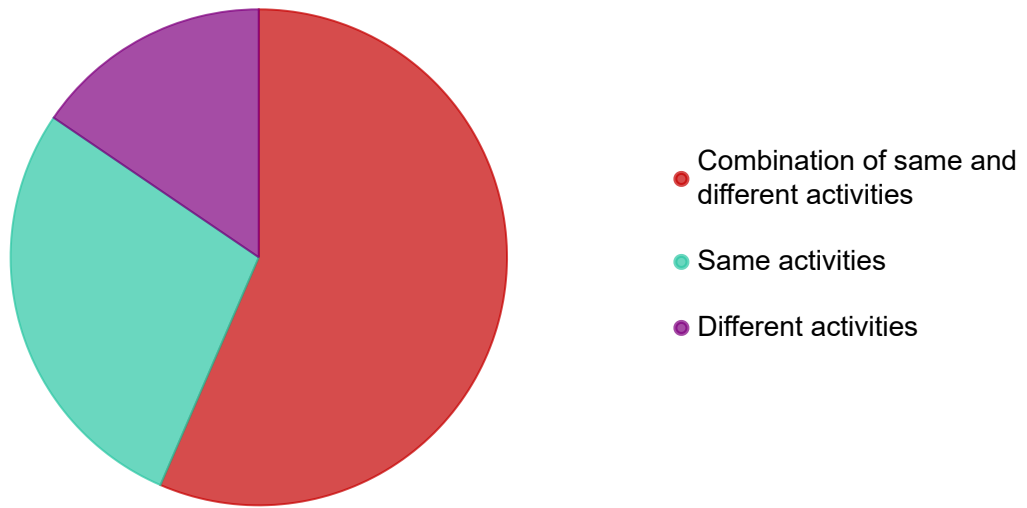
108

38.16%

Answered: 239 Skipped: 44

### Do you plan to repeat the same activities as you did this trip or will you...

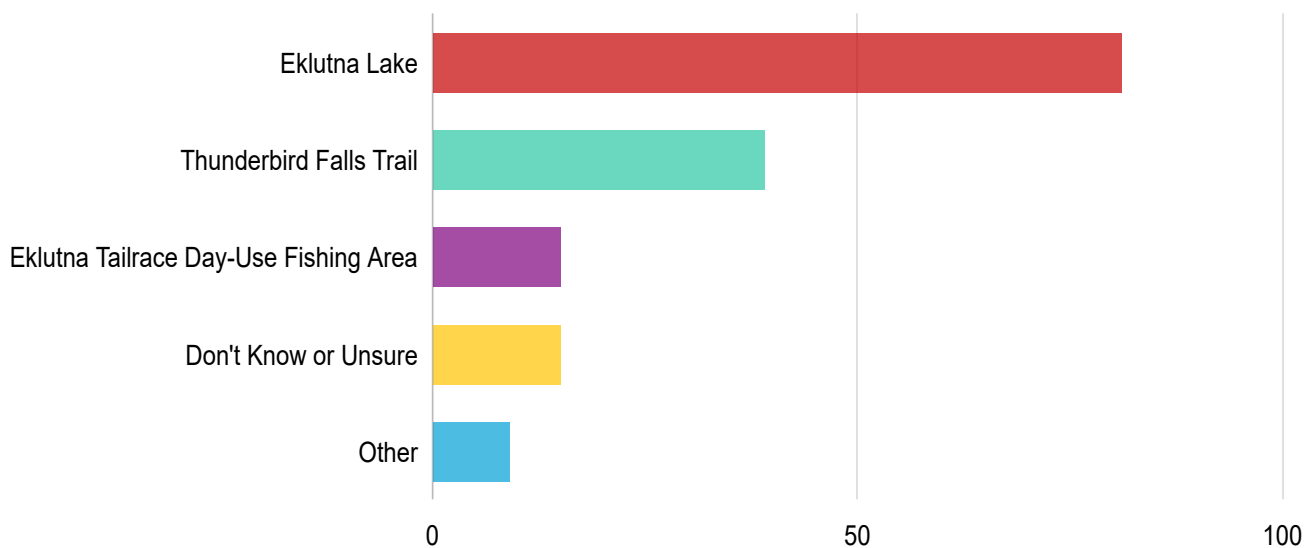




Answers	Count	Percentage
Combination of same and different activities	135	47.7%
Same activities	67	23.67%
Different activities	37	13.07%

Answered: 239 Skipped: 44

### Did you recreate at any other location(s) in the Eklutna area during this trip?





<p>Would like to hunt in the Eklutna area. It is posted no hunting due to being tribal lands all the way up to the border at the lake recreational area. Only a very limited moose by bow there in the Chugach National Forest by registration 2-4 per season. Access to hunt is very limited in the area. Could be improved</p>	1
<p>winter fat biking on ice</p>	1
<p>Went bike packing with a group of 14-15 scouts from Troop 300 in Wasilla. We rode to the back side of the lake and camped near the air strip. In the morning we rode out to serenity falls then back to the parking lot. We had a lot of fun!</p>	1
<p>We typically canoe a 2 or 3 miles down the lake, and spend the day hanging out on the beach. On this trip, we encountered a man in an inner tube who was looking for his daughter, who was kayaking. He had been blown far down the lake by the wind, and had no idea how difficult it would be to return. We found his family at the boat launch, and they set out to rescue him in inflatable kayaks.</p>	1
<p>We took our grandchildren. Saw a muskrat in the lake, which is unusual.</p>	1
<p>We rode gravel bikes along the lakeside trail. The single-track trail was pretty overgrown.</p>	1
<p>We rented a cabin from the Cheeley family, the previous and long-time owner of Rochelle's Ice Cream Shop. We brought a U-haul with all of our bikes and gear for camping. We had an amazing time! It would be great if there was a nice bike trail from the Ice Cream Store back to the Eklutna Lake Campground! We mostly biked along the Lakeside Trail. My family, especially as a child, went to Eklutna Lake every year - that was 40 years ago! Parks and Rec has done an amazing job turning this place into a wonderful place where many people can enjoy such a wide variety of activities!</p>	1
<p>We mountain biked the Lakeside Trail, about 8 miles to the backside of the lake, and then came back (so 16-17 mi total).</p>	1
<p>We liked being able to find a camp away from campgrounds and other people, and we appreciated the nonmotorized days.</p>	1
<p>We like to go swimming at the beach by the water intake. It's nice and sandy and secluded.</p>	1
<p>We like to bike and camp on the weekends with our kids, but have had problems with motorized vehicles being too loud, too fast and not sharing the trails.</p>	1
<p>We hiked in, rented a cabin, we do it every spring!</p>	1
<p>We have hiked the Thunderbird Falls Trail in the past, and we fished at the Eklutna Tailrace when our children were young. Our children participated in scouting activities at Eklutna Lake when they were in scouts.</p>	1

We get our professional pictures taken at the tailrace.	1
We checked out the upper dam site and learned about river restoration!	1
We camped at the lakeside campground with a small group of people and the hiked pepper peak.	1
we biked out the lakeside trail about 5-6miles, then came back and had a cookout/picnic at the picnic area where we saw a black bear. Left the area around 9pm so spent 9 hours at the Eklutna Lake area.	1
We biked into Serenity Falls, stashed our bikes, hiked to the glacier, then hiked on the glacier and went to Pichler's Perch for a night. We will be back for a winter trip to Serenity Falls via cross country ski for sure. We did that last year and loved it. We also will be back to go mountaineering on the big ones in the back near Pichler and likely will backcountry ski the Eklutna Traverse next year.	1
We all appreciate the diverse terrain, trails & rec opportunities	1
Watched the release of the water from the dam & learned more of the native history of the area.	1
Use of ATVs is noisy and degrades the peace and quiet of the valley.	1
Typically I bike access the three main trails of bold valley, east fork and the glacier access at serenity falls. I do everything up there from family camping to mountaineering. The lakeside trail and even the atv trail needs major work and regrading / drainage improvements.	1
This was a shake down ride on a new bike. I live in the area, and it is my primary outdoor recreation site. Bike, hike, row, skate ski, back country ski.	1
This is a lame survey! We enjoy many of the Eklutna Lake area locations and activities at various times of the year yet there is no place to indicate anything except our "most recent trip"! Hire someone who knows how to design a meaningful survey!	1
The trail was in parts extremely overgrown and washed out. It'd be great if there was better trail maintenance on the East Fork and Bold Ridge trails.	1
The shared/separated ATV trail is awesome! It allows for both motorized and pedestrian traffic to enjoy the beauty of the valley without conflicting with each other.	1
The only thing to share is that parking was a nightmare and signage was inadequate. We tried to park in overflow parking but were told only trailers could park there. Signage before turning into the lot indicating this would have been really helpful!	1
The hiking is our primary recreation. Please consider some backwoods trails separate from biking trails.	1

The Eklutna Lake area is my family's year-round playground. My favorite trip so far this year was a kayak out to the end of the Lake and overnight camp-out back country style with my daughter near The Bold airstrip, then kayaking back around the Lake's shoreline perusing the glacial erratic rock deposits around the edge. Beautiful views and scenery, incredible geology and just an incredible part of Chugach State Park. We hike, bike and camp it in summer and cross country ski it in winter. An amazing park.....	1
The drive to the parking area is treacherous if taking a horse trailer. Great place for riding but it scares me coming down the hill hauling a trailer. I forgot to adjust my trailer breaks and almost blew out my breaks entirely. I know this is part of the road and that's fine but adding more emergency pull outs that are large enough for truck and trailer would be much appreciated.	1
The cabins are all unique and wonderful in their own ways. Thunderbird falls is really far, and we failed to make it there two of three trips we embarked on, because of weather/conditions/time we started, but its really lovely out there too.	1
The ATVs back by Bold Airstrip are getting out of control. They were going too fast and I had rocks hitting me in the face as they passed. This has happened more than once.	1
Stop just because they are close by. Been a year since I was at Thunderbird falls, just walked to the falls, took pictures. Same with Eklutna. Overall stop at those two places, but spend more time at Reflections Lake and at parks covered by the Mat Su parking sticker.	1
Saw a grizzly bear through binoculars on a mountainside above the lake.	1
Ride ATVs out and hike a trail to scope out future hunting locations and pick berries	1
Rented a cabin...it was a multigenerational blast!	1
Picked blueberries.	1
Picked blueberries above second bench on the twin peaks trail	1
Peaceful, relaxing. Easy way to get into the mountains,	1
Parking at gold star trailhead is needed.	1
Paddled with a 16-ft sea kayak. The portage down the lake has gotten more difficult over time, so I don't go so often	1

Over the last several years I have bikepacked to Kanchee Campground, fat biked to the end of the lakeside trail & hiked to the glacier, fly fished for Dolly Varden in Eklutna Lake, ran the lakeside trail numerous times, snowshoed to Yuditna Cabin, iceskated on Eklutna Lake, walked to Thunderbird Falls numerous times and fished at the Tailrace	1
Our homeschool group for k-12 kids met up and did the hike together. It was very nice!	1
Not this trip but I do enjoy the Eklutna Lakeside Trail for biking and also kayak & hike in the area	1
Not this one but often bike to end of lake and camp out with friends throughout the year	1
Nice to see the lake full. It's not a reservoir. Let the river flow out and stop treating the lake like a cash register and bathtub.	1
NA	1
My wife & I enjoy camping at the main campground then biking around the Eklutna Lakeside Trail & hiking the various trails off-shooting from the main trail. When I recreate in the area solo, I like to bike around the lake and camp at Kanchee overnight or other primitive spots.	1
My next trip would love to camp for longer so that I can do more day hiking, also interested in a hut to hut trip where we bike to the different cabins available.	1
My kids and wife like to hike, bike, and play on the Eklutna lake beach, but are not physically able to make it around the lake without atvs or snowmachines. I hope that the area stays open for motorized use. It would be nice if there was a motorized trail around the entire perimeter of the lake and would allow users to make a full loop.	1
My favorite trip so far has been a winter bike trip across the frozen lake with an overnight at Bold Airstrip (with good backcountry winter gear) and ice skating the next day.	1
Multi-use, we brought my aunts dogs as well.	1
Mountaineering route from Eklutna-girdwood	1
Many trips over the years doing different activities in various areas in the area. Utilized various types of transportation including walking, bike riding, boating and ATVs. Camped in different locations in established campgrounds and back country sites. Area is a great place to recreate in a semi-wilderness setting, yet close to urban areas for quick access.	1
Made it to the summit of East Twin Peak	1
Love this area, the trail beside lake, the coves the cabins	1

Love that area!	1
Love going up there with friends just to enjoy the view.	1
Looked/harvested edibles while hiking.	1
Like the area	1
lakeside bike trail has safety concerns, significant erosion in some areas	1
Just wandered the trails as I have been for the past 20+ years (long before the area became super popular even in the winter).	1
Just a day trip! Enjoyed as usual. A few areas on the trail were kind of narrow for biking but survived! Otherwise the trail was in great condition. We rode to the runway section and continued on to the beach area near there.	1
I've skied from the top of Arctic Valley to the "other side" since 1970. Picked blueberries also.	1
It's my favorite place to do a Bike/Hike/Camp combo adventure	1
It was the first time our old dog really swam... was such fun...	1
It was a trail race	1
I'm a resident and I recreate down at the lake several times a week.	1
I would love to be able to some day kayak or packraft the Eklutna river from the lake.	1
I so not like the varial zone around Eklutna Lake where the water is drawn up and down over 50 feet, leaving a bare gravel ring around the lake. The picture background to this survey conveniently hides this as it's taken toward fall when the water is high. Both recreational and ecological benefits would accrue from alleviating this problem.	1
I read the ADN article about how the water was released and a beaver dam was washed out. Seems that nature was recreating a new life and future steps should be taken in moderation. One guarantee about nature: it's always changing.	1
I mountain biked the lakeside trail last summer and then hiked the trail up valley by the bridge. The lakeside trail was in need of aggressive brush clearing as well as erosion repair and mitigation. The hiking trail was beautiful but also terribly overgrown, washed out in places, and in need of maintenance. The trail at the end of the road to the glacier was poorly marked and poorly maintained. Hopefully some infrastructure funds can go toward trail maintenance! Thank you for taking comments!	1

I love to circumnavigate Eklutna Lake when I kayak. I try helping and giving advice to inexperienced kayakers when I'm out there.	1
I love recreating in the Eklutna Lake area because there is so much to do there and it is so beautiful! Please preserve it and don't wreck it in the exploitation of hydro energy.	1
I just really enjoyed being able to see the lake from the trail I was on. And parking can be full some days, but parking wasn't hard the last day I was there.	1
I have used other trails in the Eklutna Lake area many times in the past and plan to again in the future.	1
I enjoy coming out to the lake trail I need to make a comment about folks not leashing their dogs. Even with signs out estimate the majority to not leash them. My dog is kept on her leash at all times Thanks	1
I am moving to Homer, but will still enjoy going there to paddle board.	1
I am a paddle boarder. I wear a dry suit and take advantage of the Tailrace never freezing to paddle year round. I have been there at -20f. I often paddle from the Tailrace down to the Glenn Highway, either one way or a round trip.	1
I am a novice x country skier. My friends promise there are more cool things to see when I get better.	1
Hiked up TP, ran down!	1
Hiked up pepper peak to pick berries and enjoy the vast expansive views and fall colors	1
Frequently visit Eklutna and am concerned about potential development to boost hydro power in the future.	1
First time seeing a bear while kayaking Eklutna. It was walking the shore towards the spillway lagoon. Eklutna has long been my favorite place close to Anchorage to hike, bike, and paddle. I paddle a lot in the Fall when the water's close to the parking lot making for a shorter boat carry. I've also long felt the Eklutna Lake area was a very spiritual place.	1
Fat biked with my dog on the Lakeside trail or ATV trail when Lakeside was washed out/dangerously eroded. Stayed overnight at Yuditna cabin.	1



Eklutna Lake Rd is TOO NARROW. Eklutna Lake Road should be WIDEN. There has been TOOO MANY ACCIDENTS. Build a Suspension Bridge from Thunderbird Falls to Eklutna Lake for Walkers/Hikers. Put a Recreation Building Similar like Kincaid Park at the Eklutna Lake Entrance or Thunderbird Falls. Create a Large Parking Lot for future Fishing Activity and POW-Gold Star Peak goers. Bikers should have their own Trail from Eklutna Lake Road Entrance. Bikeathon Race should be ANNOUNCE to the News or inform the Eklutna Valley Community Council. The Bikeathon Race has been a Public Hazard due to NON PUBLIC Announcement. They Bike down in a Fast Speed and occupy the NARROW ROAD. Same with Motorcycle Enthusiast that ignore the Posted Speeds. Put a Sign at the Entrance for the upcoming Events. Put Surveillance Camera to prevent Future Malice. This will make Eklutna Lake to be a Tourist Day Tripper destination.	1
Eklutna Lake area is a phenomenal bowhunting destination. While equal opportunity for all recreators should be considered, PLEASE do not leave out this group of folks. Thanks!	1
Crust skiing on Eklutna Lake is an annual tradition that I look forward to!	1
Climbed up social trails to East twin pk. Recent foot traffic has created a clear path to within 500m of the summit.	1
Climbed Bright and Bleak peak. A section of the Bold Ridge trail about a few miles in could use a little brushing. There are several areas of the Eklutna Lakeside bike/hike trail that are washed out and in need of repair. Overall, an awesome place and in excellent shape. Earlier in the season fat biked out to first campground (mile 9ish) and intended to climb Thunderbird the following morning. Unable to safely cross west fork of Eklutna because of numerous fast braids from recent snow melt. I'll be back...	1
Camped a couple miles up the east Eklutna creek. Spoon Falls is a cool attraction.	1
Biked to base of Bold peak and then hiked Bold Peak.	1
Biked from Eklutna Lake trailhead to the glacier.	1
Biked Eklutna lake trail to end of the lake and back. 2 days previously (but separate trip), hiked Pepper Peak. Favorite crust skiing spot in spring, ice skating when conditions good. Epic canoe/ mud-playing adventures when kids were younger. My daughter's first cabin trip as a baby almost 18 years ago was to Yuditna! Love Eklutna!	1
Bike packed with our kids to the end of the lake and camped on the bluff by the airstrip. It was glorious to be away from Other people on Memorial Day weekend. We also love the public use cabins there and try to go every fall to a cabin. We may bike pack again this fall to camp	1
Bike packed to Serenity Falls and back. ATVs were numerous and crowded multi use trails on the return trip	1

besides weekly dog training swims in the summer, ride the bike trails several times , ski and skate in t 1  
he winter

As it's quite a drive from Anchorage - wish there was a small bus one could hop on - I try to get out th 1  
ere at least once a season. I love witnessing the change of seasons out there, especially on the quiet  
days when no snow machines or ATV's are there. I enjoy hearing the sounds of the lake, mountains ,  
birds, glaciers. In years past, I have kayaked and canoed pitching tent on the opposite of the trail acro  
ss the lake where it is less peopled. And on a glorious early spring day, I love cross country skiing out  
there.

Already planning to use our side by side to camp at the end of the lake next summer! 1

A great play ground. Please continue to limit the motorized access for peace and quiet. 1

Fat biked across lake 1

Answered: 103 Skipped: 180

## **Appendix 5: Comment/Response Matrix**

## Recreation Study Comment-Response Table

Comment #	Agency/Interested Party	Draft Recreation Section (Page) "Text"	Comment	Response
<b>Section 5 Results</b>				
1	ADNR, Chugach State Park	Section 5.1.1.1 Campground and Public Use Cabins (Page 12). <i>"Table 5.1-1, Canyon Group Camping Site"</i>	Canyon Group site shows as unoccupied every year. Part of this is because it is not reservable under Reserve America (RA), our third party online reservation system. This also holds true for Group sites A & B pre-2019. The facility utilization reports come from RA. Since 2018 was excluded from the average, probably not an issue.	Noted. No action to take on report.
2	ADNR, Chugach State Park	Section 5.1.1.2 Fee Stations (Page 14). <i>"Fee stations are located at the Thunderbird Falls Trailhead, and multiple locations in the Eklutna Lake Recreation Area including the two campground loops, the AVT/overflow parking lot, and Day-Use/Boat Launch parking lot."</i>	Change "AVT" to "ATV"	Sentence changed as suggested to: "Fee stations are located at the Thunderbird Falls Trailhead, and multiple locations in the Eklutna Lake Recreation Area including the two campground loops, the ATV/overflow parking lot, and Day-Use/Boat Launch parking lot."
3	ADFG, Sport Fisheries	Section 5.1.2.1 Fishing (Page 15). <i>"In 1998, the Alaska Department of Fish and Game (ADF&amp;G) began annually stocking the Project tailrace with Coho salmon smolts."</i>	Coho were produced and stocked from the Eklutna hatchery 1983-1998. Anchorage hatcheries 1998-present.	Text updated to read: "The ADF&G Eklutna Tailrace hatchery produced and stocked coho from 1983-1998. Anchorage area hatcheries have taken over coho production and stocking since 1998. In 2002, ADF&G also started stocking Chinook salmon smolts."
4	ADFG, Sport Fisheries	Section 5.1.2.1 Fishing (Page 16). <i>"There are youth-only king and coho fisheries at the Eklutna Tailrace which are open to fishing for anglers 15 years of age or younger the third Saturday in June and the third Saturday in August from 6 AM to 6 PM. June 18, 2022, and August 20, 2022, were this year's youth-only fisheries."</i>	Specify "two" youth only fisheries.	Text updated to read: "There are two youth-only fisheries for king and coho at the Eklutna Tailrace which are open to fishing for anglers 15 years of age or younger. They take place the third Saturday in June and the third Saturday in August from 6 AM to 6 PM. The dates of the 2022 youth-only fisheries were June 18, 2022, and August 20, 2022."
5	ADFG, Sport Fisheries	Section 5.1.2.1 Fishing (Page 16). <i>"Draft 2022-2026 Stock Plan objectives for the Eklutna Tailrace are to generate 6,000 angler-days of annual sport fishing opportunity directed at stocked coho salmon and of producing a return of 7,500 adult coho salmon to the Eklutna Tailrace."</i>	Add stocking objectives for king salmon: Produce a return of 4,000 adult Chinook salmon to the Eklutna Tailrace and generate 10,000 angler-days annually of Chinook salmon sport fishing effort.	Suggested text added as follows: "The draft 2022-2026 Stock Plan objectives for the Eklutna Tailrace are to generate 6,000 and 10,000 angler days of annual sportfishing opportunity for coho and Chinook salmon, respectively, and produce a return of 7,500 and 4,000 adult coho and Chinook salmon to the Eklutna Tailrace, respectively."
6	ADFG, Sport Fisheries	Section 5.1.2.1 Fishing (Page 16). <i>"Table 5.1-8 ADF&amp;G Knik Arm Sport Fish Harvest Estimates for Eklutna Power Plant Raceway"</i>	Totals in harvest table look off. Double check.	Updated table year totals and added comma separators.
7	ADFG, Sport Fisheries	Section 5.1.2.1 Fishing (Page 16). <i>"ADF&amp;G and the Eklutna Hydroelectric Project owners have anecdotally shared past complaints from anglers at the tailrace regarding facility operation's impacts on fish counts."</i>	ADF&G does not monitor fish counts at the Tailrace. Instead of saying, "...facility operation's impacts on fish counts", say, "facility operation's on fishing success and harvest".	Text has been modified as suggested to: "ADF&G and the Eklutna Hydroelectric Project owners have anecdotally shared past complaints from anglers at the tailrace regarding facility operation's impacts on fishing success and harvest."

## Recreation Study Comment-Response Table

Comment #	Agency/Interested Party	Draft Recreation Section (Page) "Text"	Comment	Response
8	ADFG, Sport Fisheries	Section 5.1.2.1 Fishing (Page 16).	ADFG observation for possible inclusion- When the Hydroelectric plant decreases flow in the tailrace during annual maintenance and inspections in late – May, anglers believe the fish do not move into the Eklutna Tailrace fishery as well as the water isn't flowing. The Knik backs up into the Tailrace with muddy water and the fish do not bite very well. Decreased flow/no flow and dirtier water greatly diminishes fishing success.	Text has been modified as follows: "Anglers have claimed more fish are present in the Tailrace when water is flowing, or believe the fish do not move into the Tailrace fishery when the water flow is decreased or disrupted, such as during annual maintenance of the hydroelectric plan in late May."
9	ADNR, Chugach State Park	Section 5.1.2.2 Hunting (Page 17). First sentence <i>"There are multiple game management units the Eklutna Project area falls within or can provide access to (see Appendix 3: ADF&amp;G Eklutna Project Area Game Management Units); ADF&amp;G manages the number of hunting permits given out for game within those units. "</i>	"Units" should be "areas". All of the Eklutna Project is within one GMU, "14C"	Action- Change "The Eklutna Project is within the ADF&G Eklutna Lake Game Management Area, which is entirely within Game Management Unit 14C. Other Game Management Areas and permitted hunts border the Eklutna watershed and may be accessed from near the project area. (see Appendix 3: ADF&G Eklutna Project Area Game Management Units). ADF&G manages the number of hunting permits given out for game within this unit and these areas."
10	ADNR, Chugach State Park	Section 5.1.4 (Page 18).	Regarding guide Services accessing the Eklutna Tailrace fishery from the Knik River Bridge launch site: ADF&G requires guides to register with the department prior to providing services. General locations of guiding services are required to register vessels with the department (primary river drainages) however, guides can move to any location they wish. ADF&G guide staff were not able to provide a listing of business operating specific to this location. To capture this information this data could be collected onsite at the Knik River Bridge from approximately the end of May-July 15.	Noted for future study efforts. Data collection is complete for this study.
<b>Section 6 Conclusions</b>				
11	ADNR, Chugach State Park	Section 6.4.1 Vehicles in Recreational Areas (Page 46). Second sentence <i>"Fee station data does not account for annual State Park Pass holders, recreators who do not choose to comply with parking area fees, or those who otherwise are not recreating such as CSP staff, Anchorage Water and Wastewater Utility staff, or contractors conducting work in the area.."</i>	Change <i>"who do not choose to"</i> to <i>"who chose not to "</i> .  Disabled Alaska Vets can obtain a camping pass. They are not accounted for in the fee station reports.	Text changed as suggested: <i>"Fee station data do not account for annual State Park Pass holders, recreators who chose not to comply with parking area fees, or those who otherwise are not recreating such as CSP staff, Anchorage Water and Wastewater Utility staff, or contractors conducting work in the area. Disabled Alaska Veterans can obtain separate camping passes and thus may not be accounted for in fee station reports."</i>

## Recreation Study Comment-Response Table

Comment #	Agency/Interested Party	Draft Recreation Section (Page) "Text"	Comment	Response
<b>Appendix 1</b>				
12	ADNR, Chugach State Park	Appendix 1: Intercept Survey, Filed Notes, and Results (Page 5). Fourth bullet " <i>Heard gunshots consistently for approxiatley 20 min at start of observation within close proximite – assumed target pracice type discharges, could be on private property as it is not allowed in the park within set distances from developed facilities inlcuding parking lots and trails.</i> "	<p>Delete "target practice". Target practice is never allowed within a state park managed unit except within a designated range or for lawful hunting. 11 AAC 12.190</p> <p>Change "proximite" to "proximity"</p> <p>Delete "and trails". Trails do not constitute a developed facility.</p>	Text changed as follows: "Heard gunshots consistently for approxiatley 20 min at start of observation within close proximity – assumed target pracice type discharges, could be on private property as it is not allowed in the park outside of designated ranges or for lawful hunting."
13	ADNR, Chugach State Park	Appendix 1: Intercept Survey, Filed Notes, and Results (Page 9).Third bullet " <i>Two bow hungers on bike heading down Eklutna Lakeside Trail observed at 1:15pm.</i> "	Change "hungers" to "hunters"	Text changed as follows: Make change for spelling: "Two <del>hungry</del> bow hunters on bike heading down Eklutna Lakeside Trail observed at 1:15pm."