Susitna-Watana Hydroelectric Project
(FERC No. 14241)

Recreation Resources Study
Study Plan Section 12.5

Technical Memorandum
2014 Year-End Report
Recreation Use Demand Assessment

Prepared for

Alaska Energy Authority

SUSITNA-WATANA HYDRO

Clean, reliable energy for the next 100 years.

Prepared by

McDowell Group

November 2015

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LIST OF ACRONYMS, ABBREVIATIONS, AND DEFINITIONS

Abbreviation	Definition
ACS	American Community Survey
ADF&G	Alaska Department of Fish and Game
ADNR	Alaska Department of Natural Resources
ADOLWD	Alaska Department of Labor and Workforce Development
AEA	Alaska Energy Authority
ARRC	Alaska Railroad Corporation
ARSP	Alaska Residents Statistics Program
ASSA	Alaska State Snowmobile Association
ATV	all-terrain vehicle
AVSP	Alaska Visitor Statistics Program
B&B	Bed and Breakfast
BLM	Bureau of Land Management
FERC	Federal Energy Regulatory Commission
FNSB	Fairbanks North Star Borough
FY	fiscal year
GMU	Game Management Unit
HAP	Holland American Princess
IOS	Incidental Observation Survey
ISR	Initial Study Report
Mat-Su	Matanuska Susitna
MP	milepost
MSB	Matanuska-Susitna Borough
NSRE	National Survey on Recreation and the Environment
ORV	off-road vehicle

Abbreviation	Definition
POW-MIA	Prisoner-of-War/Missing in Action
Project	Susitna-Watana Hydroelectric Project
RSP	Revised Study Plan
RUM	Random Utility Model
RV	recreational vehicle
SCORP	Statewide Comprehensive Outdoor Recreation Plan
Study Area	Recreation Use Study Area
U.S.	United States
UCU	Uniform Coding Unit. Geographic area, defined by ADF&G, which is roughly equivalent to a drainage

1. INTRODUCTION

The Alaska Energy Authority (AEA) is preparing a License Application that will be submitted to the Federal Energy Regulatory Commission (FERC) for the Susitna-Watana Hydroelectric Project (Project). Included within the License Application is the Recreation Resources Study, Section 12.5. Revised Study Plan (RSP) Section 12.5 focuses on identifying recreation resources and activities (by both visitors to Alaska and Alaska residents) that may be affected by the construction and operation of the proposed Project, and assessing the potential impacts of Project construction and operation on those resources and activities. RSP Section 12.5 provides goals, objectives, and proposed methods for recreation resources data collection and analysis. The Initial Study Report (ISR) for Section 12.5 provided information on the types and levels of current recreation uses as identified through a variety of secondary data. Additional information on the types and levels of current recreation uses were collected through an intercept survey of recreation users in the Recreation Use Study Area (Study Area), a mail survey of Alaska residents, and other methods as specified in the Study Plan and approved variances.

This 2014 Year-End Report presents the results of the survey research, analysis, and modeling effort used to estimate resident and nonresident use of the Study Area. The resident and nonresident recreation use modeling processes are described, and the results of these modeling efforts are presented. The 2014 Year-End Report also describes recreational use of the Study Area, by both residents and nonresidents.

2. STUDY OBJECTIVES

The Recreation Resources Study is designed to identify recreation resources and activities (by visitors to Alaska and Alaska residents) that may be affected by the construction and operation of the proposed Project, and to assess the potential impacts of Project construction and operation on those resources and activities.

As set forth in Section 12.5.1 of the RSP, the specific goals of the study are to:

- Identify and document recreation resources and facilities that support commercial and non-commercial recreation in the Project area.
- Identify the types and levels of current recreational uses and future reasonably foreseeable future uses based on surveys and interviews, consultation with licensing participants, regional and statewide plans, and other data.
- Evaluate the potential impacts of Project construction and operation on recreation resources, needs, and uses in the Project area.
- Develop data to inform AEA's future development of a Recreation Management Plan for the Project.

This 2014 Year-End Report addresses the specific goal to identify the types and levels of current recreational uses and reasonably foreseeable future uses based on surveys and interviews, and other secondary data.

3. STUDY AREA

The Recreation Use Study Area (Study Area) is defined generally as the area encompassed by the following features: the Parks Highway corridor, from the "Y" at the Talkeetna Spur Road intersection to Cantwell; the Denali Highway corridor from Cantwell east to Paxson; west from Paxson along a 2-mile buffer south of the Denali Highway to the Matanuska-Susitna Borough (MSB) boundary; areas west of the MSB boundary between the Denali and Glenn highways (including the Lake Louise area); extending west in a line from the MSB boundary, following the Chickaloon River; and connecting to the "Y" at the Talkeetna Spur Road. This includes areas ¼ mile west and ¼ mile north of the highways. The boundaries of the Recreation Use Study Area are the same as those used for the demand assessment, also referred to as the Recreation Supply and Demand Analysis Area.

The Recreation Use Study Area was subdivided into 59 grids. For purposes of survey analysis, these grids were grouped into seven Sub-Areas (Figure 3-1), including:

- West Denali Highway
- East Denali Highway
- Remote North
- Remote South
- Lake Louise Area
- Talkeetna Area
- Parks Highway

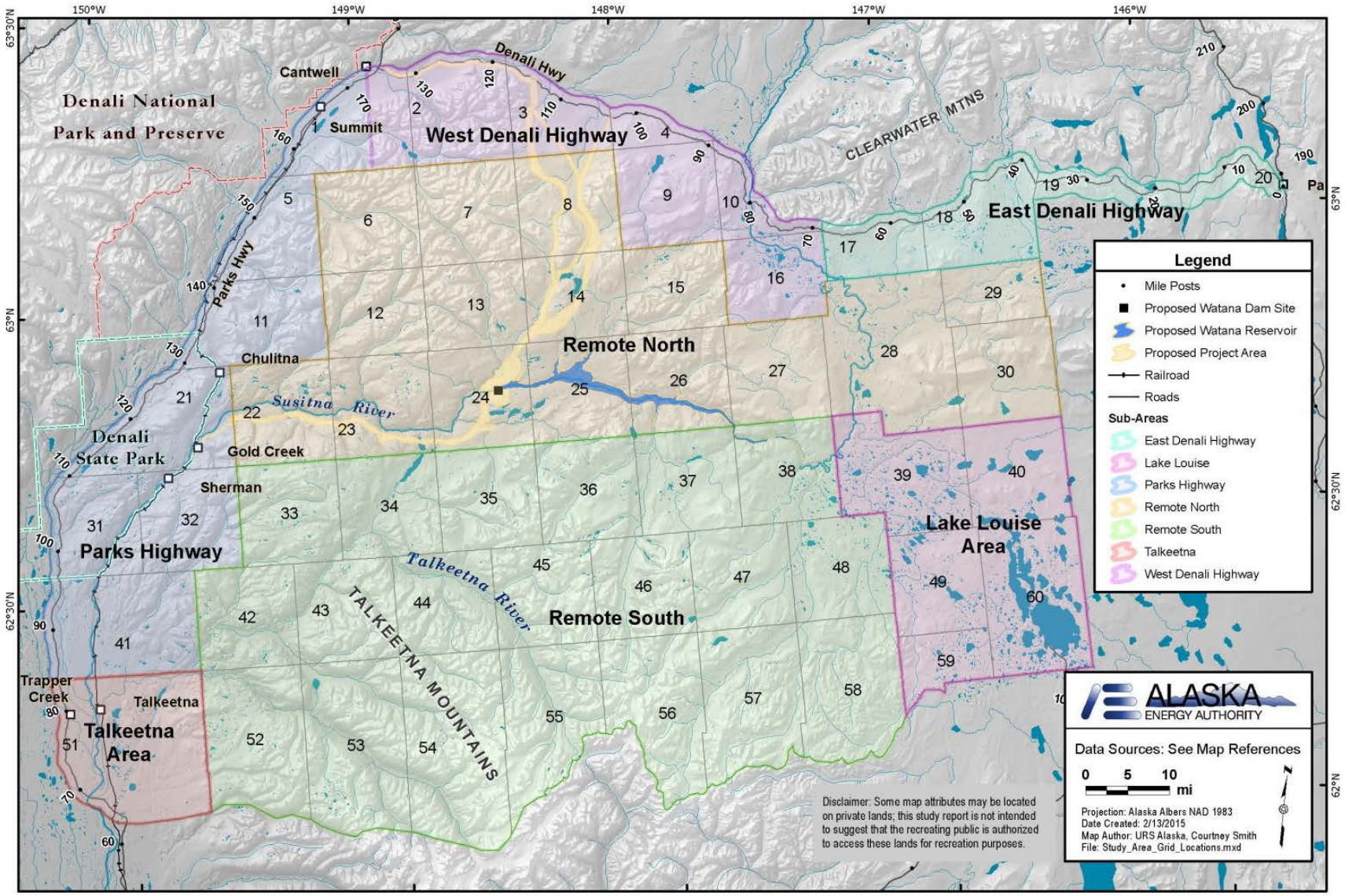


Figure 3-1. Sub-Areas of the Recreation Use Study Area

3.1. West Denali Highway Sub-Area

This Sub-Area includes the western portion of the Denali Highway from milepost (MP) 133.8 to MP 68.0 (Alpine Creek Lodge), the northeastern portion of grid 1 from Cantwell (MP 210.3 Parks Highway) to MP 130.2 Denali Highway, and grid numbers 2, 3, 4, 9, 10, and 16. The western end of the highway is paved from Cantwell to MP 131.1 and then becomes a gravel road. Road conditions are challenging at times.

Notable locations in this Sub-Area and along the western portion of the Denali Highway include:

- Denali Highway MP 131.1 – End of winter maintenance (winter parking area)
- Denali Highway MP 118.3 – Nenana River put-in/access
- Denali Highway MP 104.6 – Brushkana Creek Campground
- Denali Highway MP 94.0 – Butte Lake Off-Road Vehicle (ORV) Trail
- Denali Highway MP 82.3 – Gracious House Lodge Bed and Breakfast (B&B)
- Denali Highway MP 79.5 – Susitna River Bridge
- Denali Highway MP 79.1 – Large gravel pit used extensively by recreational vehicles (RVs) during hunting season
- Denali Highway MP 68.0 – Alpine Creek Lodge
- Grid 16 – Coal Lake

3.2. East Denali Highway Sub-Area

This Sub-Area includes the eastern portion of the Denali Highway from MP 68.1 to MP 0 (Paxson), as well as grids 17, 18, 19, and 20. The road is paved from Paxson to MP 21.1. The remainder of highway in this Sub-Area is gravel, and road conditions can be challenging.

The Study Area extends north of the road corridor by 0.5 mile. Grids 17 and 18 extend into the Study Area between 5 and 12 miles depending on the exact location. The southern border of grids 19 and 20 (from MP 36.8 [Maclaren Summit] to MP 0 [Paxson]) extend 0.5 mile into the Study Area.

Notable locations in this Sub-Area and along the eastern portion of the Denali Highway include:

- Denali Highway MP 42.0 – Maclaren River Bridge
- Denali Highway MP 36.8 – Maclaren Summit
- Denali Highway MP 36.7 – Oscar Lake Trailhead
- Denali Highway MP 24.5 – Landmark Gap

- Denali Highway MP 21.5 – Delta National Wild and Scenic River Bureau of Land Management (BLM) Wayside and Boat Launch
- Denali Highway MP 21.3 – Tangle Lakes BLM Campground
- Denali Highway MP 16.2 – BLM Tangle Lakes Archaeological District
- Denali Highway MP 16.1 – Swede Lake Trail

3.3. Remote North Sub-Area

This Sub-Area covers the remote, interior northern portion of the Study Area, and includes grids 6, 7, 8, 12, 13, 14, 15, 22, 23, 24, 25, 26, 27, 28, 29, and 30. The area is a mix of mountains, tundra, river bottoms, and lakes. The eastern side of this Sub-Area includes the edge of the Alphabet Hills and the Maclaren River Valley. The Maclaren and Susitna river valleys are expansive, encompassing large areas of rolling hills and tundra. Other notable drainages include Brushkana, Deadman, Tsusena, Watana, Butte, and Portage creeks.

The Sub-Area is accessed by hiking and ORV trails off the Denali Highway, by boat from the Susitna and Maclaren rivers, and by float plane. In the winter, snowmachine access is primarily from the Denali Highway, Lake Louise, Denali State Park, the Chulitna River area, and Gold Creek.

Notable locations in the Remote North Sub-Area include:

- Grids 22, 23, 24, 25, 26, 27, 28 – Upper Susitna River
- Grid 22 – Talkeetna Mountains
- Grid 22 – Devils Canyon
- Grid 23 – High Lake
- Grid 28 – Confluence of the Maclaren and Susitna Rivers
- Grid 24 – Fog Lakes
- Grids 14, 15, 25 – Watana Creek
- Grid 14 – Big Lake and Deadman Lake
- Grid 13 – Tsusena Lake Lodge
- Grid 9 – Butte Lake

3.4. Remote South Sub-Area

This Sub-Area contains the remote southern portion of the Study Area, and includes grids 33, 34, 35, 36, 37, 38, 42, 43, 44, 45, 46, 47, 48, 52, 53, 54, 55, 56, 57, and 58. The Susitna River passes through the northern portion of grid 38. With no road access into the Remote South Sub-Area, access is by boat or plane (float primarily). The Sub-Area contains the southern portion of the

Talkeetna Mountain Range with elevations up to 6,500 feet. The Talkeetna River Valley is a prominent feature of the western portion of this Sub-Area running through grids 42, 43, 34, 44, 45, and 55.

Notable locations in Remote South Sub-Area include:

- Grids 33, 34, 42, 43, 44, 45, 55 – Talkeetna River
- Grid 34 – Prairie Creek
- Grid 34 – Watana Lake
- Grid 34 – Stephen Lake and Stephen Lake Lodge
- Grid 36 – Terrace Lake
- Grids 36, 37 – Tsisi River
- Grid 37 – Clarence Lake
- Grids 37, 46, 56 – Kosina Creek
- Grid 38 – Susitna River
- Grids 38, 47, 48, 56, 57, 58 – Oshetna River
- Grids 42, 43, 53, 54 – Iron Creek
- Grids 46, 47, 56 – Black River
- Grid 48 – Square Lake
- Grids 52, 53, 54 – Sheep River
- Grid 52 – Sheep Creek
- Grid 52 – Montana Creek (South, Middle, and North Forks)
- Grid 53 – Rainbow Lake
- Grid 57 – Crater Lake
- Grids 57, 58 – Little Oshetna River

3.5. Lake Louise Area Sub-Area

This Sub-Area covers the southeast corner of the Study Area and includes grids 39, 40, 49, 59, and 60. Lake Louise and Susitna Lakes are the primary features of grid 60. The area is accessed by the 19-mile Lake Louise Road, which connects with the Glenn Highway at MP 29 west of Glennallen. At Glenn Highway MP 16.1, a spur road leads to the Lake Louise Lodge. The Lake Louise Road continues for approximately 3 miles past the Lake Louise State Recreation Area (campground and boat launch), the Wolverine Lodge (closed), Evergreen Lodge, the Point

Lodge, Army Point Campground, and then terminates along the shore of Lake Louise near Dinty Lake at a small, unimproved boat launch and camping area.

A small stretch of the Susitna River runs through grid 39 about 10 miles south of the confluence of the Susitna and Maclaren rivers. Based on interviews and survey results, this stretch of river is occasionally accessed by boat up the Tyone River. The boundary between grids 39 and 38 where the Susitna River crosses is within about 5 miles of the upper reaches of the reservoir that would be created by the proposed Project.

There are approximately 200 private homes and cabins in the Lake Louise Area Sub-Area. Remote winter trails are occasionally cut from Susitna Lake north to the Maclaren Lodge on the West Denali Highway.

Notable locations in the Lake Louise Area Sub-Area include:

- Grids 39, 40, 60 – Tyone River
- Grid 39 – Tyone Creek
- Grid 60 – Susitna Lake
- Grid 60 – Lake Louise
- Grid 60 – Dinty Lake

3.6. Talkeetna Area Sub-Area

This Sub-Area is located entirely within grid 51 in the southwest corner of the Recreation Use Study Area at the confluence of the Talkeetna, Chulitna, and Susitna rivers, and extends down the Talkeetna Spur Road to Parks Highway MP 98.7. The portion of the Alaska Railroad in grid 51 is also considered part of the Talkeetna Area Sub-Area, as is the community of Talkeetna.

Notable locations in the Talkeetna Area Sub-Area (all within grid 51) include:

- Downtown Talkeetna
- Talkeetna River Park and boat launch (on the Talkeetna River)
- Talkeetna Camper Park
- Two Alaska Railroad terminals
- The overlook
- Larsen Creek Trailhead
- Montana Creek (South, Middle, and North Forks)

3.7. Parks Highway Sub-Area

This Sub-Area includes the portion of the Parks Highway from MP 100.0 to MP 210.3, and includes grids 1 (MP 91.6 to MP 210.3, the remaining portion exclusive of the West Denali Highway Sub-Area), 5, 11, 21, 31, 32, 41, and 51 (exclusive of the Talkeetna Area Sub-Area). The Parks Highway roughly parallels the Alaska Railroad from the southern border of grid 51 to Parks Highway MP 194 (grid 1) were the tracks cross the Parks Highway heading west. The Sub-Area also includes a corridor that extends west of the Parks Highway for 0.25 mile.

Notable locations in the Parks Highway Sub-Area include:

- Parks Highway MP 104.2 – Susitna River Bridge
- Parks Highway MP 104.3 – Rabideux Creek
- Parks Highway MP 114.8 – Trapper Creek
- Parks Highway MP 121.5 – East/West Express Winter Trails
- Parks Highway MP 132.9 – McKinley Princess Wilderness Lodge
- Parks Highway MP 132.2 – MP 168.5 – Denali State Park (three campgrounds, four viewpoints, and five trailheads)
- Parks Highway MP 134.8 – Denali Viewpoint South
- Parks Highway MP 135.2 – Troublesome Creek
- Parks Highway MP 147.0 – Byers Lake Campground
- Parks Highway MP 147.1 – Medal of Honor Loop to Alaska Veterans Memorial/Prisoner of War/Missing in Action (POW-MIA) Rest Area
- Parks Highway MP 174.0 – Hurricane Gulch Bridge
- Parks Highway MP 185.7 – East Fork Chulitna Wayside
- Parks Highway MP 201.3 – Broad Pass Summit
- Parks Highway MP 209.4 – Cantwell

4. METHODS AND VARIANCES

The methods for preparing the regional recreation supply, demand, and use analyses were implemented in accordance with RSP Section 12.5.4 (*Methods and Variances in 2013*) and are summarized below.

4.1. Existing Data on Recreation Supply, Demand, and Use

4.1.1. Utilization Data

Available data regarding use of facilities (such as campgrounds and boat launches), trails, and other observed recreation activities (such as special events, races, etc.) within the Recreation Use Study Area were provided by BLM, Alaska Department of Fish and Game (ADF&G), Alaska Department of Natural Resources (ADNR), and special event organizers. The data were reviewed, compiled, and analyzed for relevance, accuracy, and confidence.

ADF&G wildlife harvest report data were obtained for the regulatory years 2004–2013 and analyzed to determine the types and levels of current hunting activities, methods of access, high use locations, as well as hunting effort in days and seasonal patterns. Unless stated otherwise, the analyses included draw, general, registration (Tier I), and Tier II hunts as well as trapping permits. Excluded were any community harvest permits, federal subsistence hunts, and special permitted hunts for cultural education and religious ceremonies. Within ADF&G data, hunting effort (calculated hunting days) was not documented for unsuccessful hunts. As a result, unsuccessful hunts were assigned the average number of days reported for that specific Uniform Coding Unit (UCU), a sub-unit of Game Management Unit (GMU).

Estimates of annual sportfishing total harvest for years 2004 through 2013 were obtained from the Alaska sportfishing survey database maintained by the ADF&G's Sport Fish Division. The data contained estimates for 115 locations (stream segments and lakes) within the Recreation Use Study Area where survey respondents reported angler days of sportfishing activity, number of fish kept, and total catch (fish kept plus fish released). The estimates derived from this annual survey were used in this study to analyze types and levels of current angling activities, high use locations, and effort in angling days. As indicated by ADF&G, estimates for river segments and lakes with less than 30 survey responses were not used because of the low reliability of these estimates. Angler days per year on the Susitna River were available; however, these angler days may have accrued anywhere along the entire 300-mile length of the river. Recognizing that most Susitna River angling occurs downstream of the Watana Dam site, and with no information regarding the portion of angler days taking place within the Study Area, these data were not used to determine use by specific location.

4.1.1.1. Variances

In a variance from methods in Section 12.5.4 of the RSP, state-issued registration (Tier I) and Tier II subsistence permits were included in the analysis of hunting and trapping effort. All other subsistence permits were excluded. The study team determined that hunters using Tier I and Tier II caribou subsistence permits within the Recreation Use Study Area were predominantly from populated urban areas (i.e., Anchorage, Wasilla, and Fairbanks) not covered by the household

harvest surveys (only rural residents) conducted under the Subsistence Resource Study (Study 14.5). Furthermore, recreation hunters using the Recreation Use Study Area often do not distinguish between caribou subsistence permits and those issued under a state drawing permit system, and frequently carry a subsistence caribou permit in combination with other non-subsistence permits for other species. By including Tier I and Tier II subsistence permits in this analysis, the recreational value of subsistence caribou hunting activities by hunters from populated urban areas was captured. This enabled an accurate analysis of the types and levels of current hunting activities, as specified in Section 12.5.4 of the RSP.

4.1.2. Recreation Demand Assessment and Future Projections

Analysis of the survey data from the Susitna-Watana Recreation Regional Resident Household Mail Survey, which sampled Alaska residents (including residents of Anchorage, MSB, Fairbanks North Star Borough, and select communities in the Southeast Fairbanks and Valdez-Cordova Census Areas) and their recreational activity, included the following steps:

- Merged results of the Recreation Regional Resident Household Mail Surveys (June and October 2013) into a single database and "cleaned" the database. Cleaning is a process of removing from the dataset values that reflect a respondent's misunderstanding of the question, or results that are in general contradictory or inconsistent with other responses in the same survey.
- Generated unweighted top-line survey results and cross tabulations, then examined subgroup sample sizes to determine statistical reliability (margin of error).
- Compiled Alaska Department of Labor and Workforce Development (ADOLWD) and American Community Survey (ACS) demographic data for the mail survey area, for "weighting" of survey results.
- Weighted the mail survey results by place of residence, age, and household income to provide results that are statistically representative of the entire survey area population.
- Modeled the volume of baseline (current) recreational activity in the Study Area, including:
    - Number of Study Area recreational users aged 18 and over, total and by place of residence
    - Number of recreational trips to the Study Area (18 and over), total and by place of residence
    - Number of Study Area recreational users (all ages), total and by place of residence
    - Total annual Study Area user-days (unduplicated whole or part days), all activities, and by place of residence
    - Participation in Study Area recreation activities (percentage of users participating, number of users, and annual recreation-day totals) by activity

- Participation in Study Area recreation activities (percentage of users participating), by primary activity and most recent outing
- Total number of Study Area visits, past year, by primary activity
- Participation in primary activity on most recent outing, by selected high-use (grid number level) areas
- Total annual user-days, all activities, by selected high-use (grid number level) areas

For analysis of non-Alaska resident recreational activity in the Study Area, the following approach was used:

- Reviewed and analyzed secondary data related to recreational user/visitor volumes in the Study Area (specific areas and overall), such as Alaska Visitor Statistics Program (AVSP), Alaska Railroad Corporation (ARRC) passenger data, Alaska Statewide Comprehensive Outdoor Recreation Plan (Alaska SCORP), and sportfishing and hunting data to analyze proportional volumes of Recreation Regional Resident Household Mail Survey sample area residents, "other Alaska residents," and nonresidents.
- Analyzed Susitna-Watana Recreation Intercept Survey results to determine proportional volumes of survey area residents, "other Alaska residents," and nonresidents at various specific intercept survey locations and in the Study Area overall.
- Modeled and estimated the total number of "other non-regional Alaska residents" and nonresidents recreating in the Study Area based on the proportional volume analyses (above) coupled with the calculated volume of Alaska survey area resident recreational activity.
- Profiled characteristics of Alaska regional residents, other Alaska residents, and non-Alaska residents' recreational activities in the Study Area from Recreation Intercept Survey results (e.g., number of recreation activity days, types of activities)
- Compared Recreation Intercept Survey data with Household Mail survey data for Alaska regional residents to determine consistency between survey data sets
- Established recreation use volume relationships (absolute and relative numbers of people) from Recreation Intercept Survey results

A summary of results by selected recreation activity (hunting and trapping, sportfishing, motorized boating, remote camping, roadside camping, hiking/backpacking/snowmachining, wildlife viewing [including bird watching], riding the Alaska Railroad, riding all-terrain vehicles [ATVs], flightseeing, bicycling, dog sledding [including skijoring], and Nordic skiing) is found in Appendix A.

4.1.3. Survey Data Collection

The methods for collecting existing and new survey data were implemented in accordance with RSP Section 12.5.4. The collection of recreation user data was accomplished through multiple methods, including literature reviews of existing survey research regarding utilization and

demand assessments; intercept, on-line, mail, and telephone surveys; and executive interviews. Incidental observation, recreation intercept observational tally, and intercept and mail survey instruments were designed to collect information typical of and compatible with other FERC efforts.

4.1.3.1. Identification and Analysis of Salient Data from Existing Survey Research

Recreation supply and demand survey data from other recreation planning sources applicable to the demand and use assessment for the Study Area were reviewed and assessed for relevancy, accuracy, and confidence. The review included survey data from the 1985 studies **(**Harza-Ebasco 1985), the Alaska SCORP (ADNR 2009), Alaska Residents Statistics Program (ARSP) (Fix 2009), and AVSP VI (McDowell Group 2012). Along with a review of the AVSP VI survey findings (McDowell Group 2012), a separate sub-group analysis of the AVSP VI data of visitors to Talkeetna (1,124 survey respondents) during the summer of 2011 was assessed. These data described summer nonresident (non-Alaskan) experiences by visitors in Talkeetna, passengers on the Alaska Railroad traveling through the Study Area, and cruise passengers visiting the Study Area.

4.1.3.1.1. Variances

No variances from the methods described in the Study Plan for the identification and analysis of salient data from existing survey research (RSP Section 12.5.4) were necessary.

4.1.3.2. Incidental Observation Survey (IOS)

Designed in 2012, the IOS continued to be fielded in 2013 and 2014. The purpose of the IOS was to capture observations from field researchers about dispersed recreational use within the Study Area. Key contractors working on other studies associated with the Project (such as the field biologists collecting data along the Susitna River) were contacted by phone and sent the IOS and the protocol to complete the survey by email. Contractors scanned and returned their completed surveys for review.

4.1.3.2.1. Variances

No variances from the methods described in the Study Plan for the IOS (RSP Section 12.5.4) were necessary.

4.1.3.3. Susitna-Watana Recreation Intercept Survey

The purpose of the in-person Susitna-Watana Recreation Intercept Survey was to gather recreation user data, including recreation uses, frequency, quality of recreation and/or aesthetic experience, recreation spending, and other perceptions of the Study Area.

The remote nature of the Study Area determined where recreation users could be intercepted for surveying. The Study Area is largely bounded by paved and unpaved highways, which provide primary access to the area.

A complete description of the Susitna-Watana Recreation Intercept Survey methodology and summary of results is found in Appendix B.

4.1.3.3.1. Variances

The following variances were implemented, as previously outlined in Section 12.5.4 of the ISR.

Once the intercept surveyors were in the field, recreation activity was observed occurring at Landmark Gap Trail (on Denali Highway), 11 local trailheads around Talkeetna, Mahay's Office/Bus Parking, an RV park located near Alaska Railroad terminal, and Dinty Lake (near Lake Louise). To capture this activity, these locations were added to the list of intercept sites. At Mahay's request, customers were intercepted at their office in downtown Talkeetna rather than at the boat launch.

The following locations were removed from the list of intercept locations: Mt. McKinley Princess Wilderness Lodge, Boy Scout High Adventure Scout Base, Joe/Jerry Lakes, Gracious House, and Tangle River Inn. They were removed because permission was not received to conduct the intercept of private customers at these locations. To meet the study's objectives (RSP Section 12.5.2) in light of these variances, executive interviews were conducted to gather data to describe activity (such as activity at the Boy Scout base) at these intercept points. Additionally, other intercept points in close proximity to these locations provided a suitable and practical substitute to meet the study's objectives (RSP Section 12.5.2).

Typically, state campgrounds and trailheads along the Parks Highway (such as Byers Lake Campground, East Fork Chulitna Wayside, Ermine Hill Trailhead, Coal Creek Trailhead, Byers Lake Road, and Troublesome Creek North Trailhead), the Denali Highway, and BLM campgrounds on the Denali Highway (Brushkana Creek and Tangle Lakes) are open by May 15; however, in 2013, the openings were delayed due to heavy snow storms. As a result, a variance occurred, as the spring sample period was extended until the official opening of the Denali Highway on June 7, 2013. The slight extension of the anticipated spring sampling period did not affect the study's objectives (Section 2) as surveying still occurred during this time at accessible locations.

A separate survey team was designated specifically for surveying in Talkeetna and the surrounding area, and at Lake Louise. The surveyors were local residents so they were able to more easily sample the areas, rather than having these locations be subject to long survey circuits. Because logistics became more practical, adding separate survey teams, although a variance, enhanced the study's sampling of Lake Louise, Talkeetna, and the surrounding areas by increasing the number and frequency of sample periods. This variance enhanced the study team's ability to meeting the study's objectives.

4.1.3.4. Intercept Site Recreation Tallies

On sample days, the intercept survey crews conducted the Susitna-Watana Recreation Intercept Observation Tally at intercept locations and other points in-between. The crews recorded observed recreation activity on a pre-printed tally form (e.g., the number of people present, the number of vehicles entering/exiting the access site, types of recreation activities evident).

A complete description of the Susitna-Watana Recreation Intercept Site Observation Tally Survey methodology and summary of tally observations is found in Appendix C.

4.1.3.4.1. Variances

After the intercept survey was started, survey crews noticed recreation activity at the Landmark Gap Trail along the Denali Highway. To capture this activity, recreation tallies were conducted at this location, which was a variance as this location was not identified in the Study Plan (RSP Section 12.5.4). To inform the analysis of recreation trails and access points, additional tallies were conducted during the summer sampling period along the Richardson and Glenn highways at Hicks Creek, Belanger Pass, Old Man Creek, Eureka, and Sourdough Campground. Adding these intercept points enhanced the ability to meet the data collection objectives of the Recreational Facilities and Carrying Capacity analysis (RSP Section 12.4.5).

4.1.3.5. Recreation Regional Resident Household Mail Survey

The purpose of the Recreation Regional Resident Household Mail Survey was to gather information from a sample of regional households about their recreation activities in the Recreation Use Study Area, and to collect perspectives about recreational opportunities. The mail survey included a map in the survey booklet so respondents could visually review the boundaries of the Study Area. One of the maps also included grids to aid the respondents in commenting on specific locations within the Study Area (see Figure 3-1 above). A complete description of the Susitna-Watana Recreation Regional Resident Household Mail Survey methodology and summary of results is found in Appendix D.

4.1.3.5.1. Variances

The following variances were implemented, as previously outlined in Section 12.5.4 of the ISR.

The mail sample size was increased to 15,774 to increase the frequency of responses for people who recreated in the Recreation Use Study Area and live in or in close proximity to the Study Area.

The survey was split into two mailings to diminish memory recall issues (e.g., June respondents will have a better recall of their winter and spring recreation outings and experience, and October respondents will have a better recall of their recent summer experience). Additionally, the two mailings provided an opportunity to make any adjustments to the instrument based on how it performed during the first mailing.

The first mailing occurred in June 2013, rather than April 2013. The delay in the first mailing was necessary to allow timing for the final submission of the survey to FERC on April 15, 2013 and to conduct the logistical preparation for the mailing (such as purchasing of the mailing list; final layout design of the survey; printing of the survey, cover letter, and envelopes (both mail and return); attaching $1 incentive; inserting surveys into envelopes; and applying postage).

Applying aspects of the Dillman methodology to boost response, an incentive of $1 was used in both the June and October mailings (Dillman et al. 2009). For the June mailing, half of the 7,500 households were randomly selected to receive a $1 bill attached to their survey. For the October

mailing, all surveys mailed included a $1 incentive. Again, in applying the Dillman methodology, a post-mailer postcard was sent after the October 2013 mailing, as an additional method to boost survey response.

The October survey instrument was adjusted to include different seasonal calendars than the June version (to assist the socioeconomic study and gather information for the most current activity). No questions were removed from the October survey; however, three new questions were added, including:

- Between November 2012 and October 2013, how many total days did you recreate in the Study Area?
- How many people in your party were under the age of 18?
- How many people in your party live in your household for at least 6 months of the year?

These questions were added to provide additional data to assist in the analysis of the survey results and the extrapolation of recreational activity across the full population.

These variances enhanced the study team's efforts to meet the study's objectives to collect data on recreation users.

4.1.3.6. Nonresponse Bias Telephone Survey

As mail surveys have the potential for self-selection bias, a nonresponse test utilizing a random sample telephone survey of 800 households within the regional household survey area was conducted to determine if there was a nonresponse bias. Survey content included demographics, such as residency, household size, educational attainment, income, marital status, voter registration, ethnicity, gender, or age, as well as participation in snowmachining, hunting, sportfishing, and recreational boating (without fishing). Both land lines and cell phones were included in the Nonresponse Bias Telephone Survey sample.

A complete description of the Nonresponse Bias Telephone Survey methodology and summary of results is found in Appendix E.

4.1.3.6.1. Variances

The following variances were implemented, as previously outlined in Section 12.5.4 of the RSP.

Due to the scheduling variance for the October mailing of the Recreation Regional Resident Household Mail Survey, the second Nonresponse Bias Telephone Survey was rescheduled to be fielded in Q1 2014 with the sample goal of 400 completed surveys. This slight change in schedule did not affect the study team's efforts to collect data as part of the study objectives. The same survey used in the August 26–September 3, 2013 survey sample was used in January 2014.

4.1.4. Executive Interviews

Approximately 85 Executive Interviews were conducted, largely by telephone, with representatives from a cross-section of organizations and businesses, and individuals with recreation use knowledge of the Study Area. Interviews began in July 2012.

During the Executive Interview process, demographic information (e.g., organization type, activity type, seasonality, and geographical distribution) was compiled for interviews as they were conducted. An attempt was made to obtain relevant and meaningful input evenly from a wide-range of all identified groups.

Interview results were used to inform the Recreation Intercept Survey and the Recreation Regional Resident Household Mail Survey sampling plans, modeling development for the future demand assessment, as well as development of descriptive backgrounds on selected recreation activities in the Study Area (Appendix A).

A description of the Executive Interview methodology and protocol content is included in the Study Plan (RSP Section 12.5.4).

4.1.4.1. Variances

No variances from the methods described in the Study Plan for the Executive Interviews (RSP Section 12.5.4) were necessary.

5. RESULTS

This section summarizes results of secondary utilization data compilation, existing survey research review, the Incidental Observation Survey, Susitna-Watana Recreation Intercept Survey, Susitna-Watana Recreation Regional Resident Household Mail Survey, Intercept Site Recreation Tallies, Nonresponse Bias Telephone Survey, Executive Interview research, and demand assessment and future projections.

5.1. Study Area Recreation Use

This section briefly summarizes results of Executive Interview research, secondary utilization data compilation, observational research of predominant recreational activities known to occur within the Recreation Use Study Area, survey research (intercept, mail, online, and telephone), and recreation demand analysis and future demand projections.

5.1.1. Utilization Data

5.1.1.1. Existing Utilization Data

5.1.1.1.1. BLM Denali-Clearwater Recreation Management Area

BLM estimates the number of users for various sites and trails within the Denali-Clearwater Recreation Management Area. According to BLM data notes, all use numbers are "best guess estimates," except for Brushkana Creek Campground. Increases in estimates (such as those at 17(b) easements south of Cantwell) are based on increased field observations. The most popular trails included the Butte Lake and Butte Creek trails (averaging 1,560 visits between fiscal year [FY] 2007 and FY2011), followed by the Jack River Trail (average of 420 annual visits). BLM also estimates approximately 2,250 annual visits to the Denali Highway during the winter months (Table 5.1-1). However, they also noted that use in the Denali-Clearwater Recreation Management Area is heavily concentrated during the months of August and September (BLM 2012).

Table 5.1-1. Denali-Clearwater Recreation Management Area, Annual Visits to Selected Sites and Trails, FY 2007-2011

Site	FY2007	FY2008	FY2009	FY2010	FY2011	Average Visits
Brushkana Creek Campground	9,063	7,271	8,497	9,146	11,964	9,188
Butte Creek Trail	1,500	1,500	1,600	1,600	1,600	1,560
Butte Lake Trail	1,500	1,500	1,600	1,600	1,600	1,560
Brushkana Creek Trail South	300	300	300	300	300	300
Seattle Creek Trail	200	200	200	200	200	200

Site	FY2007	FY2008	FY2009	FY2010	FY2011	Average Visits
Jack Creek Trail	300	300	500	500	500	420
Mile 87.6 Trail	100	100	100	100	100	100
Cantwell Portal Denali Highway (winter)	2,250	2,250	2,250	2,250	2,250	2,250
17 (b)s south of Cantwell	500	2,000	3,500	3,500	3,500	2,600

Source: BLM 2012.

Other data on Tangle Lakes Campground and area trails were available suggesting there were 18,005 visits to the Tangle Lakes Campground in FY2012, with the Tangle Lakes Foot Trail as a popular hike (2,050 estimated users) (Table 5.1-2). FY2013 visits to the Tangle Lakes Campground were estimated at 20,252 (up 12 percent from the previous year) (Table 5.1-3).

Table 5.1-2. Denali-Clearwater Recreation Management Area, Selected Sites and Trails, FY2012

Site	People/Vehicle Counts	Total Visits
Tangle Lakes Campground	12,003	18,005
Delta WSR Wayside	6,483	11,118
Upper Tangles Lake	-	495
Round/Lower Tangles Lakes	-	394
Tangle Lakes Foot Trail	-	2,050

Source: BLM 2012.

Table 5.1-3. Denali-Clearwater Recreation Management Area, Selected Sites and Trails, FY2013

Site	Primary Site Type	Visits	Visitor Days
Round/Lower Tangle Lakes	Water Access	400	357
Tangle Lakes Campground	Campground	20,252	22,849
Upper Tangle Lakes	Water Access	501	791

Source: BLM 2012.

BLM provided raw data (daily surveys) based on daily observations by managers at their Tangle Lakes and Brushkana Creek campgrounds during the summer season of 2011 and 2012. It was noted that 840 visits were made to the Tangle Lakes Foot Trail in 2012. Campsite use grew substantially between 2011 and 2012 at Tangle Lakes Campground, an estimated 97 percent increase (from 1,233 occupied campground sites in 2011 to 2,433 in 2012) and remained relatively stable at Brushkana Creek Campground (731 occupied campsites in 2011 and 765 in 2012) (Table 5.1-4). Boat launch and ATV use in the Tangle Lakes area was also reported (Table 5.1-4).

Table 5.1-4. Tangle Lakes and Brushkana Creek Campground Use Data, Summer 2011 and Summer 2012

	Tangle Lakes Campground 2011 (May 25–Aug. 28)	Tangle Lakes Campground 2012 (May 25–Sept. 10)	Brushkana Creek Campground 2011 (May 28–Sept. 10)	Brushkana Creek Campground 2012 (May 23–Sept. 11)
Campsites Occupied by Auto/Tent	311	735	391	352
Campsites Occupied by Motor Home/Trailer	838	1,687	340	413
Campsites Occupied by Boat Trailers	84	11	0	0
Hiking Trail	--	840	0	0
Boat Launch—Vehicles	152	195	0	0
Boat Launch—Vehicles with Boat Trailer	42	28	0	0
Boat Launch—Vehicles with Raft or Canoe Trailers	32	76	0	0
ATVs in Campground	12	20	0	0

Source: Raw, unverified data provided by BLM. Compiled by McDowell Group.

ADNR State Parks

ADNR provided monthly data for state park campground and trail visitations in Denali State Park and Lake Louise State Recreation Area, both of which are within the Recreation Use Study Area. In 2012, 281,436 visitations to Denali State Park were documented, down 10 percent from 313,310 in 2011. Approximately 39 percent of these visitations were made by nonresidents of Alaska (Table 5.1-5).

Table 5.1-5. Denali State Parks Trails and Viewpoints Annual Visitation Data, By Month, 2011 and 2012

Month	Resident Visits 2011	Nonresident Visits 2011	Total Visits 2011	Resident Visits 2012	Nonresident Visits 2012	Total Visits 2012
January	266	177	443	710	473	1,183
February	285	190	475	34	16	50
March	811	489	1,300	2,016	1,326	3,342
April	0	0	0	1,568	1,045	2,613
May	0	0	0	25,972	16,969	42,941
June	27,994	17,886	45,880	31,056	19,876	50,932
July	33,751	20,992	54,743	41,715	26,570	68,285
August	91,141	59,472	150,613	33,968	22,079	56,047
September	20,196	12,333	32,529	22,655	14,055	36,710
October	15,984	10,605	26,589	6,056	4,009	10,065
November	0	0	0	3,020	2,013	5,033
December	443	295	738	2,541	1,694	4,235
Total	190,871	122,439	313,310	171,311	110,125	281,436

Source: ADNR 2013, ADNR 2014.

In 2012, ADNR reported 2,458 visitations from May through September to the Lake Louise State Recreation Area (down 5 percent from 2,585 in 2011), of which 17 percent were made by nonresidents of Alaska (Table 5.1-6).

Table 5.1-6. Lake Louise State Recreation Area Summer Visitation Data, By Month, 2011 and 2012

Month	Resident Visits 2011	Nonresident Visits 2011	Total Visits 2011	Resident Visits 2012	Nonresident Visits 2012	Total Visits 2012
May	206	*52*	258	78	20	98
June	406	*102*	508	648	72	720

Month	Resident Visits 2011	Nonresident Visits 2011	Total Visits 2011	Resident Visits 2012	Nonresident Visits 2012	Total Visits 2012
July	886	*222*	1,108	816	204	1,020
August	310	*78*	388	300	75	375
September	258	*65*	323	196	49	245
Total	2,066	*519*	2,585	2,038	420	2,458

Source: ADNR 2013, ADNR 2014.

Economic Impacts of Implementation of the Proposed South Denali Visitor Center, 2011

ADNR contracted with the Center for Economic Development at the University of Alaska Anchorage to analyze preliminary ARSP data from 2009 and estimate recreational activities among Southcentral and Interior Alaska residents in the MSB as part of the South Denali Visitor Center development. In that report, it was estimated that approximately 159,848 Alaska residents (50 percent of the Railbelt communities' population) made at least one annual trip to the MSB (Center for Economic Development 2011). "Best estimates" for popular recreation activities include hiking (262,895 visits), wildlife viewing (249,819 visits), camping (208,527 visits), fishing (181,687 visits), snowmachining (126,796 visits), non-motorized boating (66,068 visits), and cross-country skiing and snowshoeing (86,026 visits) (Table 5.1-7). The data, however, do not provide information on the duration of these trips or specific locations where the recreation occurred within the MSB, limiting the relevancy and adequacy of these data to describe visitation to the Recreation Use Study Area.

Table 5.1-7. Southcentral and Interior Alaska Resident Recreational Visitation to the MSB

Population base (18+)	333,066	
Total Visitors	159,848	
Total Visits (lower bound estimate)	736,222	
Total Visits (best estimate)	1,021,852	
Activity Frequency	Lower Bound Estimate (Visits)	Best Estimate (Visits)
Developed trail systems	196,827	270,466
Hiking	190,633	262,895
Wildlife viewing	180,310	249,819

Camping	148,653	208,527
Fishing (freshwater)	131,448	181,687
Developed campgrounds	99,790	138,330
Snowmachining	109,336	126,796
Non-motorized boating	48,863	66,068
Cross-country skiing and snowshoeing	62,627	86,026

Note: The columns "Lower Bound Estimate" and "Best Estimate" reflect the range of values obtained from the same raw data, but using two different methods for tabulating the raw data. MSB residents are excluded from these counts.

Source: Center for Economic Development 2011.

Alaska Railroad Corporation Ridership

The Alaska Railroad runs through the Recreation Use Study Area. Some riders are participating in tours with the ARRC, or are on a cruise tour. Other riders use the railroad to access their properties (including both primary residences and recreational use property) within parts of the Study Area not accessible by road. ARRC provided annual ridership data (2011–2013) for the Hurricane Turn Train and the Denali Star Train (ARRC 2014). The Denali Star Train service provides daily links between Anchorage and Fairbanks with stops in Wasilla, Talkeetna, and Denali National Park. Trains depart both Fairbanks and Anchorage heading north and south at about the same time. Few passengers ride the train straight through in a single day (a roughly 12-hour trip). Most visitors spend one or two nights along the route in either Denali National Park or Talkeetna. Whether headed north or south, all Denali Star passengers traveling between Talkeetna and Denali National Park pass through roughly 110 miles of the Study Area (from near Talkeetna to Summit). ARRC data indicate that 7,064 passengers arrived in Talkeetna and 7,499 departed from Talkeetna on the Denali Star in 2013 (Table 5.1-8, Table 5.1-9).

Table 5.1-8. Alaska Railroad, Denali Star Train Ridership, Arrivals to Talkeetna, 2011–2013

Arrivals to Talkeetna	2011	2012	2013
Anchorage	3,285	3,674	4,177
Denali	1,769	1,608	2,207
Fairbanks	299	322	360
Wasilla	365	491	320
Total	5,718	6,095	7,064

Source: ARRC 2014.

Table 5.1-9. Alaska Railroad, Denali Star Train Ridership, Departures from Talkeetna, 2011–2013

Departures from Talkeetna	2011	2012	2013
Anchorage	2,732	3,024	3,365
Denali	2,726	3,111	3,417
Fairbanks	589	479	550
Wasilla	225	178	167
Total	6,272	6,792	7,499

Source: ARRC 2014.

In addition to cars owned and operated by the railroad, ARRC also pulls luxury cars for Holland American Princess (HAP) Alaska Rail Tours. HAP luxury rail cars primarily carry cruise tour visitors, but independent visitors can also book trips. The HAP cars are pulled by the Denali Star trains behind the ARRC cars. All of the HAP cars run on the ARRC schedule. HAP offers a variety of packages combining rail car travel, overnight accommodations at one of the Princess facilities along the route, and multiple tour options.

ARRC also offers the Hurricane Turn Train, which provides whistle-stop service between Thursday and Sunday from mid-May through mid-September, as well as the first Thursday of each month from October through May. The train departs Talkeetna and turns around at Hurricane Gulch. Passengers may disembark or embark anywhere along the 55-mile route, which is entirely within the Recreation Use Study Area. Riders use the Hurricane Turn Train to access the Susitna River and its tributaries for fishing, departure points for float trips down the river, or for hiking. Land owners in the area use the whistle-stop service to access private cabins. ARRC data show that a total of approximately 1,386–2,464 people arrived in Talkeetna on the Hurricane Turn Train during the summers of 2011, 2012, and 2013 (Table 5.1-10, Table 5.1-11). It is assumed there is duplication in the number of actual individual riders (versus number of rides). Further research and interviews were conducted in 2013 in order to estimate how many of those riders used the service to access and float the Susitna River or access private-use cabins or other recreational opportunities. This data informed the demand assessment.

Table 5.1-10. Alaska Railroad, Hurricane Train Ridership, Arrivals to Talkeetna, 2011–2013

Arrivals to Talkeetna	Summer 2011	Summer 2012	Summer 2013	Winter 2011	Winter 2012	Winter 2013
Anchorage	0	0	0	37	27	73
Canyon	154	84	95	2	3	4
Chase	153	94	112	12	8	18

Arrivals to Talkeetna	Summer 2011	Summer 2012	Summer 2013	Winter 2011	Winter 2012	Winter 2013
Chulitna	16	14	4	1	0	2
Curry	73	94	101	9	0	11
Dead Horse	0	4	0	0	0	0
Gold Creek	164	167	198	9	0	15
Hurricane	793	946	1,815	16	44	211
Sherman	33	54	60	0	0	9
Twin Bridges	0	15	79	0	0	0
Wasilla	0	0	0	0	0	281
Total	1,386	1,472	2,464	86	82	624

Source: ARRC 2014.

Table 5.1-11. Alaska Railroad, Hurricane Train Ridership, Departures from Talkeetna, 2011–2013

Departures from Talkeetna	Summer 2011	Summer 2012	Summer 2013	Winter 2011	Winter 2012	Winter 2013
Anchorage	0	0	0	26	17	24
Canyon	188	90	85	28	19	14
Chase	311	250	284	19	7	22
Chulitna	19	21	10	4	0	0
Curry	0	0	189	8	7	9
Dead Horse	0	3	0	0	0	20
Gold Creek	268	280	286	19	5	207
Hurricane	829	960	1,849	6	34	29
Sherman	58	60	62	13	6	0

Departures from Talkeetna	Summer 2011	Summer 2012	Summer 2013	Winter 2011	Winter 2012	Winter 2013
Twin Bridges	0	15	93	0	0	0
Wasilla	0	0	0	241	15	265
Total	1,673	1,679	2,858	364	110	590

Source: ARRC 2014.

Hunting

As of June 1, 2015, analysis of ADF&G's wildlife report data was complete for hunting and trapping effort, methods of transportation used, and hunter success of hunter services used.

The average reported hunting effort (hunter days) for hunters pursuing black bear, brown bear, caribou, moose, and sheep within the Recreation Use Study Area is shown in Table 5.1-12. Trapping data are not included in this analysis because harvest data from trappers do not include an estimate of trapper effort (trapper days). The analysis also does not include unsuccessful reports for brown bear hunting. Unsuccessful brown bear hunters are not required to submit harvest reports (no permits are required for hunting brown bear within the Recreation Study Area). As shown in Table 5.1-12, the average permit holder spends 4.8 days hunting in the Study Area. Nonresident hunters spend slightly less time hunting (4.6 days) than Alaska residents (4.8 days), and moose permit holders, on average, expend 5.3 days of hunting effort, slightly more than other species assessed. Recognizing that many hunters pursue more than one species during a hunt, the actual number of hunter days is likely less than what is reported in the data.

Figure 5.1-1 provides a generalized distribution of average annual wildlife hunting effort (all resident and nonresident hunters) in the Recreation Use Study Area based on 36,960 hunter harvest reporting records collected during the regulatory years 2004–2013. The scale of activity is:

- "Very Low" areas on the figure represent 1–3 reported hunter days per year.
- "Low" areas include an average of 4–644 reported days.
- "Medium" represents an average of 645–1,285 reported days.
- "High" represents greater than 1,286 reported hunter days per year.

Figure 5.1-2 provides a similar generalized distribution of hunting effort for only nonresidents from 895 harvest reports for the same 10-year period. The scale of activity is:

- "Low" hunting effort indicates an average of less than 18 reported nonresident hunter days per year.
- "Medium" represents 18–34 reported days.
- "High" represents greater than 34 reported days.

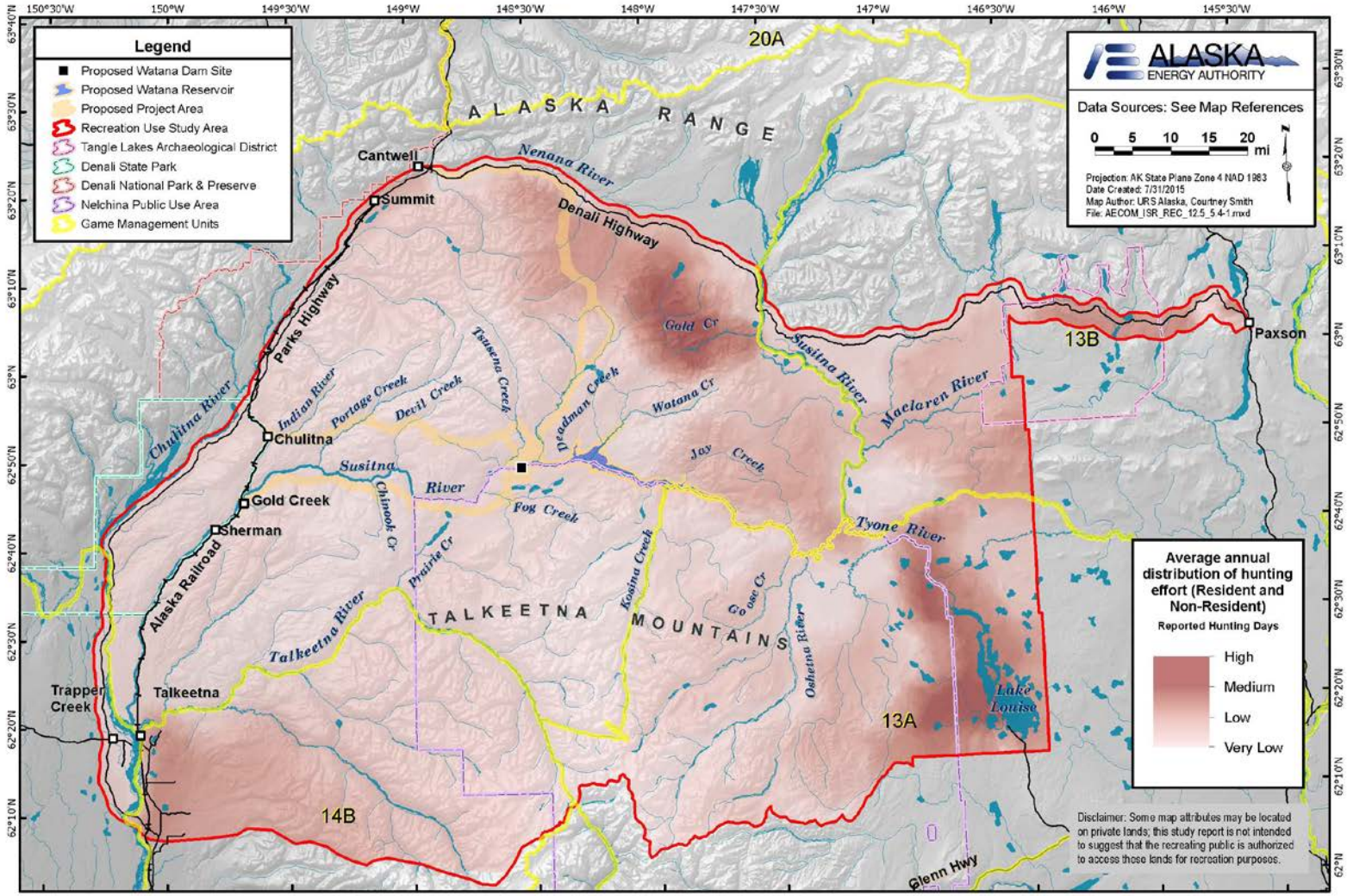


Figure 5.1-1. Distribution of reported hunting effort by resident and nonresident trappers, and hunters pursuing black bear, brown bear (successful hunters only), caribou, moose, and sheep for hunts in the Recreation Use Study Area

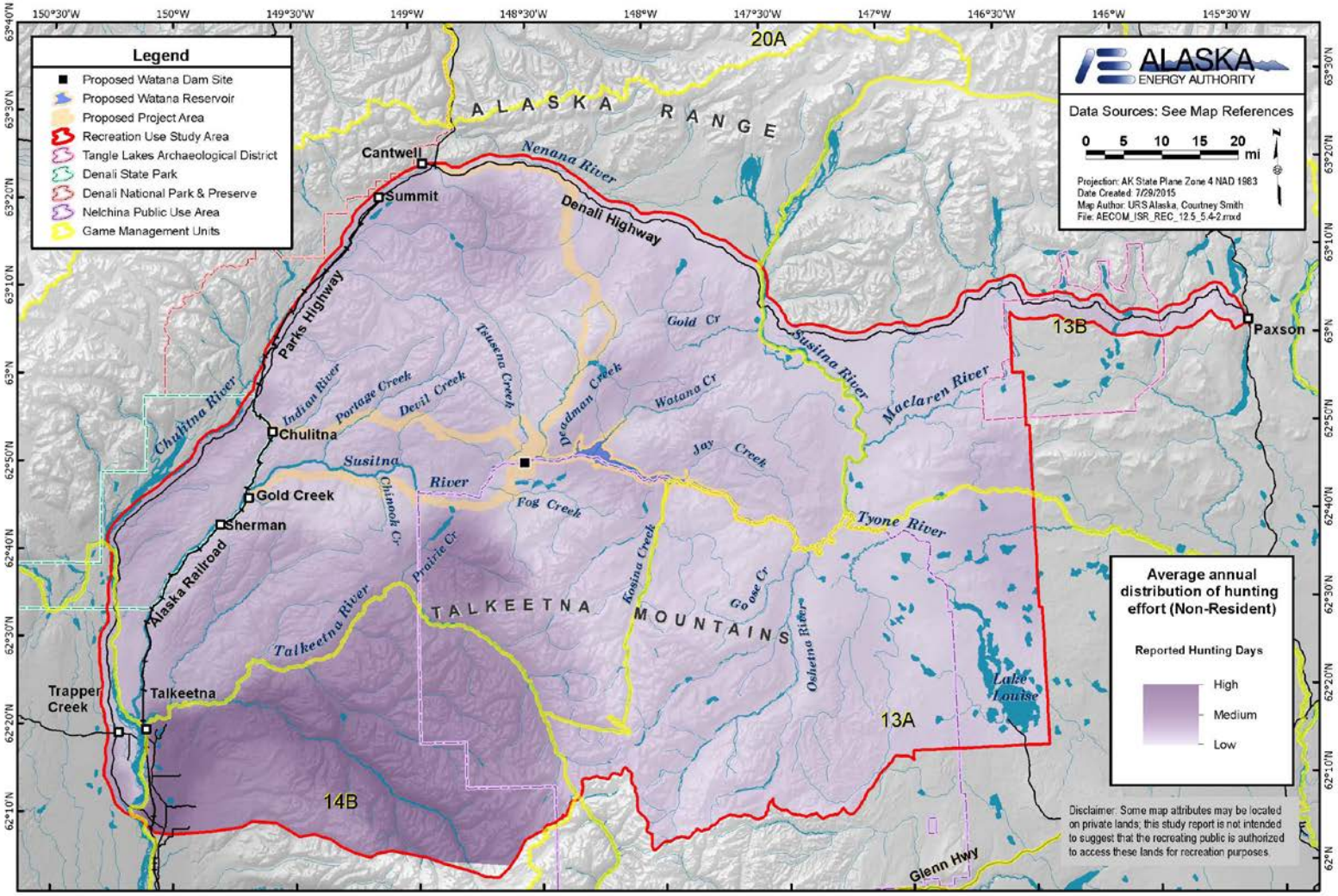


Figure 5.1-2. Distribution of reported hunting effort by only nonresident trappers, and hunters pursuing black bear, brown bear (successful hunters only), caribou, moose, and sheep in the Recreation Use Study Area

The information shown in both Figure 5.1-1 and Figure 5.1-2 represents a generalized value and distribution of hunting effort within the Study Area's UCUs. Therefore, these figures only represent a rough approximation of relative hunting effort across the Recreation Use Study Area.

Numerous ATV trails originating from the Parks, Glenn, and Denali highways are reportedly used by 41.7 percent of all hunters (41.3 percent are residents and 0.4 percent are nonresidents) to access their hunt areas in the Recreation Use Study Area (see Table 5.1-13). Other commonly used methods include highway vehicle (23.7 percent), boat (10.6 percent), ORV (9.4 percent), and airplane (7.4 percent). This information was gathered by asking hunters to complete the statement: "*I got to where I started walking by _____.*"

Within the ADF&G harvest report data, the seasonal distribution of hunting effort can only be assessed using the date of kill for successful hunts. Using information on successful hunts and trapping, the study team assessed the seasonal distribution of successful efforts for the Recreation Use Study Area. Table 5.1-14 shows the seasonal distribution of successful hunting and trapping. Almost 89 percent of all successful kills occurred during the fall hunting season (August through October), 6.4 percent occurred during the winter months (November through March), and the remaining 4.8 percent occurred between April and July. These efforts closely follow a predictable pattern determined by hunting seasons and bag limits established by ADF&G for wildlife harvest in the Recreation Use Study Area.

Table 5.1-12. Average Reported Hunting Effort by Species (Days), in Recreation Use Study Area, 2004–2013

	Black Bear	Brown Bear[1]	Caribou	Moose	Sheep	Total
Alaska Resident	4.7	3.9	4.3	5.3	4.8	4.8
Nonresident	4.1	4.9	3.7	5.2	4.0	4.6
Total	4.6	4.2	4.3	5.3	4.7	4.8

Notes:

1 Brown bear data include only successful hunts.

Source: ADF&G 2013a.

Table 5.1-13. Percent of All Hunters Reporting Use of Transportation Methods in the Recreation Use Study Area, 2004–2013 (N=36,960)

	Unspecified	Airplane	Pack Animal	Boat	Airboat	Snowmachine	ATV	ORV	Highway	Foot	Other	Grand Total
Alaska Resident	2.1%	6.2%	0.4%	10.4%	0.3%	2.1%	41.3%	9.3%	23.5%	1.4%	0.7%	97.6%

	Unspecified	Airplane	Pack Animal	Boat	Airboat	Snowmachine	ATV	ORV	Highway	Foot	Other	Grand Total
Nonresident	0.0%	1.2%	0.0%	0.2%	0.0%	0.1%	0.4%	0.1%	0.2%	0.0%	0.0%	2.4%
Total	2.1%	7.4%	0.4%	10.6%	0.3%	2.2%	41.7%	9.4%	23.7%	1.4%	0.7%	100.0%

Source: ADF&G 2013a.

Table 5.1-14. Monthly Distribution of Wildlife Harvest Success, 2004–2013 (N=14,583)

	January	February	March	April	May	June	July	August	September	October	November	December
Percent of Total Harvest	0.7%	0.6%	1.6%	0.5%	1.7%	2.0%	0.6%	26.9%	51.8%	10.0%	2.7%	0.8%

Source: ADF&G 2013a.

Unlike wildlife harvest reporting, the state does not require anglers to report sportfishing harvest. However, the Sport Fish Division of ADF&G conducts a mail survey each year to estimate sportfishing total harvest (fish kept) and total catch (fish kept plus fish released). The estimates derived from this annual survey were used for this angling effort analysis. Figure 5.1-3 displays the average number of estimated angler days per year, by stream, for the period 2003–2012 (ADF&G 2013b). This subset of the Alaska sportfishing survey database contains data for 115 locations (stream segments and lakes) in the Recreation Use Study Area where respondents to the survey reported angler days of sportfishing activity. The locations of the dots and circles on the figure represent a stream segment or lake and not necessarily the specific location of the dot or circle. The estimated angler days represented by the circles include the average number of reported angler days per year for the years 2004–2013. Gold dots represent locations with relatively low use (less than 30 survey responses per year).

The display of the survey results (Figure 5.1-3) identifies widely dispersed and low-level angling effort throughout the Recreation Use Study Area (gold dots), with the highest use (pink circles) occurring in stream segments and lakes with the best access for anglers. The most popular locations are the Talkeetna River and Chunilna (Clear) Creek (a tributary of Talkeetna River), which are typically accessed by riverboat from Talkeetna; Lake Louise, accessible from the Glenn Highway; and Tangle Lakes and Tangle River, which are accessed from the Denali Highway. Appendix F, Table F-1 displays the estimated average annual number anglers, estimated angler days fished, and estimated catch (kept and released) by species, for the six most actively fished steam segments and lakes in the Recreation Use Study Area, as identified on Figure 5.1-3. Angler days fished on these six stream segments represent 44 percent of the average estimated number of annual angler days (total of 57,780 angler days) in the Recreation Use Study Area, as shown in Appendix F, Table F-2.

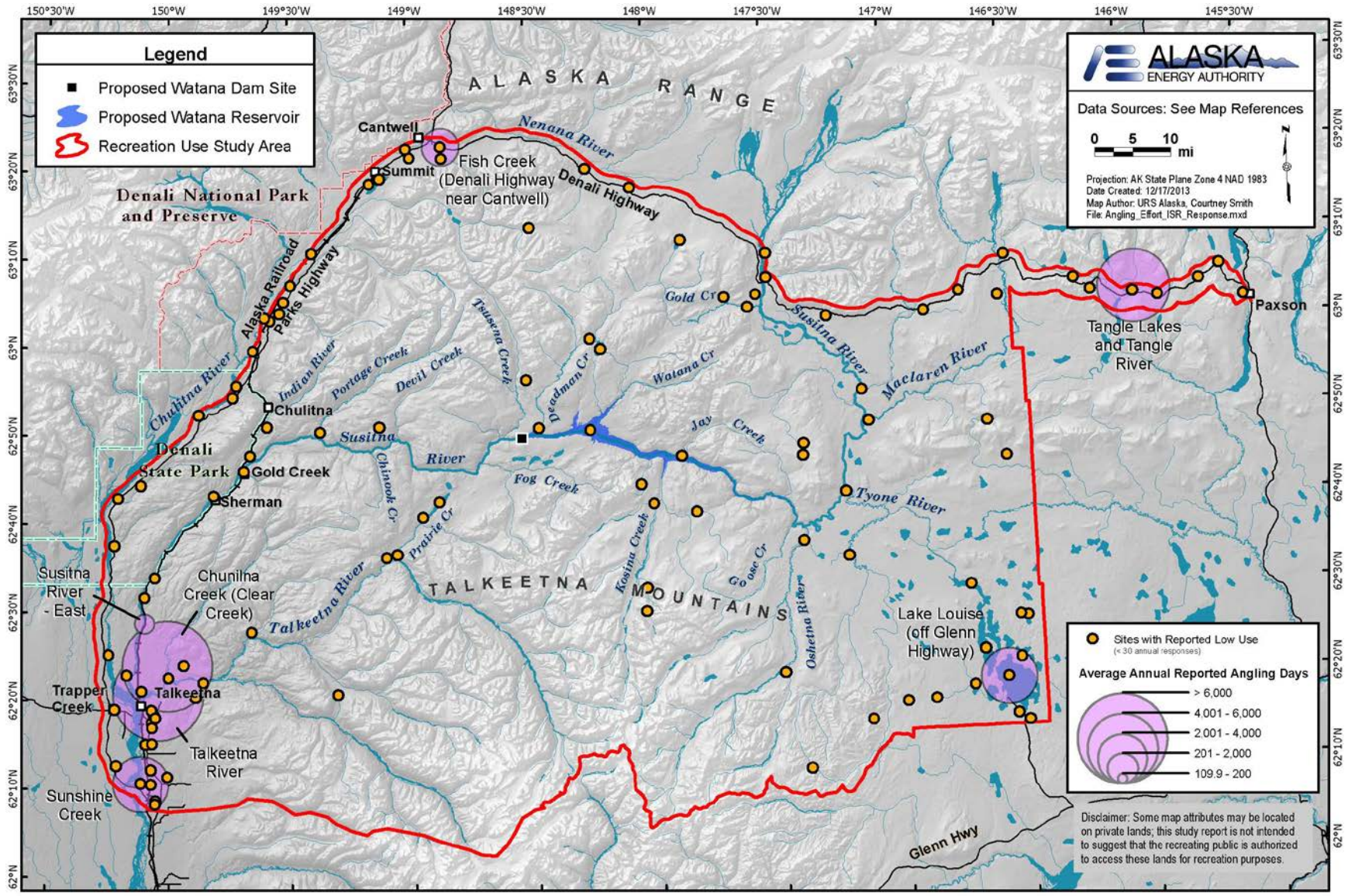


Figure 5.1-3. Average Number of Angler Days per Year, per Stream, for 2004–2013

Streams that provide the opportunity to catch anadromous species (those that migrate from the sea to fresh water to spawn), such as Chunilna Creek, Sunshine Creek, Talkeetna River, and other smaller streams, support 66 percent (or 38,833 angler days) of the average estimated annual angler days fished.

Estimates for the total number of annual angler days provide only a broad approximation of total angling effort for the Recreation Use Study Area, as approximately 95 percent of the sites had less than 30 survey responses. For example, Jay Creek received one survey response in 2012, which produced an estimate of 615 angler days in 2012; however, the 95 percent confidence interval for this site ranged from zero to 1,846, thus making the estimate extremely unreliable. To varying degrees, a similar uncertainty exists for those sites with low survey responses (less than 30).

5.1.2. Data Analysis from New Survey Data Collection

This section presents estimates of current recreational demand, for both Alaska residents and nonresidents, for the Recreation Use Study Area based on a combination of the survey methodologies outlined in Section 4.

5.1.2.1. Mail Survey Data Weighting Analysis

The sample area for the Recreation Regional Resident Household Mail Survey included the Fairbanks North Star Borough, Denali Borough, MSB, Municipality of Anchorage, and additional proximal Recreation Use Study Area communities, such as Glennallen, Paxson, Gulkana, Gakona, and Lake Louise of the South Fairbanks and Valdez-Cordova census areas. These areas are collectively referred to as the "regional resident area" in the following narrative.

Mail survey results were weighted by place of residence, age, and income so that overall results were statistically representative of the entire survey area population.

Random sample Nonresponse Bias Telephone Surveys were conducted to test for nonresponse bias in the mail surveys (see Appendix E for additional details). For potential nonresponse bias, the primary concern was whether active, outdoor-oriented households would be more inclined to participate in the mail survey than inactive households (or households more focused on indoor recreation). Because the mail survey instrument was clearly designed and labeled as an outdoor recreation survey, it is possible that households with little or no interest in outdoor recreation were less likely to return the survey.

Analysis of the telephone survey results provided inconclusive evidence that adjustment of the mail survey results was warranted to account for nonresponse bias. Weighted mail and telephone survey results showed similar (or the same) percentages of residents participating in snowmachining, hunting, and sportfishing. Mail and telephone survey results departed somewhat on participating in recreational boating (without fishing) (Table 5.1-15).

Table 5.1-15. Percent of Regional Residents Ever Participating in Selected Recreational Activities

	Combined Weighted Mail Surveys (n=3,555)	Margin of Error	Combined Weighted Phone Surveys (n=786)	Margin of Error
Snowmachining	43%	±1.7%	44%	±3.5%
Hunting	40%	±1.7%	40%	±3.4%
Sportfishing	77%	±1.5%	71%	±3.2%
Boating (without fishing)	57%	±1.7%	46%	±3.5%

Note: Maximum margin of error at the 95 percent confidence level.

It is also possible that the telephone survey results were affected by some measure of nonresponse bias (meaning that non-outdoor recreation users might have been less inclined to participate in the telephone survey), although there is no indication in the survey or other data of any systematic bias in this regard.

Because there is some evidence of self-selection bias in the mail survey, telephone survey results were used to adjust for participation in recreational activity. Specifically, nonresponse bias telephone survey results suggest that 3.9 percent of adult Anchorage residents do not participate in outdoor recreational activity, along with 3.6 percent of Fairbanks North Star Borough (FNSB) residents, and 2.1 percent of MSB residents. The number of households established as the basis for estimating usage in the Study Area was reduced by these percentages, to compensate for any self-selection bias in the mail survey data.

The telephone surveys were also conducted to test the validity of using registered voters as a proxy for all adult residents of the Recreation Regional Resident Household Mail Survey sample area. The mail survey was sent to a random selection of registered voters which, first, does not include all residents aged 18 and over, and second, likely has socioeconomic characteristics somewhat different than non-registered voters. Weighting for age and income would be expected to resolve some but not necessarily all of this potential sample bias.

The weighted telephone survey did reveal a statistically different propensity to participate in various outdoor recreation activities between registered voters and non-registered voters. The telephone surveys found that registered voters were more likely to participate in snowmachining, hunting, sportfishing, and boating than their non-registered voter counterparts. Registered voters were also more like to have recreated in places in and around the Study Area in the last 12 months, 55 percent of registered voters versus 42 percent of non-registered voters (Table 5.1-16).

Table 5.1-16. Percent of Alaska Regional Residents Participating in Recreational Activities

Yes Response (n=786)	Registered Voters	Not Registered Voters
Ever snowmachined (yes)	45%	39%

Ever hunted	41%	32%
Ever sportfished	73%	55%
Ever boated	48%	31%
Recreated in the Study Area region	55%	42%

According to ADOLWD data, in 2012, 93.1 percent of Alaska residents age 18 and over were registered voters. Telephone survey results indicate that non-registered voters recreate in the Study Area about 24 percent less than registered voters, or conversely, a registered voter is about 31 percent more likely than a non-registered person to recreate in the Study Area. Estimates of recreational use of the Study Area derived from mail survey results were adjusted to account for this distinction (although the adjustment resulted in a net change [reduction] in recreational use of only about one-half of one percent).

5.1.2.2. Number of Alaska Residents Households Recreating in the Recreation Use Study Area

Based on the Nonresponse Bias Telephone Survey results (Appendix E) where respondents indicated whether they recreated outdoors, it is estimated that approximately 97 percent of regional resident households participate in outdoor recreation. Further, 28.7 percent of Anchorage households responding to the mail survey used the Study Area for recreational purposes during the 12-month period preceding the date of the survey, along with 26 percent of FNSB residents, and 45 percent of MSB residents. The survey also found that 61 percent of Denali Borough residents and 34 percent of residents of communities immediately east of the Study Area (South Fairbanks and Valdez-Cordova census areas) used the Study Area.

These percentages indicate that a total of 54,200 survey area households used the Study Area at some point during the past year, including approximately 29,600 Anchorage households, 9,100 in FNSB, 14,000 in MSB, 500 in Denali Borough, and 1,000 elsewhere in the regional resident area (Table 5.1-17).

Table 5.1-17. Number of Regional Resident Study Area User Households, Total and by Region of Alaska Residency

Region of Alaska Residence	Total Number of Households	Estimated Number of Households, excluding Those Not Recreating Outdoors	Percent Recreating in Study Area	Estimated Number of Households Recreating in the Study Area
Municipality of Anchorage (n=2,030)	107,332	103,146	29%	29,600
Fairbanks North Star Borough (n=598)	36,441	35,129	26%	9,100
Matanuska-Susitna Borough (n=544)	31,824	31,156	45%	14,000

Denali Borough (n=34)	806	806	61%	500
South Fairbanks and Valdez-Cordova census areas (combined) (n=210)	2,926	2,926	34%	1,000
Total (n=3,416)	179,329	173,163	30%	54,200

Note: "n" values are unweighted. Estimated number of households recreating in the Study Area rounded after calculation. Estimated number of households recreating in the Study Area rounded to the nearest hundred.

The margin of error associated with the estimate of total households using the Study Area is ±1.50 percent, at the 95 percent confidence level. That places the range between a low of 53,400 and a high of 55,100 households (Table 5.1-18).

Table 5.1-18. Annual Number of Regional Resident Recreation Use Study Area User Households, Total and by Region of Alaska Residency; Mid, Low, and High Estimates

Place of Residence	Number of Households Using the Study Area, Mid-Point Estimate	Number of Households Using the Study Area, Low-Point Estimate	Number of Households Using the Study Area, High-Point Estimate
Municipality of Anchorage (n=2,030)	29,600	29,000	30,200
Fairbanks North Star Borough (n=598)	9,100	8,800	9,500
Matanuska-Susitna Borough (n=544)	14,000	13,400	14,600
Denali Borough (n=34)	500	400	600
South Fairbanks and Valdez-Cordova census areas (combined) (n=210)	1,000	900	1,100
Total (n=3,416)	54,200	53,400	55,100

Note: "n" values are unweighted. Mid-, low-, and high-point results rounded after calculation. Number of households rounded to the nearest hundred. The total mid-, low-, and high-points are based on the margin of error for the total sample and not the sum of all rounded mid-, low-, and high-points for each region.

5.1.2.3. Estimated Alaska Resident Individuals Recreating in Recreation Use Study Area

To estimate the total number of individual Study Area users, the average household party size, as reported for the most recent trip to the Study Area, was used. Based on that average, approximately 68,100 Anchorage residents used the Study Area, along with 21,000 FNSB residents, 28,000 MSB residents, 800 Denali Borough residents, and 2,200 residents from elsewhere in the survey area (Table 5.1-19).

Table 5.1-19. Estimated Annual Number of Regional Resident Study Area Users, Total and by Region of Alaska Residency

Region of Alaska Residence	Estimated Number of Regional Resident Households Recreating in the Study Area	Average Household Party Size on Most Recent Trip	Total Estimated Number of Study Area Users
Municipality of Anchorage (n=589)	29,600	2.3	68,100
Fairbanks North Star Borough (n=155)	9,100	2.3	21,000
Matanuska-Susitna Borough (n=245)	14,000	2.0	28,000
Denali Borough (n=21)	500	1.6	800
South Fairbanks and Valdez-Cordova census areas (combined) (n=71)	1,000	2.2	2,200
Total (n=1,081)	54,200	2.2	120,100

Note: "n" values are unweighted. Results rounded after calculation. Average household party size rounded to the nearest tenth. Number of households and users rounded to the nearest hundred.

The total number of recreational users from the Study Area is estimated at 120,100. This is the mid-point estimate in the range from 116,500 to 123,700 Study Area users (Table 5.1-20).

Table 5.1-20. Annual Number of Regional Resident Recreation Use Study Area Users, Total and by Region of Alaska Residency; Mid, Low, and High Estimates

Region of Alaska Residence	Number of Study Area, Users, Mid-Point Estimate	Number of Study Area, Users, Low-Point Estimate	Number. of Study Area, Users, High-Point Estimate
Municipality of Anchorage (n=589)	68,100	65,300	70,800
Fairbanks North Star Borough (n=155)	21,000	19,500	22,500
Matanuska-Susitna Borough (n=245)	28,000	25,600	30,400
Denali Borough (n=21)	800	500	1,100
South Fairbanks and Valdez-Cordova census areas	2,200	1,900	2,500

(combined) (n=71)			
Total (n=1,081)	120,100	116,500	123,700

Note: "n" values are unweighted. Mid-, low-, and high-point results rounded after calculation. Number of users rounded to the nearest hundred. The total mid-, low-, and high-points are based on the margin of error for the total sample and not the sum of all rounded mid-, low-, and high-points for each region.

5.1.2.4. Alaska Resident User-Days in Recreation Use Study Area

Survey results indicate that users spent an average of 14.3 total user-days in the Study Area, including whole and part days throughout the year. Average usage varies widely across the survey region, including an average of 7.6 user-days among Anchorage residents, 6.4 user-days among FNSB residents, 33.2 user-days for MSB residents, and 147.7 user-days for Denali Borough residents. Study Area users from elsewhere in the survey region averaged 10.2 user-days.

Based on these averages, residents of the Recreation Regional Resident Household Mail Survey sample area spent a total of approximately 1.72 million whole or part user-days in the Study Area. MSB residents account for over half (54 percent) of this usage, Anchorage residents 30 percent, FNSB residents 8 percent, and Denali Borough residents 7 percent (Table 5.1-21).

Table 5.1-21. Annual Regional Resident Unduplicated User-Days (Whole or Part), Total and by Region of Alaska Residency

Region of Alaska Residence	Total Number of Users of the Study Area	Mean Number of Annual Unduplicated User-Days in the Study Area	Total Number of Annual User-Days in the Study Area
Municipality of Anchorage (n=285)	68,100	7.6	517,500
Fairbanks North Star Borough (n=75)	21,000	6.4	134,400
Matanuska-Susitna Borough (n=125)	28,000	33.2	930,900
Denali Borough (n=14)	800	147.7	116,200
South Fairbanks and Valdez-Cordova census areas (combined) (n=64)	2,200	10.2	22,300
Total (n=563)	120,100	14.3	1,721,400

Note: "n" values are unweighted. Mid-, low-, and high-point results rounded after calculation. Average number of unduplicated user-days rounded to the nearest tenth. Number of households and users rounded to the nearest hundred. The total mid-, low-, and high-points are based on the margin of error for the total sample and not the sum of all rounded mid-, low-, and high-points for each region.

The estimate of 1.72 million user-days is the mid-point in the 95 percent confidence interval ranging between 1,596,600 and 1,846,100 user-days (Table 5.1-22).

Table 5.1-22. Annual Regional Resident Unduplicated User-Days (Whole or Part), Total and by Region of Alaska Residency; Mid, Low, and High Estimates

Region of Alaska Residence	Total Number of Annual User-Days in the Study Area, Mid-Point Estimate	Total Number of Annual User-Days in the Study Area, Low-Point Estimate	Total Number of Annual User-Days in the Study Area, High-Point Estimate
Anchorage (n=589)	517,500	465,300	569,600
Fairbanks North Star Borough (n=155)	134,400	108,900	160,000
Matanuska-Susitna Borough (n=245)	930,900	762,100	1,099,700
Denali Borough (n=21)	116,200	35,400	197,000
Other (n=71)	22,300	16,400	28,200
Total (n=1,081)	1,721,400	1,596,600	1,846,100

Note: "n" values are unweighted. Mid-, low-, and high-point results rounded after calculation. Number of users rounded to the nearest hundred. The total mid-, low-, and high-points are based on the margin of error for the total sample and not the sum of all rounded mid-, low-, and high-points for each region.

5.1.2.5. Alaska Resident Activities by User-Days in Recreation Use Study Area

Mail survey results were also used to estimate the number of Study Area users participating in a broad range of specific activities. The average household party size reported for the most recent trip was applied to estimates of the number of households participating in each activity over the previous 12 months. Estimated numbers of users participating in various activities is provided in Table 5.1-23. Total participation in each activity cannot be summed to produce a Study Area total because users often participate in multiple activities on the same trip.

Table 5.1-23. Annual Regional Resident Participation for Selected Activities in the Study Area, Estimated Number of Regional Resident Study Area Users Participating in Each Activity, by Activity

Activity (n=1,194)	Percent of Study Area Users Participating in Each Activity	Total Number of Study Area Households That Participated in Each Activity	Mean Party Size (Household Members only)	Total Number of Study Area Users Participating in Each Activity
Riding the Alaska Railroad (n=131)	11%	6,000	2.0	11,900
Bird watching (n=236)	18%	9,800	1.3	12,700

Activity (n=1,194)	Percent of Study Area Users Participating in Each Activity	Total Number of Study Area Households That Participated in Each Activity	Mean Party Size (Household Members only)	Total Number of Study Area Users Participating in Each Activity
Bicycling (n=144)	13%	7,100	2.3	16,200
Remote camping (n=360)	33%	17,900	2.2	39,400
Roadside camping (n=359)	31%	16,800	2.7	45,400
Collecting berries/ Mushrooms (n=305)	23%	12,500	2.3	28,700
Dog sledding (n=26)	2%	1,100	2.0	2,200
Fishing for salmon (n=152)	13%	7,100	1.9	13,400
Fishing for non-salmon species (n=208)	16%	8,700	1.8	15,600
Flightseeing (n=93)	8%	4,300	1.5	6,500
Hunting (n=245)	19%	10,300	1.7	17,500
Hiking/backpacking (n=409)	36%	19,500	2.2	43,000
Motorized boating (jet, prop, or air) (n=116)	9%	4,900	2.2	10,700
Nonmotorized boating (rafting, canoeing, kayaking, or pack raft) (n=157)	13%	7,100	2.2	15,500
Riding ATVs (n=233)	20%	10,800	2.1	22,800
Skiing (n=116)	9%	4,900	2.0	9,800
Snowmachining (n=158)	16%	8,700	1.8	15,600
Snowshoeing (n=83)	7%	3,800	2.0	7,600
Walking/running (n=437)	36%	19,500	2.1	41,000
Wildlife viewing (n=528)	42%	22,800	2.2	50,100

Activity (n=1,194)	Percent of Study Area Users Participating in Each Activity	Total Number of Study Area Households That Participated in Each Activity	Mean Party Size (Household Members only)	Total Number of Study Area Users Participating in Each Activity
Wildlife viewing/bird watching Combined (n=561)	45%	24,400	2.2	53,700
Other* (n-105)	8%	4,300	1.9	8,200

Note: "n" values are unweighted. Results rounded after calculation. Number of household members rounded to the nearest tenth. Number of households and users rounded to the nearest hundred. Total number of user results column rounded after calculation.

*"Other" included gold panning, waterskiing, dirt biking, photography, rock climbing, mountaineering, motorcycling, playing basketball, playing volleyball, meditation/reflection, "jeeping," geocaching, shooting, and trapping.

Table 5.1-24 provides mid-, low-, and high-point annual estimates of the number of users participating in various activities within the Study Area.

Table 5.1-24. Annual Regional Resident Participation for Selected Activities in the Study Area, Number of Study Area Users Participating in Each Activity, Mid, Low, and High Estimates, by Activity

Activity (n=1,194)	Total Number of Study Area Users Participating in Each Activity: Mid-Point	Total Number of Study Area Users Participating in Each Activity: Low-Point	Total Number of Study Area Users Participating in Each Activity: High-Point
Riding the Alaska Railroad (n=131)	11,900	8,800	15,000
Bird watching (n=236)	12,700	10,300	15,100
Bicycling (n=144)	16,200	12,400	20,000
Remote camping (n=360)	39,400	34,000	44,800
Roadside camping (n=359)	45,400	38,900	51,900
Collecting berries/mushrooms (n=305)	28,700	24,000	33,400
Dog sledding (n=26)	2,200	800	3,500
Fishing for salmon (n=152)	13,400	10,300	16,500
Fishing for non-salmon species (n=208)	15,600	12,400	18,800
Flightseeing (n=93)	6,500	4,500	8,500

Activity (n=1,194)	Total Number of Study Area Users Participating in Each Activity: Mid-Point	Total Number of Study Area Users Participating in Each Activity: Low-Point	Total Number of Study Area Users Participating in Each Activity: High-Point
Hunting (n=245)	17,500	14,200	20,800
Hiking/backpacking (n=409)	43,000	37,400	48,500
Motorized boating (jet, prop, or air) (n=116)	10,700	7,700	13,700
Non-motorized boating (rafting, canoeing, kayaking, or pack raft) (n=157)	15,500	11,900	19,100
Riding ATVs (n=233)	22,800	18,600	27,000
Skiing (n=116)	9,800	7,000	12,500
Snowmachining (n=158)	15,600	12,300	19,000
Snowshoeing (n=83)	7,600	5,100	10,000
Walking/running (n=437)	41,000	35,800	46,200
Wildlife viewing (n=528)	50,100	44,500	55,700
Wildlife viewing/bird watching Combined (n=561)	53,700	47,900	59,500
Other* (n-105)	8,200	5,800	10,700

Note: "n" values are unweighted. Mid-, low-, and high-point results rounded after calculation. Number of users rounded to the nearest hundred.
*"Other" included gold panning, waterskiing, dirt biking, photography, rock climbing, mountaineering, motorcycling, playing basketball, playing volleyball, meditation/reflection, "jeeping," geocaching, shooting, and trapping.

Finally, mail survey results were used to estimate the number of user-days for specific activities within the Study Area. The average number of whole or part user-days spent participating in each activity was applied to estimates of the number of users participating in each activity over the previous 12 months. Estimated numbers of user-days for various activities are provided in Table 5.1-25. Total user-days for each activity cannot be summed to produce a total for the Study Area because users often participate in multiple activities on the same trip and on the same day.

Table 5.1-25. Number of Regional Resident Annual Whole or Part User-Days for Selected Activities in the Study Area and Percent of Total Study Area User-Days, by Activity

Activity	Total Number of Study Area Users Participating in Each Activity, Mid-Point Estimate	Average Number of Days (whole or part) Participating in Each Activity	Total Number of Study Area User-Days, By Activity	Percent of Total Study Area User-Days
Riding the Alaska Railroad (n=131)	11,900	2.8	33,400	1.1%
Bird watching (n=236)	12,700	9.4	119,300	3.9%
Bicycling (n=144)	16,200	8.4	136,200	4.5%
Remote camping (n=360)	39,400	7.7	303,200	10.0%
Roadside camping (n=359)	45,400	4.7	213,400	7.0%
Collecting berries/mushrooms (n=305)	28,700	4.4	126,300	4.2%
Dog sledding (n=26)	2,200	10.0	21,700	0.7%
Fishing for salmon (n=152)	13,400	7.5	100,500	3.3%
Fishing for non-salmon species (n=208)	15,600	7.4	115,600	3.8%
Flightseeing (n=93)	6,500	3.2	20,800	0.7%
Hunting (n=245)	17,500	7.9	138,400	4.6%
Hiking/backpacking (n=409)	43,000	6.0	257,800	8.5%
Motorized boating (jet, prop, or air) (n=116)	10,700	9.9	106,300	3.5%
Non-motorized boating (rafting, canoeing, kayaking, or pack raft) (n=157)	15,500	5.3	82,200	2.7%
Riding ATVs (n=233)	22,800	8.0	182,300	6.0%
Skiing (n=116)	9,800	7.5	73,200	2.4%
Snowmachining (n=158)	15,600	11.4	178,100	5.9%

Activity	Total Number of Study Area Users Participating in Each Activity, Mid-Point Estimate	Average Number of Days (whole or part) Participating in Each Activity	Total Number of Study Area User-Days, By Activity	Percent of Total Study Area User-Days
Snowshoeing (n=83)	7,600	7.0	53,200	1.8%
Walking/running (n=437)	41,000	8.0	328,100	10.8%
Wildlife viewing (n=528)	50,100	7.7	385,900	12.7%
Wildlife viewing/bird watching combined (n=561)	53,700	9.1	488,700	16.1%
Other* (n-105)	8,200	6.6	54,400	1.8%

Note: "n" values are unweighted. Total user-day results rounded after calculation. Average number of days rounded to the nearest tenth. Numbers of users and user-days rounded to the nearest hundred.

*"Other" included gold panning, waterskiing, dirt biking, photography, rock climbing, mountaineering, motorcycling, playing basketball, playing volleyball, meditation/reflection, jeeping, geocaching, shooting, and trapping.

Table 5.1-26 provides mid-, low-, and high-point annual estimates of the number of user-days for various activities within the Study Area.

Table 5.1-26. Number of Regional Resident Annual Whole or Part User-Days for Selected Activities in the Study Area, Mid, Low, and High Estimates, by Activity

Activity	Total Number of Study Area User-Days, Mid-Point	Total Number of Study Area User-Days, Low-Point	Total Number of Study Area User-Days, High-Point
Riding the Alaska Railroad (n=131)	33,400	23,700	43,100
Bird watching (n=236)	119,300	95,600	143,000
Bicycling (n=144)	136,200	102,800	169,700
Remote camping (n=360)	303,200	259,600	346,900
Roadside camping (n=359)	213,400	180,700	246,100
Collecting berries/mushrooms (n=305)	126,300	103,900	148,700
Dog sledding (n=26)	21,700	8,000	35,400
Fishing for salmon (n=152)	100,500	76,000	124,900

Activity	Total Number of Study Area User-Days, Mid-Point	Total Number of Study Area User-Days, Low-Point	Total Number of Study Area User-Days, High-Point
Fishing for non-salmon species (n=208)	115,600	90,800	140,400
Flightseeing (n=93)	20,800	13,900	27,800
Hunting (n=245)	138,400	111,500	165,400
Hiking/backpacking (n=409)	257,800	222,600	293,000
Motorized boating (jet, prop, or air) (n=116)	106,300	75,600	137,100
Non-motorized boating (rafting, canoeing, kayaking, or pack raft) (n=157)	82,200	61,900	102,500
Riding ATVs (n=233)	182,300	147,300	217,200
Skiing (n=116)	73,200	51,800	94,600
Snowmachining (n=158)	178,100	138,500	217,700
Snowshoeing (n=83)	53,200	35,200	71,100
Walking/running (n=437)	328,100	284,300	371,800
Wildlife viewing (n=528)	385,900	340,500	431,300
Wildlife viewing/bird watching combined (n=561)	488,700	433,900	543,500
Other* (n-105)	54,400	37,500	71,300

Note: "n" values are unweighted. Mid-, low-, and high-point results rounded after calculation. Numbers of user-days rounded to the nearest hundred.

*"Other" included gold panning, waterskiing, dirt biking, photography, rock climbing, mountaineering, motorcycling, playing basketball, playing volleyball, meditation/reflection, jeeping, geocaching, shooting, and trapping.

5.1.2.6. Nonresident Recreation Use of the Recreation Use Study Area

The primary research tool used to profile non-Alaska resident use of the Study Area was an intercept survey of 1,118 Study Area users, conducted at various locations and times between March 2013 and March 2014. The intercept survey sample included 320 nonresident users of the Study Area (see Appendix B for additional details).

While every effort was made to randomize the survey, the geographic expanse, remoteness, and weather conditions of the Study Area limited the study team's ability to field a completely random sample intercept survey. As described in the Recreation Intercept Survey Report (Appendix B), the intercept survey sample includes aspects of a random sample survey and a convenience sample survey.

Secondary data and other information were also used whenever possible to frame the analysis of nonresident use of the Study Area. In particular, AVSP data served as an important reference point on the number of nonresident visitors to Talkeetna within the Study Area.

5.1.2.7. Number of Nonresidents Recreating in the Recreation Use Study Area

The best available estimate of nonresident visitation within the Study Area is AVSP VI visitor volume estimates for Talkeetna. During May 2011 through April 2012, the most recent year of AVSP survey fielding, an estimated 212,000 nonresidents visited Talkeetna, including 205,000 summer visitors and 7,000 fall/winter visitors. According to AVSP and executive interview research, most nonresident users (particularly cruise tour passengers) of the Study Area visit Talkeetna, but some do not, including (e.g., Denali Highway travelers who visit Interior Alaska but never travel as far south as Talkeetna). Other nonresident users of the Study Area that did not visit Talkeetna could include visitors to Lake Louise, Denali State Park, and others who may have spent a night along the Parks Highway within the Study Area. An estimated 30,000 nonresidents visited the Study Area but did not visit Talkeetna, based on interviews with managers of public and private visitor facilities located in the Study Area, as well as information gathered in the intercept survey.

Based on extrapolation of AVSP data outlined above, executive interview research, and Recreation Intercept Survey data, it is estimated that approximately 260,000 nonresidents visited some portion in the Study Area over the 12-month period from May 2013 through April 2014. While the margin of error was not able to be quantified, it is estimated that the margin of error for total nonresident users of the Study Area is approximately ±10 percent. This estimate includes statistical variances around the number of Talkeetna visitors measured in the 2011 AVSP (n=1,096 with error margin of ±3 percent), uncertainty around the updated estimate for Talkeetna visitation in 2013–2014, and uncertainty associated with the estimate of non-Talkeetna nonresident visitors to the Study Area. Based on a ±10 percent margin of error at the 95 percent confidence interval, total nonresident users would fall between 234,000 and 286,000, with a midpoint of 260,000.

5.1.2.8. Nonresident Study Area User-Days

Intercept survey results indicate that nonresidents spent an average of 3.9 days in the Study Area during "this trip" (meaning the trip during which they were surveyed). This average includes 3.7 days among Talkeetna visitors and 5.3 days among non-Talkeetna visitors. Applying this average to the 260,000 nonresident users suggests a total of 1.01 million nonresident user-days. This estimate may slightly understate nonresident use of the Study Area as it does not include nonresident use of the Study Area during trips over the preceding 12 months, other than for the trip during which they were surveyed. Eight percent of nonresidents surveyed reported participating in other recreational activities in the Study Area in the last 12 months (other than

activities "this trip"). Further, a small percentage of nonresidents (4 percent) reported using the Study Area multiple times over the past 12 months. It is assumed these nonresidents are, primarily, seasonal workers whose principal place of residence is outside Alaska. In any case, in the absence of data concerning the number of additional unduplicated user-days spent in the Study Area by these repeat nonresident visitors, the estimate of total nonresident user-days in the Study Area was not modified.[1]

In addition to uncertainty around the number of nonresident users, the estimate of total user-days is further subject to uncertainty around the average length of stay in the Study Area (intercept survey n=320 with error margin of ±5.5 percent at the 95 percent confidence interval).

Total nonresident users are estimated at just under 1.02 million days, the mid-point within a range of 864,000 and 1,169,000 total user-days (Table 5.1-27).

Table 5.1-27. Total Annual Non-Alaska Resident Study Area Users and Unduplicated User-Days; Mid, Low, and High Estimates

	Mid-Point Estimate	Low-Point Estimate	High-Point Estimate
Total Users	260,000	234,000	286,000
Total Unduplicated User-Days	1,016,700	864,200	1,169,200

Note. Number of users and user-days rounded to the nearest hundred.

5.1.2.9. Non-Alaska Resident Study Area User-Days by Activity

Table 5.1-28 provides mid-, low-, and high-point annual estimates of the number of nonresident users participating in various Study Area activities.

Table 5.1-28. Number of Non-Alaska Resident Annual Study Area Users for Selected Activities, by Activity

Activity	Percent of Nonresident Study Area Users Participating in Each Activity	Total Number of Nonresident Study Area Users That Participated in Each Activity, Mid-Point Estimate	Total Number of Nonresident Study Area Users That Participated in Each Activity, Low-Point Estimate	Total Number of Nonresident Study Area Users That Participated in Each Activity, High-Point Estimate
Riding the Alaska Railroad (n=147)	56%	145,300	120,300	172,600
Bird watching (n=45)	10%	26,500	20,400	33,400

[1] Because of more frequent use of the Study Area, nonresident seasonal workers may have been overrepresented in the intercept survey sample.

Activity	Percent of Nonresident Study Area Users Participating in Each Activity	Total Number of Nonresident Study Area Users That Participated in Each Activity, Mid-Point Estimate	Total Number of Nonresident Study Area Users That Participated in Each Activity, Low-Point Estimate	Total Number of Nonresident Study Area Users That Participated in Each Activity, High-Point Estimate
Bicycling (n=17)	5%	13,300	9,200	18,000
Remote camping (n=24)	6%	15,700	11,900	20,000
Roadside camping (n=90)	20%	51,900	42,300	62,500
Collecting berries/mushrooms (n=33)	8%	19,500	15,100	24,500
Dog sledding (n=14)	4%	10,700	7,600	14,200
Fishing for salmon (n=23)	8%	21,600	16,300	27,600
Fishing for non-salmon species (n=31)	7%	17,800	13,800	22,300
Flightseeing (n=83)	32%	83,700	67,800	101,300
Hunting (n=5)	1%	1,300	900	1,800
Hiking/backpacking (n=88)	22%	57,500	46,600	69,600
Motorized boating (jet, prop, or air) (n=57)	22%	56,400	44,700	69,500
Non-motorized boating (rafting, canoeing, kayaking, or pack raft) (n=48)	14%	37,300	29,200	46,400
Riding ATVs (n=9)	2%	6,100	4,400	8,100
Skiing (n=9)	4%	9,500	6,800	12,500
Snow machining (n=12)	3%	9,000	6,700	11,600
Snowshoeing (n=11)	3%	8,400	6,200	10,900
Walking/running (n=68)	22%	56,600	45,300	69,100
Wildlife viewing (n=102)	25%	63,700	52,200	76,300

Activity	Percent of Nonresident Study Area Users Participating in Each Activity	Total Number of Nonresident Study Area Users That Participated in Each Activity, Mid-Point Estimate	Total Number of Nonresident Study Area Users That Participated in Each Activity, Low-Point Estimate	Total Number of Nonresident Study Area Users That Participated in Each Activity, High-Point Estimate
Wildlife viewing/bird watching combined (n=119)	29%	75,600	62,100	90,500
Other* (n=52)	10%	26,600	21,100	32,800

Note: "n" values are unweighted. Mid-, low-, and high-point results rounded after calculation. Numbers of users rounded to the nearest hundred.

* "Other" included photography, ziplining, swimming, mountaineering, motorcycle riding, horseback riding, gold panning, skijoring, sledding, jet skiing, target shooting, picnicking, roller skiing, geocaching, bikejoring, hockey, and rock hunting.

The intercept survey did not provide any direct measures of total user-days by activity for all activities. The survey gathered information on the number of days spent participating in the primary activity, and the number of user-days participating in recreation activities during other trips over the previous 12 months. To develop estimates of total user-days by activity, two approaches were used. The first provided a conservative range of estimates by crediting all non-primary activities with one user-day per user per trip. Primary activities were credited with the number of user-days as measured in the intercept survey. This approach clearly produces conservative estimates, as activities such as wildlife viewing are likely to have occurred every day spent in the Study Area (for many users), although such activities were only credited with one user-day per user except when these activities were reported as the primary activity (wildlife viewing was reported as the primary activity by a small percentage of nonresident users).

The second approach produced a more liberal estimate by crediting all activities with the number of days reported by those who reported it as their primary activity. In fact, the actual number of whole or part user-days lies between the results produced by these two approaches. The following table provides averages of the two approaches for the mid-, low-, and high-point annual estimates of the number of nonresident whole or part user-days for various Study Area activities (Table 5.1-29) and estimated number of recreation users (Table 5.1-30).

Table 5.1-29. Number of Non-Alaska Resident Annual Whole or Part User-Days for Selected Activities in the Study Area, by Activity

Activity	Total Number of Nonresident Study Area User-Days, By Activity, Mid-Point Estimate	Total Number of Nonresident Study Area User-Days, By Activity, Low-Point Estimate	Total Number of Nonresident Study Area User-Days, By Activity, High-Point Estimate
Riding the Alaska Railroad (n=147)	187,300	155,100	222,600
Bird watching (n=45)	25,900	19,900	32,700

Activity	Total Number of Nonresident Study Area User-Days, By Activity, Mid-Point Estimate	Total Number of Nonresident Study Area User-Days, By Activity, Low-Point Estimate	Total Number of Nonresident Study Area User-Days, By Activity, High-Point Estimate
Bicycling (n=17)	29,800	20,600	40,300
Remote camping (n=24)	29,300	22,200	37,400
Roadside camping (n=90)	131,100	106,800	157,900
Collecting berries/mushrooms (n=33)	19,500	15,100	24,500
Dog sledding (n=14)	17,200	12,200	22,900
Fishing for salmon (n=23)	26,300	19,900	33,600
Fishing for non-salmon species (n=31)	38,900	30,100	48,700
Flightseeing (n=83)	83,700	67,800	101,300
Hunting (n=5)	6,700	4,400	9,200
Hiking/backpacking (n=88)	134,400	108,900	162,600
Motorized boating (jet, prop, or air) (n=57)	56,400	44,700	69,500
Non-motorized boating (rafting, canoeing, kayaking, or pack raft) (n=48)	43,100	33,800	53,700
Riding ATVs (n=9)	6,100	4,400	8,100
Skiing (n=9)	19,300	13,900	25,400
Snowmachining (n=12)	20,000	14,900	25,700
Snowshoeing (n=11)	16,900	12,500	21,800
Walking/running (n=68)	226,700	181,500	276,700
Wildlife viewing (n=102)	94,800	77,700	113,500
Wildlife viewing/bird watching combined (n=119)	150,500	123,500	180,100

Activity	Total Number of Nonresident Study Area User-Days, By Activity, Mid-Point Estimate	Total Number of Nonresident Study Area User-Days, By Activity, Low-Point Estimate	Total Number of Nonresident Study Area User-Days, By Activity, High-Point Estimate
Other* (n=52)	69,600	55,100	85,800

Note: "n" values are unweighted. Mid-, low-, and high-point results rounded after calculation. Numbers of user-days rounded to the nearest hundred.

* "Other" included photography, ziplining, swimming, mountaineering, motorcycle riding, horseback riding, gold panning, skijoring, sledding, jet skiing, target shooting, picnicking, roller skiing, geocaching, bikejoring, hockey, and rock hunting.

Table 5.1-30. Number of Non-Alaska Resident Annual Recreation Users for Selected Activities in the Study Area and Percent of Total Study Area User-Days, by Activity

Activity	Total Number of Nonresident Users Participating in Each Activity, Mid-Point Estimate	Average Number of Days (whole or part) Participating in Each Activity	Total Number of Nonresident User-Days, By Activity	Percent of Total Study Area User-Days
Riding the Alaska Railroad (n=147)	145,300	1.3	187,300	13.1%
Bird watching (n=45)	26,500	1.0	25,900	1.8%
Bicycling (n=17)	13,300	2.2	29,800	2.1%
Remote camping (n=24)	15,700	1.9	29,300	2.0%
Roadside camping (n=90)	51,900	2.5	131,100	9.1%
Collecting berries/mushrooms (n=33)	19,500	1.0	19,500	1.4%
Dog sledding (n=14)	10,700	1.6	17,200	1.2%
Fishing for salmon (n=23)	21,600	1.2	26,300	1.8%
Fishing for non-salmon species (n=31)	17,800	2.2	38,900	2.7%
Flightseeing (n=83)	83,700	1.0	83,700	5.8%
Hunting (n=5)	1,300	5.2	6,700	0.5%
Hiking/backpacking (n=88)	57,500	2.3	134,400	9.4%
Motorized boating (jet, prop, or air) (n=57)	56,400	1.0	56,400	3.9%

Activity	Total Number of Nonresident Users Participating in Each Activity, Mid-Point Estimate	Average Number of Days (whole or part) Participating in Each Activity	Total Number of Nonresident User-Days, By Activity	Percent of Total Study Area User-Days
Non-motorized boating (rafting, canoeing, kayaking, or pack raft) (n=48)	37,300	1.2	43,100	3.0%
Riding ATVs (n=9)	6,100	1.0	6,100	0.4%
Skiing (n=9)	9,500	2.0	19,300	1.3%
Snowmachining (n=12)	9,000	2.2	20,000	1.4%
Snowshoeing (n=11)	8,400	2.0	16,900	1.2%
Walking/running (n=68)	56,600	4.0	226,700	15.8%
Wildlife viewing (n=102)	63,700	1.5	94,800	6.6%
Wildlife viewing/bird watching combined (n=119)	75,600	2.0	150,500	10.5%
Other* (n=52)	26,600	2.6	69,600	4.9%

Note: "n" values are unweighted. Total results rounded after calculation. Average number of days rounded to the nearest tenth. Numbers of users and user-days rounded to the nearest hundred.

*"Other" included gold panning, waterskiing, dirt biking, photography, rock climbing, mountaineering, motorcycling, playing basketball, playing volleyball, meditation/reflection, "jeeping," geocaching, shooting, and trapping.

5.1.2.10. Other Recreational Users of Study Area

One other group of Study Area users thus far not considered is Alaska residents who reside outside the Recreation Regional Resident Household Mail Survey sample area yet participated in the Recreation Intercept Survey.

Alaska residents who reside outside the mail survey sample area represented 7.6 percent of the Alaska resident sample in the intercept survey (or 5.4 percent of the total resident and nonresident sample). Residents of the Kenai Peninsula Borough were the largest component of this group (4.5 percent of the Alaska resident sample). Assuming these other Alaskans accounted for 7.6 percent of the Alaskan use of the Study Area, they would have totaled between 9,500 and 10,100 users, with a mid-point estimate of 9,800.

These Alaska residents spent an average of 5.2 days in the Study Area during the trip where they were surveyed. Slightly under half (43 percent) of these Study Area users reported participating in other recreational activities in the Study Area in the previous 12 months. This is lower than the

percentage for all Alaska residents included in the intercept survey (72 percent reported participating in other recreational activities in the Study Area in the previous 12 months). Unlike the mail survey, the intercept survey did not provide a measure of the total annual number of days spent in the Study Area. To estimate total user-days in the Study Area among these other Alaskans, Anchorage and Fairbanks resident user data were used as a proxy value. The mail survey found Anchorage and Fairbanks residents spent an average of 7.0 days annually in the Study Area (specifically, among Anchorage residents 7.6 total days in the Study Area, and 6.4 days among Fairbanks residents). Based on an average of 7.0 days in the Study Area, these other Alaskans residing outside of the Recreation Regional Resident Household Mail Survey sample area accounted for a rounded estimate between 63,500 and 74,400 user-days, with a mid-point rounded estimate of 68,800 user-days.

Given the very small sample sizes associated with this group of Study Area users, no effort was made to estimate user-days by activity.

5.1.2.11. Summary of Recreation Use Study Area User and Usage Estimates

This analysis indicates that use of the Study Area included approximately 390,000 individual users, over the 12-month period considered in this study. This estimate is the mid-point in a range between 360,000 annual users and 420,000 users (Table 5.1-31).

Table 5.1-31. Total Annual Study Area Users, All Alaska Residents and Non-Alaska Residents Combined, Mid, Low, and High Estimates

Region of Residence	Total Annual Users in the Study Area, Mid-Point Estimate	Total Annual Users in the Study Area, Low-Point Estimate	Total Annual Users in the Study Area, High-Point Estimate
Regional Alaska Residents	120,100	116,500	123,700
Other Alaska Residents	9,800	9,500	10,100
Non-Alaska Residents	260,000	234,000	286,000
Total	389,900	360,000	419,800

Note. Number of users rounded to the nearest hundred.

The following table (Tables 5.1-32) provides low-, mid-, and high-point estimates for usage of the Study Area by Alaska residents and nonresidents. The mid-point estimate for total annual user-days is slightly above 2.8 million, with a range from 2.5 million to 3.1 million (Table 5.1-

32). Based on this analysis, nonresidents account for approximately one-third of all recreation use of the Study Area.[2]

Non-Alaska residents account for a majority of the users, while Alaska residents account for a majority of the user-days. The estimated numbers of combined Alaska resident and nonresident users participating in recreation activities in the Study area are found in Table 5.1-33.

Table 5.1-32. Total Annual Unduplicated User-Days (Whole or Part), All Alaska Residents and Non-Alaska Residents Combined, Mid, Low, and High Estimates

Region of Residence	Total Annual User-Days in the Study Area, Mid-Point Estimate	Total Annual User-Days in the Study Area, Low-Point Estimate	Total Annual User-Days in the Study Area, High-Point Estimate
Regional Alaska Residents	1,721,400	1,596,600	1,846,100
Other Alaska Residents	68,800	63,500	74,400
Non-Alaska Residents	1,016,700	864,200	1,169,200
Total	2,806,900	2,524,300	3,089,700
Percent Nonresident	36%	34%	38%

Note. Mid-, low-, and high-point results rounded after calculation. Number of user-days rounded to the nearest hundred.

Table 5.1-33. Number of Annual Recreation Users for Selected Activities in the Study Area and Percent of Total Study Area User-Days, by Activity

Activity	Total Number of Study Area Users Participating in Each Activity, Mid-Point Estimate	Average Number of Days (whole or part) Participating in Each Activity	Total Number of Study Area User-Days, By Activity	Percent of Total Study Area User-Days
Riding the Alaska Railroad	157,200	1.4	220,700	4.5%
Bird watching	39,200	3.7	145,200	2.9%
Bicycling	29,500	5.6	166,000	3.4%
Remote camping	55,100	6.0	332,500	6.7%
Roadside camping	97,300	3.5	344,500	7.0%

[2] Non-Alaska residents represented 29 percent of the total intercept survey sample.

Activity	Total Number of Study Area Users Participating in Each Activity, Mid-Point Estimate	Average Number of Days (whole or part) Participating in Each Activity	Total Number of Study Area User-Days, By Activity	Percent of Total Study Area User-Days
Collecting berries/mushrooms	48,200	3.0	145,800	2.9%
Dog sledding	12,900	3.0	38,900	0.8%
Fishing for salmon	35,000	3.6	126,800	2.6%
Fishing for non-salmon species	33,400	4.6	154,500	3.1%
Flightseeing	90,200	1.2	104,500	2.1%
Hunting	18,800	7.7	145,100	2.9%
Hiking/backpacking	100,500	3.9	392,200	7.9%
Motorized boating (jet, prop, or air)	67,100	2.4	162,700	3.3%
Non-motorized boating (rafting, canoeing, kayaking or pack raft)	52,800	2.4	125,300	2.5%
Riding ATVs	28,900	6.5	188,400	3.8%
Skiing	19,300	4.8	92,500	1.9%
Snowmachining	24,600	8.1	198,100	4.0%
Snowshoeing	16,000	4.4	70,100	1.4%
Walking/running	97,600	5.7	554,800	11.2%
Wildlife viewing	113,800	4.2	480,700	9.7%
Wildlife viewing/bird watching combined	129,300	4.9	639,200	12.9%
Other	34,800	3.6	124,000	2.5%

Note: Total number of user-days results rounded after calculation. Average number of days rounded to the nearest tenth. Numbers of users and user-days rounded to the nearest hundred. Does not include Alaska residents who live outside the surveyed regional household sample region.

5.2. Recreation Demand Assessment

5.2.1. Long-Range Recreation Demand Projections

To meet the Study Plan objective (RSP Section 12.5.2) to identify future recreation demand, recreation usage of the Recreation Use Study Area over a 50-year time horizon (to the year 2064) was projected. This section presents results of this analysis, beginning with a projection of Alaska resident use, followed by non-Alaska resident use, and concludes with a summation of projections for Recreation Use Study Area users and user-days in 2064.

5.2.1.1. Alaska Resident Recreation Demand Projections

While a variety of factors could affect Alaska resident use of the Study Area, population growth has the most significant long-term impact. The projection of Alaska regional resident recreation use in the Study Area ties long-term population projections, prepared by ADOLWD, with the number of baseline (2014) Study Area users and user-days. Recent past population growth rates for the boroughs within proximity to the Study Area are provided for historical context (Table 5.2-1).

Recent population growth rates in Alaska boroughs and census areas have varied. Over the 2000 to 2014 period, the MSB population grew the most rapidly, with a 3.7 percent annual growth rate. Between 2010 and 2014, the growth rate slowed slightly to an annual average of 2.5 percent. The Municipality of Anchorage, where the majority of Alaska regional residents who use the Study Area reside, experienced a 1.0 percent annual average growth rate from 2000 to 2014. The 2010 to 2014 annual average rate slowed to 0.7 percent (Table 5.2-1).

Table 5.2-1. Alaska Regional Residents, Historical Population Estimates and Annual Growth Rates, by Selected Municipality, Borough, and Census Area, 2000, 2010, and 2014

Regional Resident Regions	2000	2010	2014	Average Annual Growth Rate 2000-2014	Average Annual Growth Rate 2010–2014
Municipality of Anchorage	260,283	291,826	300,549	1.0%	0.7%
Matanuska-Susitna Borough	59,322	88,995	98,063	3.7%	2.5%
Denali Borough	1,893	1,826	1,785	-0.4%	-0.6%
Fairbanks North Star Borough	82,840	97,581	97,972	1.2%	0.1%
Southeast Fairbanks and Valdez-Cordova census areas (combined)	16,369	16,665	16,530	0.1%	-0.2%

Source: ADOLWD 2014.

According to recent ADOLWD projections, the population around the Study Area is projected to grow over the next 50 years in all boroughs and census areas aside from the Denali Borough. In

its *Alaska Population Projections, 2012 to 2042*, ADOLWD used a "cohort component" methodology, separating populations of each gender into age groups and aging them forward in time, then adding projected births and in-migrants and subtracting projected deaths and out-migrants. ADOLWD assigned each borough or census area its own unique mortality, fertility, and migration rates "based on recent data and knowledge of the specific populations" (ADOLWD 2014).

Of all boroughs within proximity to the Study Area, the population of the MSB is projected to grow at the fastest rate, at a 1.85 percent annual average, through the ADOLWD forecast period (2014–2044). The Anchorage population is projected to grow more slowly, at an annual average rate of 0.63 percent, over the 30-year forecast period. The Denali Borough is expected to experience a slight population decline over the 2014 to 2042 period (Table 5.2-2).

Table 5.2-2. Alaska Regional Residents, Estimated Population Projections and Average Annual Growth Rates, by Selected Municipality, Borough, and Census Area, 5-Year Increments, 2014–2044

	2014	2019	2024	2029	2034	2039	2044	Average Annual Growth Rate (2014-2044)
Municipality of Anchorage	300,549	313,348	323,870	332,487	341,734	351,932	363,196	0.63%
Matanuska-Susitna Borough	98,063	105,617	120,378	131,194	142,979	155,835	169,961	1.85%
Denali Borough	1,785	1,848	1,701	1,665	1,608	1,559	1,525	-0.52%
Fairbanks North Star Borough	97,972	106,822	108,338	112,445	116,971	121,985	127,462	0.88%
Southeast Fairbanks and Valdez-Cordova census areas (combined)	16,530	17,736	17,402	17,720	18,137	18,628	19,240	0.51%

Source: ADOLWD 2014 and McDowell Group estimates.

To project population from 2044 to 2064, the ADOLWD-projected growth rate for each borough or census area for the 2034 to 2044 period was used, with the exception of the Denali Borough, which is held constant at the 2044 level (rather than showing continuing decline) (Table 5.2-3).

Table 5.2-3. Alaska Regional Residents, Estimated Population Projections and Average Annual Growth Rates, by Selected Municipality, Borough, and Census Area, 5-Year Increments 2049–2064

	2049	2054	2059	2064	Average Annual Growth Rate
Municipality of Anchorage	375,815	384,889	394,182	403,699	0.48%
Matanuska-Susitna Borough	187,803	202,822	219,043	236,560	1.55%
Denali Borough	1,535	1,535	1,535	1,535	0.0%

	2049	2054	2059	2064	Average Annual Growth Rate
Fairbanks North Star Borough	133,549	138,354	143,332	148,489	0.71%
Southeast Fairbanks and Valdez-Cordova census areas (combined)	19,820	20,295	20,782	21,280	.47%

Source: McDowell Group estimates.

In addition to population growth, a myriad of other factors will affect long-term changes in recreational use of the Study Area by Alaska regional residents. For example, changes in fish and wildlife populations, and changes in the management of those resources, would affect the number of users and user-days associated with fishing and hunting. Such changes could be short-term (e.g., restrictions on hunting for a season) or long-term (e.g., areas permanently closed for hunting). Development of improved access or other infrastructure could also induce additional use within the Study Area. Conversely, to the extent that carrying capacity limitations are associated with use of particular destinations in the Study Area, the number of users and user-days may not increase at the same rate as the population of nearby communities. Further, increasing or decreasing household incomes could affect the number and duration of trips to the Study Area.

While a number of variables potentially affect the recreation within the Study Area, the anticipated change in population is the only variable that can reasonably be quantitatively linked to projected recreation use in the Study Area over the long term.

Based on the population projections tabulated above, the number of Alaska regional resident users is projected to increase by about 63 percent (120,100 to 195,900 regional resident users) over the forecast period. The number of unduplicated user-days is projected to almost double (from 1.7 million to 3.3 million user-days, or an increase of 91 percent) over the 2014 to 2064 period (the annual average number of user-days per user is held constant for each area, for the entire forecast period) (Tables 5.2-4 and 5.2-5).

Table 5.2-4. Alaska Regional Residents, Estimates of Projected Number of Users of the Study Area, by Selected Municipality, Borough, and Census Area, 10-Year Increments, 2014–2064

	2014	2024	2034	2044	2054	2064	Total 50-Year Percent Growth
Municipality of Anchorage	68,100	73,400	77,400	82,300	87,200	91,500	34%
Matanuska-Susitna Borough	28,000	34,400	40,800	48,500	57,900	67,500	141%
Denali Borough	800	800	700	700	700	700	-14%
Fairbanks North Star Borough	21,000	23,200	25,100	27,300	29,700	31,800	52%
Southeast Fairbanks and Valdez-Cordova census areas (combined)	2,200	2,600	2,900	3,400	3,800	4,400	98%

	2014	2024	2034	2044	2054	2064	Total 50-Year Percent Growth
Total	120,100	134,400	146,900	162,200	179,300	195,900	63%

Note: Total number of user results rounded after calculation.

Table 5.2-5. Alaska Regional Residents, Estimates of Projected Number of Unduplicated User-Days in the Study Area, by Selected Municipality, Borough, and Census Area, 10-Year Increments, 2014–2064

	2014	2024	2034	2044	2054	2064	Total 50-Year Percent Growth
Municipality of Anchorage	517,500	557,700	588,400	625,400	662,700	695,100	34%
Matanuska-Susitna Borough	930,900	1,142,700	1,357,300	1,613,400	1,925,400	2,245,600	141%
Denali Borough	116,200	110,700	104,700	99,300	99,900	99,900	-14%
Fairbanks North Star Borough	134,400	148,600	160,500	174,900	189,800	203,700	52%
Southeast Fairbanks and Valdez-Cordova census areas (combined)	22,300	26,000	29,500	34,100	38,900	44,100	98%
Total	1,721,300	1,985,700	2,240,400	2,547,100	2,916,700	3,288,400	91%

5.2.1.2. Non-Alaska Resident Recreation Demand

While Alaska residents account for the majority of user-days in the Study Area, non-Alaska residents account for the majority of users. Developing a 50-year projection of nonresident recreation use of the Study Area is complex, with many variables affecting visitor travel to Alaska, in general, and to the Study Area, in particular.

The connection between United States (U.S.) population growth and growth in nonresident visitation to the Study Area is less direct than the connection between Alaska regional resident population growth and use of the Study Area. However, U.S. residents (excluding Alaskans) accounted for 83 percent of summer visitation to Alaska in 2011 (Canada accounted for 7 percent and "other international" accounted for 10 percent) (McDowell Group 2012). U.S. residents accounted for 92 percent of fall/winter 2011–2012 visitation to Alaska. Therefore, long-range U.S. population growth rates provide a reasonable basis for projecting visitation to Alaska, all other factors being neutral. Alaska visitor volume trends back to 19851986 are provided for historical context (Table 5.2-6).

According to AVSP data, nonresident visitation to the Southcentral and Interior/Far North regions of Alaska has increased significantly in the past three decades. Visitation to the Southcentral region increased at an average annual rate of growth of 3.7 percent between 1985–1986 and 2011–2012. In the Interior/Far North region, the average annual growth rate was 3.5 percent for the same time period (Table 6.5-6).

Table 5.2-6. Non-Alaska Residents, Visitor Volumes, and Average Annual Growth Rates, for the Southcentral and Interior/Far North Regions, by Visitor Seasons, Various Years, 1985/1986 to 2011/2012

Region/Season	1985/1986	1989/1990	1993/1994	2006/2007	2011/2012	Average Annual Growth Rate
Southcentral Region						
Summer	282,900	356,400	569,300	907,000	884,000	4.5%
Fall/Winter/Spring	145,200	178,600	146,300	190,000	204,000	1.3%
Total	428,100	535,000	715,600	1,097,000	1,088,000	3.7%
Interior/Far North Region						
Summer	189,800	180,500	295,100	534,000	552,000	4.2%
Fall/Winter/Spring	62,100	63,500	45,400	80,000	70,000	0.5%
Total	251,900	244,000	340,500	614,000	622,000	3.5%

Source: McDowell Group 1987, 1991, 1995, 2008, 2012.

AVSP research includes interim visitor volume reports for years when survey fielding is not conducted. These interim reports are based on visitor arrival statistics rather than visitor intercept surveys. While the interim reports do not provide regional visitor volume estimates, the statewide trend data are generally consistent with regional trends. These visitor volume estimates indicate that summer visitation has been flat or down slightly since 2008, a peak year for Alaska visitation. A substantial drop in cruise passenger volume in 2010 accounts for most of the downward trend (Table 5.2-7).

Table 5.2-7. Non-Alaska Residents, Summer Alaska Visitor Volumes and Annual Growth Rates, by Transportation Mode, 2008–2014

Mode of Transportation	2008	2009	2010	2011	2012	2013	2014
Cruise ship	1,033,100	1,026,600	878,000	883,000	937,000	999,600	967,500
Air	597,200	505,200	578,400	604,500	580,500	619,400	623,600
Highway/ferry	77,100	69,900	76,000	69,300	69,100	74,800	68,500
Total	1,707,400	1,601,700	1,532,400	1,556,800	1,586,600	1,693,800	1,659,600
% change	-0.4%	-6.2%	-4.3%	+1.6%	+1.9%	+6.8%	-2.0%

Sources: McDowell Group 2008, 2012.

Recognizing that nonresident visitation to Alaska has been generally flat in recent years, over the very long term, growth in the U.S. population serves as the best available indicator of future nonresident visitor (U.S. and international) travel to Alaska. Over the next 50 years, the country's population is expected to grow at an annual rate of 0.6 percent, according to the U.S.

Census Bureau, or 34 percent over the 50-year forecast period. Growth rates for various 5-year periods within the 2014 to 2064 time horizon range from 0.45 percent to 0.8 percent, but average 0.6 percent over the 50-year period (Table 5.2-8).

Table 5.2-8. U.S. Population Projections, 5-Year Increments, 2019–2064 (Thousands)

Year	Population	Year	Population
2014	318,881	2044	387,593
2019	331,884	2049	396,540
2024	344,814	2054	405,572
2029	357,073	2059	414,896
2034	368,246	2064	427,209
2039	378,313		

Source: U.S. Census Bureau 2014 and McDowell Group estimates.

Applying the 50-year U.S. population long-range growth rate to base year (2014) nonresident Study Area users (including U.S. and international visitors) indicates that total projected users would rise from an estimated 260,000 in 2014 to 348,000 in 2064. Total unduplicated user-days in the Study Area would rise from 1.02 million in 2014 to 1.36 million in 2064 (Table 5.2-9).

Table 5.2-9. Non-Alaska Residents, Projected Number of Users and Unduplicated User-Days in the Study Area, 10-Year Increments, 2014–2064

	2014	2024	2034	2044	2054	2064	Total Percent Growth	Average Annual Growth Rate
Total users	260,000	281,000	300,000	316,000	331,000	348,000	34%	0.6%
Total unduplicated user-days	1,016,700	1,099,000	1,174,000	1,236,000	1,293,000	1,362,000	34%	0.6%

Source: U.S. Census Bureau 2014 and McDowell Group estimates.

It is important to acknowledge that projecting Study Area users and user-days according to U.S. population projections is a substantial simplification of a complex market/product environment. Increasing cruise ship traffic to Alaska generated most of the growth in Alaska visitation through the 1980s, 1990s, and into the 2000s. However, infrastructure and capacity limitations at key attractions and ports-of-call may limit cruise-related growth over the long term. Other factors that could affect visitation to Alaska include the condition of the U.S. economy, monetary exchange rates (affecting the number of international visitors and affordability of foreign travel for Americans), investment in and success of Alaska's marketing efforts, international security concerns, and a range of other market, political, and social issues.

5.2.2. Total Users and User-Days

Based on the assumptions described above, the total number of Alaska regional resident and non-Alaska resident users of the Study Area is projected to increase from approximately 380,100

users in 2014 to approximately 544,200 users by 2064, a 43 percent increase. The total number of regional resident and nonresident user-days is projected to increase from approximately 2.7 million in 2014 to 4.65 million by 2064, an increase of 70 percent (Table 5.2-10).

Table 5.2-10. Alaska Regional Residents and Non-Alaska Residents, Projected Number of Users and Unduplicated User-Days in the Study Area and Overall 50-Year Growth Rate, Ten Year Increments 2014-2064

	2014	2024	2034	2044	2054	2064	Total 50-Year Percent Growth
Alaska Regional Resident Users	120,100	134,300	147,000	162,200	179,300	195,900	63%
Non-Alaska Resident Users	260,000	281,100	300,300	316,000	330,700	348,300	34%
Total Users	380,100	415,400	447,300	478,200	510,000	544,200	43%
Alaska Regional Resident User-Days	1,721,300	1,985,700	2,240,300	2,547,000	2,916,700	3,288,500	91%
Non-Alaska Resident User-Days	1,016,700	1,099,400	1,174,100	1,235,800	1,293,100	1,362,100	34%
Total User-Days	2,738,000	3,085,100	3,414,400	3,782,800	4,209,800	4,650,600	70%

5.2.3. National Outdoor Recreation Trends

A national assessment of outdoor recreation participation noted that outdoor recreation choices have changed over recent generations. The *Outdoor Recreation Trends and Futures: A Technical Document Supporting the Forest Service 2010 RPS Assessment* is a study that documented participation trends in 60 different outdoor activities (Cordell 2012). The study considered information from the National Survey on Recreation and the Environment (NSRE) (conducted by the U.S. Forest Service), the *National Fishing, Hunting, and Wildlife-Associated Recreation Survey* (conducted by the U.S. Census for the U.S. Fish and Wildlife Service), and the *Outdoor Foundation Annual Survey*. The assessment indicated that the total number of U.S. residents who participated in one or more forms of outdoor recreation rose by 7.5 percent between 2000 and 2009. Total activity days rose by over 32 percent over the same period of time.

Cordell (2012) also projected future outdoor recreation per capita participation trends through 2060. The five activities expected to grow in per capita participation most rapidly are developed skiing (downhill), undeveloped skiing (Nordic or snowshoeing), equestrian activities, motorized water activities, and "challenge activities" (mountain climbing, rock climbing, or caving). Those activities projected to experience a downturn in per capita participation rates include visiting "primitive areas," motorized off-road activities, motorized snow activities, hunting, fishing, and floating activities. Per capita participation rates for most other activities are projected to remain relatively stable. These national trend estimates were not used to model Watana-related recreation projections; however, it is useful to keep these trends in mind when considering the specific recreational activities associated in the longer term recreation use of the Study Area.

5.3. Survey Data Collection

5.3.1. Identification and Analysis of Salient Data from Existing Survey Research

As described in Section 4.1, several existing sources of data were utilized that provide relevant survey data and context for recreational use in the Recreation Use Study Area, including types of participation, user characteristics, experiences and expectations, and estimates of use levels.

Alaska's Outdoor Legacy Statewide Comprehensive Outdoor Recreation Plan (SCORP) 2009–2014

The SCORP for 2009–2014 was released in July 2009 (ADNR 2009). The SCORP identified outdoor recreation priorities and preferences throughout Alaska through analyzing 600 household telephone surveys, 517 mail-out surveys, and 2,338 online surveys. Recreation providers and students in various school districts were included in the online survey.

For the SCORP, Alaska was divided into three regions, one of which included the "Railbelt," defined as "those communities accessible from Alaska's limited road and rail system, generally from the southern end of Kenai Peninsula, north to Fairbanks, and east to the Canadian border" (ADNR 2009). While the Railbelt area boundaries are not aligned with the Recreation Use Study Area, they do overlap. Additionally, SCORP data do not provide place-specific details of where recreation activities occurred or the frequency of that recreation.

On a statewide basis, the top 10 most popular outdoor recreation activities that people participated in (based on the percentage of the population reporting participation activity levels of "at least occasionally," i.e., a few times per month in season) included the following: hiking (90.9 percent), fishing (84.1 percent), bird/wildlife viewing (83.7 percent), walking the dog (83.5 percent), backpacking (83.3 percent), berry picking (82.2 percent), playgrounds (82.0 percent), driving/sightseeing (81.5 percent), biking (81.4 percent), and beach activities (71.4 percent).

Respondents were asked about their attitudes regarding Alaska's recreation facilities, management, and resource protection. The highest level of support was expressed for maintaining existing trails (87.7 percent agreed this should be supported) and improving the maintenance of existing facilities (74.1 percent), followed by expanding the public use cabin system (70.9 percent), establishing new parks and recreation areas (70.5 percent), developing more trailheads along roads and highways for trail activities (68.7 percent), providing roadside toilets at regular intervals (62.1 percent), and developing more trails for non-motorized use only (61.4 percent).

In a separate survey under the SCORP project, a total of 165 community and regional outdoor recreation providers statewide were asked to rank the outdoor recreation needs in their community or region in order of importance. In the Railbelt, the needs of highest priority were:

1. Maintenance of existing facilities
2. Develop facilities
3. Access to existing facilities
4. Park land acquisition

5. Need for organized programs and staff.

Statewide telephone survey result highlights included:

- 48.7 percent thought that interconnected, marked, and maintained trails were very important.
- 46.3 percent thought that off-road trails were very important.
- 45.5 percent participated in non-winter outdoor sports (very frequently or frequently).
- 32.4 percent participated in water recreation other than fishing (very frequently or frequently).
- 30.0 percent participated in outdoor winter sports (very frequently or frequently).
- 22.2 percent participated in sportfishing (very frequently or frequently).
- 19.2 percent participated in overnight camping (very frequently or frequently).
- 15.5 percent participated in motorized vehicle (ATV) riding (very frequently or frequently).
- 15.0 percent participated in hunting, trapping, or target shooting (very frequently or frequently).

SCORP also reported tourism trends that could affect outdoor recreation in Alaska, including:

- There was a reported increase in independent travelers (as opposed to cruise passengers) who tend to be more interested in customized tours showcasing Alaska's scenery, wildlife, Alaska Native culture, and adventure.
- Aging baby-boomers prefer road-oriented travel (i.e., resort facilities) as opposed to activities that are more physically demanding (ADNR 2009).

Bureau of Land Management (BLM) Visitor Surveys

During FY 2011 (October 2010–September 2011), BLM conducted several visitor satisfaction surveys, including the Brushkana Creek Campground Visitor Survey (BLM 2011a) and the Denali Highway Visitor Survey (BLM 2011b). These surveys collected visitor satisfaction data regarding visitor information, developed facilities, managing recreation use, resource management, BLM staff and customer services, and educational and interpretative materials. BLM facilities (e.g., Brushkana Creek and Tangle Lakes campgrounds) are only open during the summer months; as such, these survey data do not include any winter recreation activities or experiences. Survey results indicated that camping, hiking/walking, fishing, sightseeing, and wildlife viewing and bird watching were the most often reported primary recreational activities (Table 5.3-1). While the two surveys did capture opinions about BLM facilities and infrastructure, data regarding specific locations of recreation use, length of activity, and other important factors to assess demand were not included in the content.

Table 5.3-1. Primary Recreation Activities, Brushkana Creek Campground and Denali Highway, FY 2011

Primary Recreation Activity	Percent of Brushkana Creek Campground Visitor Satisfaction Survey Respondents (n=176)	Percent of Denali Highway Visitor Satisfaction Survey Respondents (n=128)
Camping	92%	55%
Hiking/walking	52%	48%
Fishing	44%	43%
Sightseeing	38%	67%
Wildlife viewing/bird watching	33%	34%
Driving for pleasure	24%	-
Picnicking	14%	21%
Motorized recreation vehicles	10%	13%
Biking	7%	6%
Hunting	6%	23%
Education and interpretation	4%	5%
Non-motorized boating/rafting	1%	11%
Swimming	1%	2%
Motorized boating	0%	4%
Horseback riding	0%	2%
Other	12%	10%

Source: BLM 2011a, 2011b.

Benefits-Based Management Study (Denali Highway)

BLM adopted a strategy to move from an activity-based approach to management, to one that focuses on recreation experiences and benefits (Stegmann et al. 2008). In 2008, a multi-phase study was designed by BLM to assess:

- Experiences sought along the Denali Highway recreation corridor

- Experiences attained along the Denali Highway recreation corridor
- Settings and activities that facilitated these experiences
- Benefits to be managed for
- Consistency between expectations and attained outcomes

The Denali Highway was divided into three zones:

1. Cantwell to Susitna River
2. Susitna River to Maclaren Summit
3. Maclaren Summit to Tangle Lakes area

An intercept survey of 220 visitors was conducted along the Denali Highway between June 6, 2007 and August 30, 2007, with a response rate of 86 percent. While these data are limited to summer use only, they do provide information regarding the experiences and expectations of the recreational users. The top five primary recreational activities were noted as the following: driving and sightseeing, fishing, hiking, watching wildlife, and berry picking (Table 5.3-2). "Enjoying the sights and smells of nature" and "being away from crowds of people" were the top two desired recreational experiences sought (Table 5.3-3). "A greater connection with nature" and "enhanced sense of personal freedom" were noted as the top two desired personal benefits from recreating in the area (Table 5.3-4). The top two desired community benefits included "heightened awareness of natural world" and "greater protection for fish and wildlife habitat" (Table 5.3-5).

Table 5.3-2. Activity Participation and Primary Activities for Denali Highway, Summer 2007

Recreation Activity	Percent Participating in Activity (n=198)	Percent Primary Activity (n=193)
Driving and sightseeing	70%	26%
Watching wildlife	56%	7%
Photography	55%	4%
Hiking	51%	8%
Walking	48%	0%
Fishing	43%	13%
Berry picking	39%	6%
Watching birds	38%	4%

Recreation Activity	Percent Participating in Activity (n=198)	Percent Primary Activity (n=193)
Camping in vehicle	27%	0.5%
Camping near vehicle	25%	5%
Picnicking	23%	1%
Dog walking/running	16%	-
Canoeing and kayaking	10%	3%
ATV riding	8%	5%
Family social gatherings	8%	-
Hunting big game	6%	5%
Mountain biking	6%	3%
Mushroom picking	6%	-
Backpacking	5%	2%
Hunting birds	5%	0.5%
Hunting small game	3%	0.5%
Rafting	3%	-
Motorcycle riding	2%	0.9%
Building cabin/working on home site	1%	1%
Boating	1%	1%
Running	1%	-
Gold panning or mining	1%	0.5%
Geocaching	1%	0.5%
Mountaineering	0.9%	1%

Recreation Activity	Percent Participating in Activity (n=198)	Percent Primary Activity (n=193)
Working	0.5%	0.5%

Note: About 2 percent of Denali Highway respondents indicated that they had no primary activity. Of Denali Highway respondents, 9 percent indicated that they were driving through the region and not stopping for recreation. Therefore, they are not included in the "percent participating" statistics.

Source: Stegmann et al. 2008.

Table 5.3-3. Desired Experience for Denali Highway, Summer 2007

Desired Experience	Survey Item	Mean Score (1= "not at all important" to 7= "extremely important")
Nature	Enjoying the sights and smells of nature	6.14
Escape crowds	Being away from crowds of people	6.14
Escape usual life	Getting away from the usual demands of life	5.79
Explore	Experiencing new and different things	5.43
Autonomy	Being free to make your own choices	5.09
Solitude	Experiencing solitude	5.07
Friends	Being with friends	4.29
Fitness	Getting exercise	4.54
Creativity	Doing something creative, such as sketching, painting, or taking photos	3.94
Family	Bringing your family close together	3.90
Spiritual	Growing and developing spiritually	3.77
Competence	Testing your abilities	3.43
Teaching your skills	Teaching your outdoor skills to others	2.92
Risk	Taking a chance on dangerous situations	2.31

Source: Stegmann et al. 2008.

Table 5.3-4. Desired Personal Benefits for Denali Highway, Summer 2007

Desired Personal Benefits	n	Mean Score (1 = "not at all important" to 7 = "extremely important")
A greater connection with nature	66	6.15
Enhanced sense of personal freedom	66	5.82
Improved mental health	65	5.78
Improved outdoor knowledge	66	5.70
Improved outlook on life	66	5.65
A more exercise-oriented lifestyle	66	5.52
Gained sense of independence	66	5.35
Increased self-confidence	66	5.27
Improved physical fitness	66	5.27
Enhanced sense of competence	65	5.08
Greater job productivity	63	4.46
Enhanced work performance	64	4.45

Source: Stegmann et al. 2008.

Table 5.3-5. Desired Community Benefits for Denali Highway, Summer 2007

Desired Community Benefits	n	Mean Score (1 = "not at all important" to 7 = "extremely important")
Heightened awareness of natural world	65	6.22
Greater protection for fish and wildlife habitat	66	5.80
Greater awareness of minimal impact recreation	65	5.54
Greater protection of cultural history sites	65	5.42
Greater opportunities for youth	65	5.40

Desired Community Benefits	n	Mean Score (1 = "not at all important" to 7 = "extremely important")
Improved family bonding	66	5.30
Greater community involvement in land use planning processes	65	5.18
Positive economic contribution to communities	64	4.95
Increased recreation business to local communities	65	4.60
Increased productivity at work	62	4.29

Source: Stegmann et al. 2008.

Alaska Residents Statistics Program (ARSP) (2009)

The ARSP Survey (Fix 2009) is a statewide mail survey that was conducted between October 2006 and March 2007. A total of 10,003 Alaska residents were randomly selected from the Alaska voter registration database, and 2,264 completed the survey (for a response rate of 27 percent once non-deliverable addresses were removed from the sample). The goal of the survey was to gather information regarding Alaska residents' in-state travel, including:

- Travel in Alaska for any reason within a 12-month timeframe
- Recreation activities in which they participated throughout Alaska
- Use of facilities and types of areas, such as undeveloped backcountry, campgrounds, and visitor centers
- Visitation to public lands
- Recreation areas they no longer visited or where they had changed their visitation patterns (i.e., displacement)
- Significant activities and reasons for participating in those activities
- Factors that contributed to quality of life
- Demographic information, including how long they had lived in Alaska and where they lived prior to moving to Alaska

This study provided a highly relevant model to help develop the Regional Resident Household Recreation Use Mail survey sample design, methodology, and survey design, including:

- Use of a mail survey
- Process to determine sample selection from voter registration databases

- Use of a nonresponse bias telephone survey to evaluate voter registration and non-response bias
- Use of maps in the survey design
- Examples of survey questions regarding primary activities, expectations, level of activity, facility use, motivators, and demographics
- Applied use of the Dillman method to maximize response

ARSP divided Alaska into five regions and four sub-regions. Data were separately presented using these regional and sub-regional divisions. Areas relevant to the Recreation Regional Resident Household Mail survey include:

- Interior Region, including the Fairbanks-Ft. Yukon and Southern Interior sub-regions
- Southcentral region, including Anchorage, Matanuska-Susitna, and Copper River Basin sub-regions

While not an accurate match, the areas relevant to the Recreation Use Study Area include:

- Southern Interior sub-region
- Matanuska-Susitna sub-region

Hiking, camping, and wildlife viewing were the three most popular recreation activities in the Southern Interior sub-region (Table 5.3-6). These same three activities, with the addition of freshwater fishing, were most popular in the Matanuska-Susitna sub-region (Table 5.3-7).

Frequency of annual visitation for each region resident stratum to the Southern Interior and Matanuska-Susitna sub-regions were represented in divisions of 1, 2–4, 5–10, and 11+ visits to the area. Survey results imply that Interior residents were most likely to have visited the Southern Interior sub-region, and Southcentral residents were most likely to have visited the Matanuska-Susitna sub-region, when compared to other region resident stratums. Interior residents who visited the Southern Interior sub-region were most likely to visit 2–4 times annually (22.9 percent); whereas Southcentral residents were more likely to have visited once (11.3 percent) (Table 5.3-8). Interior and Southcentral residents who visited the Matanuska-Susitna sub-region were most likely to have visited 2–4 times annually (17.9 percent and 20.4 percent, respectively) (Table 5.3-9).

Data are also presented on how often regional residents used developed campgrounds, developed trail systems, public use cabins, and undeveloped backcountry sites within the Southern Interior and Matanuska-Susitna sub-regions (Table 5.3-10 and Table 5.3-11). For example, 12.6 percent of Interior residents used developed campgrounds and developed trail systems in the Southern Interior sub-region 2–4 times annually (Table 5.3-10).

Table 5.3-6. Recreation Activity Participation in the Southern Interior Sub-region, by Respondent Stratum, by Percent

Activity	Northern (n=357)	Interior (n=476)	Southwest (n=423)	Southcentral (n=486)	Southeast (n=522)
Hiking	3.1%	30.3%	3.1%	14.2%	3.8%
Camping	2.0%	30.0%	2.4%	15.2%	2.1%
Wildlife viewing	4.2%	31.3%	4.0%	14.8%	3.3%
Freshwater fishing	1.1%	17.4%	0.5%	5.6%	0.4%
Food gathering	1.4%	17.9%	0.7%	6.2%	1.0%
Hunting and trapping	0.6%	13.7%	0.9%	7.6%	0.6%
Non-motorized boating	0.3%	11.3%	0.9%	3.5%	0.2%
Motor boating	0.6%	10.7%	0.2%	0.4%	0.4%
ATV/motorbike riding	0.6%	12.4%	0.9%	4.5%	0.4%
Skiing and snowshoeing	0.6%	8.2%	0.0%	1.6%	0.2%
Snowmachining	0.8%	14.7%	0.2%	2.9%	0.4%

Note: Data were collapsed into "did participate" (1x, 2–4, 5–10, 11–30, and 31+) and "did not participate" (0 and did not check). Missing data were treated as "did not participate" (assuming respondents skipped over the regions and sub-regions they did not visit).

Source: Fix 2009.

Table 5.3-7. Recreation Activity Participation in the Matanuska-Susitna Sub-region, by Respondent Stratum, by Percent

Activity	Northern (n=357)	Interior (n=476)	Southwest (n=423)	Southcentral (n=486)	Southeast (n=522)
Hiking	4.5%	11.3%	7.6%	35.4%	4.8%
Camping	3.4%	12.0%	4.3%	22.4%	2.3%
Wildlife viewing	5.0%	14.3%	7.6%	28.2%	4.0%
Freshwater fishing	1.7%	8.6%	3.3%	24.5%	1.1%
Saltwater fishing	0.0%	1.1%	0.2%	2.5%	0.0%
Food gathering	1.4%	4.0%	3.1%	18.5%	1.7%

Activity	Northern (n=357)	Interior (n=476)	Southwest (n=423)	Southcentral (n=486)	Southeast (n=522)
Hunting and trapping	0.3%	2.3%	0.9%	12.6%	0.2%
Non-motorized boating	1.1%	2.1%	1.2%	14.4%	1.0%
Motor boating	0.6%	3.2%	0.7%	13.4%	0.8%
ATV/motorbike riding	2.2%	3.4%	2.8%	13.6%	1.5%
Skiing and snowshoeing	0.6%	1.1%	1.9%	12.3%	1.0%
Snowmachining	1.7%	3.2%	1.2%	16.0%	0.8%

Note: Data were collapsed into "did participate" (1x, 2–4, 5–10, 11–30, and 31+) and "did not participate" (0 and did not check). Missing data were treated as "did not participate" (assuming respondents skipped over the regions and sub-regions they did not visit).

Source: Fix 2009.

Table 5.3-8. Visitation to the Southern Interior Sub-region, by Respondent Stratum, by Percent

Frequency	Northern (n=357)	Interior (n=476)	Southwest (n=423)	Southcentral (n=486)	Southeast (n=522)
1 time	2.0%	8.8%	2.1%	11.3%	3.3%
2–4 times	3.4%	22.9%	2.4%	10.9%	1.5%
5–10 times	0.3%	10.3%	0.5%	2.3%	0.4%
11+ times	0.0%	4.0%	0.0%	0.8%	0.0%
I lived here full time	0.0%	6.9%	0.0%	0.0%	0.2%
I lived here part time	0.0%	0.6%	0.2%	0.0%	0.0%
More than one checked	0.0%	1.5%	0.0%	0.0%	0.0%
Not checked	94.4%	45.0%	94.8%	74.7%	94.6%

Note: "Not checked" includes both respondents who answered some questions for the sub-region and respondents who skipped the entire sub-region.

Source: Fix 2009.

Table 5.3-9. Visitation to the Matanuska-Susitna Sub-region, by Respondent Stratum, by Percent

Frequency	Northern (n=357)	Interior (n=476)	Southwest (n=423)	Southcentral (n=486)	Southeast (n=522)
1 time	2.2%	8.8%	5.2%	5.1%	5.7%
2-4 times	7.0%	17.9%	10.6%	20.4%	3.1%
5-10 times	1.7%	5.9%	3.1%	13.0%	1.7%
11+ times	1.1%	1.7%	1.2%	13.4%	0.2%
I lived here full time	0.3%	0.0%	0.5%	15.8%	0.2%
I lived here part time	0.8%	0.2%	0.5%	0.8%	0.0%
More than one checked	0.0%	0.4%	0.0%	2.7%	0.2%
Not checked	86.8%	65.1%	79.0%	28.8%	88.9%

Note: "Not checked" includes both respondents who answered some questions for the sub-region and respondents who skipped the entire sub-region.

Source: Fix 2009.

Table 5.3-10. Use of Recreation "Site Type" in the Southern Interior Sub-region, Uncollapsed Responses, by Respondent Stratum, by Percent

Frequency	Northern (n=357)	Interior (n=476)	Southwest (n=423)	Southcentral (n=486)	Southeast (n=522)
Developed Campgrounds					
1 time	1.7%	9.9%	1.2%	6.8%	0.2%
2–4 times	0.8%	12.6%	1.2%	4.9%	1.1%
5–10 times	0.6%	2.5%	0.2%	0.2%	0.2%
11+ times	0.6%	1.7%	0.0%	0.0%	0.0%
Developed Trails Systems					
1 time	1.1%	6.7%	0.9%	5.1%	1.5%
2–4 times	0.8%	12.6%	1.2%	5.3%	0.6%
5–10 times	0.6%	3.6%	0.0%	0.4%	0.2%

Frequency	Northern (n=357)	Interior (n=476)	Southwest (n=423)	Southcentral (n=486)	Southeast (n=522)
11+ times	0.3%	2.5%	0.2%	0.0%	0.0%
Public Use Cabins					
1 time	0.6%	2.5%	0.2%	0.8%	0.2%
2–4 times	0.0%	1.7%	0.0%	0.6%	0.4%
5–10 times	0.0%	0.4%	0.0%	0.0%	0.0%
11+ times	0.0%	0.4%	0.0%	0.0%	0.0%
Undeveloped Backcountry					
1 time	1.1%	6.5%	1.2%	5.1%	1.3%
2–4 times	0.3%	9.5%	0.9%	6.6%	0.8%
5–10 times	0.0%	5.5%	0.2%	0.6%	0.0%
11+ times	0.3%	6.1%	0.2%	0.8%	0.2%

Note: The "n" used to calculate the percent was the overall n of the respective stratum; therefore, the n includes zeros as well as missing values when calculating percentages.

Source: Fix 2009.

Table 5.3-11. Use of Recreation "Site Type" in the Matanuska-Susitna Sub-region, Uncollapsed Responses, by Respondent Stratum, by Percent

Frequency	Northern (n=357)	Interior (n=476)	Southwest (n=423)	Southcentral (n=486)	Southeast (n=522)
Developed Campgrounds					
1 time	1.1%	3.6%	2.1%	4.9%	0.2%
2–4 times	1.4%	6.7%	0.9%	10.3%	0.6%
5–10 times	0.3%	0.8%	0.2%	3.5%	0.2%
11+ times	0.6%	0.2%	0.5%	1.9%	0.0%
Developed Trails Systems					

Frequency	Northern (n=357)	Interior (n=476)	Southwest (n=423)	Southcentral (n=486)	Southeast (n=522)
1 time	0.3%	5.5%	2.1%	7.2%	1.7%
2–4 times	1.4%	4.8%	2.4%	10.9%	1.3%
5–10 times	0.8%	0.4%	0.2%	6.2%	0.2%
11+ times	0.8%	0.2%	0.5%	4.9%	0.2%
Public Use Cabins					
1 time	0.3%	1.1%	0.5%	1.2%	0.0%
2–4 times	0.0%	0.2%	0.2%	2.1%	0.2%
5–10 times	0.0%	0.0%	0.0%	0.2%	0.0%
11+ times	0.0%	0.2%	0.0%	0.0%	0.0%
Undeveloped Backcountry					
1 time	1.1%	1.9%	1.7%	3.7%	1.1%
2–4 times	0.3%	3.6%	3.3%	11.3%	1.0%
5–10 times	0.6%	0.2%	0.5%	7.8%	0.2%
11+ times	0.8%	0.4%	0.7%	7.8%	0.2%

Note: The "n" used to calculate the percent was the overall n of the respective stratum; therefore, the n includes zeros as well as missing values when calculating percentages.

Source: Fix 2009.

Alaska Visitor Statistics Program (AVSP) VI

The AVSP VI Survey was a statewide intercept survey research program commissioned by the Alaska Department of Commerce, Community, and Economic Development. The AVSP report estimated that a total of 205,000 out-of-state visitors traveled to Talkeetna between May and September 2011. Out of the 6,747 surveyed visitors to Alaska (nonresidents) during the summer of 2011, 1,124 visited Talkeetna (McDowell Group 2012). Additionally,

- 66 percent of summer visitors to Talkeetna were part of a multi-day tour package.
- 86 percent were traveling for the purpose of vacation/pleasure.
- 83 percent also visited Denali National Park.

These data and volume estimates do not include Alaska residents. Additionally, the AVSP VI survey content was designed to capture information regarding visitor activity not necessarily specific to recreational use activity. While these data limitations are acknowledged, AVSP remains the most relevant data available to estimate nonresident volume to Talkeetna (a key location within the Recreation Use Study Area).

The AVSP data include a model output to profile Talkeetna summer visitors, including their recreational activity while in Talkeetna, their length of stay in Talkeetna, and selected demographic characteristics of Talkeetna visitors. The top three recreation activities identified were hiking/nature walking (31 percent), wildlife viewing (27 percent), and flightseeing (25 percent) (Table 5.3-12). Visitors spent an average of 1.6 nights in Talkeetna, and nearly half (45 percent) stayed at a lodge (Table 5.3-13). Eighty-five percent of the nonresident visitors to Talkeetna were from the U.S. Visitors tend to be highly educated (64 percent had completed at least a Bachelor's degree).

Table 5.3-12. Talkeetna Visitor (Non-Alaska Residents) Recreation Activities in Talkeetna, Summer 2011

Recreation Activity	Percent of All Talkeetna Visitors (Non-Alaska Resident)
Hiking/nature walk	31%
Wildlife viewing	27%
Bird watching	7%
Flightseeing	25%
Cultural attractions (historical attractions, museums, Native cultural tour, gold panning/mine tour)	18%
Camping	9%
Rafting	8%
Day cruises/boat tours	6%
Fishing	6%
Guided fishing	3%
Unguided fishing	3%
Dog sledding	5%
ATV/4-wheeling	2%

Recreation Activity	Percent of All Talkeetna Visitors (Non-Alaska Resident)
Kayaking/canoeing	2%
Biking	<1%

Source: McDowell Group 2012.

Table 5.3-13. Talkeetna Visitors (Non-Alaska Residents), Selected Demographics, Summer 2011

Demographic Indicator	Percent of All Talkeetna Visitors (Non-Alaska Resident)
Origin	
United States	85%
Canada	5%
Other International	10%
Gender	
Respondent-Male	41%
Respondent-Female	59%
Party-Male	47%
Party-Female	53%
Education	
Some high school/high school diploma/GED	9%
Associate/technical degree	10%
Some college	15%
Graduated from college	35%
Master's/Doctorate	29%
Lodging Types Used	
Lodge	45%

Demographic Indicator	Percent of All Talkeetna Visitors (Non-Alaska Resident)
Hotel/motel	29%
Campground/RV	12%
Bed and Breakfast	4%
Private home	3%
Wilderness (remote) camping	3%
Other	
Average respondent age	55.4 years
Average party age	51.5 years
Average household income	$109,000
Average party size	2.6
Average group size	4.6
Average # of nights in Talkeetna	1.6 nights

Source: McDowell Group 2012.

Existing Data Summary

Data were summarized with salient highlights from these secondary sources, as well as an assessment (low, moderate, high) of each source based on the following factors: level of relevance of the data (degree of the data's relevance to recreation within the Study Area), level of confidence (degree in certainty of the survey results), and level of adequacy (sufficiency of the available information to the desired level of analysis) in development of the Recreation Use Demand Assessment (Table 5.3-14).

Table 5.3-14. Assessment of Existing Recreation Survey Data

Source	Key Summary of Analysis	Level of Relevance	Level of Confidence	Level of Adequacy
Alaska's Outdoor Legacy Statewide Comprehensive Outdoor Recreation Plan (SCORP) 2009–	Identifies outdoor recreation priorities and preferences throughout Alaska, including the "Railbelt."	Moderate	Moderate	Low

Source	Key Summary of Analysis	Level of Relevance	Level of Confidence	Level of Adequacy
2014				
Bureau of Land Management (BLM) Visitor Surveys (FY 2011)	Provides visitor satisfaction data for Brushkana Creek and Tangle Lakes campgrounds regarding visitor information, developed facilities, managing recreation use, resource management, BLM staff and customer services, and educational and interpretative materials. Survey results also included respondents' primary recreational activities.	Moderate	Low	Low
Benefits-Based Management Study (Denali Highway) (2008)	Assesses experiences sought and attained, settings and activities that facilitated these experiences, benefits to be managed for, and consistency between expectations and attained outcomes along the Denali Highway recreation corridor.	Moderate	High	Low
Alaska Residents Statistics Program (ARSP) (2009)	Statewide mail survey of Alaskans gathering information regarding Alaska residents' travel in Alaska, recreation activities in which they participate, use of facilities, visitation patterns, and factors contributing to the quality of life.	High	High	Moderate
Alaska Visitor Statistics Program (AVSP) VI (2011)	Statewide visitor survey administered to a sample of out-of-state visitors departing Alaska at all major exit points. The survey included questions on trip purpose, transportation modes, length of stay, destinations, lodging, activities, expenditures, satisfaction, trip planning, and demographics.	Moderate	High	Moderate

5.3.2. Incidental Observation Survey (IOS)

Completed IOSs noted activity on July 19, 2012, August 21 and 23, 2012, September 18, 2012, and March 21, 23, and 24, 2013. Observed activity occurred at Lane Creek (near the mouth), Indian River, Sunshine Creek, Trapper Creek, Montana Creek, Skull Creek, Curry, and Whiskers Slough. Activities observed included dog sledding, skiing, snowmachining, camping, jet boating, sportfishing, and hunting. Party sizes ranged from one to 25.

5.3.3. Susitna-Watana Recreation Intercept Survey

The Susitna-Watana Recreation Intercept Survey gathered recreation user data from in-person interactions across the Recreation Use Study Area. Data gathered included types of recreation uses, frequency, quality of recreation and/or aesthetic experience, and recreation spending. Detailed methodology and results for the survey can be found in Appendix B.

5.3.4. Intercept Site Recreation Tallies

Intercept observation tally recreation data were gathered by the intercept survey crews at designated locations across the Recreation Use Study Area. Surveyors recorded a total of 3,020

observation tallies over a 1-year period. Detailed methodology and results for the survey can be found in Appendix C.

5.3.5. Recreation Regional Resident Household Mail Survey

The Recreation Regional Resident Household Mail Survey sampled 14,538 regional households by mail to obtain information about recreation activities and perspectives on recreational opportunities within the Recreation Use Study Area. Detailed methodology and results for the survey can be found in Appendix D.

5.3.6. Nonresponse Bias Telephone Survey

The Nonresponse Bias Telephone Survey was conducted to evaluate what level (if any) of bias was identifiable in the Regional Resident Household Mail Survey, and if that bias warranted adjustment of the mail survey results through weighting. Detailed methodology and results for the survey can be found in Appendix E.

5.3.7. Executive Interviews

Information gathered through executive interview research informed the development of intercept site selection, sample planning, and survey design of the Recreation Intercept Survey and the Recreation Regional Resident Household Mail Survey. Data collected also provided information to base modeling assumptions for the current use and future demand assessment. Executive interviews also provided some general descriptive uses on various recreation activities in the Study Area and, where relevant, were summarized in each of the selected recreation activities profiled in Appendix A.

6. DISCUSSION - REGIONAL RECREATION ANALYSIS

The data presented in Section 5 and the appendices will be used for further recreation use, facilities, carrying capacity, and other interrelated studies (e.g., social conditions) and analyses, and to support the development of a future Recreation Management Plan for the Project.

6.1. Recreation Supply Demand and Use

This section provides an assessment of the adequacy of the various research methodologies and results to meet the Study Plan's objectives and requirements.

6.1.1. Utilization Data

BLM and ADNR data on public campgrounds, trailheads, boat launches, and other facilities use and visitation data do not include more recent data than 2012. These data are particularly relevant in describing the current baseline demand for these facilities and areas. However, the accuracy of BLM and ADNR data is low to moderate, as few of the data are based on actual counts, but rather are based on observational estimates.

Following the requirements set forth in RSP Section 12.5.4, hunting and trapping effort data for the Recreation Use Study Area were collected. As described in Section 5.1.1, ADF&G harvest permit data were used to estimate baseline hunting levels by species and determine methods of access used by hunters and trappers. Additionally, high-use hunting and trapping locations and seasonal patterns for overall hunting effort were identified. However, results of the Recreation Regional Resident Household Mail Survey and the Recreation Intercept Survey were used to prepare a profile of users whose primary activity was hunting during their most recent outing in the Study Area, assessing user preferences and opinions about the quality of the recreational resources and facilities and their recreation experiences, and also enabling hunting demand to be estimated in the demand assessment analysis

As specified in Section 5.1.1 the study team used ADF&G sportfishing survey data to assess angling effort within the Recreation Use Study Area. The study team developed estimates of baseline sportfishing levels by species and number of angling days (Section 5.1.1) for sites with sufficient survey responses to establish accurate angling estimates. Additionally, the analysis was able to determine the location of high-use sportfishing locations within the Recreation Use Study Area. While this information provides an estimate of existing sportfishing effort within the Study Area, the data do not specify methods of access or the seasonal distribution of sportfishing effort. However, results of the Recreation Regional Resident Household Mail Survey and the Recreation Intercept Survey were used to prepare a profile of users whose primary activity was sportfishing during their most recent outing in the Study Area, assess user preferences and opinions about the quality of the recreational resources and facilities and their recreation experiences, and also enable sportfishing demand to be estimated in the demand assessment analysis.

6.1.2. Recreation Demand Assessment and Projections

A combination of Recreation Regional Resident Household Mail Survey, Recreation Intercept Survey, existing utilization data, and population estimates and projections was used to assess current demand by number of users and user-days by recreation activity, as well as to produce a 50-year projection of recreation activity in the Study Area. This analysis met the Study Plan requirements.

6.2. Survey Data Collection

Existing survey data were compiled and several different new survey methods were conducted to meet the Study Plan requirements. Any outstanding issues regarding survey data collection are noted below.

6.2.1. Identification and Analysis of Salient Data from Existing Survey Research

Salient data from existing survey research on the area were reviewed. No other relevant survey data are presumed available.

6.2.2. Incidental Observation Survey (IOS)

IOS response was limited as field contractors do not always have the time or staff resources to complete the survey. However, the IOS fulfilled its purpose of providing an opportunity for field researchers to report observed recreational activity that may not have been captured using other research methods.

6.2.3. Susitna-Watana Recreation Intercept Survey

The Recreation Intercept Survey was completed on March 31, 2013. The intercept survey instrument and sample plan worked well in providing data necessary to conduct the demand assessment analysis (estimating the number of users, user-days, by activity), as well as provided data to develop profiles of selected recreation activities within the Study Area (Appendices A, B, and D).

For popular activities, such as fishing, hunting, camping, hiking, snowmachining, and wildlife viewing, large enough frequencies were obtained for subsample analysis. Because of the small populations engaging in certain other activities (such as snowshoeing, rock climbing, etc.) and the nature of survey sampling, some activities did not have adequate sample sizes for further in-depth predictive quantitative analysis. In these cases, qualitative and analogous research were used to supplement the quantitative survey research supporting the recreation demand assessment analysis.

6.2.4. Recreation Intercept Observation Tally

The Recreation Intercept Observation Tally research was completed throughout the sampling period of the Recreation Intercept Survey (March 2012–March 2013) and provided data that will support additional insight into the Recreation Facilities and Carrying Capacity Analysis.

6.2.5. Regional Resident Household Mail Survey

The response rate to the mail survey (both June and October mailings) indicated that the survey instrument worked well, and response rate goals were met.

Data results from the mail survey regarding sportfishing, recreational boating, snowmachining, and hunting were shared with the socioeconomics team. Socioeconomics contractors used this data to develop and refine their Random Utility Model (RUM) and indicated the data were useful and informative in that process (see Social Conditions and Public Goods and Services, ISR Study 15.6, Section 4.1).

The large response from the mail survey provided a statistically significant number of regional households that visited and used the Recreation Use Study Area for recreational purposes. This large sample size supported the development of quantitative demand estimates for various recreation activities, including number of users and user-days. However, even with a large overall sample size, a statistically significant sample for some of the smaller recreational user groups (such as snowshoeing, rock climbing, etc.) was not available. In all cases, qualitative and analogous research were used to supplement the quantitative survey research and meet the Study Plan requirements.

6.2.6. Nonresponse Bias Telephone Survey

The survey instrument worked well and the sample goal was reached. Cell phones and landlines were both surveyed.

6.3. Executive Interviews

As stated in 12.5.4 of the RSP, executive interviews were conducted to collect qualitative and quantitative data from businesses, organizations, and individuals that use the Recreation Use Study Area. These data provided important information on the volume of recreation users, their thoughts on the quality of recreation, as well as their satisfaction with current facilities and potential recreation facility needs. For the purposes of the demand assessment for the Recreation Use Study Area, executive interview research adequately informed the modeling of the current demand assessment and future demand projections, and provided more background in developing user profiles of selected recreation activities found in Appendix A.

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7.1. Figure (Maps) References

Data Source	Date	File Name and Description
AECOM	11/13/2013	REC_Intercept_PTS: Locations of intercept surveys.
BLM	10/28/2013	BLM_TLAD: Boundary of the Tangle Lakes Archaeological District.
ADF&G	4/5/2012	Game_Management_Units: Alaska Department of Fish and Game game management units.
AECOM	6/5/2013	REC_17b_Easements: Represent locations of easements reserved in ANCSA 17b.
ADF&G	11/1/2013	REC_ADFG_0EST: Table containing number of responses for angling survey (i.e. sample size).
ADF&G	11/1/2013	REC_ADFG_0EST_30_Sums: Table containing sums and averages of estimated days of effort spent angling.
ADF&G	11/1/2013	REC_ADFG_Angling_Locations: ADFG geographic locations used to represent areas where angling occurs.
AECOM	9/4/2015	REC_Braided_Trails_Index: Index map used for Appendix D Summer Trails Braiding Classification.
AECOM	9/4/2015	REC_Dispersed_Recreation: Dispersed recreation sites collected in the field and digitized from aerial imagery.
AECOM	11/18/2013	REC_Facilities: Recreation facilities including campgrounds, trailheads, boat launches, and day use areas.
AECOM (ADF&G)	9/4/2015	REC_Hunting_Effort_All_Res: Raster displaying average days of effort for all residents in the Recreation Use Study Area.
AECOM (ADF&G)	9/4/2015	REC_Hunting_Effort_Non_Res: Raster displaying average days of effort for non-residents in the Recreation Use Study Area.
AECOM	9/4/2015	REC_Identified_Structures: These point data indicate the location of observed structures that were identified during the screen digitization of summer trails within the Recreation Use Study Area.
AECOM	9/4/2015	REC_Intercept_Grid: Data provides the location of intercept survey and mail survey respondent's most recent camping, snowmachining, fishing, boating, and recreation

Data Source	Date	File Name and Description
		hunting outing, by grid, between March 2013 and March 2014.
AECOM	9/4/2015	REC_Intercept_Grid_SubAreas: Polygon of intercept grid sub areas.
AECOM	9/4/2015	REC_Intercept_Tallies: Data provides the number and the location of all vehicles observed and capacities for recreation based on field observations.
AECOM	11/19/2013	REC_RS2477: Easements with a State of Alaska RS 2477 designation.
AECOM	6/4/2013	REC_StudyArea_Use: The spatial extent of the study area for both Recreation Use Studies and the Recreation Supply and Demand Studies
AECOM	9/4/2015	REC_Summer_Trails_ENL: Trail compilation for the Study Area. From URS digitized trails, ADNR USGS 63,360 Trailset, BLM trails, MSB trails, and executive interviews. Excludes trails on Native lands unless they are a 17(b) easement.
AECOM	12/31/2013	REC_Summer_Trails_Index: Index grid for Recreation Resources Study Appendix C Summer Trails.
AECOM	9/4/2015	REC_Trail_Braiding: This dataset was created to identify the source of locations for trail braiding during the screen digitization of summer trails using Project imagery.
AECOM	9/4/2015	REC_Trail_Features: These point data indicate the location of observed trail impedances and built infrastructure identified during the screen digitization of summer trails using Project imagery.
AECOM	9/4/2015	REC_Winter_Trails: Trail compilation for the Study Area. From URS digitized trails, ADNR State Parks SnowTRAC grooming pool, ADNR USGS 63360 Trailset, BLM trails, MSB trails, and executive interviews.
AECOM	12/31/2013	REC_Winter_Trails_Index: Index grid for Recreation Resources Study Appendix B Winter Trails.

APPENDIX A: SUSITNA-WATANA RECREATIONAL ACTIVITIES PROFILE SUMMARY

Susitna-Watana Hydroelectric Project (FERC No. 14241)

Recreation Resources Study Study Plan Section 12.5

Technical Memorandum - 2014 Year-End Report Recreation Use Demand Assessment

Appendix A - Susitna-Watana Recreational Activities Profile Summary

Prepared for

Alaska Energy Authority

SUSITNA-WATANA HYDRO

Clean, reliable energy for the next 100 years.

Prepared by

AECOM and McDowell Group

September 2015

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LIST OF ACRONYMS, ABBREVIATIONS, AND DEFINITIONS

Abbreviation	Definition
ASSA	Alaska State Snowmobile Association
ATV	all-terrain vehicle
B&B	Bed and Breakfast
BLM	Bureau of Land Management
GED	General Educational Development
ISR	Initial Study Report
MSB	Matanuska-Susitna Borough
NOLS	National Outdoor Leadership School
ORV	off-road vehicle
RV	recreational vehicle
SCORP	Statewide Comprehensive Outdoor Recreation Plan
Study Area	Recreation Use Study Area
U.S.	United States

1. INTRODUCTION

This appendix contains recreation activity profiles compiled from data presented in the Recreation Use Demand Assessment (Section 5, 2014 Year-End Report), Susitna-Watana Recreation Intercept Survey results (Appendix B), and Susitna-Watana Recreation Regional Resident Household Mail Survey results (Appendix D). Determining which recreational activities to be profiled was based on whether there was a large enough survey sample size to present data with a measure of reliability. Where relevant, most profiles of selected recreational activities include the following:

- A summary of survey samples
- Total estimated participation in that activity in the Recreation Use Study Area (Study Area) (including Alaska resident and nonresident participation)
- Location of where the recreational activity as a primary activity occurred
- Travel more than one-half mile from a trailhead to participate in that activity
- Mode of travel used
- Type of trail used
- Use of professional guides
- Overnights spent and types of lodging used while recreating in the Study Area
- Frequency of trips
- Other recreational activities occurring on the most recent trip to the Study Area
- Party size and characteristics
- Perceived infrastructure needs in the Study Area
- Perceptions of a detracted experience during their most recent outing
- A demographic profile of the survey respondents participating in the recreational activity

Selected recreational activity profiles include consumptive activities (such as sportfishing, hunting, and trapping) and non-consumptive activities (such as wildlife viewing and hiking).

2. CONSUMPTIVE ACTIVITIES

2.1. Hunting and Trapping

2.1.1. Recreation Intercept Survey and Regional Resident Household Mail Survey Data

The Susitna-Watana Recreation Intercept Survey sample contained 144 users (96 percent Alaska residents and 4 percent non-Alaska residents) who hunted in the Study Area. Of these users, 108 (105 Alaska residents and 3 non-Alaska residents) participated in hunting as their primary activity on their most recent outing.

The Regional Resident Household Mail Survey sample contained 245 regional resident users who hunted in the Study Area, including 161 users whose primary activity on their most recent outing was hunting.

2.1.2. Total Estimated Participation

An estimated 18,800 users hunted in the Study Area, representing about 1.4 percent of all recreation users (Section 5.1.2, 2014 Year-End Report). These users spent an estimated 145,100 recreational user-days hunting (partial and full days), representing approximately 2.9 percent of all user-days in the Study Area (Table A2.1-1).

Table A2.1-1. Estimates of Hunting Activity in Study Area, All Study Area Users

Total annual participation in hunting (number of users participating)	18,800
Percentage of total recreation participation (% of users participating)*	1.4%
Total annual number of hunting user-days**	145,100
Percentage of total Study Area user-days (all activities)	2.9%

*Hunting as a percentage of all Study Area participation in recreation activities.
**Includes full and partial days.
Source: Section 5.1.2, 2014 Year-End Report.

2.1.2.1. Volume of Recreation Activity: Alaska Regional Residents

An estimated 17,500 Alaska regional residents hunted in the Study Area, representing about 19 percent of resident users who recreated in the Study Area (Section 5.1.2, 2014 Year-End Report). These regional resident users spent 138,400 user-days hunting, representing 4.6 percent of all Study Area regional resident recreation activity (Table A2.1-2).

Table A2.1-2. Estimates of Hunting Activity in Study Area, Alaska Regional Resident Users

Total annual number of regional resident users participating in hunting	17,500
Percentage of users participating in hunting in Study Area*	19%
Total annual number of hunting user-days (regional residents only)**	138,400
Percentage of total Study Area user-days (all activities, regional residents only)	4.6%

*Percentage of Alaska regional residents who recreated in the Study Area and hunted.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

2.1.2.2. Volume of Recreation Activity: Non-Alaska Residents

An estimated 1,300 non-Alaska residents hunted in the Study Area, representing about 1 percent of nonresident users who recreated in the Study Area (Section 5.1.2, 2014 Year-End Report). These nonresident users spent 6,700 user-days hunting, representing 0.5 percent of all Study Area nonresident recreation activity (Table A2.1-3).

Table A2.1-3. Estimates of Hunting Activity in Study Area, Non-Alaska Resident Users

Total annual number of non-Alaska resident users participating in hunting	1,300
Percentage of non-Alaska resident users participating in hunting*	1%
Total annual number of hunting user-days (non-Alaska residents only)**	6,700
Percentage of total Study Area user-days (all activities, non-Alaska residents only)	0.5%

*Percentage of non-Alaska residents who recreated in the Study Area and hunted.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

2.1.3. Hunting Primary Activity Profile

The following profile includes Alaska regional residents who hunted as their primary activity during their most recent visit to the Study Area, based on survey results from the Regional Resident Household Mail Survey (Appendix D). Due to small sample sizes, information on non-Alaska resident participation is not included.

2.1.3.1. Location of Hunting Primary Activity

Hunting occurred throughout the Study Area, with at least 5 percent of hunters active in each Study Area Sub-Area (Table A2.1-4). Over one-third (35 percent) of all Alaska regional residents who hunted as a primary activity did so in the East Denali Highway Sub-Area during their most recent outing in the Study Area. Another 30 percent hunted in the West Denali Highway Sub-Area.

Table A2.1-4. Hunting as Primary Activity, Alaska Regional Residents, by Area of Primary Activity, Percent

Study Area Sub-Area	Percent of Alaska Regional Resident Hunters (n=154)
Talkeetna Area	9%
Parks Highway	7%
West Denali Highway	30%
East Denali Highway	35%
Lake Louise Area	11%
Remote South	8%
Remote North	17%

Base: Those whose primary activity was hunting during the most recent outing in the Study Area.

Note: Multiple responses accepted; column will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

2.1.3.2. Travel More than One-Half Mile from Trailhead or Main Road

Most (88 percent) of the Alaska regional residents who hunted as their primary activity during their most recent outing in the Study Area reported traveling more than one-half mile from a trailhead or main road.

2.1.3.3. Mode of Travel

Among Alaska regional residents who hunted as their primary activity during their most recent outing in the Study Area, just over half (54 percent) used an all-terrain vehicle (ATV) when they traveled more than one-half mile from a trailhead or main road into the area. Forty-two percent of these users walked or hiked, 12 percent used motorized watercraft, and 11 percent used a snowmachine. A smaller proportion of these users utilized non-motorized watercraft, airplane, or snowshoe as their mode of transportation while hunting. Some respondents used more than one mode of transportation (Table A2.1-5).

Table A2.1-5. Hunting as Primary Activity, Transportation Mode, Travel More than One-Half Mile from a Trailhead or Main Road, Alaska Regional Residents, Percent

Mode of Transportation	Alaska Regional Resident Hunters Who Traveled More Than One-Half Mile into the Study Area (n=132)
Hike	42%
Snowmachine	11%

Mode of Transportation	Alaska Regional Resident Hunters Who Traveled More Than One-Half Mile into the Study Area (n=132)
ORV/ATV	54%
Motorized boat	12%
Non-motorized boat	4%
Snowshoe	2%
Airplane	4%

Base: Those whose primary activity was hunting during most recent outing in the Study Area.
Note: Multiple responses accepted; column will not add to 100 percent.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

2.1.3.4. Type of Trail Used

Almost three-quarters (72 percent) of hunters used both established trails and off-trail routes when they traveled more than one-half mile from a trailhead or main road (Table A2.1-6).

Table A2.1-6. Hunting as Primary Activity, Type of Trail Used, Travel More than One-Half Mile from a Trailhead or Main Road, Alaska Regional Residents, Percent

Trail Type	Percent of Alaska Regional Resident Hunters (n=111)
Established trails	16%
Off-trail	12%
Both established trails and off-trail	72%

Base: Those whose primary activity was hunting during most recent outing in the Study Area.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

Forty-one percent camped in the Study Area more than one-half mile from a trailhead or main road (Table A2.1-7).

Table A2.1-7. Hunting as Primary Activity, Camped More than One-Half Mile from a Trailhead or Main Road, Alaska Regional Residents, Percent

Camped	Percent of Alaska Regional Resident Hunters (n=133)
Yes	41%
No	59%

Base: Those whose primary activity was hunting during most recent outing in the Study Area.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

2.1.3.5. Type of Game

Of the Alaska regional resident users who hunted as the primary activity during their most recent outing in the Study Area, 58 percent were mainly hunting for caribou, followed by 26 percent for moose (Table A2.1-8).

Table A2.1-8. Hunting as Primary Activity, Primary Harvest Objective, Alaska Regional Residents, Percent

Type of Game	Percent of Alaska Regional Resident Hunters (n=160)
Caribou (Net)	58%
Caribou - State draw permit one bull	30%
Caribou - State registration permit	20%
Caribou – Federal subsistence	7%
Caribou – State community harvest	<1%
Moose (Net)	26%
Moose - State harvest ticket	22%
Moose - State community harvest	2%
Moose – State draw permit any bull	1%
Moose – Federal subsistence	1%
Moose – State draw permit cow	-
Moose – Nonresident	-
Upland game birds	9%
Waterfowl	-
Bear (brown or black)	5%
Other*	1%

Base: Those whose primary activity was hunting during most recent outing in the Study Area.

*"Other" included foxes and wolves.

Note: Due to rounding, column may not add to 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

2.1.3.6. Use of Guides

Three percent of the Alaska regional resident users whose primary activity was hunting used the services of a guide for a portion of their most recent outing in the Study Area.

2.1.3.7. Overnights and Lodging in Study Area

Eighty-six percent of Alaska regional resident users whose primary activity was hunting spent at least one night in the Study Area (other than their primary residence if they lived in the Study Area). Those users spent an average of 5.1 nights in the Study Area on their most recent hunting trip (Table A2.1-9).

Table A2.1-9. Hunting as Primary Activity, Number of Overnights Spent in Study Area, Alaska Regional Residents, Number of Overnights and Percent

Number of Nights in Study Area	Overnighting Alaska Regional Resident Hunters (n=121)
1 night	8%
2 to 7 nights	72%
8 to 14 nights	15%
15+ nights	5%
Average number of nights	5.1 nights
Median number of nights	4.0 nights

Base: Those whose primary activity was hunting during most recent outing in the Study Area and overnighted in the Study Area.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

Among Alaska regional resident hunters who overnighted in the Study Area, 42 percent overnighted in the West Denali Highway Sub-Area, 33 percent in the East Denali Highway Sub-Area, and 12 percent in the Lake Louise Area Sub-Area. Regional resident hunters overnighted to some degree in all Sub-Areas within the Study Area (Table A2.1-10).

Table A2.1-10. Hunting as Primary Activity, Location of Overnights Spent in Study Area, Alaska Regional Residents, By Sub-Area, Percent

Study Area Sub-Area	Percent of Overnighting Alaska Regional Resident Hunters (n=119)
Talkeetna Area	10%
Parks Highway	5%

Study Area Sub-Area	Percent of Overnighting Alaska Regional Resident Hunters (n=119)
West Denali Highway	42%
East Denali Highway	33%
Lake Louise Area	12%
Remote South	4%
Remote North	11%

Base: Those whose primary activity was hunting during most recent outing in the Study Area and overnighted in the Study Area.
Note: Multiple responses accepted; column will not add to 100 percent.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

Most Alaska regional resident hunters who overnighted in the Study Area camped; 45 percent camped remotely (in a tent or cabin), 44 percent camped in undeveloped roadside areas (with a recreation vehicle [RV], camper, car, or tent), and 11 percent camped in an established campground. Other lodging used by hunters within the Study Area included hotels/motels/bed and breakfasts (B&Bs)/lodges (7 percent), and private homes (1 percent) (Table A2.1-11).

Table A2.1-11. Hunting as Primary Activity, Type of Lodging Used in Study Area, Alaska Regional Residents, Percent

Type of Lodging Used	Percent of Overnighting Alaska Regional Resident Hunters (n=122)
Hotel/motel/B&B/lodge	7%
Established campground	11%
Remote camping	45%
Private home	1%
Roadside/undeveloped campground	44%

Base: Those whose primary activity was hunting during most recent outing in the Study Area and overnighted in the Study Area.
Note: Multiple responses accepted; column will not add to 100 percent.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

2.1.3.8. Frequency of Hunting Trips to Study Area

Almost three-quarters (74 percent) of Alaska regional resident users whose primary activity was hunting had been to the Study Area previously to hunt, while an additional 3 percent lived in the Study Area and hunt. Forty-one percent of this user group first visited the Study Area to hunt prior to 1991, while 17 percent had visited relatively recently (between 2011 and 2013). Forty-three percent of Alaska regional resident hunters generally hunt between 2 and 10 times per year

in the Study Area, while 31 percent hunt in the Study Area once every year, and 10 percent hunt more than 10 times per year (Tables A2.1-12 to A2.1-14).

Table A2.1-12. Hunting as Primary Activity, Previous Trip to Study Area for Hunting as Primary Activity, Alaska Regional Residents, Percent

Traveled to Study Area for Same Primary Activity	Percent of Alaska Resident Hunters (n=158)
Yes	74%
No	23%
Live in Study Area	3%

Base: Those whose primary activity was hunting during most recent outing in the Study Area.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

Table A2.1-13. Hunting as Primary Activity, Year of First Trip to Study Area for Hunting as Primary Activity, Alaska Regional Residents, Percent

Period of First Trip	Percent of Alaska Regional Resident Repeat Hunters (n=130)
Before 1991	41%
1991 to 2000	18%
2001 to 2010	25%
2011 to 2013	17%

Base: Those whose primary activity was hunting during most recent outing in the Study Area and had hunted in the Study Area previously.
Note: Due to rounding, column may not total 100 percent.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

Table A2.1-14. Hunting as Primary Activity, Frequency of Trips to Study Area for Hunting as Primary Activity, Alaska Regional Residents, Percent

Frequency of Trips	Percent of Alaska Regional Resident Repeat Hunters (n=132)
More than 10 times per year	10%
2 to 10 times per year	43%
Once a year	31%
Once every few years	13%
Less often	2%

Base: Those whose primary activity was hunting and had hunted in the Study Area previously.
Note: Due to rounding, column may not total 100 percent.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

2.1.3.9. Other Activities on Most Recent Trip

Many Alaska regional resident users who hunted as their primary activity on their most recent trip to the Study Area also participated in a number of other recreational activities, aside from those often directly associated with the hunting trip (e.g., camping and riding ATVs). Five percent of this user group fished for salmon during their visit to the area, 8 percent fished for other species. Eight percent watched birds and 4 percent collected berries/mushrooms (Table A2.1-15).

Table A2.1-15. Hunting as Primary Activity, Participation in Other Recreational Activities, Alaska Regional Residents, Percent

Activity	Percent of Alaska Regional Resident Hunters (n=161)
Roadside camping	19%
Remote camping	22%
Wildlife viewing	14%
Bird watching	8%
Walking/running	4%
Hiking/backpacking	10%
Hunting	100%
Fishing for salmon	5%
Fishing for non-salmon species	8%
Collecting berries/mushrooms	4%
Riding ATVs	19%
Snowmachining	5%
Riding the Alaska Railroad	1%
Bicycling	<1%

Activity	Percent of Alaska Regional Resident Hunters (n=161)
Non-motorized boating (rafting, kayaking, canoeing or pack-rafting)	3%
Motorized boating (jet, prop, or air)	5%
Flightseeing	<1%
Skiing	1%
Snowshoeing	1%

Base: Those whose primary activity was hunting during most recent outing in the Study Area and participated in other recreational activities in the Study Area.

Note: Multiple responses accepted; column will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

2.1.3.10. Party and Group Size and Characteristics

The average party size among Alaska regional resident users whose primary activity was hunting was 2.9 persons, with a median party size of 2.0. The party included an average of 0.5 person under age 18, and 1.7 persons who lived in the same household. Only 2 percent of parties included a member with a disability or special need related to outdoor recreation.

Average group size was 3.3 persons.

2.1.3.11. Perceived Infrastructure Needs

On a scale of 1 to 5, with 1 being "a lot less" and 5 being "a lot more," Alaska regional resident users whose primary activity was hunting on their most recent trip in the Study Area rated, on average, the need for designated parking spaces as a 3.5. This was the highest average rating this user group gave for any of the facility, infrastructure, and information needs presented. Eighteen percent of these users reported a need for "a lot more" designated trails for off-road vehicles (ORVs), the highest proportion of "a lot more" responses (Table A2.1-16).

Table A2.1-16. Hunting as Primary Activity, Perceived Facility, Infrastructure, and Information Needs, Alaska Regional Residents, Percent

Potential Need (n=161)	Average (1–5)	A Lot More (5)	A Little More (4)	Same (3)	A Little Less (2)	A Lot Less (1)
Maintained roads	3.3	9%	20%	66%	2%	4%
Designated parking areas	3.5	12%	28%	56%	1%	3%
Road-side toilets	3.4	9%	36%	48%	1%	5%

Potential Need (n=161)	Average (1–5)	A Lot More (5)	A Little More (4)	Same (3)	A Little Less (2)	A Lot Less (1)
RV accessible sites at campgrounds	2.9	5%	12%	62%	10%	11%
Trail maps	3.4	13%	27%	51%	4%	5%
Designated trails for non-motorized use	3.1	14%	16%	55%	2%	13%
Designated trails for ORV	3.2	18%	14%	50%	5%	14%
Directional road signs	3.0	3%	13%	74%	4%	5%
Visitor information	3.0	4%	11%	67%	11%	6%
Visitor centers	2.7	2%	6%	66%	11%	15%
Public use cabins	3.1	10%	25%	45%	8%	11%
Boat launches	3.1	6%	13%	71%	2%	7%
Facilities for the disabled	3.3	4%	30%	60%	2%	5%

Base: Those whose primary activity was hunting during most recent outing in the Study Area.

Note: Due to rounding, some rows may not total 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

2.1.3.12. Perceptions of Detracted Experience

Just under half (49 percent) of Alaska regional resident users whose primary activity was hunting felt somewhat or very crowded during their most recent outing in the Study Area (Table A2.1-17). Among those that felt somewhat or very crowded, the largest proportion recalled feeling that way in the West Denali Highway (41 percent) and East Denali Highway (35 percent) Sub-Areas.

Table A2.1-17. Hunting as Primary Activity, Perceived Crowding, Alaska Regional Residents, Percent

Perceived Crowding	Percent of Alaska Regional Resident Hunters (n=160)
Very crowded	15%
Somewhat crowded	34%
Not crowded	52%

Base: Those whose primary activity was hunting during most recent outing in the Study Area.

Note: Due to rounding, column may not total 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

Ten percent of Alaska regional resident users who hunted as their primary activity on their most recent outing in the Study Area reported experiencing conflict with other individuals or groups that negatively impacted their recreation experience.

Just over half (56 percent) of Alaska regional resident hunters did not see any signs of infrastructure or human activity that detracted from the scenic quality within the Study Area. Trash (23 percent), vehicles (20 percent), and people (20 percent) were the three detractions noted by the largest proportions of regional resident hunters.

Sixty-one percent of Alaska regional resident hunters reported there were no noises that detracted from their enjoyment of the Study Area. Eleven percent identified ATVs or four-wheelers, and 10 percent reported noise from other people as detractors from their experience.

2.1.3.13. Demographic Profile of Survey Respondents

The average age of Alaska regional resident users whose primary activity was hunting was 46.9 years (median of 45 years), slightly younger than all regional resident users (average of 47.2 years, median of 47 years). Seniors (aged 65 and over) accounted for 10 percent of users whose primary activity was hunting, compared to 12 percent of all regional resident users.

The majority of Alaska regional resident users whose primary activity was hunting were male (82 percent). In comparison, males accounted for 48 percent of regional resident users. Three-quarters (74 percent) of those whose primary activity was hunting were married, compared to 60 percent of all regional resident users.

Average household income among regional resident users whose primary activity was hunting was $88,000, with a median household income also of $88,000. This compared to an average of $83,000 and median of $63,000 for all users. Approximately one-quarter (26 percent) of hunters had completed a bachelor's degree as their highest level of school completed. Thirty percent completed some college but did not receive a degree, 12 percent completed an associate's degree, 19 percent had a high school degree, and 9 percent completed a graduate or professional degree.

The average household size for Alaska regional resident users whose primary activity was hunting was 2.7, the same average household size for all regional resident users (Table A2.1-18).

Table A2.1-18. Hunting as Primary Activity, Demographic Profile of Survey Respondents, Alaska Regional Residents

Demographic Factor	Alaska Regional Resident Hunters (n=161)
Average age	46.9
Age 65 and over (percent)	10%
Female/male (percent)	18% / 82%

Demographic Factor	Alaska Regional Resident Hunters (n=161)
Married (percent)	74%
Average household size	2.7
Households with children under age 18 (percent)	41%
Average household income	$88,000
Median household income	$88,000
Racial characteristics*	
White (percent)	90%
Alaska Native/American Indian (percent)	7%
All other (percent)	7%
Education (percent)	
Less than 9th grade	2%
9th to 12th grade, no diploma	1%
High school graduate/General Educational Development (GED)	19%
Some college, no degree	30%
Associate's degree	12%
Bachelor's degree	26%
Graduate or professional degree	9%

Base: Those whose primary activity was hunting during most recent outing in the Study Area.

*Survey respondents could note more than one race if applicable.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

Most (44 percent) of the Alaska regional residents whose primary activity was hunting lived in the Municipality of Anchorage, followed by the Matanuska-Susitna Borough (MSB) (39 percent) (Table A2.1-19).

Table A2.1-19. Hunting as Primary Activity, Alaska Residency, Alaska Regional Residents, Percent

Place of Residence	Percent of Alaska Regional Resident Hunters (n=149)
Municipality of Anchorage	44%
MSB	39%
Denali Borough	<1%
Fairbanks North Star Borough	11%
Valdez-Cordova/Southeast Fairbanks Census Area	5%

Base: Those whose primary activity was hunting during most recent outing in the Study Area.

Note: Due to rounding, column may not total 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

2.2. Sportfishing

2.2.1. Recreation Intercept Survey and Regional Resident Household Mail Survey Data

The Susitna-Watana Recreation Intercept Survey sample contained 274 users (81 percent Alaska residents and 19 percent non-Alaska residents) who fished in the Study Area. Of these users, 114 (184 Alaska residents and 30 non-Alaska residents) fished as their primary activity on their most recent outing.

The Regional Resident Household Mail Survey sample contained 294 Alaska regional resident users who fished in the Study Area, including 77 users whose primary activity on their most recent outing was fishing (for all species).

2.2.2. Total Estimated Participation

An estimated 35,000 users fished for salmon in the Study Area, representing about 2.7 percent of all recreation users (Section 5.1.2, 2014 Year-End Report). An estimated 33,400 users fished for non-salmon species, representing about 2.6 percent of all recreation users. Users who fished for salmon spent an estimated 126,800 recreational user-days fishing (partial and full days), representing approximately 2.6 percent of all user-days in the Study Area. Users who fished for non-salmon species spent an estimated 154,500 recreational user-days fishing (partial and full days), representing approximately 3.1 percent of all user-days in the Study Area (Table A2.2-1).

Table A2.2-1. Estimates of Fishing Activity (All Species): All Study Area Users

Total annual participation in salmon fishing (number of users participating)	35,000
Total annual participation in non-salmon fishing (number of users participating)	33,400

Percentage of total recreation participation (% of users participating)*	2.7%
Percentage of total recreation participation (% of users participating)*	2.6%
Total annual number of salmon fishing user-days**	126,800
Total annual number of non-salmon fishing user-days**	154,500
Percentage of total Study Area user-days (all activities), salmon fishing	2.6%
Percentage of total Study Area user-days (all activities), non-salmon fishing	3.1%

*Fishing as a percentage of all Study Area participation in recreation activities.
**Includes full and partial days.
Source: Section 5.1.2, 2014 Year-End Report.

2.2.2.1. Volume of Recreation Activity: Alaska Regional Residents

An estimated 13,400 Alaska regional residents fished for salmon in the Study Area, representing about 13 percent of regional resident users who recreated in the Study Area (Section 5.1.2, 2014 Year-End Report). These regional resident users spent 100,500 user-days fishing for salmon, representing 3.3 percent of all Study Area regional resident recreation activity.

An estimated 15,600 Alaska regional residents fished for non-salmon species in the Study Area, representing about 16 percent of resident users who recreated in the Study Area. These regional resident users spent 115,600 user-days fishing for non-salmon species, representing 3.8 percent of all Study Area regional resident recreation activity (Table A2.2-2).

Table A2.2-2. Estimates of Fishing Activity (All Species): Alaska Regional Resident Users

Total annual number of regional resident users participating in salmon fishing	13,400
Total annual number of regional resident users participating in non-salmon fishing	15,600
Percentage of users participating in salmon fishing in Study Area*	13%
Percentage of users participating in non-salmon fishing in Study Area*	16%
Total annual number of salmon fishing user-days (regional residents only)**	100,500
Total annual number of non-salmon fishing user-days (regional residents only)**	115,600
Percentage of total Study Area user-days (all activities, regional residents only), salmon fishing	3.3%
Percentage of total Study Area user-days (all activities, regional residents only), non-salmon fishing	3.8%

*Percentage of those recreating in the Study Area that fished.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

2.2.2.2. Volume of Recreation Activity: Non-Alaska Residents

An estimated 21,600 non-Alaska residents fished for salmon in the Study Area, representing about 8 percent of all nonresident users who recreated in the Study Area (Section 5.1.2, 2014 Year-End Report). These nonresident users spent 26,300 user-days fishing for salmon, representing 1.8 percent of all Study Area nonresident recreation activity.

An estimated 17,800 non-Alaska residents fished for non-salmon species in the Study Area, representing about 7 percent of nonresident users who recreated in the Study Area. These nonresident users spent 38,900 user-days fishing for non-salmon species, representing 2.7 percent of all Study Area non-Alaska resident recreation activity (Table A2.2-3).

Table A2.2-3. Estimates of Fishing Activity (All Species): Non-Alaska Resident Users

Total annual number of non-Alaska resident users participating in salmon fishing	21,600
Total annual number of non-Alaska resident users participating in non-salmon fishing	17,800
Percentage of non-Alaska resident users participating in salmon fishing*	8%
Percentage of non-Alaska resident users participating in non-salmon fishing*	7%
Total annual number of salmon fishing user-days (non-Alaska residents only)**	26,300
Total annual number of non-salmon fishing user-days (non-Alaska residents only)**	38,900
Percentage of total Study Area user-days (all activities, non-Alaska residents only), salmon fishing	1.8%
Percentage of total Study Area user-days (all activities, non-Alaska residents only), non-salmon fishing	2.7%

*Percentage of those recreating in the Study Area that fished.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

2.2.3. Fishing Primary Activity Profile

The following profile includes Alaska regional residents who fished as their primary activity during their most recent visit to the Study Area, based on results from the Regional Resident Household Mail Survey (Appendix D). Where sample sizes are adequate, information on non-Alaska resident participation is also included, based on survey results for nonresident use from the Susitna-Watana Recreation Intercept Survey (Appendix B).

2.2.3.1. Location of Fishing Primary Activity

Among Alaska regional residents who fished as a primary activity, 58 percent did so along the Parks Highway Sub-Area and 21 percent in the Talkeetna Area Sub-Area. Fewer regional residents fished in the Remote North (12 percent), West Denali Highway (9 percent), Lake Louise Area (9 percent), East Denali Highway (5 percent), and Remote South (4 percent) Sub-Areas (A2.2-4).

Table A2.2-4. Fishing (All Species) as Primary Activity, Most Recent Outing, Alaska Regional Residents, by Area of Primary Activity, Percent

Study Area Sub-Area	Percent of Alaska Regional Resident Fishing (n=72)
Talkeetna Area	21%
Parks Highway	58%
West Denali Highway	9%
East Denali Highway	5%
Lake Louise Area	9%
Remote South	4%
Remote North	12%

Base: Those whose primary activity was fishing (all species) during most recent outing in the Study Area.
Note: Multiple responses accepted; column will not add to 100 percent.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

2.2.3.2. Travel More than One-Half Mile from Trailhead or Main Road

The majority (60 percent) of Alaska regional residents who fished as their primary activity on their most recent outing in the Study Area reported traveling more than one-half mile from a trailhead or main road.

Most (87 percent) nonresidents who fished as a primary activity traveled more than one-half mile from a trailhead or main road.

2.2.3.3. Mode of Travel

Among Alaska regional residents who fished as their primary activity on their most recent outing in the Study Area, 56 percent walked/hiked, 24 percent used motorized watercraft, and 19 percent used an ORV/ATV to travel more than one-half mile into the Study Area (Table A2.2-5). Nonresidents were not asked about their mode of travel while fishing beyond trailheads or main roads. Some respondents used more than one mode of transportation.

Table A2.2-5. Fishing (All Species) as Primary Activity, Transportation Mode, Travel More than One-Half Mile from a Trailhead or Main Road, Most Recent Outing, Alaska Regional Residents, Percent

Mode of Transportation	Alaska Regional Resident Fishers Who Traveled More Than One-Half Mile into the Study Area (n=41)
Hike	56%
Snowmachine	5%
ORV/ATV	19%
Motorized boating	24%
Non-motorized boating	8%
Snowshoe	2%
Airplane	1%
Other*	2%

Base: Those whose primary activity was fishing (all species) during most recent outing in the Study Area.

Note: Multiple responses accepted; column will not add to 100 percent.

* "Other" included train.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

2.2.3.4. Type of Trail Used

Of those Alaska regional residents who fished as their primary activity during their most recent outing in the Study Area, 65 percent used both established trails and off-trail routes when they traveled more than one-half mile from a trailhead or main road; 29 percent only used established trails, and 6 percent only used off-trail routes.

Among these regional resident users who traveled more than one-half mile from a trailhead or main road, most (77 percent) did so in the Talkeetna Area Sub-Area, followed by the Parks Highway (42 percent) and Remote South (12 percent) Sub-Areas, and less than 10 percent in other Sub-Areas.

Only 4 percent camped in the Study Area more than one-half mile from a trailhead or main road.

Just over half (54 percent) of all non-Alaska residents who fished as their primary activity during their most recent outing in the Study Area used both established trails and off-trail routes, while 42 percent used established trails only.

2.2.3.5. Use of Guides

Five percent of Alaska regional resident users whose primary activity was fishing used the services of a guide for a portion of their most recent outing in the Study Area.

Almost two-thirds (63 percent) of nonresidents whose primary activity was fishing used a guide.

2.2.3.6. Overnights and Lodging in Study Area

Alaska regional residents whose primary activity was fishing during their most recent outing in the Study Area spent an average of 3.2 nights in the Study Area. Nonresidents whose primary activity was fishing spent an average of 2.7 nights in the Study Area (Table A2.2-6).

Table A2.2-6. Fishing (All Species) as Primary Activity, Number of Overnights Spent in Study Area, Alaska Regional Residents and Non-Alaska Residents, Number of Overnights and Percent

Number of Nights in Study Area	Overnighting Alaska Regional Resident Fishers (n=45)	Overnighting Nonresident Fishers (n=29)
1 night	18%	31%
2 to 7 nights	71%	65%
8 to 14 nights	11%	3%
15+ nights	-	-
Average number of nights	3.2 nights	2.7 nights
Median number of nights	2.0 nights	2.0 nights

Base: Those whose primary activity was fishing (all species) during most recent outing in the Study Area and overnighted in the Study Area.
Note: Due to rounding, some columns may not total 100 percent.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

Among Alaska regional residents whose primary activity was fishing and who overnighted in the Study Area, 41 percent overnighted in the Talkeetna Area Sub-Area, 29 percent in the West Denali Highway Sub-Area, 23 percent in the Parks Highway Sub-Area, and 18 percent in the Lake Louise Area Sub-Area. Fewer users overnighted in the East Denali Highway (12 percent) and Remote North (3 percent) Sub-Areas.

Sixty-nine percent of nonresidents whose primary activity was fishing overnighted in the Talkeetna Area Sub-Area (Table A2.25).

Table A2.2-7. Fishing (All Species) as Primary Activity, Location of Overnights Spent in Study Area, Alaska Regional Residents and Non-Alaska Residents, by Sub-Area, Percent

Study Area Sub-Area	Percent of Overnighting Alaska Regional Resident Fishers (n=39)	Percent of Overnighting Nonresident Fishers (n=29)
Talkeetna Area	41%	69%
Parks Highway	23%	14%
West Denali Highway	29%	7%
East Denali Highway	12%	14%
Lake Louise Area	18%	7%
Remote South	-	-
Remote North	3%	3%

Base: Those whose primary activity was fishing (all species) during most recent outing in the Study Area and overnighted in the Study Area.
Note: Multiple responses accepted; column will not add to 100 percent.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

Among Alaska regional residents whose primary activity was fishing and who stayed overnight in the Study Area, 47 percent roadside camped in an established or undeveloped campground, 25 percent camped remotely, 16 percent stayed in a hotel/motel/B&B/lodge, and 2 percent in a private home.

Among non-Alaska residents, 57 percent stayed in a hotel/motel/B&B/lodge at some point during their visit to the Study Area, while 30 percent roadside camped in an established or undeveloped campground, 10 percent stayed in a private home, and 3 percent camped remotely (Table A2.2-8).

Table A2.2-8. Fishing (All Species) as Primary Activity, Type of Lodging Used in Study Area, Alaska Regional Residents and Non-Alaska Residents, Percent

Type of Lodging Used	Percent of Overnighting Alaska Regional Resident Fishers (n=45)	Percent of Overnighting Nonresident Fishers (n=30)
Hotel/motel/B&B/lodge	16%	57%
Roadside camping (established or undeveloped campground)	47%	30%
Remote camping	25%	3%

Private home	2%	10%

Base: Those whose primary activity was fishing (all species) during most recent outing in the Study Area and overnighted in the Study Area.
Note: Multiple responses accepted; column will not add to 100 percent.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

2.2.3.7. Frequency of Fishing Trips to Study Area

Seventy-one percent of Alaska regional resident users whose primary activity was fishing had been to the Study Area previously to fish, while an additional 6 percent lived in the Study Area and fish. Twenty-nine percent of this user group first visited the Study Area to fish prior to 1991, while 9 percent had visited between 1991 and 2000, 45 percent between 2001 and 2010, and 16 percent between 2011 and 2013. Almost one-quarter (23 percent) of Alaska regional resident fishers generally fish more than 10 times per year, while almost half (49 percent) fished between 2 and 10 times per year in the Study Area.

Slightly less than a quarter (23 percent) of nonresidents whose primary activity was fishing had previously been to the Study Area (Tables A2.2-9 to A2.2-11).

Table A2.2-9. Fishing (All Species) as Primary Activity, Previous Trip to Study Area for Fishing (All Species) as Primary Activity, Alaska Regional Residents and Non-Alaska Residents, Percent

Traveled to Study Area for Same Primary Activity	Percent of Alaska Regional Resident Fishers (n=76)	Percent of Nonresident Fishers (n=30)
Yes	71%	23%
No	23%	77%
Live in Study Area	6%	N/A

Base: Those whose primary activity was fishing (all species) during most recent outing in the Study Area.
Note: Due to rounding, column may not total 100 percent.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

Table A2.2-10. Fishing (All Species) as Primary Activity, Year of First Trip to Study Area for Fishing (All Species) as Primary Activity, Alaska Regional Residents and Non-Alaska Residents, Percent

Period of First Trip	Percent of Alaska Regional Resident Repeat Fishers (n=55)	Percent of Nonresident Repeat Fishers (n=7)
Before 1991	29%	43%
1991 to 2000	9%	29%
2001 to 2010	45%	29%
2011 to 2013	16%	-

Base: Those whose primary activity was fishing (all species) during most recent outing in the Study Area and had fished in the Study Area previously.

Note: Due to rounding, column may not total 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

Table A2.2-11. Fishing (All Species) as Primary Activity, Frequency of Trips to Study Area for Fishing (All Species) as Primary Activity, Alaska Regional Residents and Non-Alaska Residents, Percent

Frequency of Trips	Percent of Alaska Regional Resident Repeat Fishers (n=58)	Percent of Nonresident Repeat Fishers (n=7)
More than 10 times per year	23%	-
2 to 10 times per year	49%	29%
Once a year	18%	14%
Once every few years	9%	57%
Less often	2%	-

Base: Those whose primary activity was fishing (all species) during most recent outing in the Study Area and had fished in the Study Area previously.

Note: Due to rounding, column may not total 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

2.2.3.8. Other Activities on Most Recent Trip

Among Alaska regional residents who fished as their primary activity on their most recent trip in the Study Area, 55 fished for salmon and 62 percent fished for other species. These regional resident users also remote camped (23 percent), roadside camped (18 percent), hiked/backpacked (16 percent), and viewed wildlife (15 percent).

Nonresident users who fished as their primary activity, fished for salmon (73 percent) and other species (43 percent). These nonresident users also motorized boated (67 percent), viewed wildlife (33 percent), went flightseeing (23 percent), and hiked/backpacked (20 percent), among other activities (Table A2.2-12).

Table A2.2-12. Fishing (All Species) as Primary Activity, Participation in Other Recreational Activities, Alaska Regional Residents and Non-Alaska Residents, Percent

Activity	Percent of Alaska Regional Resident Fishers (n=77)	Percent of Nonresident Fishers (n=30)
Remote camping	23%	7%
Roadside camping	18%	30%
Wildlife viewing	15%	33%

Activity	Percent of Alaska Regional Resident Fishers (n=77)	Percent of Nonresident Fishers (n=30)
Bird watching	6%	7%
Walking/running	11%	10%
Hiking/backpacking	16%	20%
Hunting	6%	3%
Fishing for salmon	55%	73%
Fishing for non-salmon species	62%	43%
Collecting berries/mushrooms	7%	13%
Riding ATVs	7%	7%
Snowmachining	5%	-
Riding the Alaska Railroad	3%	13%
Bicycling	2%	-
Non-motorized boating (rafting, kayaking, canoeing, or pack-rafting)	4%	13%
Motorized boating (jet, prop, or air)	10%	67%
Flightseeing	2%	23%
Skiing	4%	-
Snowshoeing	4%	-
Dog sledding	2%	3%
Other*	-	13%

Base: Those whose primary activity was fishing (all species) during most recent outing in the Study Area and participated in other recreational activities in the Study Area.

* "Other" included ziplining, gold panning, and swimming.

Note: Multiple responses accepted; columns will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

2.2.3.9. Party and Group Size and Characteristics

The average party size, individuals traveling together and sharing expenses, among Alaska regional resident users whose primary activity was fishing was 2.9 people, with a median party size of 3.0. The party included an average of 0.5 person under age 18, and 1.9 persons who lived in the same household. Three percent of Alaska regional resident parties included a member with a disability or special need related to outdoor recreation.

The average group size (defined as individuals traveling together but not necessarily sharing expenses) for regional residents was 3.4.

The average party size for nonresidents whose primary activity was fishing was 2.9, with a median party size of 2.0. Seven percent of nonresident parties included a member with a disability or special need.

The average group size for nonresidents was 3.5.

2.2.3.10. Perceived Infrastructure Needs

On a scale of 1 to 5, with one being "a lot less" and 5 being "a lot more," Alaska regional resident users whose primary activity was fishing on their most recent trip in the Study Area rated, on average, the need for public use cabins at 3.7. This was the highest average rating this user group gave for any of the facility, infrastructure, and information needs presented. Twenty percent of these users reported a need for "a lot more" public use cabins, the same proportion who indicated the need for "a lot more" roadside toilets (Table A2.2-13).

Table A2.2-13. Fishing (All Species) as Primary Activity, Perceived Facility, Infrastructure, and Information Needs, Alaska Regional Residents, Percent

Potential Need (n=77)	Average (1–5)	A Lot More (5)	A Little More (4)	Same (3)	A Little Less (2)	A Lot Less (1)
Maintained roads	3.3	11%	29%	50%	2%	9%
Designated parking areas	3.4	13%	20%	60%	2%	5%
Road-side toilets	3.5	20%	28%	46%	-	7%
RV accessible sites at campgrounds	3.0	5%	27%	43%	17%	9%
Trail maps	3.5	12%	31%	51%	3%	2%
Designated trails for non-motorized use	3.4	19%	16%	56%	4%	3%
Designated trails for ORV	3.0	11%	10%	52%	17%	10%
Directional road signs	3.2	5%	11%	80%	1%	3%

Potential Need (n=77)	Average (1–5)	A Lot More (5)	A Little More (4)	Same (3)	A Little Less (2)	A Lot Less (1)
Visitor information	3.3	4%	29%	64%	1%	2%
Visitor centers	3.2	4%	25%	65%	3%	3%
Public use cabins	3.7	20%	38%	36%	2%	4%
Boat launches	3.4	13%	23%	57%	1%	5%
Facilities for the disabled	3.5	9%	41%	45%	3%	3%

Base: Those whose primary activity was fishing (all species) during most recent outing in the Study Area.

Note: Due to rounding, some rows may not total 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

On a scale of 1 to 5, with 1 being "a lot less" and 5 being "a lot more," non-Alaska resident users whose primary activity was fishing on their most recent trip in the Study Area rated, on average, the need for public use cabins at 3.5. This was the highest average rating these nonresident users gave for any of the facility, infrastructure, and information needs presented. Eleven percent of these users reported a need for "a lot more" designated trails for ORVs, a similar proportion (10 percent) indicated the need for "a lot more" maintained roads (Table A2.2-14).

Table A2.2-14. Fishing as Primary Activity, Perceived Facility, Infrastructure, and Information Needs, Non-Alaska Residents, Percent

Potential Need (n=30)	Average (1–5)	A Lot More (5)	A Little More (4)	Same (3)	A Little Less (2)	A Lot Less (1)
Maintained roads	3.3	10%	23%	47%	10%	3%
Designated parking areas	3.1	7%	10%	60%	13%	-
Road-side toilets	3.1	-	17%	57%	10%	-
RV accessible sites at campgrounds	3.1	-	7%	63%	-	-
Trail maps	3.4	3%	27%	37%	7%	-
Designated trails for non-motorized use	3.2	-	17%	47%	-	3%
Designated trails for ORV	3.0	11%	10%	52%	17%	10%
Directional road signs	3.2	7%	17%	59%	7%	3%

Potential Need (n=30)	Average (1–5)	A Lot More (5)	A Little More (4)	Same (3)	A Little Less (2)	A Lot Less (1)
Visitor information	3.1	-	13%	77%	3%	-
Visitor centers	3.0	3%	3%	76%	7%	-
Public use cabins	3.5	-	23%	27%	-	-
Boat launches	3.0	-	37%	30%	-	-
Facilities for the disabled	3.4	-	23%	37%	-	-

Base: Those whose primary activity was fishing (all species) during most recent outing in the Study Area.

Note: Rows will not add to 100 percent because responses of "Don't know" or refusal to answer are not included. These responses ranged from 7 percent to 50 percent of respondents depending on the facility or infrastructure needed.

Source: Susitna-Watana Recreation Intercept Survey.

2.2.3.11. Perceptions of Detracted Experience

Seventy percent of Alaska regional resident users whose primary activity was fishing did not feel crowded during their most recent outing in the Study Area, while 30 percent felt somewhat crowded, and none felt very crowded. Among those who did feel somewhat crowded, 81 percent recalled feeling that way in the Talkeetna Area Sub-Area.

Over half (57 percent) of nonresidents whose primary activity was fishing did not feel crowded, 30 percent rated it as somewhat crowded, and 13 percent rated it as very crowded (Table A2.2-15).

Table A2.2-15. Fishing (All Species) as Primary Activity, Perceived Crowding, Alaska Regional Residents and Non-Alaska Residents, Percent

Perceived Crowding	Percent of Alaska Regional Resident Fishers (n=69)	Percent of Nonresident Fishers (n=30)
Very crowded	-	13%*
Somewhat crowded	30%	30%*
Not crowded	70%	57%*

Base: Those whose primary activity was fishing (all species) during most recent outing in the Study Area.

*Nonresidents were asked to rate crowding from 1 to 10, with 1–3 considered "not crowded," 4–6 considered "somewhat crowded," and 7–10 "very crowded."

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

Fifteen percent of Alaska regional resident users who fished as their primary activity on their most recent outing in the Study Area experienced conflict with other individuals or groups that

negatively impacted their recreation experience. Ten percent of nonresidents experienced conflict.

Sixty percent of Alaska regional resident users who fished as a primary activity reported no infrastructure or human activity that detracted from the scenic quality within the Study Area. Trash (22 percent), people (19 percent), and vehicles (17 percent) were the three detractions noted by the larges proportions of regional residents who fished as a primary activity in the Study Area.

Just over one quarter (27 percent) of nonresident users experienced scenic detractors.

Sixty-one percent of the Alaska regional resident users reported that no noises detracted from their enjoyment of the Study Area. Among regional residents who did report noise as detractors from their experience, noise from ORV/ATVs (15 percent), other people (13 percent), airplanes (12 percent), and helicopters (11 percent) were most often noted.

Eighty-three percent of nonresidents did not recall any noise detraction.

2.2.3.12. Demographic Profile of Survey Respondent

The average age of Alaska regional resident users whose primary activity was fishing was 44.1 years (median of 42.0 years), younger than all regional resident users (average of 47.2 years, median of 47.0 years). Seniors (aged 65 and over) accounted for 11 percent of these users whose primary activity was fishing, compared to 12 percent of all regional resident users.

The average age among nonresident fishers was 55.7 years, older than the average of all nonresident users (50.8 years). One-quarter (27 percent) of nonresidents were 65 years old or older.

The majority (71 percent) of Alaska regional residents whose primary activity was fishing were male. Most (90 percent) nonresidents were male. Sixty-five percent of Alaska regional resident were married, compared to 60 percent of all regional resident users.

Average household income among Alaska regional resident users whose primary activity was fishing was $81,000, with a median household income of $88,000. This compared to an average of $83,000 and median of $63,000 for all regional resident users. Nonresidents who fished as their primary activity had a higher average household income at $113,200, with median household income of $125,000.

Just over one-quarter of Alaska regional resident fishers completed a bachelor's degree (26 percent), while 32 percent completed some college but no degree, and 16 percent completed a graduate or professional degree.

The average household size for Alaska regional resident users whose primary activity was fishing during their most recent outing in the Study Area was 2.5, below the average household size for all regional resident users (2.7). Twenty-nine percent of these regional resident users lived in a household with children under the age of 18.

The average household size for nonresidents who fished as a primary activity was 2.3, compared to 2.4 for all nonresident users. (Table A2.2-16).

Table A2.2-16. Fishing (All Species) as Primary Activity, Demographic Profile of Survey Respondents, Alaska Regional Residents and Non-Alaska Residents

Demographic Factor	Alaska Regional Resident Fishers (n=77)	Nonresident Fishers (n=30)
Average age	44.1	55.7
Age 65 and over (percent)	11%	27%
Female/male (percent)	29% / 71%	10% / 90%
Married (percent)	65%	-
Average household size	2.5	2.3
Households with children under age 18 (percent)	29%	-
Average household income	$81,000	$113,200
Median household income	$88,000	$125,000
Racial characteristics*		
White (percent)	90%	
Alaska Native/American Indian (percent)	6%	
All other (percent)	6%	
Education (percent)		
Less than 9th grade	-	
9th to 12th grade, no diploma	5%	
High school graduate/GED	12%	
Some college, no degree	32%	
Associate's degree	8%	
Bachelor's degree	26%	

Graduate or professional degree	16%	

Base: Those whose primary activity was fishing (all species) during most recent outing in the Study Area.

*Survey respondents could note more than one race if applicable. Racial characteristics and educational attainment were not asked in the Susitna-Watana Recreation Intercept Survey.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

Most (62 percent) of Alaska regional residents whose primary activity was fishing lived in the Municipality of Anchorage, followed by the MSB (26 percent) (Table A2.2-17).

Table A2.2-17. Fishing (All Species) as Primary Activity, Alaska Residency, Alaska Regional Residents, Percent

Place of Residence	Percent of Alaska Regional Resident Fishers (n=77)
Municipality of Anchorage	62%
MSB	26%
Denali Borough	<1%
Fairbanks North Star Borough	10%
Valdez-Cordova/Southeast Fairbanks Census Area	<1%

Base: Those whose primary activity was fishing (all species) during most recent outing in the Study Area.

Note: Due to rounding, column may not total 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

Most (93 percent) of nonresidents whose primary activity was fishing lived in the United States (U.S.) (Table A2.2-18). The remaining 7 percent lived elsewhere outside the U.S.

Table A2.2-18. Fishing (All Species) as Primary Activity, Region of U.S. Residency, Non-Alaska Residents, Percent

Region of U.S. Residence	Percent of U.S. Residents (Excluding Alaska) Fishers (n=28)
Western U.S.	32%
Southern U.S.	25%
Midwestern U.S.	29%
Eastern U.S.	14%

Base: Those whose primary activity was fishing (all species) during most recent outing in the Study Area, not including Alaska residents.

Source: Susitna-Watana Recreation Intercept Survey.

3. NON-CONSUMPTIVE USES

3.1. Motorized Boating

Motorized and non-motorized boating occurs on the rivers and large lakes in the Recreation Use Study Area. Day and overnight floats and pack-rafting trips also occur. People float portions of the Susitna, Maclaren, Talkeetna, and Tyone rivers. Whitewater rafting is also a frequent summer activity, with several businesses offering rafting tours. A specific area for whitewater rafting includes the upper Talkeetna River drainage. Jet boats travel in the Study Area; some start their trip at Lake Louise and travel down the Tyone River to reach the upper Susitna River. Some use motorized (jet and air) boats to access hunting grounds.

Jet boats are used to access Clear Creek, a popular fishing destination along the Talkeetna River. Airboats also travel on the Talkeetna, Maclaren, and Susitna rivers.

Kayaking and canoeing occur on various water bodies, including the Tangle Lakes drainage. Several education programs have river-floating segments. These include the Alaska Pacific University Outdoor Studies Program that floats the Chickaloon River drainage, then the Talkeetna River down to Talkeetna. The National Outdoor Leadership School (NOLS) offers courses that include pack-rafting on the Maclaren, Susitna, and Talkeetna rivers. Three annual NOLS backpacking courses end via jet boat in Talkeetna. The Boy Scouts of America also take an annual canoe trip starting in the Tangle Lakes area.

Mahay's is the only commercial operator offering guided jet boat tours between Talkeetna and Devils Canyon. The tours range from 2 hours (20 miles) to 3.5 hours (60 miles) and 5 hours (130 miles). All tours include a visit to a recreated Dena'ina Indian camp. Approximately 20,000 visitors per summer take one of these tours on this portion of the Susitna River. Mahay's estimates that about half of these visitors are Alaska residents.

In Alaska, 37.7 percent of the adult population lives in a household that owns a boat (ADNR 2009). Among Alaskan adults, 2009 participation in recreational boating included:

- 39 percent who power boated
- 30 percent who canoed, rafted, or floated on a river
- 22 percent who paddled a boat
- 10 percent who sea kayaked (ADNR 2009)

The report on the River Recreation Flow and Access Study (Initial Study Report [ISR] Study 12.7) provides additional detail of boating recreation on the three reaches of the Susitna River within the Recreation Use Study Area.

3.1.1. Recreation Intercept Survey and Regional Resident Household Mail Survey Data

The Susitna-Watana Recreation Intercept Survey sample contained 121 users (53 percent Alaska residents and 47 percent non-Alaska residents) who motorized boated in the Study Area. Of these users, 36 users (8 Alaska residents and 28 non-Alaska residents) participated in motorized boating as their primary activity on their most recent outing.

The Regional Resident Household Mail Survey sample contained 116 Alaska regional resident users who participated in motorized boating in the Study Area, including 14 users whose primary activity on their most recent outing to the Study Area was motorized boating.

3.1.2. Total Estimated Participation

An estimated 67,100 users motorized boated in the Study Area, representing about 5.2 percent of all recreation users (Section 5.1.2, 2014 Year-End Report). These users spent an estimated 162,700 recreational user-days motorized boating (partial and full days), representing approximately 3.3 percent of all user-days in the Study Area (Table A3.1-1).

Table A3.1-1. Estimates of Motorized Boating Activity: All Study Area Users

Total annual participation in motorized boating (number of users participating)	67,100
Percentage of total recreation participation (% of users participating)*	5.2%
Total annual number of motorized boating user-days**	162,700
Percentage of total Study Area user-days (all activities)	3.3%

* Motorized boating as a percentage of all Study Area participation in recreation activities.
**Includes full and partial days.
Source: Section 5.1.2, 2014 Year-End Report.

3.1.2.1. Volume of Recreation Activity: Alaska Regional Residents

An estimated 10,700 Alaska regional residents motorized boated in the Study Area, representing about 9 percent of resident users who recreated in the Study Area (Section 5.1.2, 2014 Year-End Report). These regional resident users spent 106,300 user-days motorized boating, representing 3.5 percent of all Study Area resident recreation activity (Table A3.1-2).

Table A3.1-2. Estimates of Motorized Boating Activity: Alaska Regional Resident Users

Total annual number of regional resident users participating in motorized boating	10,700
Percentage of regional resident users participating in motorized boating in Study Area*	9%
Total annual number of motorized boating user-days (regional residents only)**	106,300

Percentage of total Study Area user-days (all activities, regional residents only)	3.5%

*Percentage of Alaska regional residents recreating in the Study Area that motorized boated.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

3.1.2.2. Volume of Recreation Activity: Non-Alaska Residents

An estimated 37,300 non-Alaska residents went motorized boating in the Study Area, representing about 14 percent of nonresident users who recreated in the Study Area (Section 5.1.2, 2014 Year-End Report). These nonresident users spent 56,400 user-days motorized boating, representing 3.9 percent of all nonresident recreation activity (Table A3.1-3).

Table A3.1-3. Estimates of Motorized Boating Activity: Non-Alaska Resident Users

Total annual number of non-Alaska resident users participating in motorized boating	37,300
Percentage of non-Alaska resident users participating in motorized boating*	14%
Total annual number of motorized boating user-days (non-Alaska residents only)**	56,400
Percentage of total Study Area user-days (all activities, non-Alaska residents only)	3.9%

*Percentage of non-Alaska residents recreating in the Study Area that motorized boated.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

3.1.3. Motorized Boating Primary Activity Profile

The following profile includes information on non-Alaska resident participation, based on survey results from the Susitna-Watana Recreation Intercept Survey. Due to small sample sizes, Alaska regional resident use data are not presented.

3.1.3.1. Location of Motorized Boating Primary Activity

Among non-Alaska residents who went motorized boating as a primary activity, 52 percent did so along the Parks Highway Sub-Area, followed by the Talkeetna Area (40 percent), Remote North (13 percent), Lake Louise Area (12 percent), East Denali Highway (9 percent), and West Denali Highway (4 percent) Sub-Areas (Table A3.1-4).

Table A3.1-4. Motorized Boating as Primary Activity, Non-Alaska Residents, by Area of Primary Activity, Percent

Study Area Sub-Area	Percent of Non-Alaska Resident Motorized Boaters (n=28)
Talkeetna Area	40%
Parks Highway	52%

West Denali Highway	4%
East Denali Highway	9%
Lake Louise Area	12%
Remote South	-
Remote North	13%

Base: Those whose primary activity was motorized boating during most recent outing in the Study Area.
Note: Multiple responses accepted; column will not add to 100 percent.
Source: Susitna-Watana Recreation Intercept Survey.

3.1.3.2. Use of Guides

Fourteen percent of nonresidents whose primary activity was motorized boating used the services of a guide for a portion of their most recent outing.

3.1.3.3. Overnights and Lodging in Study Area

Non-Alaska residents whose primary activity was motorized boating during their most recent outing spent an average of 1.3 nights in the Study Area (Table A3.1-5).

Table A3.1-5. Motorized Boating as Primary Activity, Number of Overnights Spent in Study Area, Non-Alaska Residents, Number of Overnights and Percent

Number of Nights in Study Area	Overnighting Nonresident Motorized Boaters (n=28)
1 night	70%
2 to 7 nights	26%
8 to 14 nights	4%
15+ nights	-
Average number of nights	1.3 nights
Median number of nights	1.0 nights

Base: Those whose primary activity was motorized boating and overnighted in the Study Area during most recent outing in the Study Area.
Note: Due to rounding, some columns may not total 100 percent.
Source: Susitna-Watana Recreation Intercept Survey.

Among non-Alaska residents whose primary activity was motorized boating and who overnighted during their most recent outing in the Study Area, just over half (52 percent)

overnighted in the Talkeetna Area Sub-Area and just under half (48 percent) overnighted in the Parks Highway Sub-Area (Table A3.1-6).

Table A3.1-6. Motorized Boating as Primary Activity, Location of Overnights Spent in Study Area, Non-Alaska Residents, By Sub-Area, Percent

Study Area Sub-Area	Percent of Overnighting Nonresident Motorized Boating (n=28)
Talkeetna Area	52%
Parks Highway	48%
West Denali Highway	-
East Denali Highway	-
Lake Louise Area	-
Remote South	-
Remote North	-

Base: Those whose primary activity was motorized boating during most recent outing in the Study Area and overnighted in the Study Area.
Note: Multiple responses accepted; column will not add to 100 percent.
Source: Susitna-Watana Recreation Intercept Survey.

Among nonresidents whose primary activity was motorized boating, 82 percent stayed in a hotel/motel/B&B/lodge at some point during their visit to the Study Area.

3.1.3.4. Frequency of Motorized Boating Trips to Study Area

None of the nonresidents whose primary activity was motorized boating had previously been to the Study Area to motorize boat (Table A3.1-7).

Table A3.1-7. Motorized Boating as Primary Activity, Previous Trip to Study Area for Motorized Boating as Primary Activity, Non-Alaska Residents, Percent

Traveled to Study Area for Same Primary Activity	Percent of Nonresident Motorized Boaters (n=28)
Yes	-
No	100%

Base: Those whose primary activity was motorized boating during most recent outing in the Study Area.
Source: Susitna-Watana Recreation Intercept Survey.

3.1.3.5. Other Activities on Most Recent Trip

Most nonresidents who motorized boated as their primary activity on their most recent outing in the Study Area also rode the Alaska Railroad (89 percent) or went flightseeing (11 percent), among other activities (Table A3.1-8).

Table A3.1-8. Motorized Boating as Primary Activity, Participation in Other Recreational Activities, Non-Alaska Residents, Percent

Activity	Percent of Nonresident Motorized Boaters (n=28)
Remote camping	-
Roadside camping	-
Wildlife viewing	7%
Bird watching	-
Walking/running	4%
Hiking/backpacking	-
Hunting	3%
Fishing for salmon	-
Fishing for non-salmon species	-
Collecting berries/mushrooms	4%
Riding ATVs	-
Snowmachining	-
Riding the Alaska Railroad	89%
Bicycling	-
Non-motorized boating (rafting, kayaking, canoeing, or pack-rafting)	-
Motorized boating (jet, prop, or air)	100%
Flightseeing	11%
Skiing	-

Activity	Percent of Nonresident Motorized Boaters (n=28)
Snowshoeing	-
Dog sledding	4%
Other*	4%

Base: Those whose primary activity was motorized boating during most recent outing in the Study Area and participated in other recreational activities in the Study Area.

* "Other" included ziplining and swimming.

Note: Multiple responses accepted; columns will not add to 100 percent.

Source: Susitna-Watana Recreation Intercept Survey.

3.1.3.6. Party and Group Size and Characteristics

The average party size, individuals traveling together and sharing expenses, among non-Alaska resident users whose primary activity was motorized boating was 2.5 people, with a median party size of 2.0. Seven percent of these users were in a party that included a member with a disability or special need related to outdoor recreation.

The average nonresident group size (i.e., individuals traveling together but not necessarily sharing expenses) was 3.3.

3.1.3.7. Perceived Infrastructure Needs

On a scale of 1 to 5, with 1 being "a lot less" and 5 being "a lot more," non-Alaska resident users whose primary activity was motorized boating on their most recent outing in the Study Area rated, on average, the need for more maintained roads, road-side toilets, and facilities for the disabled at 3.5, higher than any of the other needs presented in the Susitna-Watana Recreation Intercept Survey (Table A3.1-9).

Table A3.1-9. Motorized Boating as Primary Activity, Perceived Facility, Infrastructure, and Information Needs, Non-Alaska Resident, Percent

Potential Need (n=28)	Average (1–5)	A Lot More (5)	A Little More (4)	Same (3)	A Little Less (2)	A Lot Less (1)
Maintained roads	3.5	4%	29%	39%	-	-
Designated parking areas	3.3	-	21%	50%	-	-
Road-side toilets	3.5	-	36%	32%	-	-
RV accessible sites at campgrounds	3.4	-	25%	32%	-	-
Trail maps	3.3	-	14%	39%	-	-

Potential Need (n=28)	Average (1–5)	A Lot More (5)	A Little More (4)	Same (3)	A Little Less (2)	A Lot Less (1)
Designated trails for non-motorized use	3.3	4%	7%	39%	-	-
Designated trails for ORV	3.1	-	7%	43%	-	-
Directional road signs	3.1	-	18%	50%	7%	-
Visitor information	3.0	-	7%	75%	7%	-
Visitor centers	3.0	-	4%	79%	4%	-
Public use cabins	3.0	-	-	50%	-	-
Boat launches	3.1	-	4%	43%	-	-
Facilities for the disabled	3.5	4%	29%	36%	-	-

Base: Those whose primary activity was motorized boating during most recent outing in the Study Area.

Note: Rows will not add to 100 percent because responses of "Don't know" or refusal to answer are not included. These responses ranged from 11 percent to 50 percent of respondents depending on the facility or infrastructure needed.

Source: Susitna-Watana Recreation Intercept Survey.

3.1.3.8. Perceptions of Detracted Experience

Most non-Alaska residents (89 percent) whose primary activity was motorized boating rated their perceived crowding between 1 and 3 on a scale of 1 to 10 (with 1 being "not at all crowded") (Table A3.1-10).

Table A3.1-10. Motorized Boating as Primary Activity, Perceived Crowding, Non-Alaska Residents, Percent

Perceived Crowding*	Percent of Nonresident Motorized Boaters (n=28)
Very crowded (rating of 7–10)	4%
Somewhat crowded (rating of 4–6)	7%
Not crowded (rating of 1–3)	89%

Base: Those whose primary activity was motorized boating during most recent outing in the Study Area.

*Nonresidents were asked to rate crowding from 1 to 10, with 1–3 considered "not crowded," 4–6 considered "somewhat crowded," and 7–10 "very crowded."

Source: Susitna-Watana Recreation Intercept Survey.

Four percent of nonresident users who motorized boated as their primary activity in the Study Area experienced conflict with other individuals or groups that negatively impacted their recreation experience in the Study Area. Eighteen percent of these users reported signs of

infrastructure or human activity that detracted from the scenic quality within the Study Area, including trash. None of these nonresident users reported noises that detracted from their enjoyment of the Study Area.

3.1.3.9. Demographic Profile of Survey Respondent

The average age of non-Alaska resident users whose primary activity was motorized boating was 58.9 years, older than the average of all nonresident users (50.8 years). One-third (33 percent) of nonresidents were seniors (aged 65 and older). Fifty-four percent of nonresidents whose primary activity was motorized boating were male.

The average household income among nonresident users whose primary activity was motorized boating was $108,400, with median household income of $88,000.

The average household size for nonresidents who motorized boated as a primary activity was 2.3, compared to 2.4 for all nonresident users (Table A3.1-11).

Table A3.1-11. Motorized Boating as Primary Activity, Demographic Profile of Survey Respondents, Non-Alaska Residents

	Nonresident Motorized Boaters (n=28)
Average age	58.9
Age 65 and over (percent)	33%
Female/male (percent)	46% / 54%
Average household size	2.3
Average household income	$108,400
Median household income	$88,000

Base: Those whose primary activity was motorized boating during most recent outing in the Study Area.
Source: Susitna-Watana Recreation Intercept Survey.

Seventy-nine percent of nonresident users lived in the U.S. (Table A3.1-12). The remaining 21 percent lived outside the U.S.

Table A3.1-12. Motorized Boating as Primary Activity, Region of U.S. Residency, Non-Alaska Residents, Percent

Region of U.S. Residence	Percent of U.S. Resident (Excluding Alaska) Motorized Boaters (n=28)
Western U.S.	14%
Southern U.S.	41%

Region of U.S. Residence	Percent of U.S. Resident (Excluding Alaska) Motorized Boaters (n=28)
Midwestern U.S.	23%
Eastern U.S.	23%

Base: Those whose primary activity was motorized boating during most recent outing in the Study Area.
Note: Due to rounding, column may not total 100 percent.
Source: Susitna-Watana Recreation Intercept Survey.

3.2. Remote Camping

Remote camping in a tent or cabin takes place off the study area road system. Many private cabins and a few rental cabins are scattered throughout the Study Area. A significant number of private cabins are located in the Lake Louise area. Cabins are also located along the Susitna River north of Talkeetna, which are accessed primarily by the Alaska Railroad.

3.2.1. Recreation Intercept Survey and Regional Resident Household Mail Survey Data

The Susitna-Watana Recreation Intercept Survey sample contained 210 users (88 percent Alaska residents and 11 percent non-Alaska residents) who remote camped during their most recent outing in the Study Area. Of these users, 72 (64 Alaska residents and 8 non-Alaska residents) remote camped as their primary activity on their most recent outing.

The Regional Resident Household Mail Survey sample contained 360 Alaska regional resident Study Area users who remote camped, including 126 users whose primary activity on their most recent outing to the Study Area was remote camping.

3.2.2. Total Estimated Participation

An estimated 55,100 users remote camped in the Study Area, representing about 4.2 percent of all recreation users (Section 5.1.2, 2014 Year-End Report). These users spent an estimated 332,500 recreational user-days remote camping (partial and full days), representing approximately 6.7 percent of all user-days in the Study Area (Table A3.2-1).

Table A3.2-1. Estimates of Remote Camping Activity: All Study Area Users

Total annual participation in remote camping (number of users participating)	55,100
Percentage of total recreation participation (% of users participating)*	4.2%
Total annual number of remote camping user-days**	332,500
Percentage of total Study Area user-days (all activities)	6.7%

*Remote camping as a percentage of all Study Area participation in recreation activities.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

3.2.2.1. Volume of Recreation Activity: Alaska Regional Residents

An estimated 39,400 Alaska regional residents went remote camping in the Study Area, representing about 33 percent of resident users who recreated in the Study Area (Section 5.1.2, 2014 Year-End Report). These resident users spent 303,200 user-days remote camping, representing 10 percent of all regional resident recreation activity (Table A3.2-2).

Table A3.2-2. Estimates of Remote Camping Activity: Alaska Regional Resident Users

Total annual number of regional resident users participating in remote camping	39,400
Percentage of users participating in remote camping in Study Area*	33%
Total annual number of remote camping user-days (regional residents only)**	303,200
Percentage of total Study Area user-days (all activities, regional residents only)	10%

*Percentage of Alaska regional residents recreating in the Study Area that remote camped.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

3.2.2.2. Volume of Recreation Activity: Non-Alaska Residents

An estimated 15,700 non-Alaska residents went remote camping in the Study Area, representing about 6 percent of nonresident users who recreated in the Study Area (Section 5.1.2, 2014 Year-End Report). These nonresident users spent 29,300 user-days remote camping, representing 2.0 percent of all nonresident recreation activity (Table A3.2-3).

Table A3.2-3. Estimates of Remote Camping Activity: Non-Alaska Resident Users

Total annual number of non-Alaska resident users participating in remote camping	15,700
Percentage of non-Alaska resident users participating in remote camping*	6%
Total annual number of remote camping user-days (non-Alaska residents only)**	29,300
Percentage of total Study Area user-days (all activities, non-Alaska residents only)	2.0%

*Percentage of non-Alaska recreating in the Study Area that remote camped.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

3.2.3. Remote Camping Primary Activity Profile

The following profile includes Alaska regional residents who remote camped as their primary activity during their most recent visit to the Study Area, based on survey results from the

Regional Resident Household Mail Survey. Due to the small sample sizes, information on non-Alaska resident participation is not presented.

3.2.3.1. Location of Remote Camping Primary Activity

Forty-two percent of Alaska regional residents who camped remotely as a primary activity did so in the Talkeetna Area Sub-Area during their most recent outing in the Study Area. Another quarter (25 percent) of these users camped remotely in the Parks Highway Sub-Area. Fewer regional residents remote camped in the West Denali Highway (14 percent), Lake Louise Area (11 percent), East Denali Highway (8 percent), Remote South (7 percent), and Remote North (4 percent) Sub-Areas (Table A3.2-4).

Table A3.2-4. Remote Camping as Primary Activity, Most Recent Outing, Alaska Regional Residents, by Area of Primary Activity, Percent

Study Area Sub-Area	Percent of Alaska Regional Resident Remote Campers (n=121)
Talkeetna Area	42%
Parks Highway	25%
West Denali Highway	14%
East Denali Highway	8%
Lake Louise Area	11%
Remote South	7%
Remote North	4%

Base: Those whose primary activity was remote camping during most recent outing in the Study Area.

Note: Multiple responses accepted; column will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

3.2.3.2. Travel More than One-Half Mile from Trailhead or Main Road

Most Alaska regional residents (74 percent) who camped remotely as their primary activity on their most recent outing in the Study Area reported traveling more than one-half mile from a trailhead or main road.

3.2.3.2.1. Mode of Travel

Among the Alaska regional resident users who remote camped as their primary activity on their most recent outing in the Study Area, 64 percent walked or hiked when they traveled more than one-half mile from a trailhead or main road into the Study Area. Twenty-six percent of these users used an ORV or ATV, 10 percent used motorized watercraft, and less than 10 percent

traveled by snowmachine, non-motorized boat, airplane, snowshoe, or other modes (Table A3.2-5). Some respondents used more than one mode of transportation.

Table A3.2-5. Remote Camping, as Primary Activity, Transportation Mode, Travel More than One-Half Mile from a Trailhead or Main Road, Most Recent Outing, Alaska Regional Residents, Percent

Mode of Transportation	Alaska Regional Resident Remote Campers Who Traveled More Than One-Half Mile into the Study Area (n=86)
Hike	64%
Snowmachine	8%
Ski	4%
ORV/ATV	26%
Motorized boat	10%
Non-motorized boat	6%
Snowshoe	3%
Airplane	6%
Other*	3%

Base: Those whose primary activity was remote camping during most recent outing in the Study Area.

* "Other" included bicycle, car/truck, and RV.

Note: Multiple responses accepted; column will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

3.2.3.2.2. Type of Trail Used

Two-thirds (66 percent) of remote campers used both established trails and off-trail routes when they traveled more than one-half mile from a trailhead or main road. Thirty-one percent used only established trails, and only 3 percent only used off-trail routes.

Almost two-thirds (65 percent) camped in the Study Area more than one-half mile from a trailhead or main road.

3.2.3.3. Use of Guides

Two percent of Alaska regional resident users whose primary activity was remote camping used the services of a guide for a portion of their most recent outing in the Study Area.

3.2.3.4. Overnights and Lodging in Study Area

Alaska regional resident users who remote camped as their primary activity during their most recent outing spent an average of 5.9 nights in the Study Area (Table A3.2-6).

Table A3.2-6. Remote Camping as Primary Activity, Number of Overnights Spent in Study Area, Alaska Regional Residents, Number of Overnights and Percent

Number of Nights in Study Area	Overnighting Alaska Regional Resident Remote Campers (n=115)
1 night	19%
2 to 7 nights	66%
8 to 14 nights	7%
15+ nights	8%
Average number of nights	5.9 nights
Median number of nights	3.0 nights

Base: Those whose primary activity was remote camping during most recent outing in the Study Area and overnighted in the Study Area.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

Among Alaska regional resident remote campers who overnighted in the Study Area, 46 percent overnighted in the Talkeetna Area Sub-Area, 18 percent in the Parks Highway Sub-Area, and 15 percent in the West Denali Highway Sub-Area (Table A3.2-7).

Table A3.2-7. Remote Camping as Primary Activity, Location of Overnights Spent in Study Area, Alaska Regional Residents, By Sub-Area, Percent

Study Area Sub-Area	Percent of Overnighting Alaska Regional Resident Remote Campers (n=113)
Talkeetna Area	46%
Parks Highway	18%
West Denali Highway	15%
East Denali Highway	12%
Lake Louise Area	12%
Remote South	4%
Remote North	4%

Base: Those whose primary activity was remote camping during most recent outing in the Study Area and overnighted in the Study Area.
Note: Multiple responses accepted; column will not add to 100 percent.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

Nearly two-thirds (65 percent) of Alaska regional residents who remote camped as their primary activity and who reported overnighting in the Study Area camped in a tent or cabin, 16 percent stayed in an established campground, 9 percent roadside camped, and 7 percent stayed in a hotel/motel/B&B/lodge during their visit to the Study Area (Table A3.2-8).

Table A3.2-8. Remote Camping as Primary Activity, Type of Lodging Used in Study Area, Alaska Regional Residents, Percent

Type of Lodging Used	Percent of Overnighting Alaska Regional Resident Remote Campers (n=126)
Hotel/motel/B&B/lodge	7%
Established campground	16%
Remote camping	65%*
Private home	3%
Undeveloped roadside camping	9%

Base: Those whose primary activity was remote camping during most recent outing in the Study Area and overnighted in the Study Area.
Notes: The apparent difference between respondents who reported remote camping as their primary activity and those who reported "remote camping" as the type of lodging used during their most recent outing may indicate misinterpretation by the respondents of the lodging categories or their impression that other forms of camping could be considered "remote." Multiple responses accepted; column will not add to 100 percent.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

3.2.3.5. Frequency of Remote Camping Trips to Study Area

Eighty-seven percent of Alaska regional resident users whose primary activity was remote camping had been to the Study Area previously to remote camp; an additional 1 percent lived in the Study Area. Twenty-nine percent of this user group first visited the Study Area to remote camp prior to 1991, while 14 percent first visited relatively recently (between 2011 and 2013). Two out of five (40 percent) of these users camped remotely between 2 and 10 times per year in the Study Area, while 20 percent remote camped more than 10 times per year (Tables A3.2-9 to A3.2-11).

Table A3.2-9. Remote Camping as Primary Activity, Previous Trip to Study Area for Remote Camping as Primary Activity, Alaska Regional Residents, Percent

Traveled to Study Area for Same Primary Activity	Percent of Alaska Regional Resident Remote Campers (n=124)
Yes	87%
No	12%

Traveled to Study Area for Same Primary Activity	Percent of Alaska Regional Resident Remote Campers (n=124)
Live in Study Area	1%

Base: Those whose primary activity was remote camping during most recent outing in the Study Area.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

Table A3.2-10. Remote Camping as Primary Activity, Year of First Trip to Study Area for Remote Camping as Primary Activity, Alaska Regional Residents, Percent

Period of First Trip	Percent of Alaska Regional Resident Repeat Remote Campers (n=105)
Before 1991	29%
1991 to 2000	22%
2001 to 2010	35%
2011 to 2013	14%

Base: Those whose primary activity was remote camping during most recent outing in the Study Area and had previously remote camped in the Study Area.

Source: Regional Resident Household Mail Survey.

Table A3.2-11. Remote Camping as Primary Activity, Frequency of Trips to Study Area for Remote Camping as Primary Activity, Alaska Regional Residents, Percent

Frequency of Trips	Percent of Alaska Regional Resident Repeat Remote Camping (n=109)
More than 10 times per year	20%
2 to 10 times per year	40%
Once a year	22%
Once every few years	15%
Less often	2%

Base: Those whose primary activity was remote camping and had previously remote camped in the Study Area.

Note: Due to rounding, column may not total 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

3.2.3.6. Other Activities on Most Recent Trip

Many Alaska regional residents who camped remotely as their primary activity on their most recent outing in the Study Area, also participated in a number of other recreational activities. Some of the most frequently reported activities include wildlife viewing (38 percent), hiking/backpacking (35 percent), walking/running (30 percent), bird watching (17 percent),

fishing (16 percent), collecting berries/mushrooms (18 percent), and riding ATVs (17 percent) (Table A2.60).

Table A3.2-12. Remote Camping as Primary Activity, Participation in Other Recreational Activities, Alaska Regional Residents, Percent

Activity	Percent of Alaska Regional Resident Remote Campers (n=126)
Roadside camping	9%
Wildlife viewing (net)	40%
Wildlife viewing	38%
Bird watching	17%
Walking/running	30%
Hiking/backpacking	35%
Hunting	4%
Fishing (all species)	16%
Fishing for salmon	7%
Fishing for non-salmon species	11%
Collecting berries/mushrooms	18%
Riding ATVs	17%
Snowmachining	5%
Riding the Alaska Railroad	6%
Bicycling	9%
Non-motorized boating (rafting, canoeing, kayaking, or pack-rafting	11%
Motorized boating (jet, prop, or air)	11%
Flightseeing	3%
Skiing	3%

Snowshoeing	2%
Dog sledding	-
Other*	1%

Base: Those whose primary activity was remote camping during most recent outing in the Study Area and participated in other recreational activities in the Study Area.

* "Other" included waterskiing, shooting, softball, ziplining, and gold panning,

Note: Multiple responses accepted; column will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

3.2.3.7. Party and Group Size and Characteristics

The average party size, individuals traveling together and sharing expenses, among Alaska regional resident users whose primary activity was remote camping was 3.6 persons, with a median party size of 3.0. The party included an average of 0.7 person under age 18, and 2.3 persons who lived in the same household. Only 4 percent of parties included a member with a disability or special need related to outdoor recreation.

The average group size, individuals traveling together, but not necessarily sharing expenses, was 4.0 persons.

3.2.3.8. Perceived Infrastructure Needs

On a scale of 1 to 5, with 1 being "a lot less" and 5 being "a lot more," Alaska regional residents whose primary activity was remote camping during their most recent trip in the Study Area rated, on average, the need for public use cabins at 3.7. This was the highest average rating these users gave for any of the facility, infrastructure, and information needs presented in the Regional Resident Household Mail Survey. The second most highly rated need was trail maps (average rating of 3.6 percent) (Table A3.2-13).

Table A3.2-13. Remote Camping as Primary Activity, Perceived Facility, Infrastructure, and Information Needs, Alaska Regional Residents, Percent

Potential Need (n=126)	Average (1–5)	A Lot More (5)	A Little More (4)	Same (3)	A Little Less (2)	A Lot Less (1)
Maintained roads	3.2	5%	21%	66%	3%	5%
Designated parking areas	3.2	7%	18%	67%	3%	6%
Road-side toilets	3.4	11%	33%	49%	2%	6%
RV accessible sites at campgrounds	2.9	4%	18%	51%	13%	14%
Trail maps	3.6	13%	40%	40%	1%	5%

Potential Need (n=126)	Average (1–5)	A Lot More (5)	A Little More (4)	Same (3)	A Little Less (2)	A Lot Less (1)
Designated trails for non-motorized use	3.5	15%	39%	38%	1%	7%
Designated trails for ORV	3.1	9%	21%	50%	9%	10%
Directional road signs	3.1	5%	17%	68%	3%	6%
Visitor information	3.1	7%	19%	61%	6%	7%
Visitor centers	3.0	7%	9%	69%	6%	9%
Public use cabins	3.7	20%	38%	35%	2%	4%
Boat launches	3.1	6%	11%	78%	1%	4%
Facilities for the disabled	3.4	10%	25%	59%	4%	2%

Base: Those whose primary activity was remote camping during most recent outing in the Study Area.

Note: Due to rounding, some rows may not total 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

3.2.3.9. Perceptions of Detracted Experience

Most (82 percent) Alaska regional resident users who remote camped as their primary activity did not feel crowed during their last outing in the Study Area, 15 percent felt somewhat crowded, and 3 percent felt very crowded (Table A3.2-14).

Table A3.2-14. Remote Camping as Primary Activity, Perceived Crowding, Alaska Regional Residents, Percent

Perceived Crowding	Percent of Alaska Regional Resident Remote Campers (n=123)
Very crowded	3%
Somewhat crowded	15%
Not crowded	82%

Base: Those whose primary activity was remote camping during most recent outing in the Study Area.

Note: Due to rounding, column may not total 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

Eleven percent of Alaska regional resident users who camped remotely as their primary activity on their most recent outing in the Study Area experienced conflict with another individual or group that negatively impacted their recreation experience.

Sixty-two percent of Alaska regional resident remote campers did not see any signs of infrastructure or human activity that detracted from the scenic quality within the Study Area. Those who did note scenic detractors most often reported trash (19 percent), vehicles (16 percent), and people (8 percent) (Table A3.2-15) as detractors from their experience.

Table A3.2-15. Remote Camping as Primary Activity, Scenic Quality Detractors, Alaska Regional Residents, Percent

Types of Scenic Detractors	Percent of Alaska Regional Resident Remote Campers (n=118)
Nothing	62%
Trash	19%
Vehicles	16%
People	8%
Power lines	3%
Communications towers	5%
Trails	4%
Roads	3%
Roadside camping areas	6%
Railroad	2%
Other*	5%

Base: Those whose primary activity was remote camping during most recent outing in the Study Area.

* "Other" included orange fencing, eroded ATV track, helicopters, airboats, and peeled bark.

Note: Multiple responses accepted; column will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

Sixty-one percent of Alaska regional resident remote campers reported there were no noises that detracted from their enjoyment of the Study Area, while 13 percent reported noise from other people as detractors from their experience. The rest of these users reported noise detractors, but less than 10 percent identified a specific noise (Table A3.2-16).

Table A3.2-16. Remote Camping as Primary Activity, Noises Detractors, Alaska Regional Residents, by Percent

Types of Noise Detractors	Percent of Alaska Regional Resident Remote Campers (n=115)
Nothing	61%
Cars/trucks/RV	8%
Noise from other people	13%
Four wheeler/ATV	9%
Airplanes	7%
Helicopters	5%
Gunshots	8%
Heavy equipment	5%
Jet aircraft sonic boom	4%
Snowmachines	2%
Boats	2%
Chainsaws	2%
Other*	3%

Base: Those whose primary activity was remote camping during most recent outing in the Study Area.

* "Other" included barking dogs and generators.

Note: Multiple responses accepted; column will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

3.2.3.10. Demographic Profile of Survey Respondent

The average age of Alaska regional resident users whose primary activity was remote camping was 42.8 years (median of 40 years), slightly younger than all regional resident users (average of 47.2 years, median of 47 years). Seniors (aged 65 and older) accounted for 7 percent of users whose primary activity was remote camping, compared to 12 percent of all regional resident users.

Just over half (52 percent) of Alaska regional resident users whose primary activity was remote camping were female; the same percent as all regional resident users. Just over half (55 percent) of the regional resident users whose primary activity was remote camping were married, compared to 60 percent of all regional resident users.

The average household income among regional resident users whose primary activity was remote camping was $81,000, with median household income of $63,000. This compared to an average of $83,000 and median of $63,000 for all regional resident users.

Thirty-one percent of regional resident remote campers had completed a bachelor's degree as their highest level of school completed, 24 percent completed a graduate or professional degree, 24 percent completed some college but no degree, and 11 percent achieved a high school degree or equivalent.

The average household size for regional resident users whose primary activity was remote camping was 2.7; the same average household size for all regional resident users (Table A3.2-17).

Table A3.2-17. Remote Camping as Primary Activity, Demographic Profile of Survey Respondents, Alaska Regional Residents

Demographic Factor	Alaska Regional Resident Remote Campers(n=126)
Average age	42.8
Age 65 and over (percent)	7%
Female/male (percent)	52% / 48%
Married (percent)	55%
Average household size	2.7
Households with children under age 18 (percent)	37%
Average household income	$81,000
Median household income	$63,000
Racial characteristics*	
White (percent)	93%
Alaska Native/American Indian (percent)	9%
All other (percent)	4%
Education (percent)	
Less than 9th grade	-

9th to 12th grade, no diploma	1%
High school graduate/GED	11%
Some college, no degree	24%
Associate's degree	10%
Bachelor's degree	31%
Graduate or professional degree	24%

Base: Those whose primary activity was remote camping during most recent outing in the Study Area.

*Survey respondents could note more than one race if applicable.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

The majority (66 percent) of the Alaska regional residents whose primary activity was remote camping lived in the Municipality of Anchorage, followed by the MSB (19 percent) (Table A3.2-18)

Table A3.2-18. Remote Camping as Primary Activity, Alaska Residency, Alaska Regional Residents, Percent

Place of Residence	Percent of Alaska Regional Resident Remote Campers (n=135)
Municipality of Anchorage	66%
MSB	19%
Denali Borough	-
Fairbanks North Star Borough	13%
Valdez-Cordova/Southeast Fairbanks Census Area	<1%

Base: Those whose primary activity was remote camping during most recent outing in the Study Area.

Note: Due to rounding, column may not total 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

3.3. Roadside Camping

In Alaska, 35 percent of adult Alaskans tent camped in a campground in 2009, 21 percent camped in the backcountry, 24 percent camped in a public cabin, and 19 percent RV camped (ADNR 2009). In terms of frequency, 19.2 percent reported camping overnight frequently or very frequently, while 29.3 percent camped occasionally, and 15.8 percent camped rarely (ADNR 2009).

Roadside camping includes tent and vehicle camping, which can take place in formal campgrounds and in unofficial roadside pull-outs. Managed campgrounds in the Study Area are located in Talkeetna (two private), Lake Louise (one private and one state recreation area), Denali State Park (five campgrounds), and on the Denali Highway (Bureau of Land Management [BLM] campgrounds at Brushkana Creek and Tangle Lakes). In addition to these developed campgrounds, some private businesses located throughout the Study Area offer limited space for RV parking or tent camping.

RVs range from small pop-up trailers to expensive well-appointed RVs the size of semi-trailers. Some visitors bring their own RVs to Alaska, but over the last decade the number of out-of-state visitors driving their own RVs to Alaska has declined significantly. Many out-of-state visitors arrive by air and then rent an RV. Many Alaska residents that visit the Study Area arrive in truck campers. Many of the RVs (over half by some interviewees' estimations) are rented by non-Alaska residents. Alaskans owning their own RV also camp in the Study Area. A typical RV route entails a round-trip drive from Anchorage to Denali National Park with a stop along the way in the Study Area (often in Talkeetna or at Byers Creek Campground). Because RV rentals are generally not allowed on the Denali Highway (because most of the road is unpaved), RV traffic is considerably lighter than on the Parks Highway, and largely conducted by Alaska residents.

Education courses often include camping, such as the month-long backpacking courses in the Talkeetna Mountains offered by NOLS. The Boy Scouts of America Great Alaska Council owns approximately 2,000 acres of land between the Chulitna and Susitna rivers near the McKinley Princess Lodge and operates the Denali High Adventure Scout Base. The camp hosted 140 campers for a total of about 1,200 user-days in 2012. Council officials stated that their goal was to host about 250 campers and 2,000 user-days in 2013.

While unofficial roadside pull-out camping occurs throughout the roaded portions of the Study Area, the Denali Highway – particularly during the fall caribou and moose hunting season – is heavily used by vehicle campers. During the peak fall hunting season, hundreds of vehicle campsites along the highway were observed.

3.3.1. Recreation Intercept Survey and Regional Resident Household Mail Survey Data

The Susitna-Watana Recreation Intercept Survey sample contained 322 Study Area users (72 percent Alaska residents and 28 percent non-Alaska residents) that roadside camped. Of these campers, 158 (102 Alaska residents and 56 non-Alaska residents) participated in roadside camping as their primary activity on their most recent outing to the Study Area.

The Regional Resident Household Mail Survey sample contained 359 Alaska regional resident Study Area users who participated in roadside camping, including 134 users whose primary activity on their most recent outing to the Study Area was roadside camping.

3.3.2. Total Estimated Participation

An estimated 97,300 users roadside camped in the Study Area, representing about 7.5 percent of all recreation users (Section 5.1.2, 2014 Year-End Report). These users spent an estimated 344,500 recreational user-days roadside camping (partial and full days), representing approximately 7.0 percent of all user-days in the Study Area (Table A3.3-1).

Table A3.3-1. Estimate of Roadside Camping Activity: All Study Area Users

Total annual participation in roadside camping (number of users participating)	97,300
Percentage of total recreation participation (% of users participating)*	7.5%
Total annual number of roadside camping user-days**	344,500
Percentage of total Study Area user-days (all activities)	7.0%

*Roadside camping as a percentage of all Study Area participation in recreation activities.
**Includes full and partial days.
Source: Section 5.1.2, 2014 Year-End Report.

3.3.2.1. Volume of Recreation Activity: Alaska Regional Residents

An estimated 45,400 Alaska regional residents went roadside camping in the Study Area, representing about 31 percent of resident users who recreated in the Study Area (Section 5.1.2, 2014 Year-End Report). These regional resident users spent 213,400 user-days roadside camping, representing 7 percent of all regional resident recreation activity (Table A3.3-2).

Table A3.3-2. Estimates of Roadside Camping Activity: Alaska Regional Resident Users

Total annual number of regional resident users participating in roadside camping	45,400
Percentage of users participating in roadside camping in Study Area*	31%
Total annual number of roadside camping user-days (regional residents only)**	213,400
Percentage of total Study Area user-days (all activities, Regional residents only)	7%

*Percentage of Alaska regional residents recreating in the Study Area that remote camped.
**Includes full and partial days.
Source: Section 5.1.2, 2014 Year-End Report.

3.3.2.2. Volume of Recreation Activity: Non-Alaska Residents

An estimated 51,900 non-Alaska residents went roadside camping in the Study Area, representing about 20 percent of nonresident users who recreated in the Study Area (Section 5.1.2, 2014 Year-End Report). These nonresident users spent 131,100 user-days roadside camping, representing 9.1 percent of all nonresident recreation activity (Table A3.3-3).

Table A3.3-3. Estimates of Roadside Camping Activity: Non-Alaska Resident Users

Total annual number of non-Alaska resident users participating in roadside camping	51,900
Percentage of non-Alaska resident users participating in roadside camping*	20%
Total annual number of roadside camping user-days (non-Alaska residents only)**	131,100
Percentage of total Study Area user-days (all activities, non-Alaska residents only)	9.1%

*Percentage of non-Alaska residents recreating in the Study Area that participated in this activity.
**Includes full and partial days.
Source: Section 5.1.2, 2014 Year-End Report.

3.3.3. Roadside Camping Primary Activity Profile

The following profile includes Alaska regional residents who roadside camped as their primary activity during their most recent visit to the Study Area, based on survey results from the Regional Resident Household Mail Survey (Appendix D). Where sample sizes are adequate, information on non-Alaska resident participation is also included, based on nonresident results from the Susitna-Watana Recreation Intercept Survey (Appendix B).

3.3.3.1. Location of Roadside Camping Primary Activity

Among Alaska regional residents who roadside camped as a primary activity during their most recent outing in the Study Area, 41 percent did so along the Parks Highway Sub-Area and 37 percent in the Talkeetna Area Sub-Area. Another 15 percent camped along the West Denali Highway, 13 percent camped along the East Denali Highway, and 9 percent in the Lake Louise Area. Due to no road access, roadside camping did not occur in Remote North or Remote South Sub-Areas (Table A3.3-4).

Table A3.3-4. Roadside Camping as Primary Activity, Most Recent Outing, Alaska Regional Residents, by Area of Primary Activity, Percent

Study Area Sub-Area	Percent of Alaska Regional Resident Roadside Campers (n=129)
Talkeetna Area	37%
Parks Highway	41%
West Denali Highway	15%
East Denali Highway	13%
Lake Louise Area	9%
Remote South	-

Remote North	-

Base: Those whose primary activity was roadside camping during most recent outing in the Study Area.

Note: Multiple responses accepted; column will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

3.3.3.2. Travel More than One-Half Mile from Trailhead or Main Road

Less than half (46 percent) of Alaska regional residents who participated in roadside camping as their primary activity on their most recent outing in the Study Area reported traveling more than one-half mile from a trailhead or main road.

3.3.3.2.1. Mode of Travel

Among those Alaska regional residents who roadside camped as their primary activity on their most recent outing in the Study area, 67 percent walked/hiked when they traveled more than one-half mile from a trailhead or main road into the area. Twenty-one percent used an ORV or ATV, and 16 percent used a non-motorized watercraft. A smaller proportion of these users utilized snowmachines (5 percent), motorized watercraft (4 percent), or airplanes (2 percent) as their mode of transportation while roadside sampling. Some respondents used more than one mode of transportation (Table A3.3-5).

Table A3.3-5. Roadside Camping as Primary Activity, Transportation Mode, Travel More than One-Half Mile from a Trailhead or Main Road, Most Recent Outing, Alaska Regional Residents, Percent

Mode of Transportation	Alaska Regional Resident Roadside Campers Who Traveled More Than One-Half Mile into the Study Area (n=61)
Hike	67%
Snowmachine	5%
Ski	-
ORV/ATV	21%
Motorized boat	4%
Non-motorized boat	16%
Snowshoe	-
Airplane	2%
Other*	3%

Base: Those whose primary activity was roadside camping during most recent outing in the Study Area.

* "Other" included bicycle.

Note: Multiple responses accepted; column will not add to 100 percent.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

3.3.3.2.2. Type of Trail Used

Just over half (52 percent) of regional resident roadside campers used both established trails and off-trail routes when they traveled more than one-half mile from a trailhead or main road; 47 percent only used established trails, and 1 percent only used off-trail routes.

Forty-five percent of non-Alaska resident roadside campers camped in the Study Area more than one-half mile from a trailhead or main road; 68 percent of these users utilized established trails only, and the rest used both established trails and off-trail routes.

Among nonresidents who traveled more than one-half mile from the trailhead or main road, 56 percent did so in the East Denali Highway Sub-Area, followed by the Parks Highway (20 percent), West Denali Highway (12 percent), Talkeetna Area (12 percent), and Lake Louise Area (8 percent) Sub-Areas.

3.3.3.3. Use of Guides

Three percent of Alaska regional resident users whose primary activity was roadside camping used the services of a guide for a portion of their most recent outing in the Study Area. No nonresidents whose primary activity was roadside camping reported using a guide for that activity.

3.3.3.4. Overnights and Lodging in Study Area

Alaska regional residents who roadside camped as their primary activity during their most recent outing spent an average of 3.6 nights in the Study Area. Nonresidents whose primary activity was roadside camping spent an average of 3.3 nights in the Study Area (Table A3.3-6).

Table A3.3-6. Roadside Camping as Primary Activity, Number of Overnights Spent in Study Area, Alaska Regional Residents and Non-Alaska Residents, Number of Overnights and Percent

Number of Nights in Study Area	Overnighting Alaska Regional Resident Roadside Campers (n=127)	Overnighting Nonresident Roadside Campers (n=55)
1 night	22%	29%
2 to 7 nights	69%	65%
8 to 14 nights	7%	4%
15+ nights	2%	2%
Average number of nights	3.6 nights	3.3 nights

Number of Nights in Study Area	Overnighting Alaska Regional Resident Roadside Campers (n=127)	Overnighting Nonresident Roadside Campers (n=55)
Median number of nights	2.0 nights	2.0 nights

Base: Those whose primary activity was roadside camping during most recent outing in the Study Area and overnighted in the Study Area.
Note: Due to rounding, columns may not total 100 percent.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

Among Alaska regional residents who roadside camped as their primary activity, 37 percent overnighted in the Parks Highway Sub-Area and 39 percent in the Talkeetna Area Sub-Area. Roadside campers also overnighted along the West Denali Highway (18 percent), East Denali Highway (17 percent), and in the Lake Louise Area (16 percent) Sub-Areas. Only 1 percent of these users overnighted in the Remote North Sub-Area and none reported overnighting in Remote South Sub-Area.

Nonresident roadside campers overnighted along the East Denali Highway (64 percent), West Denali Highway (33 percent), and in the Talkeetna Area (27 percent) Sub-Areas more frequently than other Study Area Sub-Areas (Table A3.3-7).

Table A3.3-7. Roadside Camping as Primary Activity, Location of Overnights Spent in Study Area, Alaska Regional Residents and Non-Alaska Residents, By Sub-Area, Percent

Study Area Sub-Area	Percent of Overnighting Alaska Regional Resident Roadside Campers (n=134)	Percent of Overnighting Nonresident Roadside Campers (n=55)
Talkeetna Area	39%	27%
Parks Highway	37%	20%
West Denali Highway	18%	33%
East Denali Highway	17%	64%
Lake Louise Area	16%	20%
Remote South	-	-
Remote North	1%	-

Base: Those whose primary activity was roadside camping during most recent outing in the Study Area and overnighted in the Study Area.
Note: Multiple responses accepted; columns will not add to 100 percent.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

Among Alaska regional resident who roadside camped as their primary activity in the Study Area, over half (55 percent) camped in an established campground and 34 percent camped in an

undeveloped roadside campground. In addition to their camping activity, a small proportion of these users also stayed in a hotel/motel/B&B/lodge (4 percent), or a private home (2 percent) during their most recent outing to the Study Area.

Among nonresidents, 76 percent camped in an established campground and 24 percent stayed in a hotel/motel/B&B/lodge at some point during their most recent outing to the Study Area (Table A3.3-8).

Table A3.3-8. Roadside Camping as Primary Activity, Type of Lodging Used in Study Area, Alaska Regional Residents and Non-Alaska Residents, Percent

Type of Lodging Used	Percent of Overnighting Alaska Regional Resident Roadside Campers (n=134)	Percent of Overnighting Nonresident Roadside Campers (n=55)
Hotel/motel/B&B/lodge	4%	24%
Roadside camping (established or undeveloped campground)	89%	92%
Remote camping	8%	-
Private home	2%	-

Base: Those whose primary activity was roadside camping during most recent outing in the Study Area and overnighted in the Study Area.
Note: Multiple responses accepted; columns will not add to 100 percent.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

3.3.3.5. Frequency of Roadside Camping Trips to Study Area

Most (81 percent) of Alaska regional resident users whose primary activity was roadside camping had been to the Study Area previously to roadside camp. None of these users lived in the area. Among the users who had visited the Study Area previously, 31 percent first visited the Study Area to roadside camp before 1991, 25 percent between 1991 and 2000, 33 percent between 2001 and 2010, and 11 percent between 2011 and 2013. Thirty-seven percent of Alaska regional resident roadside campers in the Study Area generally roadside camped in the Study Area between 2 and 10 times per year, while 31 percent roadside camped in the Study Area once every year, and 18 percent camped once every few years.

In contrast, 29 percent of nonresident roadside campers had previously been to the Study Area, and 75 percent of these users had visited the Study Area to roadside camp once every few years or less often (Tables A3.3-9 to A3.3-11).

Table A3.3-9. Roadside Camping as Primary Activity, Previous Trip to Study Area for Roadside Camping as Primary Activity, Alaska Regional Residents and Non-Alaska Residents, Percent

Traveled to Study Area for Same Primary Activity	Percent of Alaska Regional Resident Roadside Campers (n=134)	Percent of Nonresident Roadside Campers (n=55)
Yes	81%	29%
No	19%	71%

Base: Those whose primary activity was roadside camping during most recent outing in the Study Area.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

Table A3.3-10. Roadside Camping as Primary Activity, Year of First Trip to Study Area for Remote Camping as Primary Activity, Alaska Regional Residents and Non-Alaska Residents, Percent

Period of First Trip	Percent of Alaska Regional Resident Repeat Roadside Camping (n=101)	Percent of Nonresident Repeat Roadside Campers (n=16)
Before 1991	31%	25%
1991 to 2000	25%	19%
2001 to 2010	33%	44%
2011 to 2013	11%	13%

Base: Those whose primary activity was roadside camping during most recent outing in the Study Area and had previously roadside camped in the Study Area.

Note: Due to rounding, some columns may not total 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

Table A3.3-11. Roadside Camping as Primary Activity, Frequency of Trips to Study Area for Roadside as Primary Activity, Alaska Regional Residents and Non-Alaska Residents, Percent

Frequency of Trips	Percent of Alaska Regional Resident Repeat Roadside Campers (n=107)	Percent of Nonresident Repeat Roadside Campers (n=16)
More than 10 times per year	7%	6%
2 to 10 times per year	37%	-
Once a year	31%	19%
Once every few years	18%	50%
Less often	7%	25%

Base: Those whose primary activity was roadside camping during most recent outing in the Study Area and had previously roadside camped in the Study Area.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

3.3.3.6. Other Activities on Most Recent Trip

Alaska regional resident users who roadside camped as their primary activity on their most recent outing in the Study Area also participated in a number of other recreational activities, including 23 percent who viewed wildlife, 19 percent who walked/ran, and 17 percent who hiked/backpacked.

Nonresident users whose primary activity was roadside camping also hiked/backpacked (58 percent), wildlife viewed (55 percent), walked/ran (33 percent), bird watched (29 percent), fished (27 percent), or collected berries/mushrooms (24 percent), among other activities (Table A3.3-12).

Table A3.3-12. Roadside Camping as Primary Activity, Participation in Other Recreational Activities, Alaska Regional Residents and Non-Alaska Residents, Percent

Activity	Percent of Alaska Regional Resident Roadside Campers (n=134)	Alaska Nonresident Roadside Campers (n=55)
Remote camping	4%	2%
Roadside camping	100%	100%
Wildlife viewing	23%	55%
Bird watching	7%	29%
Walking/running	19%	33%
Hiking/backpacking	17%	58%
Hunting	2%	-
Fishing for salmon	2%	-
Fishing for non-salmon species	7%	27%
Collecting berries/mushrooms	8%	24%
Riding ATVs	5%	2%
Snow machining	1%	-
Riding the Alaska Railroad	1%	-
Bicycling	4%	4%

Activity	Percent of Alaska Regional Resident Roadside Campers (n=134)	Alaska Nonresident Roadside Campers (n=55)
Non-motorized boating (rafting, kayaking, canoeing, or pack-rafting)	7%	16%
Motorized boating (jet, prop, or air)	1%	4%
Flightseeing	2%	2%
Skiing	-	-
Snowshoeing	-	-
Dog sledding	-	-
Other*	2%	2%

Base: Those whose primary activity was roadside camping during most recent outing in the Study Area and participated in other recreational activities in the Study Area.

* "Other" for regional residents included gold panning, photography, and swimming. "Other" for nonresidents included gold panning and photography.

Note: Multiple responses accepted; columns will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

3.3.3.7. Party and Group Size and Characteristics

The average party size, individuals traveling together and sharing expenses, among Alaska regional resident users whose primary activity was roadside camping was 3.5 people, with a median party size of 3.0. The party size for this user group included an average of 0.9 person under age 18, and 2.7 people who lived in the same household. Only 4 percent of Alaska regional resident parties included a member with a disability or special need related to outdoor recreation.

The average group size, individuals traveling together, but not necessarily sharing expenses, for Alaska regional resident roadside campers was 4.3 persons.

The average party size for nonresident roadside campers was 2.3 people, with a median party size of 2.0. Two percent of these users reported a party member with a disability or special need.

The average group size for nonresident roadside campers was 2.6.

3.3.3.8. Perceived Infrastructure Needs

On a scale of 1 to 5, with 1 being "a lot less" and 5 being "a lot more," Alaska regional resident users whose primary activity was roadside camping on their most recent trip in the Study Area rated, on average, the need for road-side toilets as a 3.8. This was the highest average rating these users gave for any of the facility, infrastructure, and information needs presented in the Regional Resident Household Mail Survey. Eighteen percent of these users reported a need for

"a lot more" road-side toilets, the highest proportion of "a lot more" responses among Alaska regional resident roadside campers (Table A3.3-13).

Table A3.3-13. Roadside Camping as Primary Activity, Perceived Facility, Infrastructure, and Information Needs, Alaska Regional Residents, Percent

Potential Need (n=134)	Average (1–5)	A Lot More (5)	A Little More (4)	Same (3)	A Little Less (2)	A Lot Less (1)
Maintained roads	3.4	9%	25%	64%	2%	-
Designated parking areas	3.5	8%	36%	54%	1%	<1%
Road-side toilets	3.8	16%	47%	35%	2%	-
RV accessible sites at campgrounds	3.4	9%	31%	50%	10%	1%
Trail maps	3.6	12%	43%	40%	5%	1%
Designated trails for non-motorized use	3.5	13%	37%	44%	4%	2%
Designated trails for ORVs	3.3	7%	34%	42%	13%	4%
Directional road signs	3.3	7%	24%	65%	1%	2%
Visitor information	3.4	6%	33%	58%	1%	1%
Visitor centers	3.2	5%	20%	68%	6%	2%
Public use cabins	3.6	14%	34%	45%	4%	2%
Boat launches	3.2	3%	19%	72%	5%	1%
Facilities for the disabled	3.3	6%	25%	62%	5%	2%

Base: Those whose primary activity was roadside camping during most recent outing in the Study Area.

Note: Due to rounding, some rows may not total 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

Non-Alaska resident users whose primary activity was roadside camping on their most recent trip in the Study Area rated, on average, the need for designated trails for non-motorized use as a 3.7. This was the highest average rating these users gave for any of the facility, infrastructure, and information needs presented in the Susitna-Watana Recreational Intercept Survey. Seven percent of these users reported a need for "a lot more" designated trails for non-motorized use, the highest proportion of "a lot more" responses among non-Alaska residents (Table A3.3-14).

Table A3.3-14. Roadside Camping as Primary Activity, Perceived Facility, Infrastructure, and Information Needs, Non-Alaska Residents, Percent

Potential Need (n=55)	Average (1-5)	A Lot More (5)	A Little More (4)	Same (3)	A Little Less (2)	A Lot Less (1)
Maintained roads	3.2	2%	15%	81%	2%	-
Designated parking areas	3.2	4%	9%	87%	-	-
Road-side toilets	3.2	4%	13%	74%	-	-
RV accessible sites at campgrounds	3.0	-	2%	81%	2%	-
Trail maps	3.6	2%	35%	30%	-	-
Designated trails for non-motorized use	3.7	7%	30%	26%	-	-
Designated trails for ORVs	3.1	2%	13%	20%	4%	4%
Directional road signs	3.2	2%	15%	80%	2%	-
Visitor information	3.1	-	9%	83%	2%	-
Visitor centers	3.0	-	2%	76%	4%	-
Public use cabins	3.3	-	11%	32%	-	-
Boat launches	3.0	-	4%	26%	-	2%
Facilities for the disabled	3.3	4%	6%	31%	2%	-

Base: Those whose primary activity was roadside camping during most recent outing in the Study Area.
Note: Rows will not add to 100 percent because responses of "Don't know" or refusal to answer are not included. These responses ranged from 0 percent to 68 percent of respondents depending on the facility or infrastructure needed.

Source: Susitna-Watana Recreation Intercept Survey.

3.3.3.9. Perceptions of Detracted Experience

Most (77 percent) Alaska regional resident users whose primary activity was roadside camping did not feel crowded during their most recent outing in the Study Area. Among those who did feel somewhat or very crowded, the largest proportions recalled feeling that way in the Talkeetna Area (37 percent), Parks Highway (26 percent), and East Denali Highway (22 percent) Sub-Areas.

Among nonresident roadside campers, 89 percent rated their perceived crowding between 1 and 3 on a scale of 1 to 10 (with one being "not at all crowded") (Table A3.3-15).

Table A3.3-15. Roadside Camping as Primary Activity, Perceived Crowding, Alaska Regional Resident and Non-Alaska Residents, Percent

Perceived Crowding	Percent of Alaska Resident Roadside Campers (n=132)	Percent of Nonresident Roadside Campers (n=55)
Very crowded	6%	7%*
Somewhat crowded	17%	4%*
Not crowded	77%	89%*

Base: Those whose primary activity was roadside camping during most recent outing in the Study Area.

*Nonresidents were asked to rate crowding from 1 to 10, with 1–3 considered "not crowded," 4–6 considered "somewhat crowded," and 7–10 "very crowded."

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

Most (95 percent) of Alaska regional resident Study Area users and most (96 percent) nonresident users who roadside camped as their primary activity on their most recent outing did not experience conflict with other individuals or groups that negatively impacted their recreation experience in the Study Area.

Sixty-three percent of the Alaska regional resident users and 82 percent of nonresidents did not see any signs of infrastructure or human activity that detracted from the scenic quality within the Study Area. Trash (16 percent), vehicles (9 percent), power lines (9 percent), and people (8 percent) were the four detractors noted by the largest proportions of regional resident roadside campers. Among nonresident users who noted a scenic detractor, 44 percent noted trash and 33 percent noted houses/cabins/structures.

Sixty percent of the Alaska regional resident users and 85 percent of nonresidents also reported that no noises detracted from their enjoyment of the Study Area. Among regional residents, 17 percent identified other people, 11 percent reported ORV/ATVs, and 10 percent reported cars/trucks/RVs as noise detractors from their experience. Nonresidents reported noise from other people, jet aircraft sonic booms, and ORV/ATVs among other noise detractors.

3.3.3.10. Demographic Profile of Survey Respondent

The average age of Alaska regional resident users whose primary activity was roadside camping was 46.6 years (median of 43.0 years), slightly younger than the regional residents (average of 47.2 years, median of 47.0 years). Seniors (aged 65 and over) accounted for 11 percent of the regional resident users whose primary activity was roadside camping, compared to 12 percent of all regional resident users.

The average age among nonresident roadside campers was 53.5 years, slightly older than the average of all nonresident users (50.8 years). Just over one-quarter (26 percent) of nonresident roadside campers were aged 65 and older.

Sixty percent of roadside camping regional resident users were female. In comparison, females accounted for 52 percent of all regional resident users. Seventy percent of regional resident roadside campers were married, compared to 60 percent of all regional resident users.

A smaller percentage of nonresident roadside campers were female (29 percent). In comparison, females accounted for 37 percent of nonresident users.

The average household income among Alaska regional resident users whose primary activity was roadside camping was $98,000, with median household income of $88,000. This compared to an average of $83,000 and median of $63,000 for all regional resident users.

Nonresident roadside campers had a slightly higher average household income at $100,400, with a median household income of $88,000.

Over half of the regional resident users whose primary activity was roadside camping during their most recent outing in the Study Area had completed a bachelor's degree or higher, 36 percent completed a bachelor's degree, and 20 percent completed a graduate or professional degree.

The average household size for regional resident users whose primary activity was roadside camping was 2.8, slightly above the average household size for all regional resident users (2.7). Forty percent of these regional resident roadside campers lived in a household with children under the age of 18.

The average household size for nonresident roadside campers was 2.5, compared to 2.4 for all nonresident users (Table A3.3-16).

Table A3.3-16. Roadside Camping as Primary Activity, Demographic Profile of Survey Respondents, Alaska Regional Residents and Non-Alaska Residents

Demographic Factor	Alaska Regional Resident Roadside Campers (n=134)	Nonresident Roadside Campers (n=55)
Average age	46.6	53.5
Age 65 and over (percent)	11%	26%
Female/male (percent)	60% / 40%	29% / 71%
Married (percent)	70%	-
Average household size	2.8	2.5
Households with children under age 18 (percent)	40%	-
Average household income	$98,000	$100,400

Demographic Factor	Alaska Regional Resident Roadside Campers (n=134)	Nonresident Roadside Campers (n=55)
Median household income	$88,000	$88,000
Racial characteristics*		
White (percent)	90%	
Alaska Native/American Indian (percent)	8%	
All other (percent)	5%	
Education (percent)		
Less than 9th grade	-	
9th to 12th grade, no diploma	1%	
High school graduate/GED	11%	
Some college, no degree	23%	
Associate's degree	10%	
Bachelor's degree	36%	
Graduate or professional degree	20%	

Base: Those whose primary activity was roadside camping during most recent outing in the Study Area. Racial characteristics and educational attainment were not asked in the Susitna-Watana Recreation Intercept Survey.

* Survey respondents could note more than one race if applicable.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

A majority (53 percent) of Alaska regional residents whose primary activity was roadside camping lived in the Municipality of Anchorage, followed by the MSB (27 percent) (Table A3.3-17).

Table A3.3-17. Roadside Camping as Primary Activity, Alaska Residency, Alaska Regional Residents, Percent

Place of Residence	Percent of Regional Resident Roadside Campers (n=139)
Municipality of Anchorage	53%
MSB	27%

Place of Residence	Percent of Regional Resident Roadside Campers (n=139)
Denali Borough	-
Fairbanks North Star Borough	19%
Valdez-Cordova/Southeast Fairbanks Census Area	<1%

Base: Those whose primary activity was roadside camping during most recent outing in the Study Area.
Note: Due to rounding, column may not add to 100 percent.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

Sixty percent of nonresident roadside campers lived in the U.S. (Table A3.3.18) Among nonresident roadside campers who lived outside of the U.S., 36 percent lived in Germany, 32 percent in Switzerland, 14 percent in the Netherlands, and others lived in Austria, Canada, or other locations.

Table A3.3-18. Roadside Camping as Primary Activity, Region of US Residency, Non-Alaska Residents, Percent

Region of U.S. Residence	Percent of U.S. Resident (Excluding Alaska) Roadside Campers (n=33)
Western U.S.	36%
Southern U.S.	18%
Midwestern U.S.	33%
Eastern U.S.	12%

Base: Those whose primary activity was roadside camping during most recent outing in the Study Area.
Note: Due to rounding, column may not total 100 percent.
Source: Susitna-Watana Recreation Intercept Survey.

3.4. Hiking/Backpacking

Hiking and backpacking are integral to many recreation activities that take place in the Recreation Use Study Area. Camping, fishing, hunting, berry picking, wildlife viewing, and many other activities involve hiking during the activity.

Hiking within Denali State Park occurs along both Curry Ridge (the southern ridge accessed from Byers Creek Campground) and Kesugi Ridge (the northern ridge accessed from Little Coal Creek Trailhead).

A number of businesses offer hiking and backpacking tours in the area. Many of the tours involve drop-offs or pick-ups by aircraft, including helicopters in the Talkeetna Mountains, and

others include a river-based element, such as floating on a river. One business interviewed estimates they take thousands of visitors (about half resident and half nonresident) on hikes in the Recreation Use Study Area. While a majority of hikes are taken in the summer, some hiking occurs with snowshoes in the winter, including on the Susitna River.

Educational programs also offer hiking and backpacking courses, especially for non-Alaska residents and international visitors. The Alaska Mountaineering School offers guided mountaineering and backcountry travel trips. NOLS offers eight backpacking courses per year in the Talkeetna Mountains. NOLS courses are a month in duration. In total, about 135 NOLS students and instructors participate in these courses each year. It is estimated that NOLS backpackers represent over 4,000 user-days in the Recreation Use Study Area.

In 2009, approximately 62 percent of adult Alaskans hiked (ADNR 2009).

3.4.1. Recreation Intercept Survey and Regional Resident Household Mail Survey Data

The Susitna-Watana Recreation Intercept Survey sample contained 283 users (69 percent Alaska residents and 31 percent non-Alaska residents) who hiked/backpacked in the Study Area. Of these hiker/backpackers, 35 (13 Alaska residents and 22 non-Alaska residents) participated in hiking/backpacking as their primary activity on their most recent outing.

The Regional Resident Household Mail Survey sample contained 409 Alaska regional resident users who participated in hiking/backpacking in the Study Area, including 78 users whose primary activity on their most recent outing was hiking/backpacking.

3.4.2. Total Estimated Participation

An estimated 100,500 users hiked/backpacked in the Study Area, representing about 7.7 percent of all recreation users (Section 5.1.2, 2014 Year-End Report). These users spent an estimated 392,200 recreational user-days hiking/backpacking (partial and full days), representing approximately 7.9 percent of all user-days in the Study Area (Table A3.4-1).

Table A3.4-1. Estimates of Hiking/Backpacking Activity: All Study Area Users

Total annual participation in hiking/backpacking (number of users participating)	100,500
Percentage of total recreation participation (% of users participating)*	7.7%
Total annual number of hiking/backpacking user-days**	392,200
Percentage of total Study Area user-days (all activities)	7.9%

* Hiking/backpacking as a percentage of all Study Area participation in recreation activities.
**Includes full and partial days.
Source: Section 5.1.2, 2014 Year-End Report.

3.4.2.1. Volume of Recreation Activity: Alaska Regional Residents

An estimated 43,000 Alaska regional residents went hiking/backpacking in the Study Area, representing about 36 percent of resident users who recreated in the Study Area (Section 5.1.2, 2014 Year-End Report). These resident users spent 257,800 user-days hiking/backpacking, representing 8.5 percent of all Study Area resident recreation activity (Table A3.4-2).

Table A3.4-2. Estimates of Hiking/Backpacking Activity: Alaska Regional Resident Users

Total annual number of regional resident users participating in hiking/backpacking	43,000
Percentage of users participating in hiking/backpacking in Study Area*	36%
Total annual number of hiking/backpacking user-days (regional residents only)**	257,800
Percentage of total Study Area user-days (all activities, Regional residents only)	8.5%

*Percentage of Alaska regional residents recreating in the Study Area that hiked/backpacked.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

3.4.2.2. Volume of Recreation Activity: Non-Alaska Residents

An estimated 57,500 non-Alaska residents went hiking/backpacking in the Study Area, representing about 22 percent of nonresident users who recreated in the Study Area (Section 5.1.2, 2014 Year-End Report). These nonresident users spent 134,400 user-days hiking/backpacking, representing 9.4 percent of all nonresident recreation activity (Table A3.4-3).

Table A3.4-3. Estimates of Hiking/Backpacking Activity: Non-Alaska Resident Users

Total annual number of non-Alaska resident users participating in hiking/backpacking	57,500
Percentage of non-Alaska resident users participating in hiking/backpacking*	22%
Total annual number of hiking/backpacking user-days (non-Alaska residents only)**	134,400
Percentage of total Study Area user-days (all activities, non-Alaska residents only)	9.4%

*Percentage of non-Alaska residents recreating in the Study Area that hiked/backpacked.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

3.4.3. Hiking/Backpacking Primary Activity Profile

The following profile includes Alaska regional residents who participated in hiking/backpacking as their primary activity during their most recent visit to the Study Area, based on survey results from the Regional Resident Household Mail Survey (Appendix D). Where sample sizes are

adequate, information on non-Alaska resident participation is also included, based on nonresident survey results from the Susitna-Watana Recreation Intercept Survey (Appendix B).

3.4.3.1. Location of Hiking/Backpacking Primary Activity

Almost half (49 percent) of Alaska regional residents who hiked/backpacked as a primary activity did so in the Parks Highway Sub-Area, while 33 percent did so in the Talkeetna Area Sub-Area. Another 14 percent hiked/backpacked along the West Denali Highway, followed by the East Denali Highway (10 percent), Lake Louise Area (5 percent), Remote South (5 percent), and Remote North (2 percent) Sub-Areas (Table A3.4-4).

Table A3.4-4. Hiking/Backpacking as Primary Activity, Most Recent Outing, Alaska Regional Residents, by Area of Primary Activity, Percent

Study Area Sub-Area	Percent of Alaska Regional Resident Hikers/Backpackers (n=76)
Talkeetna Area	33%
Parks Highway	49%
West Denali Highway	14%
East Denali Highway	10%
Lake Louise Area	5%
Remote South	5%
Remote North	2%

Base: Those whose primary activity was hiking/backpacking during most recent outing in the Study Area.

Note: Multiple responses accepted; column will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

3.4.3.2. Travel More than One-Half Mile from Trailhead or Main Road

Most (74 percent) of the Alaska regional residents who hiked/backpacked as their primary activity on their most recent outing in the Study Area reported traveling more than one-half mile from a trailhead or main road.

3.4.3.2.1. Mode of Travel

Among Alaska regional residents who hiked/backpacked as their primary activity on their most recent outing in the Study Area, almost all (97 percent) hiked when they traveled more than one-half mile from a trailhead or main road into the area. A smaller proportion of these users utilized an ORV or ATV (5 percent), non-motorized watercraft (3 percent), or skied (3 percent) while hiking/backpacking (Table A3.4-5). Some respondents used more than one mode of transportation.

Table A3.4-5. Hiking/Backpacking as Primary Activity, Transportation Mode, Travel More than One-Half Mile from a Trailhead or Main Road, Most Recent Outing, Alaska Regional Residents, Percent

Mode of Transportation	Alaska Regional Resident Hikers/Backpackers Who Traveled More Than One-Half Mile into the Study Area (n=58)
Hike	97%
Snowmachine	-
Ski	3%
ORV/ATV	5%
Motorized boat	-
Non-motorized boat	3%
Snowshoe	2%
Airplane	1%

Base: Those whose primary activity was hiking/backpacking during most recent outing in the Study Area.

Note: Multiple responses accepted; column will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

3.4.3.2.2. Type of Trail Used

Less than half (42 percent) of regional resident hiker/backpackers used both established trails and off-trail routes when they traveled more than one-half mile from a trailhead or main road; 40 percent used only established trails and 9 percent used only off-trail routes.

Three-quarters (73 percent) of nonresident hikers/backpackers traveled more than one-half mile from a trailhead or main road: 75 percent of their travel was on established trails and the rest was on both established trails and off-trail routes.

Among nonresidents who traveled more than one-half mile from the trailhead or main road, 63 percent did so in the Talkeetna Area, followed by the Parks Highway (38 percent), West Denali Highway (19 percent), and Lake Louise Area (13 percent) Sub-Areas.

3.4.3.3. Use of Guides

One percent of Alaska regional resident users whose primary activity was hiking/backpacking used the services of a guide for a portion of their most recent outing in the Study Area.

Nine percent of nonresidents whose primary activity was hiking/backpacking reported using a guide for that activity.

3.4.3.4. Overnights and Lodging in Study Area

Alaska regional residents who hiked/backpacked as their primary activity in their most recent outing spent an average of 2.3 nights in the Study Area.

Nonresidents whose primary activity was hiking/backpacking spent an average of 3.7 nights in the Study Area (Table A3.4-6).

Table A3.4-6. Hiking/Backpacking as Primary Activity, Number of Overnights Spent in Study Area, Alaska Regional Residents and Non-Alaska Residents, Number of Overnights and Percent

Number of Nights in Study Area	Overnighting Alaska Regional Resident Hikers/Backpackers (n=51)	Overnighting Nonresident Hikers/Backpackers (n=22)
1 night	36%	41%
2 to 7 nights	63%	50%
8 to 14 nights	1%	5%
15+ nights	-	5%
Average number of nights	2.3 nights	3.7 nights
Median number of nights	2.0 nights	2.0 nights

Base: Those whose primary activity was hiking/backpacking during most recent outing in the Study Area and overnighted in the Study Area.
Note: Due to rounding, columns may not total 100 percent.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

Among Alaska regional residents whose primary activity was hiking/backpacking, 55 percent overnighted in the Talkeetna Area Sub-Area. Overnighting hiker/backpackers also stayed in the Parks Highway (32 percent), West Denali Highway (16 percent), Lake Louise Area (12 percent), East Denali Highway (6 percent), and Remote North (1 percent) Sub-Areas.

Nonresident hiking/backpacking overnighted in the Talkeetna Area (64 percent), and West Denali Highway (23 percent), East Denali Highway (23 percent), Parks Highway (18 percent), and Lake Louise Area (9 percent) Sub-Areas (Table A3.4-7).

Table A3.4-7. Hiking/Backpacking as Primary Activity, Location of Overnights Spent in Study Area, Alaska Regional Residents and Non-Alaska Residents, By Sub-Area, Percent

Study Area Sub-Area	Percent of Overnighting Alaska Regional Resident Hikers/Backpackers (n=46)	Percent of Overnighting Nonresident Hikers/Backpackers (n=22)
Talkeetna Area	55%	64%
Parks Highway	32%	18%

Study Area Sub-Area	Percent of Overnighting Alaska Regional Resident Hikers/Backpackers (n=46)	Percent of Overnighting Nonresident Hikers/Backpackers (n=22)
West Denali Highway	16%	23%
East Denali Highway	6%	23%
Lake Louise Area	12%	9%
Remote South	-	-
Remote North	1%	-

Base: Those whose primary activity was hiking/backpacking during most recent outing in the Study Area and overnighted in the Study Area.
Note: Multiple responses accepted; columns will not add to 100 percent.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

Forty-five percent of Alaska regional resident hikers/backpackers who overnighted in the study stayed at an established or undeveloped campground, while 31 percent camped remotely in a tent or cabin. Twenty-one percent stayed in a hotel/motel/B&B/lodge and 9 percent in a private home.

Among nonresidents, one-quarter (73 percent) stayed in a hotel/motel/B&B/lodge, 23 percent camped, and 18 percent stayed in a private home during their most recent visit to the Study Area (Table A3.4-8).

Table A3.4-8. Hiking/Backpacking as Primary Activity, Type of Lodging Used in Study Area, Alaska Regional Residents and Non-Alaska Residents, Percent

Type of Lodging Used	Percent of Overnighting Alaska Regional Resident Hikers/Backpackers (n=51)	Percent of Overnighting Nonresident Hikers/Backpackers (n=22)
Hotel/motel/B&B/lodge	21%	73%
Roadside camping (established or undeveloped campground)	45%	23%
Remote camping	31%	-
Private home	9%	18%

Base: Those whose primary activity was hiking/backpacking during most recent outing in the Study Area and overnighted in the Study Area.
Note: Multiple responses accepted; columns will not add to 100 percent.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

3.4.3.5. Frequency of Hiking/Backpacking Trips to Study Area

Almost three-quarters (74 percent) of Alaska regional resident users whose primary activity was hiking/backpacking had been to the Study Area previously to hike/backpack, while 3 percent of these users lived in the area. Twenty-one percent of this user group first visited the Study Area to hike/backpack prior to 1991, while 16 percent had first visited between 1991 and 2000, 55 percent between 2001 and 2010, and 8 percent between 2011 and 2013.

Forty-two percent of Alaska regional resident hiker/backpackers generally hike/backpack between 2 and 10 times per year in the Study Area, while 18 percent hike/backpack once every few years, 17 percent once per year, 16 percent more than 10 times per year, and 6 percent less often than a few times per year.

In contrast, only 14 percent of nonresident hiker/backpackers had previously been to the Study Area (Tables A3.4-9 to A3.4-11).

Table A3.4-9. Hiking/Backpacking as Primary Activity, Previous Trip to Study Area for Hiking/Backpacking as Primary Activity, Alaska Regional Residents and Non-Alaska Residents, Percent

Traveled to Study Area for Same Primary Activity	Percent of Alaska Regional Resident Hikers/Backpackers (n=78)	Percent of Nonresident Hiker/Backpackers (n=22)
Yes	74%	14%
No	23%	86%
Live in Study Area	3	-

Base: Those whose primary activity was hiking/backpacking during most recent outing in the Study Area.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

Table A3.4-10. Hiking/Backpacking as Primary Activity, Year of First Trip to Study Area for Hiking/Backpacking as Primary Activity, Alaska Regional Residents and Non-Alaska Residents, Percent

Period of First Trip	Percent of Alaska Regional Resident Repeat Hikers/Backpackers (n=61)	Percent of Repeat Nonresident Hiker/Backpackers (n=3)
Before 1991	21%	100%
1991 to 2000	16%	-
2001 to 2010	55%	-
2011 to 2013	8%	-

Base: Those whose primary activity was hiking/backpacking during most recent outing in the Study Area and had previously hiked/backpacked in the Study Area.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

Table A3.4-11. Hiking/Backpacking as Primary Activity, Frequency of Trips to Study Area for Hiking/Backpacking as Primary Activity, Alaska Regional Residents and Non-Alaska Residents, Percent

Frequency of Trips	Percent of Alaska Regional Resident Repeat Hikers/Backpackers (n=62)	Percent of Nonresident Hiker/Backpackers (n=3)
More than 10 times per year	16%	33%
2 to 10 times per year	42%	-
Once a year	17%	33%
Once every few years	18%	-
Less often	6%	33%

Base: Those whose primary activity was hiking/backpacking during most recent outing in the Study Area and had previously hiked/backpacked in the Study Area.

Note: Due to rounding, column may not total 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

3.4.3.6. Other Activities on Most Recent Trip

Many Alaska regional resident users who hiked/backpacked as their primary activity on their most recent outing in the Study Area also participated in a number of other recreational activities, including 25 percent who viewed wildlife, 17 percent who camped remotely, 16 percent who walked/ran, 13 percent who collected berries/mushrooms, 13 percent who bird watched, and 12 percent who roadside camped, among other activities (Table A3.4-12).

Nonresident hiker/backpackers also rode the Alaska Railroad (32 percent), viewed wildlife (23 percent), bird watched (23 percent), roadside camped (23 percent), and collected berries/mushrooms (18 percent), among other activities during their most recent outing in the Study Area (Table A3.4-12).

Table A3.4-12. Hiking/Backpacking as Primary Activity, Participation in Other Recreational Activities, Alaska Regional Residents and Non-Alaska Residents, Percent

Activity	Percent of Alaska Regional Resident Hikers /Backpackers (n=78)	Alaska Nonresident Hikers/ Backpackers (n=22)
Remote camping	17%	5%
Roadside camping	12%	23%
Wildlife viewing	25%	23%
Bird watching	13%	23%

Activity	Percent of Alaska Regional Resident Hikers /Backpackers (n=78)	Alaska Nonresident Hikers/ Backpackers (n=22)
Walking/running	16%	18%
Hiking/backpacking	100%	100%
Hunting	1%	-
Fishing for salmon	2%	-
Fishing for non-salmon species	2%	5%
Collecting berries/mushrooms	13%	18%
Riding ATVs	1%	-
Snowmachining	-	-
Riding the Alaska Railroad	6%	32%
Bicycling	7%	9%
Non-motorized boating (rafting, kayaking, canoeing, or pack-rafting)	8%	9%
Motorized boating (jet, prop, or air)	1%	-
Flightseeing	-	14%
Skiing	1%	-
Snowshoeing	4%	-
Dog sledding	1%	-
Other*	7%	5%

Base: Those whose primary activity was hiking/backpacking during most recent outing in the Study Area and participated in other recreational activities.

* "Other" for regional residents included rock hunting, ziplining, photography, swimming, and disc golf. "Other" for non-Alaska residents included gold panning, photography, ice fishing, ziplining, and swimming.

Note: Multiple responses accepted; column will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

3.4.3.7. Party and Group Size and Characteristics

The average party size, individuals traveling together and sharing expenses, among Alaska regional resident users whose primary activity was hiking/backpacking was 3.2 people, with a median party size of 2.0. The party size for these users included an average of 0.6 person under age 18, and 2.2 persons who lived in the same household. Two percent of Alaska regional resident parties included a member with a disability or special need related to outdoor recreation. Average group size, individuals traveling together, but not necessarily sharing expenses, was 3.6.

The average party size for nonresident hikers/backpackers was 2.4 people, with a median party size of 2.0. No nonresidents reported a party member with a disability or special need. The average group size was 2.5 for nonresidents.

3.4.3.8. Perceived Infrastructure Needs

On a scale of 1 to 5, with 1 being "a lot less" and 5 being "a lot more," Alaska regional resident users whose primary activity was hiking/backpacking on their most recent trip rated, rated the perceived need for designated trails for non-motorized use highest (3.9), among a list of perceived facility, infrastructure, and information needs presented in the Regional Resident Household Mail Survey. Thirty percent of these users identified the need for "a lot more" of such trails (Table A3.4-13).

Table A3.4-13. Hiking/Backpacking as Primary Activity, Perceived Facility, Infrastructure, and Information Needs, Alaska Regional Residents, Percent

Potential Need (n=78)	Average (1–5)	A Lot More (5)	A Little More (4)	Same (3)	A Little Less (2)	A Lot Less (1)
Maintained roads	3.2	4%	20%	72%	1%	3%
Designated parking areas	3.3	5%	26%	63%	3%	3%
Road-side toilets	3.5	7%	35%	56%	1%	1%
RV accessible sites at campgrounds	2.9	3%	11%	63%	13%	9%
Trail maps	3.8	13%	52%	34%	1%	-
Designated trails for non-motorized use	3.9	30%	31%	37%	2%	-
Designated trails for ORV	2.7	3%	12%	53%	12%	19%
Directional road signs	3.2	3%	20%	72%	1%	3%
Visitor information	3.3	4%	23%	69%	3%	1%
Visitor centers	3.1	1%	15%	77%	5%	2%

Potential Need (n=78)	Average (1–5)	A Lot More (5)	A Little More (4)	Same (3)	A Little Less (2)	A Lot Less (1)
Public use cabins	3.6	18%	29%	50%	1%	1%
Boat launches	3.2	7%	10%	79%	2%	2%
Facilities for the disabled	3.3	7%	18%	75%	-	-

Base: Those whose primary activity was hiking/backpacking during most recent outing in the Study Area.

Note: Due to rounding, some rows may not total 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

On average, nonresident hikers/backpackers rated trail maps (3.6) and designated trails for non-motorized use (3.6) most needed on the list of perceived needs (Table A3.4-14).

Table A3.4-14. Hiking/Backpacking as Primary Activity, Perceived Facility, Infrastructure, and Information Needs, Non-Alaska Residents, Percent

Potential Need (n=22)	Average (1–5)	A Lot More (5)	A Little More (4)	Same (3)	A Little Less (2)	A Lot Less (1)
Maintained roads	3.1	-	14%	77%	5%	-
Designated parking areas	2.9	-	5%	77%	-	5%
Road-side toilets	3.3	-	32%	55%	-	5%
RV accessible sites at campgrounds	3.0	-	14%	45%	5%	5%
Trail maps	3.6	5%	50%	41%	-	-
Designated trails for non-motorized use	3.6	14%	27%	45%	-	-
Designated trails for ORV	2.6	-	5%	45%	9%	14%
Directional road signs	3.0	-	10%	76%	10%	-
Visitor information	3.0	-	14%	73%	9%	-
Visitor centers	3.0	5%	-	82%	9%	-
Public use cabins	3.3	-	23%	32%	5%	-
Boat launches	3.0	-	5%	45%	5%	-

Potential Need (n=22)	Average (1–5)	A Lot More (5)	A Little More (4)	Same (3)	A Little Less (2)	A Lot Less (1)
Facilities for the disabled	3.5	-	29%	33%	-	-

Base: Those whose primary activity was hiking/backpacking during most recent outing in the Study Area.

Note: Rows will not add to 100 percent because responses of "Don't know" or refusal to answer are not included. These responses ranged from 5 percent to 45 percent of respondents depending on the facility or infrastructure needed.

Source: Susitna-Watana Recreation Intercept Survey.

3.4.3.9. Perceptions of Detracted Experience

Most (92 percent) of Alaska regional resident users whose primary activity was hiking/ backpacking were "not crowded" during their most recent outing in the Study Area. None of these users reported feeling "very crowded."

Among nonresident hiker/backpackers, 95 percent rated their perceived crowding between 1 and 3 on a scale of 1 to 10 (with one being "not at all crowded") (Table A3.4-15).

Table A3.4-15. Hiking/Backpacking as Primary Activity, Perceived Crowding, Alaska Regional Residents and Non-Alaska Residents, Percent

Perceived Crowding	Percent of Alaska Regional Resident Hikers/Backpackers (n=77)	Percent of Nonresident Hikers/Backpackers (n=22)
Very crowded	-	-
Somewhat crowded	8%	5%*
Not crowded	92%	95%*

Base: Those whose primary activity was hiking/backpacking during most recent outing in the Study Area.

*Nonresidents were asked to rate crowding from 1 to 10, with 1–3 considered "not crowded," 4–6 considered "somewhat crowded," and 7–10 "very crowded."

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

Ninety-three percent of Alaska regional resident users and all nonresident users who hiked/backpacked as their primary activity on their most recent outing did not experience conflict with other individuals or groups that negatively impacted their recreation experience in the Study Area. Seven percent of Alaska regional resident users did experience conflict.

More than half (56 percent) of Alaska regional resident hiker/backpackers experienced signs of infrastructure or human activity that detracted from the scenic quality within the Study Area. Vehicles (22 percent), trash (19 percent), trails (12 percent), and communications towers (11 percent) were the four detractors noted by the largest proportions of regional resident hikers/backpackers.

One-third (32 percent) of nonresident users experienced signs of infrastructure or human activity that detracted from their experience. Of these users, trash (43 percent) or houses/cabins/ structures (29 percent) were noted.

Just over half (53 percent) of Alaska regional resident hiker/backpackers did not experience noises that detracted from their enjoyment of the Study Area. Of those users reporting noise detractors, 19 percent identified ATVs, 18 percent cars/trucks/RVs, and 13 percent airplanes as detractors from their experience.

No nonresidents cited noise that detracted from their enjoyment of the Study Area.

3.4.3.10. Demographic Profile of Survey Respondents

The average age of Alaska regional resident users whose primary activity was hiking/ backpacking was 39.9 years (median of 40.0 years), younger than the regional resident user (average of 47.2 years, median of 47.0 years). Seniors (aged 65 and over) accounted for only 2 percent of these users, less than the proportion of seniors in regional resident users (12 percent).

The average age among nonresident users whose primary activity was hiking/backpacking was 46.5 years, slightly older than the average of nonresidents (50.8 years). Nine percent of nonresident hiker/backpackers were aged 65 and older.

Fifty-eight percent of Alaska regional resident hiking/backpacking users were female. A smaller percentage of nonresident hiker/backpackers were female (41 percent). In comparison, females accounted for 52 percent of all Alaska regional resident users and for 37 percent of all nonresident users.

Just over half (56 percent) of Alaska regional resident hiker/backpackers were married, compared to 60 percent of all regional resident users.

The average household income among Alaska regional resident users whose primary activity was hiking/backpacking was $91,000, with median average income of $88,000. This compares to an average of $83,000 and median of $63,000 for all regional resident users.

Nonresident hikers/backpackers had a slightly higher average household income of $84,700, with a median household income of $88,000.

Over one-third (36 percent) of the regional resident users had completed a graduate or professional degree, 25 percent completed a bachelor’s degree, and 9 percent completed an associate’s degree.

The average household size for Alaska regional resident users whose primary activity was hiking/backpacking was 2.6, slightly smaller than the average household size for all Alaska regional resident users (2.7). Just over one-third (35 percent) of these regional resident users lived in a household with children under age 18 (Table A3.4-16).

The average household size for nonresident hiker/backpackers was 2.1, compared to 2.4 for all nonresident users.

Table A3.4-16. Hiking/Backpacking as Primary Activity, Demographic Profile of Survey Respondents, Alaska Regional Residents and Non-Alaska Residents

Demographic Factor	Alaska Regional Resident Hiker/Backpackers (n=78)	Nonresident Hiker/Backpackers (n=22)
Average age	39.9	46.5
Age 65 and over (percent)	2%	9%
Female/male (percent)	58% / 42%	41% / 59%
Married (percent)	56%	-
Average household size	2.6	2.1
Households with children under age 18 (percent)	35%	-
Average household income	$91,000	$84,700
Median household income	$88,000	$88,000
Racial characteristics*		
White (percent)	89%	
Alaska Native/American Indian (percent)	11%	
All other (percent)	13%	
Education (percent)		
Less than 9th grade	-	
9th to 12th grade, no diploma	-	
High school graduate/GED	8%	
Some college, no degree	22%	
Associate's degree	9%	
Bachelor's degree	25%	
Graduate or professional degree	36%	

Base: Those whose primary activity was hiking/backpacking during most recent outing in the Study Area.

*Survey respondents could note more than one race if applicable. Racial characteristics and educational attainment were not asked in the Susitna-Watana Recreation Intercept Survey.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

A majority (61 percent) of Alaska regional resident hikers/backpackers lived in the Municipality of Anchorage, followed by the Fairbanks North Star Borough (24 percent) (Table A3.4-17).

Table A3.4-17. Hiking/Backpacking as Primary Activity, Alaska Residency, Alaska Regional Residents, Percent

Region of Alaska Residence	Percent of Alaska Regional Hikers/Backpackers (n=97)
Municipality of Anchorage	61%
MSB	15%
Denali Borough	<1%
Fairbanks North Star Borough	24%
Valdez-Cordova/Southeast Fairbanks Census Area	<1%

Base: Those whose primary activity was hiking/backpacking during most recent outing in the Study Area.

Note: Due to rounding, column may not total 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

Sixty-four percent of nonresident hikers/backpackers lived in the U.S. (Table A3.4-18). Among nonresident hikers/backpackers who lived outside of the U.S., 50 percent lived in Europe and 38 percent in Austria/New Zealand.

Table A3.4-18. Hiking/Backpacking as Primary Activity, Region of U.S. Residency, Non-Alaska Residents, Percent

Region of U.S. Residence	Percent of Nonresident Hiker/Backpackers (n=14)
Western U.S.	36%
Southern U.S.	14%
Midwestern U.S.	21%
Eastern U.S.	29%

Base: Those whose primary activity was hiking/backpacking during most recent outing in the Study Area.

Source: Susitna-Watana Recreation Intercept Survey.

3.5. Snowmachining

According to the Alaska State Snowmobile Association (ASSA), approximately 50 percent of the recreational snowmachine activity in the state occurs in the Recreation Use Study Area. According to many interviewees, snowmachine activity in the Study Area has increased markedly over the past 10 to 15 years. Anchorage, Wasilla, and Fairbanks snowmachiners frequently trailer snowmachines to the area, and local use is heavy as well. Most recreational snowmachiners in the area are Alaska residents.

The heavy snowmachine use in the area may be partially attributed to the fact that much of the area can be accessed from the rail and road system. Also, there are several well-groomed trails, as snowmachine registration fees help pay snowmachine clubs and others to groom Study Area trails, including those on and accessed from the Denali Highway, near Trapper Creek, and around Lake Louise.

The 150- to 200-member Lake Louise Wolf Pack Club grooms 250 miles of trails, primarily around Lake Louise. The 100-member Curry Ridge Riders club maintains trails in the Trapper Creek community boundary, Denali State Park, and west of the Chulitna River (however, many trails maintained by the club are outside of the Recreation Use Study Area). Also, Maclaren River Lodge owners have received a state grant to groom trails on part of the Denali Highway in recent years. Snowmachine clubs and area lodges also organize group rides and races.

Executive interviews conducted with local area lodge owners suggest at least 2,000 overnight stays by snowmachiners during the spring season (March–April).

Use is particularly heavy along the highways, where access to trails is easiest. Riding occurs between the Talkeetna and Susitna rivers and between the Chulitna and Susitna rivers, as well as north of the Susitna River in the mountains. The Susitna River corridor from Talkeetna to Curry receives a lot of use by snowmachiners. The area north of Talkeetna River to Devils Canyon receives some snowmachine use, as there is private property located in the area; however, access is limited there.

The Lake Louise and Tyone River drainage area is also a popular snowmachine recreation area. One common snowmobile recreation trail in the area is accessed from the west end entrance of the Denali Highway, where the State Department of Transportation ends their winter plowing. Another common ride from the Denali Highway is the Butte Creek Trail to Butte Lake. The annual Arctic Man snowmachining event occurs in April at Summit Lake adjacent to the Recreation Use Study Area. With nearly 20,000 people attending the event, some snowmachining recreation spills over into the Study Area with visitation occurring before, during, and after the Arctic Man event.

Private cabin owners, including many recreational cabins, use snowmachines to reach their properties during the winter. Trails groomed by snowmachiners provide winter recreation access for a variety of other types of recreation as well, including skiing, dog sledding, skijoring, ice fishing, and hiking.

In Alaska, 52,400 snowmachines were registered in the 2010/2011 season (ISMA 2013).

3.5.1. Recreation Intercept Survey and Regional Resident Household Mail Survey Data

The Susitna-Watana Recreation Intercept Survey sample contained 346 users (339 Alaska residents and 7 non-Alaska residents) who snowmachined in the Study Area. Of these users, 185 (178 Alaska residents and 7 non-Alaska residents) snowmachined as their primary activity on their most recent outing.

The Regional Resident Household Mail Survey sample contained 198 Alaska regional resident users who participated in snowmachining in the Study Area, including 58 users whose primary activity on their most recent outing to the Study Area was snowmachining.

3.5.2. Total Estimated Participation

An estimated 24,600 users participated in snowmachining in the Study Area, representing about 1.9 percent of all recreation users (Section 5.1.2, 2014 Year-End Report). These users spent an estimated 198,100 recreational user-days snowmachining (partial and full days), representing approximately 4.0 percent of all user-days in the Study Area (Table A3.5-1).

Table A3.5-1. Estimates of Snowmachining Activity: All Study Area Users

Total annual participation in snowmachining (number of users participating)	24,600
Percentage of total recreation participation (% of users participating)*	1.9%
Total annual number of snowmachining user-days**	198,100
Percentage of total Study Area user-days (all activities)	4.0%

*Snowmachining as a percentage of all Study Area participation in recreation activities.
**Includes full and partial days.
Source: Section 5.1.2, 2014 Year-End Report.

3.5.2.1. Volume of Recreation Activity: Alaska Regional Residents

An estimated 15,600 Alaska regional residents went snowmachining in the Study Area, representing about 16 percent of regional resident users who recreated in the Study Area (Section 5.1.2, 2014 Year-End Report). These regional resident users spent 178,100 user-days snowmachining, representing 5.9 percent of all regional resident recreation activity (Table A3.5-2).

Table A3.5-2. Estimates of Snowmachining Activity: Alaska Regional Resident Users

Total annual number of regional resident users participating in snowmachining	15,600
Percentage of users participating in snowmachining in Study Area*	16%
Total annual number of snowmachining user-days (regional residents only)**	178,100

Percentage of total Study Area user-days (all activities, Regional residents only)	5.9%

*Percentage of Alaska regional residents recreating in the Study Area that participated in snowmachining.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

3.5.2.2. Volume of Recreation Activity: Non-Alaska Residents

An estimated 9,000 non-Alaska residents went snowmachining in the Study Area, representing about 3 percent of nonresident users who recreated in the Study Area (Section 5.1.2, 2014 Year-End Report). These nonresident users spent 20,000 user-days snowmachining, representing 1.4 percent of all nonresident recreation activity (Table A3.5-3).

Table A3.5-3. Estimates of Snowmachining Activity: Non-Alaska Resident Users

Total annual number of non-Alaska resident users participating in snowmachining	9,000
Percentage of non-Alaska resident users participating in snowmachining*	3%
Total annual number of snowmachining user-days (non-Alaska residents only)**	20,000
Percentage of total Study Area user-days (all activities, non-Alaska residents only)	1.4%

*Percentage of non-Alaska residents recreating in the Study Area that participated in snowmachining.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

3.5.3. Snowmachining Primary Activity Profile

The following profile includes Alaska regional residents who snowmachined as their primary activity during their most recent visit to the Study Area, based on survey results from the Regional Resident Household Mail Survey (Appendix D). Given the small sample size (7 respondents) of non-Alaska residents who snowmachined as their primary activity, this section does not provide a profile of nonresident users.

3.5.3.1. Location of Snowmachining Primary Activity

Forty-five percent of Alaska regional residents who snowmachined as a primary activity during their most recent outing in the Study Area did so in the Parks Highway Sub-Area. At least some proportion of snowmachiners participated in this activity in each of the Study Area Sub-Areas, except for Remote South Sub-Area. Over one-quarter (28 percent) snowmachined in the Talkeetna Area Sub-Area, followed by the East Denali Highway (19 percent), Lake Louise Area (15 percent), West Denali Highway (12 percent), and Remote North (8 percent) Sub-Areas (Table A3.5-4).

Table A3.5-4. Snowmachining as Primary Activity, Most Recent Outing, Alaska Regional Residents, by Area of Primary Activity, Percent

Study Area Sub-Area	Percent of Alaska Regional Resident Snowmachiners (n=55)
Talkeetna Area	28%
Parks Highway	45%
West Denali Highway	12%
East Denali Highway	19%
Lake Louise Area	15%
Remote South	-
Remote North	8%

Base: Those whose primary activity was snowmachining during most recent outing in the Study Area.

Note: Multiple responses accepted; column will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

3.5.3.2. Travel More than One-Half Mile from Trailhead or Main Road

Most (84 percent) of Alaska regional residents who snowmachined as their primary activity on their most recent outing in the Study Area reported traveling more than one-half mile from a trailhead or main road.

3.5.3.2.1. Mode of Travel

Among Alaska regional resident users who snowmachined as their primary activity on their most recent outing in the Study Area, most (88 percent) used their snowmachines when they traveled more than one-half mile from a trailhead or main road in the Study Area. Twenty percent of these users walked or hiked, 15 percent used an ORV/ATV, 6 percent skied, and 6 percent used an airplane (Table A3.5-5). Some respondents used more than one mode of transportation.

Table A3.5-5. Snowmachining as Primary Activity, Transportation Mode, Travel More than One-Half Mile from a Trailhead or Main Road, Most Recent Outing, Alaska Regional Residents, Percent

Mode of Transportation	Alaska Regional Resident Snowmachiners Who Traveled More Than One-Half Mile into the Study Area (n=45)
Hike	20%
Snowmachine	88%
Ski	6%

Mode of Transportation	Alaska Regional Resident Snowmachiners Who Traveled More Than One-Half Mile into the Study Area (n=45)
ORV/ATV	15%
Motorized boat	1%
Non-motorized boat	-
Snowshoe	-
Airplane	6%
Other*	4%

Base: Those whose primary activity was snowmachining during most recent outing in the Study Area.

* "Other" included truck.

Note: Multiple responses accepted; column will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

3.5.3.2.2. Type of Trail Used

Over three-quarters (79 percent) of snowmachiners used both established trails and off-trail routes when they traveled more than one-half mile from a trailhead or main road; 17 percent used established trails only.

One quarter (26 percent) camped in the Study Area more than one-half mile from a trailhead or main road.

3.5.3.3. Use of Guides

One percent of Alaska regional resident users whose primary activity was snowmachining used the services of a guide for a portion of their most recent outing in the Study Area.

3.5.3.4. Overnights and Lodging in Study Area

Sixty percent of Alaska regional resident users whose primary activity was snowmachining spent at least one night in the Study Area (other than at their primary residence if they lived in the Study Area). These users spent an average of 4.7 nights in the Study Area (Table A3.5-6).

Table A3.5-6. Snowmachining as Primary Activity, Number of Overnights Spent in Study Area, Alaska Regional Residents, Number of Overnights and Percent

Number of Nights in Study Area	Overnighting Alaska Regional Resident Snowmachiners (n=35)
1 night	12%

Number of Nights in Study Area	Overnighting Alaska Regional Resident Snowmachiners (n=35)
2 to 7 nights	76%
8 to 14 nights	10%
15+ nights	3%
Average number of nights	4.7 nights
Median number of nights	3.0 nights

Base: Those whose primary activity was snowmachining during most recent outing in the Study Area and overnighted in the Study Area.
Note: Due to rounding, column may not total 100 percent.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

Among Alaska regional residents whose primary activity was snowmachining, 43 percent overnighted in the Talkeetna Area Sub-Area, and 26 percent overnighted in the West Denali Highway Sub-Area. Twenty-two percent overnighted in the Lake Louise Area Sub-Area, 16 percent in the East Denali Highway Sub-Area, and 12 percent in the Parks Highway Sub-Area. None of this user group overnighted in Remote North or Remote South Sub-Areas (Table A3.5-7).

Table A3.5-7. Snowmachining as Primary Activity, Location of Overnights Spent in Study Area, Alaska Regional Residents, by Sub-Area, Percent

Study Area Sub-Area	Percent of Overnighting Alaska Regional Resident Snowmachining (n=35)
Talkeetna Area	43%
Parks Highway	12%
West Denali Highway	26%
East Denali Highway	16%
Lake Louise Area	22%
Remote South	-
Remote North	-

Base: Those whose primary activity was snowmachining during most recent outing in the Study Area and overnighted in the Study Area.
Note: Multiple responses accepted; column will not add to 100 percent.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

Alaska regional resident whose primary activity was snowmachining overnighted in the Study Area in a variety of lodging types. Thirty-one percent camped remotely, while 19 percent roadside camped, and 14 percent stayed in an established campground. Thirty-six percent stayed in a hotel/motel/B&B/lodge, and 16 percent in a private home (Table A3.5-8).

Table A3.5-8. Snowmachining as Primary Activity, Type of Lodging Used in Study Area, Alaska Regional Residents, Percent

Type of Lodging Used	Percent of Overnighting Alaska Regional Resident Snowmachiners (n=35)
Hotel/motel/B&B/lodge	36%
Established campground	14%
Remote camping	31%
Private home	16%
Undeveloped/roadside camping	19%

Base: Those whose primary activity was snowmachining during most recent outing in the Study Area and overnighted in the Study Area.
Note: Multiple responses accepted; column will not add to 100 percent.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

3.5.3.5. Frequency of Snowmachining Trips to Study Area

About three-quarters (76 percent) of Alaska regional residents who snowmachined as a primary activity had been to the Study Area previously to snowmachine, while an additional 11 percent lived in the area and snowmachine. Fifty percent of this user group first visited the Study Area to snowmachine between 2001 and 2010. Twenty-one percent first visited prior to 1991, 24 percent between 1991 and 2000, and 5 percent between 2011 and 2013.

Over half (56 percent) of Alaska regional resident snowmachiners generally snowmachine between 2 and 10 times per year, while 31 percent snowmachine in the Study Area more than 10 times per year, and 9 percent participate once every year. Only 4 percent of these users report using the area once every few years or less often (Tables A3.5-9 to A3.5-11).

Table A3.5-9. Snowmachining as Primary Activity, Previous Trip to Study Area for Snowmachining as Primary Activity, Alaska Regional Residents, Percent

Traveled to Study Area for Same Primary Activity	Percent of Alaska Regional Resident Snowmachiners (n=58)
Yes	76%
No	13%
Live in Study Area	11%

Base: Those whose primary activity was snowmachining during most recent outing in the Study Area.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

Table A3.5-10. Snowmachining as Primary Activity, Year of First Trip to Study Area for Snowmachining as Primary Activity, Alaska Regional Residents, Percent

Period of First Trip	Percent of Alaska Regional Resident Repeat Snowmachiners (n=46)
Before 1991	21%
1991 to 2000	24%
2001 to 2010	50%
2011 to 2013	5%

Base: Those whose primary activity was snowmachining during most recent outing in the Study Area and had previously snowmachined in the Study Area.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

Table A3.5-11. Snowmachining as Primary Activity, Frequency of Trips to Study Area for Snowmachining as Primary Activity, Alaska Regional Residents, Percent

Frequency of Trips	Percent of Alaska Regional Resident Repeat Snowmachiners (n=49)
More than 10 times per year	31%
2 to 10 times per year	56%
Once a year	9%
Once every few years	2%
Less often	2%

Base: Those whose primary activity was snowmachining during most recent outing in the Study Area.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

3.5.3.6. Other Activities on Most Recent Trip

Some Alaska regional resident users who snowmachined as their primary activity on their most recent outing in the Study Area also participated in a number of other recreational activities. Less than 10 percent of these users participated in any of the activities presented in the survey (aside from snowmachining). Nine percent reported wildlife viewing and another 9 percent reported riding ATVs, among other activities (Table A3.5-12).

Table A3.5-12. Snowmachining as Primary Activity, Participation in Other Recreational Activities, Alaska Regional Residents, Percent

Activity	Percent of Alaska Regional Resident Snowmachiners (n=58)

Activity	Percent of Alaska Regional Resident Snowmachiners (n=58)
Roadside camping	7%
Remote camping	6%
Wildlife viewing	9%
Bird watching	2%
Walking/running	3%
Hiking/backpacking	5%
Hunting	2%
Fishing for salmon	3%
Fishing for non-salmon species	7%
Collecting berries/mushrooms	2%
Riding ATVs	9%
Snowmachining	100%
Riding the Alaska Railroad	-
Bicycling	1%
Non-motorized boating (rafting, kayaking, canoeing, or pack-rafting)	3%
Motorized boating (jet, prop, or air)	-
Flightseeing	5%
Skiing	5%
Snowshoeing	3%
Dog sledding	-
Other*	3%

Base: Those whose primary activity was snowmachining during most recent outing in the Study Area and participated in other recreational activities.

* "Other" included diving and photography.

Note: Multiple responses accepted; column will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

3.5.3.7. Party and Group Size and Characteristics

The average party size, individuals traveling together and sharing expenses, among Alaska regional resident users whose primary activity was snowmachining was 4.5 people, with a median party size of 3.0. The party size for these users included an overall average of 0.4 person under age 18 and 1.8 persons who lived in the same household. No one in these users reported having a member with a disability or special need related to outdoor recreation in their party. The average group size, individuals traveling together, but not necessarily sharing expenses, was 6.0 persons.

3.5.3.8. Perceived Infrastructure Needs

On a scale of 1 to 5, with 1 being "a lot less" and 5 being "a lot more," Alaska regional resident users whose primary activity was snowmachining on their most recent trip in the Study Area, rated the need for designated trails for ORVs most highly, with an average of 3.7. One quarter (25 percent) of snowmachiners reported the need for "a lot more" designated trails for ORVs, while 32 percent perceived the need for "a little more" (Table A3.5-13).

Table A3.5-13. Snowmachining as Primary Activity, Perceived Facility, Infrastructure, and Information Needs, Alaska Regional Residents, Percent

Potential Need (n=58)	Average (1–5)	A Lot More (5)	A Little More (4)	Same (3)	A Little Less (2)	A Lot Less (1)
Maintained roads	3.5	13%	31%	49%	3%	4%
Designated parking areas	3.5	13%	39%	41%	2%	5%
Road-side toilets	3.5	11%	43%	40%	-	6%
RV accessible sites at campgrounds	3.1	10%	15%	61%	3%	11%
Trail maps	3.5	15%	31%	47%	1%	6%
Designated trails for non-motorized use	3.0	2%	21%	61%	8%	8%
Designated trails for ORV	3.7	25%	32%	38%	1%	5%
Directional road signs	3.3	10%	19%	66%	-	6%
Visitor information	3.0	2%	20%	67%	-	11%

Potential Need (n=58)	Average (1–5)	A Lot More (5)	A Little More (4)	Same (3)	A Little Less (2)	A Lot Less (1)
Visitor centers	2.7	-	9%	69%	6%	16%
Public use cabins	3.5	14%	44%	33%	-	10%
Boat launches	3.1	1%	25%	63%	2%	8%
Facilities for the disabled	3.1	4%	20%	69%	2%	6%

Base: Those whose primary activity was snowmachining during most recent outing in the Study Area.
Note: Due to rounding, some rows may not total 100 percent.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

3.5.3.9. Perceptions of Detracted Experience

Most Alaska regional resident users (92 percent) whose primary activity was snowmachining did not feel crowded during their most recent outing in the Study Area, while none felt very crowded (Table A3.5-14).

Table A3.5-14. Snowmachining as Primary Activity, Perceived Crowding, Alaska Regional Residents, Percent

Perceived Crowding	Percent of Alaska Regional Resident Snowmachiners (n=58)
Very crowded	-
Somewhat crowded	8%
Not crowded	92%

Base: Those whose primary activity was snowmachining during most recent outing in the Study Area.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

None of the Alaska regional resident Study Area users who snowmachined as their primary activity on their most recent outing experienced conflict with other individuals or groups that negatively impacted their recreation experience in the Study Area.

Three-quarters (76 percent) of regional resident snowmachiners did not see any signs of infrastructure or human activity that detracted from the scenic quality within the Study Area. Some users did experience scenic detractors, including 11 percent who noted trash and 10 percent who noted communications towers.

Most regional resident snowmachiners (89 percent) also reported there were no noises that detracted from their enjoyment of the Study Area.

3.5.3.10. Demographic Profile of Survey Respondent

The average age of Alaska regional resident users whose primary activity was snowmachining was 45.6 years (median of 46.0 years), slightly younger than all regional resident users (average of 47.2 years, median of 47 years). Seniors (aged 65 and over) accounted for 9 percent of the regional resident snowmachiners, less than the proportion of seniors in all regional resident users (12 percent).

Most (72 percent) of Alaska regional residents whose primary activity was snowmachining were male. In comparison, males accounted for 52 percent of all Alaska regional resident users. Seventy percent of snowmachiners were married, compared to 60 percent of all regional resident users.

The average household income among Alaska regional resident users whose primary activity was snowmachining was $96,000, with a median household income of $88,000. This compares to an average of $83,000 and a median of $63,000 for all regional resident users. Forty-four percent of these snowmachiners had completed a bachelor's degree or higher, 37 percent completed some college with no degree or an associate's degree, and 16 percent completed a high school degree/GED.

The average household size for Alaska regional resident users whose primary activity was snowmachining was 2.8, slightly above the average household size for all regional resident users (2.7). Thirty percent of regional resident snowmachiners lived in a household with children under age 18 (Table A3.5-15).

Table A3.5-15. Snowmachining as Primary Activity, Demographic Profile of Survey Respondents, Alaska Regional Residents

Demographic Factor	Alaska Regional Resident Snowmachiners (n=58)
Average age	45.6
Age 65 and over (percent)	9%
Female/male (percent)	28% / 72%
Married (percent)	70%
Average household size	2.8
Households with children under age 18 (percent)	30%
Average household income	$96,000
Median household income	$88,000
Racial characteristics*	

Demographic Factor	Alaska Regional Resident Snowmachiners (n=58)
White (percent)	91%
Alaska Native/American Indian (percent)	7%
All other (percent)	2%
Education (percent)	
Less than 9th grade	-
9th to 12th grade, no diploma	3%
High school graduate/GED	16%
Some college, no degree	32%
Associate's degree	5%
Bachelor's degree	36%
Graduate or professional degree	8%

Base: Those whose primary activity was snowmachining during most recent outing in the Study Area.

*Survey respondents could note more than one race if applicable.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

Less than half (40 percent) of Alaska regional residents whose primary activity was snowmachining lived in the MSB, followed by the Municipality of Anchorage (39 percent) (Table A3.5-16).

Table A3.5-16. Snowmachining as Primary Activity, Alaska Residency, Alaska Regional Residents, Percent

Region of Alaska Residence	Percent of Alaska Regional Resident Snowmachiners (n=57)
Municipality of Anchorage	39%
MSB	40%
Denali Borough	<1%
Fairbanks North Star Borough	18%

Region of Alaska Residence	Percent of Alaska Regional Resident Snowmachiners (n=57)
Valdez-Cordova/Southeast Fairbanks Census Area	<1%

Base: Those whose primary activity was snowmachining during most recent outing in the Study Area.

Note: Due to rounding, column may not total 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

3.6. Wildlife Viewing, Including Bird Watching

Given the spectacular vistas, scenic turnouts, and wildlife viewing potential offered along the Denali Highway, Parks Highway, Alaska Railroad, regional flightseeing tours, and Susitna River tours, it is assumed that most (if not all) travelers, including visitors and residents, are engaged in some level of sightseeing and wildlife viewing while in the Study Area.

3.6.1. Recreation Intercept Survey and Regional Resident Household Mail Survey Data

The Susitna-Watana Recreation Intercept Survey sample contained 445 Study Area users (73 percent Alaska residents and 27 percent non-Alaska residents) who participated in wildlife viewing, including 34 users (18 Alaska residents and 16 non-Alaska residents) whose primary activity on their most recent outing to the Study Area was wildlife viewing.

The Regional Resident Household Mail Survey sample contained 561 Alaska regional resident users who participated in wildlife viewing (including bird watching) in the Study Area, including 123 users whose primary activity on their most recent outing to the Study Area was wildlife viewing.

3.6.2. Total Estimated Participation

An estimated 129,300 users participated in wildlife viewing, including bird watching, in the Study Area, representing about 9.9 percent of all recreation users (Section 5.1.2, 2014 Year-End Report). These users spent an estimated 639,200 recreational user-days wildlife viewing (partial and full days), representing approximately 12.9 percent of all user-days in the Study Area (Table A3.6-1).

Table A3.6-1. Estimates of Wildlife Viewing Activity: All Study Area Users

Total annual participation in wildlife viewing (number of users participating)	129,300
Percentage of total recreation participation (% of users participating)*	9.9%
Total annual number of wildlife viewing user-days**	639,200
Percentage of total Study Area user-days (all activities)	12.9%

*Wildlife viewing (and bird watching) as a percentage of all Study Area participation in recreation activities.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

3.6.2.1. Volume of Recreation Activity: Alaska Regional Residents

An estimated 53,700 Alaska regional residents viewed wildlife (including bird watching) in the Study Area, representing about 45 percent of resident users who recreated in the Study Area (Section 5.1.2, 2014 Year-End Report). These resident users spent 488,700 user-days wildlife viewing, representing 16.1 percent of all Study Area resident recreation activity (Table A3.6-2).

Table A3.6-2. Estimates of Wildlife Viewing Activity: Alaska Regional Resident Users

Total annual number of regional resident users participating in wildlife viewing	53,700
Percentage of users participating in wildlife viewing in Study Area*	45%
Total annual number of wildlife viewing user-days (regional residents only)**	488,700
Percentage of total Study Area user-days (all activities, regional residents only)	16.1%

*Percentage of Alaska regional residents recreating in the Study Area that participated in wildlife viewing and bird watching.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

3.6.2.2. Volume of Recreation Activity: Non-Alaska Residents

An estimated 75,600 non-Alaska residents viewed wildlife (including bird watching) in the Study Area, representing about 29 percent of nonresident users who recreated in the Study Area (Section 5.1.2, 2014 Year-End Report). These nonresident users spent 150,500 user-days wildlife viewing, representing 10.5 percent of all nonresident recreation activity (Table A3.6-3).

Table A3.6-3. Estimates of Wildlife Viewing Activity: Non-Alaska Resident Users

Total annual number of non-Alaska resident users participating in wildlife viewing	75,600
Percentage of non-Alaska resident users participating in wildlife viewing*	29%
Total annual number of wildlife viewing user-days (non-Alaska residents only)**	150,500
Percentage of total Study Area user-days (all activities, non-Alaska residents only)	10.5%

*Percentage of non-Alaska residents recreating in the Study Area that participated in wildlife viewing and bird watching.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

3.6.3. Wildlife Viewing (Including Bird Watching) Primary Activity Profile

The following profile includes Alaska regional residents who participated in wildlife viewing, including bird watching, as their primary activity during their most recent visit to the Study Area,

based on survey results from the Regional Resident Household Mail Survey (Appendix D). Due to the relatively small survey sample size (16 non-Alaska resident respondents), a profile of non-resident users is not presented.

3.6.3.1. Location of Wildlife Viewing Primary Activity

Among Alaska regional residents, 56 percent viewed wildlife viewing (including bird watching) as a primary activity during their most recent outing in the Study Area in the Parks Highway Sub-Area, with 32 percent of the activity occurring in the West Denali Highway Sub-Area, and 23 percent in the Talkeetna Area Sub-Area (Table A3.6-4).

Table A3.6-4. Wildlife Viewing (Including Bird Watching) as Primary Activity, Alaska Regional Residents, Area of Primary Activity, By Sub-Area, Percent

Study Area Sub-Area	Percent of Alaska Regional Resident Wildlife Viewers (n=120)
Talkeetna Area	23%
Parks Highway	56%
West Denali Highway	32%
East Denali Highway	16%
Lake Louise Area	5%
Remote South	3%
Remote North	12%

Base: Those whose primary activity was wildlife viewing (including bird watching) during most recent outing in the Study Area.

Note: Multiple responses accepted; column will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

3.6.3.2. Travel More than One-Half Mile from Trailhead or Main Road

Over one-third (37 percent) of Alaska regional resident who viewed wildlife as their primary activity on their most recent outing in the Study Area reported traveling more than one-half mile from a trailhead or main road.

3.6.3.2.1. Mode of Travel

Among Alaska regional residents who viewed wildlife as their primary activity on their most recent outing in the Study Area, almost all (93 percent) walked or hiked when they traveled more than one-half mile from a trailhead or main road into the area. A smaller proportion of these users utilized a snowmachine (7 percent), skied (7 percent), or used an ORV or ATV (6 percent) while wildlife viewing (Table A3.6-5). Some respondents used more than one mode of transportation.

Table A3.6-5. Wildlife Viewing (Including Bird Watching) as Primary Activity, Transportation Mode, Travel More than One-Half Mile from a Trailhead or Main Road, Alaska Regional Residents, Percent

Mode of Transportation	Percent of Alaska Regional Resident Wildlife Viewers Traveling More than One-Half Mile into the Study Area (n=43)
Hike	93%
Snowmachine	7%
Ski	7%
ORV/ATV	6%
Motorized boat	4%
Non-motorized boat	1%
Snowshoe	3%
Airplane	2%
Other*	5%

Base: Those whose primary activity was wildlife viewing (including bird watching) during most recent outing in the Study Area.

* "Other" included bicycle.

Note: Multiple responses accepted; column will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

3.6.3.2.2. Type of Trail Used

Just over half (54 percent) of wildlife viewers used both established trails and off-trail routes when they traveled more than one-half mile from a trailhead or main road; 46 percent used established trails only. Only 10 percent camped in the Study Area more than one-half mile from a trailhead or main road.

3.6.3.3. Use of Guides

Two percent of Alaska regional resident users whose primary activity was wildlife viewing used the services of a guide for a portion of their most recent outing in the Study Area.

3.6.3.4. Overnights and Lodging in Study Area

Slightly less than half (46 percent) of Alaska regional resident users who viewed wildlife as their primary activity spent at least one night on their most recent outing in the Study Area. These users spent an average of 2.8 nights in the Study Area (Table A3.6-6).

Table A3.6-6. Wildlife Viewing (Including Bird Watching) as Primary Activity, Number of Overnights Spent in Study Area, Alaska Regional Residents, Number of Overnights and Percent

Number of Nights in Study Area	Overnighting Alaska Regional Resident Wildlife Viewers (n=57)
1 night	38%
2 to 7 nights	56%
8 to 14 nights	6%
15+ nights	-
Average number of nights	2.8 nights
Median number of nights	2.0 nights

Base: Those whose primary activity was wildlife viewing (including bird watching) during most recent outing in the Study Area and overnighted in the Study Area.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

Alaska regional resident wildlife viewers who overnighted in the Study Area most often (52 percent) overnighted in the Talkeetna Area Sub-Area. Just under a quarter (24 percent) overnighted somewhere along the Parks Highway Sub-Area (Table A3.6-7).

Table A3.6-7. Wildlife Viewing (Including Bird Watching) as Primary Activity, Location of Overnights in Study Area, Alaska Regional Resident, By Sub-Area, Percent

Study Area Sub-Area	Percent of Overnighting Alaska Regional Resident Wildlife Viewers (n=53)
Talkeetna Area	52%
Parks Highway	24%
West Denali Highway	20%
East Denali Highway	16%
Lake Louise Area	11%
Remote South	2%
Remote North	5%

Base: Those whose primary activity was wildlife viewing (including bird watching) during most recent outing in the Study Area and overnighted in the Study Area.

Note: Multiple responses accepted; column will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

The majority (55 percent) of Alaska regional resident wildlife viewers who overnighted in the Study Area stayed in a hotel/motel/B&B/lodge, followed by 18 percent that remote camped during their most recent outing in the Study Area (Table A3.6-8).

Table A3.6-8. Wildlife Viewing (Including Bird Watching) as Primary Activity, Type of Lodging Used in Study Area, Alaska Regional Residents, Percent

Type of Lodging Used	Percent of Overnighting Alaska Regional Resident Wildlife Viewers (n=57)
Hotel/motel/B&B/lodge	55%
Established campground	13%
Remote camping	18%
Private home	4%
Undeveloped/roadside camping	12%

Base: Those whose primary activity was wildlife viewing (including bird watching) and overnighted in the Study Area.

Note: Multiple responses accepted; column will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

3.6.3.5. Frequency of Wildlife Viewing Trips to Study Area

The majority (82 percent) of Alaska regional resident users whose primary activity was wildlife viewing had been to the Study Area previously to view wildlife. Half (49 percent) of these regional resident users had first been to the study for wildlife viewing prior to 1991. Forty-one percent of Alaska regional resident wildlife viewers in the Study Area generally wildlife view between 2 and 10 times per year in the Study Area (Tables A3.6-9 to A3.6-11).

Table A3.6-9. Wildlife Viewing (Including Bird Watching) as Primary Activity, Previous Trip to Study Area for Wildlife Viewing (Including Bird Watching) as Primary Activity, Alaska Regional Residents, Percent

Traveled to Study Area for Same Primary Activity	Percent of Alaska Regional Resident Wildlife Viewers (n=122)
Yes	82%
No	12%
Live in Study Area	6%

Base: Those whose primary activity was wildlife viewing (including bird watching) during most recent outing in the Study Area.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

Table A3.6-10. Wildlife Viewing (Including Bird Watching) as Primary Activity, Year of First Trip to Study Area for Wildlife Viewing (Including Bird Watching) as Primary Activity, Alaska Regional Residents, Percent

Period of First Trip	Percent of Alaska Regional Resident Repeat Wildlife Viewers (n=107)
Before 1991	49%
1991 to 2000	19%
2001 to 2010	20%
2011 to 2013	12%

Base: Those whose primary activity was wildlife viewing (including bird watching) during most recent outing in the Study Area and had previously viewed wildlife in the Study Area.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

Table A3.6-11. Wildlife Viewing (Including Bird Watching) as Primary Activity, Frequency of Trips to Study Area for Wildlife Viewing (Including Bird Watching) as Primary Activity, Alaska Regional Residents, Percent

Frequency of Trips to Study Area	Percent of Alaska Regional Resident Repeat Wildlife Viewers (n=110)
More than 10 times per year	13%
2 to 10 times per year	41%
Once a year	13%
Once every few years	28%
Less often	5%

Base: Those whose primary activity was wildlife viewing (including bird watching) during most recent outing in the Study Area and had previously viewed wildlife in the Study Area.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

3.6.3.6. Other Activities on Most Recent Trip

Some Alaska regional resident users who viewed wildlife (including bird watching) as their primary activity on their most recent outing in the Study Area also participated in a number of other recreational activities. Twenty-nine percent walked or ran, followed by 19 percent who hiked/backpacked on their most recent outing in the Study Area, among other activities (Table A3.6-12).

Table A3.6-12. Wildlife Viewing (Including Bird Watching) as Primary Activity, Participation in Other Recreational Activities, Alaska Regional Residents, Percent

Activity	Percent of Alaska Regional Resident Wildlife Viewers (n=123)
Roadside camping	7%
Remote camping	5%
Wildlife viewing	97%
Bird watching	24%
Walking/running	29%
Hiking/backpacking	19%
Hunting	2%
Fishing for salmon	1%
Fishing for non-salmon species	1%
Collecting berries/mushrooms	7%
Riding ATVs	2%
Snowmachining	-
Riding the Alaska Railroad	7%
Bicycling	1%
Non-motorized boating (rafting, kayaking, canoeing, or pack-rafting)	1%
Motorized boating (jet, prop, or air)	3%
Flightseeing	2%
Skiing	1%
Snowshoeing	2%
Dog sledding	-

Activity	Percent of Alaska Regional Resident Wildlife Viewers (n=123)
Other*	4%

Base: Those whose primary activity was wildlife viewing (including bird watching) during most recent outing in the Study Area and participated in other recreational activities.

* "Other" included photography, rock hounding, botanizing, gold panning, and geocaching.

Note: Multiple responses accepted; column will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

3.6.3.7. Party and Group Size and Characteristics

The average party size, individuals traveling together and sharing expenses, among Alaska regional resident users whose primary activity was wildlife viewing was 3.0 persons, with a median party size of 2.0. The average size included 0.4 person under age 18, and 2.2 persons who lived in the same household. Nine percent of parties included a member with a disability or special need related to outdoor recreation. The average group size, individuals traveling together, but not necessarily sharing expenses, was 3.6 persons.

3.6.3.8. Perceived Infrastructure Needs

On a scale of 1 to 5, with 1 being "a lot less" and 5 being "a lot more," Alaska regional resident users whose primary activity was viewing wildlife (including bird watching) on their most recent trip in the Study Area, rated the need for designated trails for non-motorized use, public use cabins, and roadside toilets each with an average of 3.8. Almost one-quarter (24 percent) of wildlife viewers reported the need for "a lot more" designated trails for non-motorized use, followed by 21 percent perceived the "a lot more" need for public use cabins (Table A3.6-13).

Table A3.6-13. Wildlife Viewing (Including Bird Watching) as Primary Activity, Perceived Facility, Infrastructure, and Information Needs, Alaska Regional Residents, Percent

Potential Need (n=123)	Average (1–5)	A Lot More (5)	A Little More (4)	Same (3)	A Little Less (2)	A Lot Less (1)
Maintained roads	3.5	13%	26%	59%	2%	1%
Designated parking areas	3.6	11%	42%	46%	1%	-
Road-side toilets	3.8	18%	47%	34%	-	-
RV accessible sites at campgrounds	3.1	4%	19%	60%	11%	6%
Trail maps	3.7	14%	42%	42%	<1%	2%
Designated trails for non-motorized use	3.8	24%	41%	30%	1%	3%
Designated trails for ORV	2.9	5%	16%	55%	13%	10%

Potential Need (n=123)	Average (1–5)	A Lot More (5)	A Little More (4)	Same (3)	A Little Less (2)	A Lot Less (1)
Directional road signs	3.4	11%	17%	71%	1%	1%
Visitor information	3.5	9%	35%	51%	3%	1%
Visitor centers	3.3	8%	25%	62%	4%	1%
Public use cabins	3.8	21%	40%	38%	<1%	1%
Boat launches	3.3	7%	20%	68%	3%	2%
Facilities for the disabled	3.6	14%	35%	49%	1%	1%

Base: Those whose primary activity was wildlife viewing (including bird watching) during most recent outing in the Study Area.

Note: Due to rounding, some rows may not total 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

3.6.3.9. Perceptions of Detracted Experience

Most (84 percent) Alaska regional resident users whose primary activity was wildlife viewing did not feel crowded during their most recent outing in the Study Area (Table A3.6-14). Among those that felt somewhat crowded, most (65 percent) felt that way in the Talkeetna Area Sub-Area, while 17 percent felt that way in the Parks Highway Sub-Area and 12 percent in the West Denali Highway Sub-Area.

Table A3.6-14. Wildlife Viewing (Including Bird Watching) as Primary Activity, Perceived Crowding, Alaska Regional Residents, Percent

Perceived Crowding	Percent of Alaska Regional Resident Wildlife Viewers (n=120)
Very crowded	-
Somewhat crowded	16%
Not crowded	84%

Base: Those whose primary activity was wildlife viewing (including bird watching) during most recent outing in the Study Area.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

Virtually all (98 percent) of Alaska regional resident users whose primary activity was wildlife viewing on their most recent outing experienced no conflict with any other individuals or groups that negatively impacted their recreation experience in the Study Area.

Half (50 percent) of Alaska regional resident wildlife viewers did not see any signs of infrastructure or human activity that detracted from the scenic quality within the Study Area. Over one-quarter (29 percent) noted trash that detracted from the scenic quality. Other Alaska

regional resident wildlife viewers noted power lines (15 percent), vehicles (14 percent), communications towers (9 percent), trails (9 percent), and other people (8 percent) as detractors form their recreation experience.

Almost two-thirds (63 percent) of Alaska regional resident wildlife viewers reported there were no noises that detracted from their enjoyment of the Study Area. However, 12 percent of Alaska regional resident wildlife viewers reported that noises from other people detracted from their enjoyment, as did noise from cars/trucks/RVs (9 percent), ORVs/ATVs (8 percent), heavy equipment (7 percent), and helicopters (7 percent).

3.6.3.10. Demographic Profile of Survey Respondent

The average age of Alaska regional resident users whose primary activity was wildlife viewing was 51.7 years (a median of 55 years), slightly older than all regional resident users (average of 47.2 years, median of 47 years). Seniors (aged 65 and over) accounted for 18 percent of these users whose primary activity was wildlife viewing, compared to 12 percent of all regional resident users.

Females accounted for 57 percent of regional resident users whose primary activity was wildlife viewing. In comparison, females accounted for 52 percent of all regional resident users.

Married users accounted for 60 percent of the regional resident users whose primary activity was wildlife viewing (the same percentage as all regional resident users).

The average household income among regional resident users whose primary activity was wildlife viewing was $90,000, with a median household income of $63,000. This compared to an average of $83,000 and a median of $63,000 for all regional resident users (Table A3.6-15).

Table A3.6-15. Wildlife Viewing (Including Bird Watching) as Primary Activity, Demographic Profile of Survey Respondents, Alaska Regional Residents

Demographic Factor	Alaska Regional Resident Wildlife Viewers (n=123)
Average age	51.7
Age 65 and over (percent)	18%
Female/male (percent)	57% / 43%
Married (percent)	60%
Average household size	2.5
Households with children under age 18 (percent)	31%
Average household income	$90,000

Demographic Factor	Alaska Regional Resident Wildlife Viewers (n=123)
Median household income	$63,000
Racial characteristics*	
White (percent)	90%
Alaska Native/American Indian (percent)	7%
All other (percent)	10%
Education (percent)	
Less than 9th grade	-
9th to 12th grade, no diploma	2%
High school graduate/GED	8%
Some college, no degree	24%
Associate's degree	8%
Bachelor's degree	34%
Graduate or professional degree	24%

Base: Those whose primary activity was wildlife viewing (including bird watching) during most recent outing in the Study Area.

*Survey respondents could note more than one race if applicable.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

The majority (58 percent) of Alaska regional residents whose primary activity was wildlife viewing lived in the Municipality of Anchorage, followed by the Fairbanks North Star Borough (23 percent) (Table A3.6-16).

Table A3.6-16. Wildlife Viewing (Including Bird Watching) as Primary Activity, Alaska Residency, Alaska Regional Residents, Percent

Region of Alaska Residence	Percent of Alaska Regional Resident Wildlife Viewers (n=110)
Municipality of Anchorage	58%
MSB	16%
Denali Borough	<1%

Region of Alaska Residence	Percent of Alaska Regional Resident Wildlife Viewers (n=110)
Fairbanks North Star Borough	23%
Valdez-Cordova/Southeast Fairbanks Census Area	2%

Base: Those whose primary activity was wildlife viewing (including bird watching) during most recent outing in the Study Area.

Note: Due to rounding, column may not total 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

3.7. Riding the Alaska Railroad

3.7.1. Recreation Intercept Survey and Regional Resident Household Mail Survey Data

The Susitna-Watana Recreation Intercept Survey sample contained 214 users (31 percent Alaska residents and 69 percent non-Alaska residents) who rode the Alaska Railroad in the Study Area. Of these users, 70 (31 Alaska residents and 39 non-Alaska residents) rode the Alaska Railroad as their primary activity on their most recent outing.

The Regional Resident Household Mail Survey sample contained 131 Alaska regional resident users who rode the Alaska Railroad in the Study Area, including 39 users whose primary activity on their most recent outing to the Study Area was riding the Alaska Railroad.

3.7.2. Total Estimated Participation

An estimated 157,200 users rode the Alaska Railroad in the Study Area, representing about 12.1 percent of all recreation users (Section 5.1.2, 2014 Year-End Report). These users spent an estimated 220,700 recreational user-days riding the Alaska Railroad (partial and full days), representing approximately 4.5 percent of all user-days in the Study Area (Table A3.7-1).

Table A3.7-1. Estimates of Alaska Railroad Activity: All Study Area Users

Total annual participation in Alaska Railroad (number of users participating)	157,200
Percentage of total recreation participation (% of users participating)*	12.1%
Total annual number of Alaska Railroad user-days**	220,700
Percentage of total Study Area user-days (all activities)	4.5%

*Alaska Railroad participation as a percentage of all Study Area participation in recreation activities.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

3.7.2.1. Volume of Recreation Activity: Alaska Regional Residents

An estimated 11,900 Alaska regional residents rode the Alaska Railroad in the Study Area, representing about 11 percent of resident users who recreated in the Study Area (Section 5.1.2,

2014 Year-End Report). These regional resident users spent 33,400 user-days riding the Alaska Railroad, representing 1.1 percent of all regional resident recreation activity in the Study Area (Table A3.7-2).

Table A3.7-2. Estimates of Alaska Railroad Activity: Alaska Regional Resident Users

Total annual number of regional resident users riding the Alaska Railroad	11,900
Percentage of users riding the Alaska Railroad in Study Area*	11%
Total annual number of riding the Alaska Railroad user-days (regional residents only)**	33,400
Percentage of total Study Area user-days (all activities, regional residents only)	1.1%

*Percentage of Alaska regional residents recreating in the Study Area that rode the Alaska Railroad.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

3.7.2.2. Volume of Recreation Activity: Non-Alaska Residents

An estimated 145,300 non-Alaska residents rode the Alaska Railroad in the Study Area, representing about 56 percent of nonresident users who recreated in the Study Area (Section 5.1.2, 2014 Year-End Report). These nonresident users spent 187,300 user-days riding the Alaska Railroad, representing 13.1 percent of all nonresident recreation activity (Table A3.7-3).

Table A3.7-3. Estimates of Alaska Railroad Activity: Non-Alaska Resident Users

Total annual number of non-Alaska resident users riding the Alaska Railroad	145,300
Percentage of non-Alaska resident users riding the Alaska Railroad*	56%
Total annual number of Alaska Railroad rider user-days (non-Alaska residents only)**	187,300
Percentage of total Study Area user-days (all activities, non-Alaska residents only)	13.1%

*Percentage of non-Alaska residents recreating in the Study Area that rode the Alaska Railroad.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

3.7.3. Alaska Railroad Primary Activity Profile

The following profile includes Alaska regional residents who rode the Alaska Railroad as their primary activity during their most recent visit to the Study Area, based on survey results from the Regional Resident Household Mail Survey (Appendix D). Where sample sizes are adequate, information on non-Alaska resident participation is also included, based on nonresident survey results from the Susitna-Watana Recreation Intercept Survey (Appendix B).

3.7.3.1. Location of Alaska Railroad Primary Activity

Among Alaska regional residents who rode the Alaska Railroad as a primary activity during their most recent outing in the Study Area, 89 percent did so in the Parks Highway Sub-Area and 16 percent in the Talkeetna Area Sub-Area (Table A3.7-4).

Table A3.7-4. Riding the Alaska Railroad as Primary Activity, Most Recent Outing, Alaska Regional Residents, by Area of Primary Activity, Percent

Study Area Sub-Area	Percent of Alaska Regional Resident Railroad Riders (n=36)
Talkeetna Area	16%
Parks Highway	89%
West Denali Highway	-
East Denali Highway	-
Lake Louise Area	-
Remote South	-
Remote North	-

Base: Those whose primary activity was riding the Alaska Railroad during most recent outing in the Study Area.
Note: Multiple responses accepted; column will not add to 100 percent.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

3.7.3.2. Travel More than One-Half Mile from Trailhead or Main Road

Thirty percent of Alaska regional residents who rode the Alaska Railroad as their primary activity on their most recent outing in the Study Area reported traveling more than one-half mile from a trailhead or main road.

All nonresident Alaska Railroad riders traveled more than one-half mile from a trailhead or main road.

3.7.3.2.1. Mode of Travel

Among those Alaska regional residents who rode the Alaska Railroad as their primary activity on their most recent outing in the Study Area, almost all (93 percent) walked or hiked when they traveled more than one-half mile from a trailhead or main road into the area. Fourteen percent used a motorized watercraft. A smaller proportion of these users utilized skis, ORV/ATV, or an airplane as their mode of transportation while riding the Alaska Railroad (Table A3.7-5). Some respondents used more than one mode of transportation.

Table A3.7-5. Riding the Alaska Railroad as Primary Activity, Transportation Mode, Travel More than One-Half Mile from a Trailhead or Main Road, Most Recent Outing, Alaska Regional Residents, Percent

Mode of Transportation	Alaska Regional Resident Railroad Riders Who Traveled More Than One-Half Mile into the Study Area (n=12)
Hike	93%
Snowmachine	-
Ski	9%
ORV/ATV	4%
Motorized boat	14%
Non-motorized boat	-
Snowshoe	-
Airplane	9%
Other	26%

Base: Those whose primary activity was riding the Alaska Railroad during most recent outing in the Study Area.

Note: Multiple responses accepted; column will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

3.7.3.2.2. Type of Trail Used

Sixty-two percent of Alaska Railroad riders used both established trails and off-trail routes when they traveled more than one-half mile from a trailhead or main road; 39 percent used established trails only.

Over three quarters (77 percent) of those who rode the Alaska Railroad traveled more than one-half mile into the Study Area while in the Talkeetna Area Sub-Area, followed by the Parks Highway (61 percent) and West Denali Highway (23 percent) Sub-Areas.

3.7.3.3. Use of Guides

Three percent of Alaska regional resident users whose primary activity was riding the Alaska Railroad used the services of a guide for a portion of their most recent outing in the Study Area.

Nineteen percent of nonresidents whose primary activity was riding the Alaska Railroad used a guide for that activity.

3.7.3.4. Overnights and Lodging in Study Area

Alaska regional residents who rode the Alaska Railroad as their primary activity during their most recent outing spent an average of 2.4 nights in the Study Area.

Nonresidents whose primary activity was riding the Alaska Railroad spent an average of 3.0 nights in the Study Area (Table A3.7-6).

Table A3.7-6. Riding the Alaska Railroad as Primary Activity, Number of Overnights Spent in Study Area, Alaska Regional Residents and Non-Alaska Residents, Number of Overnights and Percent

Number of Nights in Study Area	Overnighting Alaska Regional Resident Railroad Riders (n=14)	Overnighting Nonresident Railroad Riders (n=35)
1 night	40%	57%
2 to 7 nights	60%	31%
8 to 14 nights	-	9%
15+ nights	-	3%
Average number of nights	2.4 nights	3.0 nights
Median number of nights	2.0 nights	1.0 nights

Base: Those whose primary activity was riding the Alaska Railroad during most recent outing in the Study Area and overnighted in the Study Area.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

Among Alaska regional residents whose primary activity was riding the Alaska Railroad, 44 percent overnighted in the Parks Highway Sub-Area and 56 percent in the Talkeetna Area Sub-Area.

Nonresident Alaska Railroad riders mostly overnighted in the Talkeetna Area Sub-Area (83 percent), with 17 percent overnighting in the Parks Highway Sub-Area, and 3 percent in the West Denali Highway Sub-Area (Table A3.7-7).

Table A3.7-7. Riding the Alaska Railroad as Primary Activity, Location of Overnights Spent in Study Area, Alaska Regional Residents and Non-Alaska Residents, By Sub-Area, Percent

Study Area Sub-Area	Percent of Overnighting Alaska Regional Resident Railroad Riders (n=13)	Percent of Overnighting Nonresident Railroad Riders (n=35)
Talkeetna Area	56%	83%
Parks Highway	44%	17%

Study Area Sub-Area	Percent of Overnighting Alaska Regional Resident Railroad Riders (n=13)	Percent of Overnighting Nonresident Railroad Riders (n=35)
West Denali Highway	-	3%
East Denali Highway	-	-
Lake Louise Area	-	-
Remote South	-	-
Remote North	-	-

Base: Those whose primary activity was riding the Alaska Railroad during most recent outing in the Study Area and overnighted in the Study Area.

Note: Multiple responses accepted; column will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

Among Alaska regional resident Alaska Railroad riders in the Study Area, 60 percent stayed in a hotel/motel/B&B/ lodge.

Among nonresidents who rode the Alaska Railroad as their primary activity during their most recent outing and stayed overnight in the Study Area, 79 percent stayed in a hotel/motel/B&B/ lodge at some point during their outing in the Study Area (Table A3.7-8).

Table A3.7-8. Riding the Alaska Railroad as Primary Activity, Type of Lodging Used in Study Area, Alaska Regional Residents and Non-Alaska Residents, Percent

Type of Lodging Used	Percent of Overnighting Alaska Regional Resident Railroad Riders (n=14)	Percent of Overnighting Nonresident Railroad Riders (n=39)
Hotel/motel/B&B/lodge	67%	89%
Roadside camping (Established or undeveloped campground)	25%	-
Remote camping	-	-
Private home	8%	11%

Base: Those whose primary activity was riding the Alaska Railroad during most recent outing in the Study Area and overnighted in the Study Area.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

3.7.3.5. Frequency of Alaska Railroad Trips to Study Area

Over half (57 percent) of Alaska regional resident users whose primary activity was riding the Alaska Railroad had been to the Study Area previously to ride the Alaska Railroad. None of

these users lived in the Study Area. Among those who had visited the Study Area previously to ride the Alaska Railroad, 40 percent first visited prior to 1991. Forty-one percent of this user group ride the Alaska Railroad once every few years in the Study Area, while 31 percent ride the Railroad once every year, and 19 percent ride two to ten times per year.

Only 18 percent of nonresident Alaska Railroad riders had previously been to the Study Area and rode the railroad (Tables A3.7-9 to A3.7-11).

Table A3.7-9. Riding the Alaska Railroad as Primary Activity, Previous Trip to Study Area for Riding the Alaska Railroad as Primary Activity, Alaska Regional Residents and Non-Alaska Residents, Percent

Traveled to Study Area for Same Primary Activity	Percent of Alaska Regional Resident Railroad Riders (n=38)	Percent of Nonresident Railroad Riders (n=39)
Yes	57%	18%
No	43%	82%

Base: Those whose primary activity was riding the Alaska Railroad.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

Table A3.7-10. Riding the Alaska Railroad as Primary Activity, Year of First Trip to Study Area for Riding the Alaska Railroad as Primary Activity, Alaska Regional Residents and Non-Alaska Residents, Percent

Period of First Trip	Percent of Alaska Regional Resident Repeat Railroad Riders (n=24)	Percent of Nonresident Repeat Railroad Riders (n=7)
Before 1991	40%	14%
1991 to 2000	7%	29%
2001 to 2010	27%	43%
2011 to 2013	27%	14%

Base: Those whose primary activity was riding the Alaska Railroad during most recent outing in the Study Area and had previously rode the railroad in the Study Area.

Note: Due to rounding, columns may not total 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

Table A3.7-11. Riding the Alaska Railroad as Primary Activity, Frequency of Trips to Study Area for Riding the Alaska Railroad as Primary Activity, Alaska Regional Residents and Non-Alaska Residents, Percent

Frequency of Trips	Percent of Alaska Regional Resident Repeat Railroad Riders (n=24)	Percent of Nonresident Repeat Railroad Riders (n=7)
More than 10 times per year	-	-
2 to 10 times per year	19%	-

Frequency of Trips	Percent of Alaska Regional Resident Repeat Railroad Riders (n=24)	Percent of Nonresident Repeat Railroad Riders (n=7)
Once a year	31%	14%
Once every few years	41%	57%
Less often	8%	29%

Base: Those whose primary activity was riding the Alaska Railroad during most recent outing in the Study Area and had previously rode the railroad in the Study Area.

Note: Due to rounding, columns may not total 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

3.7.3.6. Other Activities on Most Recent Trip

Alaska regional resident users who rode the Alaska Railroad as their primary activity on their most recent outing in the Study Area also participated in a number of other recreational activities, including 25 percent who walked/ran, and 21 percent who viewed wildlife, among other activities. Nonresident Alaska Railroad riders viewed wildlife (26 percent), walked/ran (23 percent), and went flightseeing (21 percent), among other activities (Table A3.7-12).

Table A3.7-12. Riding the Alaska Railroad as Primary Activity, Participation in Other Recreational Activities, Alaska Regional Residents and Non-Alaska Residents, Percent

Activity	Percent of Alaska Regional Resident Railroad Riders (n=39)	Percent of Nonresident Railroad Riders (n=39)
Remote camping	-	3%
Roadside camping	9%	-
Wildlife viewing	21%	26%
Bird watching	6%	8%
Walking/running	25%	23%
Hiking/backpacking	8%	5%
Hunting	-	-
Fishing for salmon	2%	-
Fishing for non-salmon species	-	-
Collecting berries/mushrooms	-	-

Activity	Percent of Alaska Regional Resident Railroad Riders (n=39)	Percent of Nonresident Railroad Riders (n=39)
Riding ATVs	2%	2%
Snowmachining	2%	3%
Riding the Alaska Railroad	100%	100%
Bicycling	7%	3%
Non-motorized boating (rafting, kayaking, canoeing, or pack-rafting)	-	13%
Motorized boating (jet, prop, or air)	5%	5%
Flightseeing	3%	21%
Skiing	-	-
Snowshoeing	-	-
Dog sledding	2%	3%
Other*	3%	5%

Base: Those whose primary activity was riding the Alaska Railroad during most recent outing in the Study Area and participated in other recreational activities.

* "Other" for regional residents included motorcycling, photography, and ice skating. "Other" for non-Alaska residents included ziplining.

Note: Multiple responses accepted; column will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

3.7.3.7. Party and Group Size and Characteristics

The average party size, individuals traveling together and sharing expenses, among Alaska regional resident users whose primary activity was riding the Alaska Railroad was 4.7, with a median party size of 3.0. The party size for these users included an average of 2.7 persons under age 18, and 2.0 people who lived in the same household. Nine percent of Alaska resident parties included a member with a disability or special need related to outdoor recreation. The average group size, individuals traveling together, but not necessarily sharing expenses, was 5.0 for Alaska regional resident Alaska Railroad riders.

The average party size for nonresident Alaska Railroad riders was 2.1, with a median party size of 2.0. Five percent of nonresidents reported a party member with a disability or special need. The average nonresident group size was 4.5 persons.

3.7.3.8. Perceived Infrastructure Needs

On a scale of 1 to 5, with 1 being "a lot less" and 5 being "a lot more," Alaska regional resident users whose primary activity was riding the Alaska Railroad on their most recent trip rated, on average, the need for roadside toilets and public use cabins as 3.5. These were the highest average ratings these users gave for any of the facility, infrastructure, and information needs presented in the Regional Resident Household Mail Survey (Table A3.7-13).

The highest average rating among nonresident Alaska Railroad riders was 3.8 for designated trails for non-motorized use for facility, infrastructure, and information needs presented in the Susitna-Watana Recreation Intercept Survey (Table A3.7-14).

Table A3.7-13. Riding the Alaska Railroad as Primary Activity, Perceived Facility, Infrastructure, and Information Needs, Alaska Regional Residents, Percent

Potential Need (n=39)	Average (1–5)	A Lot More (5)	A Little More (4)	Same (3)	A Little Less (2)	A Lot Less (1)
Maintained roads	3.2	3%	22%	69%	2%	3%
Designated parking areas	3.3	5%	27%	63%	2%	3%
Road-side toilets	3.5	18%	23%	54%	3%	3%
RV accessible sites at campgrounds	3.0	3%	19%	60%	10%	7%
Trail maps	3.4	14%	23%	61%	-	3%
Designated trails for non-motorized use	3.4	9%	31%	55%	-	5%
Designated trails for ORV	2.9	3%	17%	57%	10%	13%
Directional road signs	3.3	10%	15%	72%	-	3%
Visitor information	3.3	8%	23%	66%	-	3%
Visitor centers	3.2	11%	11%	72%	4%	3%
Public use cabins	3.5	16%	27%	54%	-	3%
Boat launches	3.0	6%	6%	81%	2%	5%
Facilities for the disabled	3.3	6%	26%	58%	10%	-

Base: Those whose primary activity was riding the Alaska Railroad during most recent outing in the Study Area.

Note: Due to rounding, some rows may not total 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

Table A23.7-14. Riding the Alaska Railroad as Primary Activity, Perceived Facility, Infrastructure, and Information Needs, Non-Alaska Residents, Percent

Potential Need (n=39)	Average (1-5)	A Lot More (5)	A Little More (4)	Same (3)	A Little Less (2)	A Lot Less (1)
Maintained roads	2.9	-	5%	44%	3%	5%
Designated parking areas	3.0	-	5%	41%	3%	3%
Road-side toilets	3.4	3%	18%	31%	3%	-
RV accessible sites at campgrounds	3.3	3%	8%	15%	-	3%
Trail maps	3.5	3%	23%	21%	3%	-
Designated trails for non-motorized use	3.8	8%	18%	15%	-	-
Designated trails for ORV	3.2	5%	8%	15%	-	5%
Directional road signs	3.2	3%	8%	46%	3%	-
Visitor information	3.0	-	5%	67%	3%	-
Visitor centers	3.0	-	3%	69%	3%	-
Public use cabins	3.6	5%	10%	21%	-	-
Boat launches	2.9	-	3%	23%	-	3%
Facilities for the disabled	3.3	3%	8%	18%	-	-

Base: Those whose primary activity was riding the Alaska Railroad during most recent outing in the Study Area.

Note: Rows will not add to 100 percent because responses of "Don't know" or refusal to answer are not included. These responses ranged from 26 percent to 72 percent of respondents depending on the facility or infrastructure needed.

Source: Susitna-Watana Recreation Intercept Survey.

3.7.3.9. Perceptions of Detracted Experience

Eighty-two percent of Alaska resident Study Area users whose primary activity was riding the Alaska Railroad did not feel crowded during their most recent outing in the Study Area. Among those who did feel somewhat or very crowded, half (49 percent) felt that way in the Talkeetna Area Sub-Area.

Among nonresident Alaska Railroad riders, over half (56 percent) rated their perceived crowding as "1" ("not at all crowded") on a scale of 1 to 10, with a mean of 2.2 (Table A3.7-15).

Table A3.7-15. Riding the Alaska Railroad as Primary Activity, Perceived Crowding, Alaska Regional Residents and Non-Alaska Residents, Percent

Perceived Crowding	Percent of Alaska Regional Resident Railroad Riders (n=43)	Percent of Nonresident Railroad Riders (n=39)
Very crowded	4%	5%*
Somewhat crowded	13%	15%*
Not crowded	82%	79%*

Base: Those whose primary activity was riding the Alaska Railroad during most recent outing in the Study Area.

*Nonresidents were asked to rate crowding from 1 to 10, with 1–3 considered "not crowded," 4–6 considered "somewhat crowded," and 7–10 "very crowded."

Note: Due to rounding, columns may not total 100 percent.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

Most (95 percent) of the Alaska regional resident users who rode the Alaska Railroad as their primary activity on their most recent outing did not experience conflict with other individuals or groups that negatively impacted their recreation experience in the Study Area. No nonresident Alaska Railroad riders experienced conflict.

Sixty percent of Alaska regional resident Alaska Railroad riders did not see any signs of infrastructure or human activity that detracted from the scenic quality within the Study Area. Regional resident users who did experience scenic detractors noted vehicles (16 percent), trash (11 percent), and people (8 percent) most often. Among the 18 percent of nonresident users who experienced scenic detractors, 43 percent notes roads and 29 percent noted trash as detractors from their experience.

Eighty-seven percent of resident users reported that no noises detracted from their enjoyment of the Study Area. Ten percent of nonresidents recalled noise detractors.

3.7.3.10. Demographic Profile of Survey Respondent

The average age of Alaska resident users whose primary activity was riding the Alaska Railroad was 47.0 years (a median of 49.0 years), about the same age as all regional resident users (average of 47.2 years, median of 47.0 years). Seniors (aged 65 and over) accounted for 12 percent of the resident surveyed users, the same proportion of seniors in all regional resident users (12 percent).

The average age among nonresident Alaska Railroad riders was 54.4 years, slightly older than the average of all nonresident users (50.8 years). Twenty-one percent of nonresident users were aged 65 and older.

Seventy percent of regional residents whose primary activity was riding the Alaska Railroad were female. Almost half (49 percent) of nonresident Alaska Railroad riders were female. In comparison, females accounted for 52 percent of all regional resident users and for 37 percent of

nonresidents. Just under half (46 percent) of resident riders were married, compared to 60 percent of all regional resident users.

The average household income among regional resident Alaska Railroad riders was $80,000, with a median household income of $63,000. This compares to an average of $83,000 and a median of $63,000 for all regional resident users.

Nonresident Alaska Railroad riders had an average household income of $90,900, with a median household income of $63,000.

One-third (35 percent) of the regional resident users whose primary activity was riding the Alaska Railroad had completed some college, 20 percent completed a bachelor's degree, and 23 percent completed a graduate or professional degree.

The average household size for regional resident users whose primary activity was riding the Alaska Railroad was 2.6, slightly less than the average household size for all regional resident users (2.7).

The average household size for nonresident Alaska Railroad riders was 2.3, compared to 2.4 for all nonresident users. Thirty percent of regional resident Alaska Railroad riders lived in a household with children under age 18 (Table A3.7-16).

Table A3.7-16. Riding the Alaska Railroad as Primary Activity, Demographic Profile of Survey Respondents, Alaska Regional Residents and Non-Alaska Residents

Demographic Factor	Alaska Regional Resident Railroad Riders (n=39)	Nonresident Railroad Riders (n=39)
Average age	47.0	54.4
Age 65 and over (percent)	12%	21%
Female/male (percent)	70% / 30%	49% / 51%
Married (percent)	46%	-
Average household size	2.6	2.3
Households with children under age 18 (percent)	30%	-
Average household income	$80,000	$90,900
Median household income	$63,000	$63,000
Racial characteristics*		
White (percent)	94%	

Demographic Factor	Alaska Regional Resident Railroad Riders (n=39)	Nonresident Railroad Riders (n=39)
Alaska Native/American Indian (percent)	6%	
All other (percent)	-	
Education (percent)		
Less than 9th grade	-	
9th to 12th grade, no diploma	2%	
High school graduate/GED	14%	
Some college, no degree	35%	
Associate's degree	6%	
Bachelor's degree	20%	
Graduate or professional degree	23%	

Base: Those whose primary activity was riding the Alaska Railroad during most recent outing in the Study Area.

*Survey respondents could note more than one race if applicable. Racial characteristics and educational attainment were not asked in the Susitna-Watana Recreation Intercept Survey.

Source: Susitna-Watana Recreation Regional Resident Household Mail Survey and Susitna-Watana Recreation Intercept Survey.

The majority (70 percent) of Alaska regional residents whose primary activity was riding the Alaska Railroad lived in the Municipality of Anchorage, followed by the Fairbanks North Star Borough (19 percent) (Table A3.7-17).

Table A3.7-17. Riding the Alaska Railroad as Primary Activity, Alaska Residency, Alaska Regional Residents, Percent

Place of Residence	Percent of Alaska Regional Resident Railroad Riders (n=43)
Municipality of Anchorage	70%
MSB	12%
Denali Borough	<1%
Fairbanks North Star Borough	19%
Valdez-Cordova/Southeast Fairbanks Census Area	<1%

Base: Those whose primary activity was riding the Alaska Railroad during most recent outing in the Study Area.

Note: Due to rounding, column may not total 100 percent.
Source: Susitna-Watana Recreation Regional Resident Household Mail Survey.

Eighty-two percent of nonresidents whose primary activity was riding the Alaska Railroad lived in the U.S. (Table A3.7-18). Among nonresident users who lived outside of the U.S., 43 percent were from Europe.

Table A3.7-18. Riding the Alaska Railroad as Primary Activity, Region of U.S. Residency, Non-Alaska Residents, Percent

Region of U.S. Residence	Percent of U.S. Resident (Excluding Alaska) Railroad Riders (n=39)
Western U.S.	39%
Southern U.S.	35%
Midwestern U.S.	10%
Eastern U.S.	16%

Base: Those whose primary activity was riding the Alaska Railroad during most recent outing in the Study Area.
Source: Susitna-Watana Recreation Intercept Survey.

3.8. Riding ATVs

The smaller survey sample size of users riding ATVs as their primary activity in the Study Area limits the information that can be presented in this profile.

Summer seasonal ATV use is prevalent throughout the Recreation Use Study Area, with higher concentration along the Denali Highway (especially during hunting season) and on Talkeetna area trails, including Yoder Road (mile 3 of the Talkeetna Spur Road), and Gold Creek and Chase trails. Alaska Railroad whistle stops between Talkeetna and the subdivision of Chase provide ATV access. For example, there was noted ATV use on the Gold Creek Trail from the railroad corridor. However, access north beyond the Gold Creek/Indian River area was not as popular. While no ATV use data are currently available within the Study Area, ATV use and ownership within Alaska is considered high. Approximately 47 percent of adult Alaskans owned an ATV, and 30 percent used an ATV for outdoor recreation either occasionally or frequently, in 2009 (ADNR 2009).

3.8.1. Recreation Intercept Survey and Regional Resident Household Mail Survey Data

The Susitna-Watana Recreation Intercept Survey sample contained 120 users (92 percent Alaska residents and 8 percent non-Alaska residents) who rode ATVs in the Study Area. Of these users, 11 (10 Alaska residents and 1 non-Alaska resident) participated in riding ATVs as their primary activity on their most recent outing.

The Regional Resident Household Mail Survey sample contained 233 Alaska regional resident Study Area users who participated in riding ATVs, including 40 users whose primary activity on their most recent outing to the Study Area was riding ATVs.

3.8.2. Total Estimated Participation

An estimated 28,900 users rode ATVs in the Study Area, representing about 2.2 percent of all recreation users (Section 5.1.2, 2014 Year-End Report). These users spent an estimated 188,400 recreational user-days riding ATVs (partial and full days), representing approximately 3.8 percent of all user-days in the Study Area (Table A3.8-1).

Table A3.8-1. Estimates of Riding ATVs Activity: All Study Area Users

Total annual participation in riding ATV (number of users participating)	28,900
Percentage of total recreation participation (% of users participating)*	2.2%
Total annual number of riding ATV user-days**	188,400
Percentage of total Study Area user-days (all activities)	3.8%

*ATV participation as a percentage of all Study Area participation in recreation activities.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

3.8.2.1. Volume of Recreation Activity: Alaska Regional Residents

An estimated 22,800 Alaska regional residents rode ATVs in the Study Area, representing about 20 percent of regional resident users who recreated in the Study Area (Section 5.1.2, 2014 Year-End Report). These regional resident users spent 182,300 user-days riding ATVs, representing 6 percent of all Study Area regional resident recreation activity (Table A3.8-2).

Table A3.8-2. Estimates of Riding ATV Activity: Alaska Regional Resident Users

Total annual number of regional resident users riding ATVs	22,800
Percentage of users riding ATVs in Study Area*	20%
Total annual number of riding ATVs user-days (regional residents only)**	182,300
Percentage of total Study Area user-days (all activities, regional residents only)	6%

*Percentage of Alaska regional residents recreating in the Study Area that rode ATVs.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

3.8.2.2. Volume of Recreation Activity: Non-Alaska Residents

An estimated 6,100 non-Alaska residents rode ATVs in the Study Area, representing about 2 percent of nonresident users who recreated in the Study Area (Section 5.1.2, 2014 Year-End

Report). These nonresident users spent 6,100 user-days riding ATVs, representing 0.4 percent of all nonresident recreation activity (Table A3.8-3).

Table A3.8-3. Estimates of Riding ATV Activity: Non-Alaska Resident Users

Total annual number of non-Alaska resident users riding ATVs	6,100
Percentage of non-Alaska resident users riding ATVs*	2%
Total annual number of ATV rider user-days (non-Alaska residents only)**	6,100
Percentage of total Study Area user-days (all activities, non-Alaska residents only)	0.4%

*Percentage of non-Alaska residents recreating in the Study Area that rode ATVs.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

3.9. Flightseeing

The smaller survey sample size of users flightseeing as their primary activity in the Study Area limits the information that can be presented in this profile.

As much of the Recreation Use Study Area is not accessible by roads or trails, private and commercial aviation is a primary form of transportation used to reach recreation cabins, lodges, and other locations for recreation. A few examples of aviation destinations identified in the executive interviews include the following: Shadow Lake (for bear hunters), Stephan Lake (for trappers and cabin owners), and recreation cabins north of the Talkeetna River.

Flightseeing as a recreational activity is often combined with other remote fly-in activities, such as hiking, camping, fishing, and hunting. A small percentage of area flightseeing tours appear to fly over the Recreation Use Study Area, mostly over the Talkeetna Range (as most tours focus on Denali National Park). Several air charter tour companies are based in Talkeetna; however, others are located in the Willow and Glennallen areas. Aside from the flightseeing tours, Alaska residents make up most of the air traffic that goes into the Study Area. While flying occurs year round, summer use is likely higher than winter use, as many popular recreational activities, such as fishing, camping, hiking, and floating, occur primarily in the summer months. One air taxi service estimates they take approximately 60 people per year into the Study Area for tours, in addition to 20 or 30 people per year into remote recreation cabins multiple times per year.

With the limited number of airstrips in the Study Area (including mile 21 of Lake Louise Road and Yellowjacket Creek), pilots do not always land on established landing infrastructure and often use gravel bars on rivers, or any other areas that can serve as a runway. The Oshetna Drainage was identified as a favorable place to land, as was along the Talkeetna River to the east of the Parks Highway, and tundra areas north of the Susitna River. These areas have few trees, are flat, and are close to several fly-in hunting areas.

A seaplane base at Lake Louise operates during the summer season, providing air charter services for a variety of recreation uses. Planes from the base provide drop-offs for floaters along

the Tyone River. Helicopters are also starting to be used in the area. One interviewee recently purchased a helicopter for his air taxi business for heli-hiking drop-offs in the Talkeetna Mountains. This same company also flies people up the Talkeetna River for river rafting trips.

A special aviation gathering in Talkeetna occurs on the third weekend in May, Hudson Memorial Fly-In. In 2013, the fourth annual fly-in drew 30 airplanes and 150 event attendees. While the event is weather-dependent, it has grown every year, with increasing numbers of participants, vendors, and sponsors.

The number of registered aircraft in the state of Alaska totals 9,507 (including corporate and individual ownership), of which 1,366 aircraft are registered in the MSB (FAA 2013), including 111 in Talkeetna (FAA 2013).

3.9.1. Recreation Intercept Survey and Regional Resident Household Mail Survey Data

The Susitna-Watana Recreation Intercept Survey sample contained 97 users (14 percent Alaska residents and 86 percent non-Alaska residents) who went flightseeing in the Study Area. Of these users, 52 users (4 Alaska residents and 48 non-Alaska residents) went flightseeing as their primary activity on their most recent outing.

The Regional Resident Household Mail Survey sample contained 93 Alaska regional resident users who participated in flightseeing in the Study Area, including 28 users whose primary activity on their most recent outing to the Study Area was flightseeing.

3.9.2. Total Estimated Participation

An estimated 90,200 users went flightseeing in the Study Area, representing about 6.9 percent of all recreation users (Section 5.1.2, 2014 Year-End Report). These users spent an estimated 104,500 recreational user-days flightseeing (partial and full days), representing approximately 2.1 percent of all user-days in the Study Area (Table A3.9-1).

Table A3.9-1. Estimates of Flightseeing Activity: All Study Area Users

Total annual participation in flightseeing (number of users participating)	90,200
Percentage of total recreation participation (% of users participating)*	6.9%
Total annual number of flightseeing user-days**	104,500
Percentage of total Study Area user-days (all activities)	2.1%

*As a percentage of all Study Area participation in recreation activities.
**Includes full and partial days.
Source: Section 5.1.2, 2014 Year-End Report.

3.9.2.1. Volume of Recreation Activity: Alaska Regional Residents

An estimated 6,500 Alaska regional residents went flightseeing in the Study Area, representing about 8 percent of resident users who recreated in the Study Area (Section 5.1.2, 2014 Year-End Report). These regional resident users spent 20,800 user-days flightseeing, representing 0.7 percent of all Study Area regional resident recreation activity (Table A3.9-2).

Table A3.9-2. Estimates of Flightseeing Activity: Alaska Regional Resident Users

Total annual number of regional resident users flightseeing	6,500
Percentage of users flightseeing in Study Area*	8%
Total annual number of flightseeing user-days (regional residents only)**	20,800
Percentage of total Study Area user-days (all activities, Regional residents only)	0.7%

*Percentage of Alaska regional residents recreating in the Study Area that went flightseeing in the Study Area.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

3.9.2.2. Volume of Recreation Activity: Non-Alaska Residents

An estimated 83,700 non-Alaska residents went flightseeing in the Study Area, representing about 32 percent of nonresident users who recreated in the Study Area (Section 5.1.2, 2014 Year-End Report). These nonresident users spent 101,300 user-days flightseeing, representing 5.8 percent of all nonresident recreation activity (Table A3.9-3).

Table A3.9-3. Estimates of Flightseeing Activity: Non-Alaska Resident Users

Total annual number of non-Alaska resident users flightseeing	83,700
Percentage of non-Alaska resident users flightseeing*	32%
Total annual number of flightseeing user-days (non-Alaska residents only)**	101,300
Percentage of total Study Area user-days (all activities, non-Alaska residents only)	5.8%

*Percentage of non-Alaska residents recreating in the Study Area that went flightseeing.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

3.10. Bicycling

The smaller survey sample size of users biking as their primary activity in the Study Area limits the information that can be presented in this profile.

Road biking is a popular organized activity on roads in the Recreation Use Study Area. The Talkeetna 100K/200K is the opening season ride for the Alaska Randonneurs, starting in

Talkeetna then heading north on the Parks Highway. Other rides that include Talkeetna are the Chugiak/Talkeetna/Chugiak 300K, Talkeetna/Cantwell/Talkeetna 400K, and Big Wild Ride 1,200K, which overnights in Talkeetna. The American Lung Association sponsors the Clean Air Challenge, a 2-day fundraising ride from Houston to Talkeetna (120 miles). In 2013, 224 people registered for the Clean Air Challenge, although only 70 started in the snow on the first day of the event. Typically, participation averages approximately 250 registrants (over 75 percent of whom are from the Anchorage area). The Boy Scouts of America also take a bike trip on the Denali Highway.

While mountain biking is not as popular in the Recreation Use Study Area, some summer mountain bikers (and fat tire bikers) use Talkeetna area gravel bars and shorelines. Mountain bikers also use areas off of the Denali Highway.

Recently, fat tire biking during the winter season has gained popularity in the Study Area. Many of the winter trails used for biking are on the Susitna, Talkeetna, and Chulitna rivers, some of which are maintained by snowmachines. The Trio, a 20- and 60-mile fat tire bike race in Talkeetna, attracted approximately 90 participants in February 2013, plus approximately 12 volunteers and 150 spectators.

Approximately one-half (49.7 percent) of Alaska's adult population either road- or mountain-biked in 2009 (ADNR 2009).

3.10.1. Recreation Intercept Survey and Regional Resident Household Mail Survey Data

The Susitna-Watana Recreation Intercept Survey sample contained 83 users (80 percent Alaska residents and 20 percent non-Alaska residents) who biked in the Study Area. Of these Study Area users, 37 users (27 Alaska residents and 10 non-Alaska residents) biked as their primary activity on their most recent outing.

The Regional Resident Household Mail Survey sample contained 144 Alaska regional resident users who biked in the Study Area, including 29 users whose primary activity on their most recent outing to the Study Area was bicycling.

3.10.2. Total Estimated Participation

An estimated 29,500 users went bicycling in the Study Area, representing about 2.3 percent of all recreation users (Section 5.1.2, 2014 Year-End Report). These users spent an estimated 166,000 recreational user-days bicycling (partial and full days), representing approximately 3.4 percent of all user-days in the Study Area (Table A3.10-1).

Table A3.10-1. Estimates of Bicycling Activity: All Study Area Users

Total annual participation in bicycling (number of users participating)	29,500
Percentage of total recreation participation (% of users participating)*	2.3%

Total annual number of bicycling user-days**	166,000
Percentage of total Study Area user-days (all activities)	3.4%

*As a percentage of all Study Area participation in recreation activities.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

3.10.2.1. Volume of Recreation Activity: Alaska Regional Residents

An estimated 16,200 Alaska regional residents went bicycling in the Study Area, representing about 13 percent of resident users who recreated in the Study Area (Section 5.1.2, 2014 Year-End Report). These regional resident users spent 136,200 user-days bicycling, representing 4.5 percent of all regional resident recreation activity (Table A3.10-2).

Table A3.10-2. Estimates of Bicycling Activity: Alaska Regional Resident Users

Total annual number of regional resident users bicycling	16,200
Percentage of users bicycling in Study Area*	13%
Total annual number of bicycling user-days (regional residents only)**	136,200
Percentage of total Study Area user-days (all activities, Regional residents only)	4.5%

*Percentage of Alaska regional residents recreating in the Study Area that biked.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

3.10.2.2. Volume of Recreation Activity: Non-Alaska Residents

An estimated 13,300 non-Alaska residents bicycled in the Study Area, representing about 5 percent of nonresident users who recreated in the Study Area (Section 5.1.2, 2014 Year-End Report). These nonresident users spent 29,800 user-days bicycling, representing 2.1 percent of all Study Area nonresident recreation activity (Table A3.10-3).

Table A3.10-3. Estimates of Bicycling Activity: Non-Alaska Resident Users

Total annual number of non-Alaska resident users bicycling	13,300
Percentage of non-Alaska resident users bicycling*	5%
Total annual number of bicycling user-days (non-Alaska residents only)**	29,800
Percentage of total Study Area user-days (all activities, non-Alaska residents only)	2.1%

*Percentage of non-Alaska residents recreating in the Study Area that biked.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

3.11. Dog Sledding, Including Skijoring

The smaller survey sample size of users dog sledding, including skijoring, as their primary activity in the Study Area limits the information that can be presented in this profile.

In the Study Area, dog sledding and skijoring typically take place between November and April, weather dependent. Heaviest use occurs in February and March when daytime temperatures rise and daylight increases. This activity occurs on solid or thick ice on the rivers and on established winter trails. Both dog mushers and skijorers prefer groomed trails; however, groomed trails are often shared with snowmachines and pose some safety concerns.

Skijoring activity is reportedly increasing in the Study Area. An estimated 10 to 15 residents of Talkeetna participate frequently in skijoring. Areas where skijoring and dog sledding activity are known to occur include the Susitna River, the Talkeetna River, the Chulitna River, the Lake Louise area, Byers Lake, and along the Denali Highway. XY Lake trail is a popular dog sledding site in Talkeetna. Several other Talkeetna area trails also see some level of activity from these users.

The Denali Highway is a popular dog sledding training route, primarily from the Cantwell end of the highway. Mushers use the Denali Highway from about mid-October (end of peak hunting season) until the snow closes the road. Professional dog mushers use the highway to train for the Iditarod once there is enough snow on the ground. Recreational dog mushers run the highway more often in February and March. Alpine Creek Lodge reported accommodating dog mushers between October and April along with space to rest their dog teams. Maclaren Lodge indicates recreational dog sledding activity, although at a lesser rate than seen at Alpine Creek Lodge, as Maclaren Lodge is usually closed from late October through February.

Numerous dog sledding races occur in the Study Area. The Copper Basin 300 Dog Sled Race is an annual winter event that draws people into the Lake Louise area in January. Also, there is reportedly a dog sledding race from the Maclaren River to Paxson. The Sheep Mountain 200/300 Dog Sled Race was held March 26, 2013. The race started at Sheep Mountain Lodge (on the Glenn Highway), with checkpoints at Eureka, Lake Louise Lodge, Tolsana Lodge, a remote tent near Tyone Lake and the Susitna River, and back to Sheep Mountain Lodge. Usually, Sheep Mountain Lodge owner and musher Zack Steer puts on the Sheep Mountain 150-mile Dog Sled Race in December. However, due to lack of snow, the 2013 race was rescheduled and changed to a 200- and 300-mile race (in March). Twenty-two participants, all from Alaska, started the race. Many of the dog teams had just finished the Iditarod. Sheep Mountain Lodge closed during the 2013–2014 winter season and did not sponsor the Sheep Mountain Lodge race in December 2013.

An informal skijor event occurs on the day after the Oosik Classic ski race, using the same race course as the Nordic skiers. The event is currently very informal and loosely organized by the Skijor Club of Anchorage. Dog mushers also use the Oosik race trail after the event.

Commercial dog sled tours occur in the Study Area, some including overnight stays. Tour companies use the Susitna River, from Cantwell to Tangle Lakes along the Denali Highway, and

the Talkeetna River. Off-season dog sled tours are also available at Crazy Dog Kennels at the Maclaren River on the Denali Highway.

According to the 2009–2014 Alaska Statewide Comprehensive Outdoor Recreation Plan (SCORP), in 2009, 5.0 percent of adult Alaskans participated in dog sledding or skijoring, and 4.2 percent reported owning a dog team (ADNR 2009). Railbelt residents were twice as likely to own a dog team as rural residents, and very few nonresidents participated in these activities in the Recreation Use Study Area (ADNR 2009).

3.11.1. Recreation Intercept Survey and Regional Resident Household Mail Survey Data

The Susitna-Watana Recreation Intercept Survey sample contained 37 users (62 percent Alaska residents and 38 percent non-Alaska residents) who went dog sledding in the Study Area. Of these users, 22 users (17 Alaska residents and 5 non-Alaska residents) dogsledded as their primary activity on their most recent outing.

The Regional Resident Household Mail Survey sample contained 26 Alaska regional resident users who dogsledded, including 6 users whose primary activity on their most recent outing to the Study Area was dog sledding.

3.11.2. Total Estimated Participation

An estimated 12,900 users went dog sledding in the Study Area, representing about 1.0 percent of all recreation users (Section 5.1.2, 2014 Year-End Report). These users spent an estimated 38,900 recreational user-days dog sledding (partial and full days), representing approximately 0.8 percent of all user-days in the Study Area (Table A3.11-1).

Table A3.11-1. Estimates of Dog Sledding Activity: All Study Area Users

Total annual participation in dog sledding (number of users participating)	12,900
Percentage of total recreation participation (% of users participating)*	1.0%
Total annual number of dog sledding user-days**	38,900
Percentage of total Study Area user-days (all activities)	0.8%

*As a percentage of all Study Area participation in recreation activities.
**Includes full and partial days.
Source: Section 5.1.2, 2014 Year-End Report.

3.11.2.1. Volume of Recreation Activity: Alaska Regional Residents

An estimated 2,200 Alaska regional residents went dog sledding in the Study Area, representing about 2 percent of resident users who recreated in the Study Area (Section 5.1.2, 2014 Year-End Report). These regional resident users spent 21,700 user-days dog sledding, representing 0.7 percent of all regional resident recreation activity (Table A3.11-2).

Table A3.11-2. Estimates of Dog Sledding Activity: Alaska Regional Resident Users

Total annual number of regional resident users dog sledding	2,200
Percentage of users dog sledding in Study Area*	2%
Total annual number of dog sledding user-days (regional residents only)**	21,700
Percentage of total Study Area user-days (all activities, regional residents only)	0.7%

*Percentage of Alaska regional residents recreating in the Study Area that dog sledded.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

3.11.2.2. Volume of Recreation Activity: Non-Alaska Residents

An estimated 10,700 non-Alaska residents went dog sledding in the Study Area, representing about 4 percent of nonresident users who recreated in the Study Area (Section 5.1.2, 2014 Year-End Report). These nonresident users spent 17,200 user-days dog sledding, representing 1.2 percent of all nonresident recreation activity (Table A3.11-3).

Table A3.11-3. Estimates of Dog Sledding Activity: Non-Alaska Resident Users

Total annual number of non-Alaska resident users dog sledding	10,700
Percentage of non-Alaska resident users dog sledding*	4%
Total annual number of dog sledding user-days (non-Alaska residents only)**	17,200
Percentage of total Study Area user-days (all activities, non-Alaska residents only)	1.2%

*Percentage of non-Alaska residents recreating in the Study Area that dog sledded.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

3.12. Nordic Skiing

The smaller survey sample size of users Nordic skiing as their primary activity in the Study Area limits the information that can be presented in this profile.

While alpine touring and heli-skiing may occur in the Study Area, the most common type of skiing is Nordic skiing. By some accounts, Nordic skiing activity is growing, perhaps as much as doubling in the past 5 years. Nordic skiers use groomed trails and snowmachine trails, as well as un-groomed backcountry.

Skiing generally occurs around Talkeetna and along the Parks Highway corridor; however, some Nordic skiing was observed on the Denali Highway and in the Lake Louise area. Skiing is also popular on the Talkeetna, Susitna, and Chulitna rivers when ice conditions are safe (December at the earliest, April at the latest). The Chulitna River is often accessed off of the Parks Highway at

the Chulitna River Bridge. Skiing also occurs between the Susitna and Chulitna rivers. Ungroomed backcountry use is focused to the east of Talkeetna via access trails from town.

The Denali Nordic Ski Club, a local ski club in the area, grooms Nordic ski trails on the Susitna and Talkeetna rivers. The group also organizes ski outings and the annual Oosik Classic race and tour in March. The club has approximately 50 to 60 members (including families and individuals). Most members are from Talkeetna.

The March Oosik Classic is a 50-km/25-km race and tour that starts in Talkeetna and uses portions of the Susitna and Talkeetna rivers for the race route. The race course varies annually. The race is dependent on safe ice conditions on the rivers. Recently, as interest in the event has increased, organizers have had to limit participation to 700 individuals. An additional 700 family, friends, and spectators attend the event. The 13th annual Oosik Classic was completed in 2013.

Curry is a popular Nordic skiing destination, with several groups organizing "ski trains" to the area. Over the past 5 or so years, the Nordic Ski Association of Anchorage has been organizing an annual ski train (on the Alaska Railroad) to Curry. The event attracts approximately 800 participants per year, including volunteers. The Denali Nordic Ski Club also organizes a smaller ski train up to Curry, and participants ski back down the Susitna River to Talkeetna.

According to the 2009–2014 Alaska SCORP, in 2009, 26 percent of adult Alaskans cross-country skied (ADNR 2009).

3.12.1. Recreation Intercept Survey and Regional Resident Household Mail Survey Data

The Susitna-Watana Recreation Intercept Survey sample contained 92 users (90 percent Alaska residents and 10 percent non-Alaska residents) who Nordic skied in the Study Area (Section 5.1.2, 2014 Year-End Report). Of these users, 36 users (30 Alaska residents and 6 non-Alaska residents) Nordic skied as their primary activity on their most recent outing.

The Regional Resident Household Mail Survey sample contained 116 Alaska regional resident users who Nordic skied in the Study Area, including 28 users whose primary activity on their most recent outing to the Study Area was Nordic skiing.

3.12.2. Total Estimated Participation

An estimated 19,300 users went Nordic skiing in the Study Area, representing about 1.5 percent of all recreation users (Section 5.1.2, 2014 Year-End Report). These users spent an estimated 92,500 recreational user-days Nordic skiing (partial and full days), representing approximately 1.9 percent of all user-days in the Study Area (Table A3.12-1).

Table A3.12-1. Estimates of Nordic Skiing Activity: All Study Area Users

Total annual participation in Nordic skiing (number of users participating)	19,300
Percentage of total recreation participation (% of users participating)*	1.5%
Total annual number of Nordic skiing user-days**	92,500
Percentage of total Study Area user-days (all activities)	1.9%

*As a percentage of all Study Area participation in recreation activities.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

3.12.2.1. Volume of Recreation Activity: Alaska Regional Residents

An estimated 9,800 Alaska regional residents went Nordic skiing in the Study Area, representing about 9 percent of regional resident users who recreated in the Study Area (Section 5.1.2, 2014 Year-End Report). These regional resident users spent 73,200 user-days skiing, representing 2.4 percent of all regional resident recreation activity (Table A3.12-2).

Table A3.12-2. Estimates of Nordic Skiing Activity: Alaska Regional Resident Users

Total annual number of regional resident users Nordic skiing	9,800
Percentage of users Nordic skiing in Study Area*	9%
Total annual number of Nordic skiing user-days (regional residents only)**	73,200
Percentage of total Study Area user-days (all activities, Regional residents only)	2.4%

*Percentage of Alaska regional residents recreating in the Study Area that Nordic skied.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

3.12.2.2. Volume of Recreation Activity: Non-Alaska Residents

An estimated 9,500 non-Alaska residents went Nordic skiing in the Study Area, representing about 4 percent of nonresident users who recreated in the Study Area (Section 5.1.2, 2014 Year-End Report). These nonresident users spent 19,300 user-days skiing, representing 1.3 percent of all nonresident recreation activity (Table A3.12-3).

Table A3.12-3. Estimates of Nordic Skiing Activity: Non-Alaska Resident Users

Total annual number of non-Alaska resident users Nordic skiing	9,500
Percentage of non-Alaska resident users Nordic skiing*	4%
Total annual number of Nordic skiing user-days (non-Alaska residents only)**	19,300
Percentage of total Study Area user-days (all activities, non-Alaska residents only)	1.3%

*Percentage of non-Alaska residents recreating in the Study Area that Nordic skied.
**Includes full and partial days.

Source: Section 5.1.2, 2014 Year-End Report.

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APPENDIX B: SUSITNA-WATANA RECREATION INTERCEPT SURVEY RESULTS SUMMARY

Susitna-Watana Hydroelectric Project (FERC No. 14241)

Recreation Resources Study Study Plan Section 12.5

Technical Memorandum - 2014 Year-End Report Recreation Use Demand Assessment

Appendix B - Susitna-Watana Recreation Intercept Survey Results Summary

Prepared for

Alaska Energy Authority

SUSITNA-WATANA HYDRO

Clean, reliable energy for the next 100 years.

Prepared by

AECOM and McDowell Group

September 2015

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Attachment B-1: Susitna-Watana Recreation Intercept Survey Instrument

LIST OF ACRONYMS, ABBREVIATIONS, AND DEFINITIONS

Abbreviation	Definition
ADNR	Alaska Department of Natural Resources
AEA	Alaska Energy Authority
ATV	all-terrain vehicle
BLM	Bureau of Land Management
DK	Don't Know
ISR	Initial Study Report
MSB	Matanuska-Susitna Borough
ORV	off-road vehicle
Ref	Refused to Answer
RSP	Revised Study Plan
RV	recreation vehicle

1. METHODOLOGY

The purpose of the Susitna-Watana Recreation Intercept Survey is to gather in-person recreation user data, which include uses, frequency, quality of recreation and/or aesthetic experience, recreation spending, and other perceptions of the Recreation Use Study Area (Study Area).

The remote nature of the Study Area significantly influenced where recreation users could be intercepted for surveying. The Study Area is largely bounded by paved and unpaved highways, which provide primary access to the area. Recreation users penetrate farther into the core of the Study Area via:

- Paved and unpaved roads.
- The Alaska Railroad, with some trains carrying passengers through the area and whistle stop service within the area.
- Fixed-wing aircraft and helicopters, used for sightseeing and to access remote lodges, lakes, streams, and hunting areas.
- Campgrounds and trailheads.
- All-terrain vehicle/off-road vehicle (ATV/ORV) trails, both official and unofficial, maintained and unmaintained.
- Boat launches.

Intercept surveyor teams began surveying recreation users in March 14, 2013, and ended surveying by March 31, 2014. More so than calendar date, weather and Denali Highway road closures/openings dictated the beginning and end of the seasonal survey periods. Contingencies for unforeseen circumstances (e.g., snowstorms, flooding, road closures) were considered in the sampling plan such as altering or extending the sampling period, selecting "make-up" sampling days, and as a component of the survey team training. Flexibility was necessary, particularly during the shoulder seasons and periods of severe weather, to operate safely in the field and gather an adequate sample of recreation users during those periods.

Up to three survey teams were used simultaneously to compensate for sampling schedules that required long distances to be traveled between intercept points, limited daylight hours (during the fall, winter, and spring months), and difficult seasonal travel. For safety reasons, each team included two people. All surveyors were trained and supervised by experienced survey managers. Surveyors wore protective clothing for safety reasons and had visible badges and/or uniforms to indicate their official capacity.

In addition, the Alaska Energy Authority (AEA) notified the Bureau of Land Management (BLM) and Alaska Department of Natural Resources (ADNR) prior to surveying campgrounds on federal lands administered by BLM, and state lands administered by the Division of Parks and Outdoor Recreation. AEA also received a Special Park Use Permit from ADNR to administer the survey within Denali State Park and Lake Louise State Recreation Area.

If participants in the Recreation Intercept Survey provided their contact information (either in person or online), they were eligible for a drawing of a $1,000 gift card, which was awarded after the survey period closed.

The Intercept Survey sites were identified in Section 12.4.6.5 of the Initial Study Report (ISR) and are shown in Figure B1.0-1, which displays key intercept locations.

1.1. Intercept Survey Online Option

To gather as much recreation information as possible, the intercept survey was supplemented with an equivalent online version. To accommodate the different methods of delivery, the survey design differed slightly between the personal intercept survey and the online version.

An invitation card was printed on waterproof paper that included an invitation to participate in the intercept survey and a URL address to the survey. A map of the Study Area was included on the backside of the invitation. Each card came with a unique password, allowing users access to a secure online survey site.

Intercept surveyors left the card on unattended vehicles at intercept points on the northern portion of the Parks Highway, the Denali Highway, and at Dinty Lake. Permission was not granted to leave invitation cards on cars parked within State of Alaska and BLM campgrounds. The areas where cards were left are in close proximity to state and federal campgrounds and provided a suitable and practical substitute to meet the Study Plan's objectives (Section 12.5.2 of the Revised Study Plan [RSP]). A small number of cards were also distributed in Talkeetna. Card distribution was limited to avoid littering.

1.2. Intercept Survey Sites

The sample plan for the intercept survey primarily focused on intercept areas identified through stakeholder input and observed recreation activity by the intercept surveyors. Some of the intercept locations are privately owned or managed. Under these circumstances, permission to intercept recreation users was granted prior to fielding.

As surveyors proceeded on their sampling circuit, they stopped at intercept locations when vehicles and people were present. They then randomly selected people who were available and willing to be surveyed. Respondents were screened for those who were participating in an outdoor recreation activity on their current outing. They were also asked if they had already participated in a Susitna-Watana recreation survey, and were screened out if they had.

In addition to sampling from the identified intercept locations, surveyors conducted intercept surveys with other recreation users as circumstances allowed (such as cars pulled over on the highway).

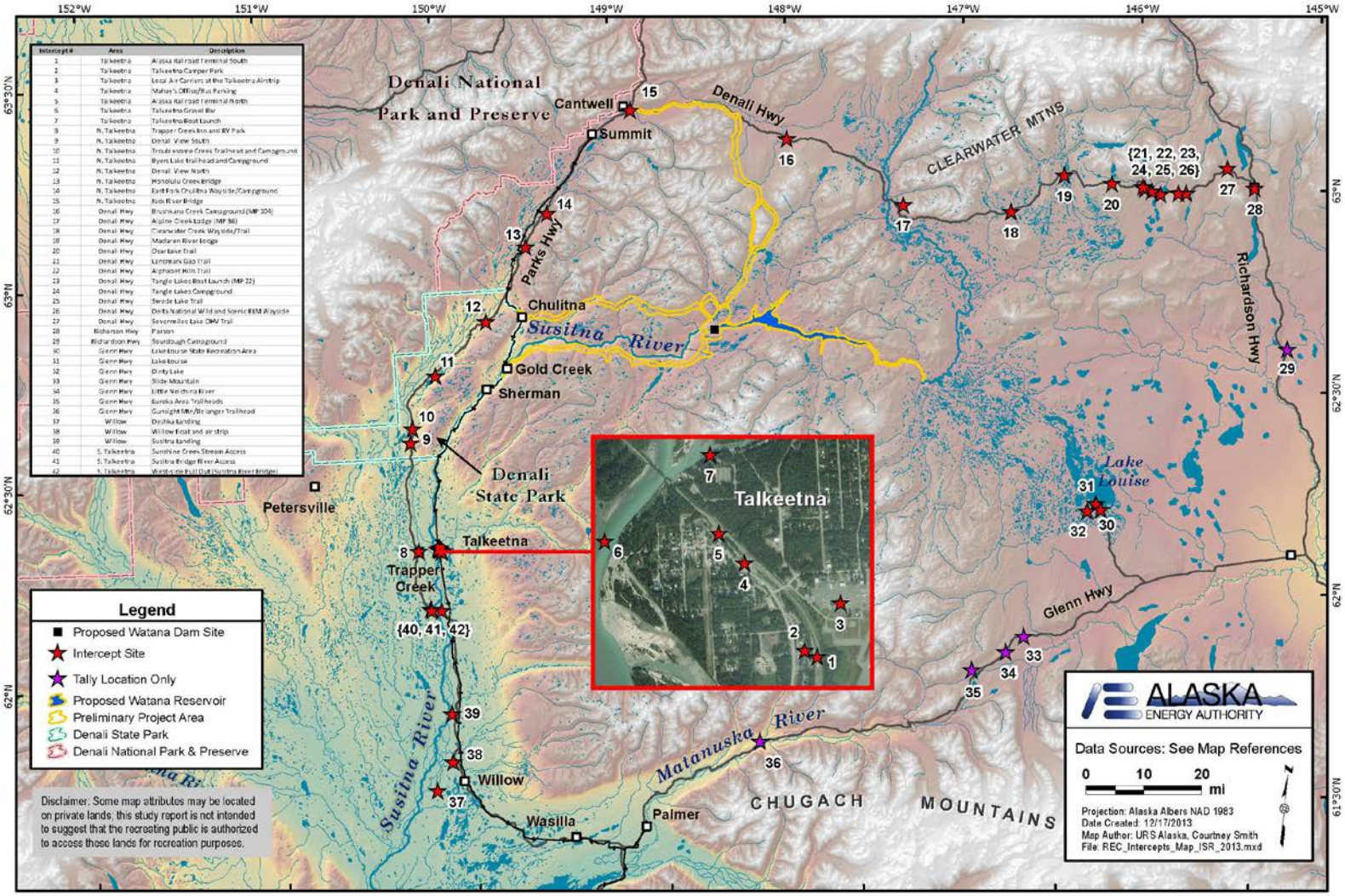


Figure B1.0-1. Intercept Survey Sites

Source: ISR Section 12.4

1.3. Spring, Fall, and Winter Intercept Survey Sample Plans

Spring intercept survey fielding started on March 14, 2013 and continued through June 6, 2013, including the survey pre-testing period (March 14 through 17, 2013). The fall and winter sample started on October 11, 2013 and continued through March 31, 2014. The end of the spring sampling (and the beginning of the fall sampling) was marked by the official closing or opening of the Denali Highway.

A stratified random sample was used to collect a statistical sample of recreation users. The sample plan was stratified by month, day, and to some degree day parts, overlaid with selected survey locations throughout the Study Area. However, since spring, fall, and winter survey sampling was limited to accessible intercept locations along the Parks Highway to the west entrance to the Denali Highway, the east entrance of the maintained Denali Highway (Paxson), and Lake Louise, sampling effort was concentrated on weekends to capture more active recreation periods (as identified through stakeholder input, executive interview research, and observed activity). Surveyors attended special events (such as dog sled and snowmachine races) held within the Study Area. Surveyors based in Lake Louise and Talkeetna sampled on randomly selected days throughout the week in Lake Louise, Talkeetna, and the surrounding area.

1.4. Summer Intercept Survey Sample Plan

The summer intercept survey sampling period was June 7, 2013 through October 10, 2013.

The intercept survey sample plan included surveying every week (including weekdays and weekends) of the summer season. Additional sampling occurred around peak activity periods (such as holiday weekends and hunting season in late August/early September).

A stratified random sample was used to collect a statistical sample of recreation users. The sample plan was stratified by month, day, and to some degree day parts, overlaid with selected survey locations throughout the Study Area. An example of typical intercept sampling during the summer season included the following pattern:

- **Week One –** travel (on a randomly selected start day) to Parks Highway (from the Y), to Cantwell, along the Denali Highway, then Glennallen/Lake Louise over the next 5 days.
- **Week Two** – the survey period would begin one day of the week later and the route was reversed. Surveyor teams alternated their direction of travel, departure days, and times to allow a higher degree of random sampling during various days of the week and times of the day.

Generally, a survey team would work five 10-hour (minimum) days traveling and surveying, plus additional time to travel to and from the Study Area. Surveying took place only during daylight hours. During peak daylight summer months, surveying generally took place between 8:00 a.m. and 8:00 p.m., with adjustments as needed for shoulder season light conditions.

One survey team traveled by and camped in a recreation vehicle (RV) (rented for the summer season) at appropriate locations along the route. Snow accumulation and drifting on the Denali

Highway at the end of September 2013 ended the sampling conducted by this survey team. However, sampling by surveyor vehicle continued until the Denali Highway was closed for the season on October 10, 2013.

1.5. Intercept Survey Instrument Design

The design of the intercept survey instrument was a collaborative and iterative process with stakeholders, and was designed not only to capture data needs for recreation resources, but also for aesthetics, socioeconomics, and other disciplines. A copy of the Recreation Intercept Survey instrument is found in Attachment B-1.

1.6. Intercept Survey Responses

A total of 1,118 intercept surveys were conducted. These include 1,012 intercept surveys conducted in person, and 106 intercept surveys completed online. All of the intercept survey participants recreated in the Study Area.

Tables B1.6-1 and B1.6-2 provide an overview of the year-long sampling period (March 2013–March 2014), including sample of days, surveyor effort, and completed surveys by days of the week, by month, and by day time periods. Table B1.6-3 provides data from the online intercept survey completions by month.

Table B1.6-1. Completed Surveys by Days of the Week, March 2013-March 2014

Month	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
March 2013	45	8	18	5	5	7	83	171
April	70	4	5	4	12	26	66	187
May	12	4	5	3	17	5	19	65
June	22	20	23	19	19	12	18	133
July	11	19	21	35	35	13	30	164
August	32	30	15	13	12	13	16	131
September	14	17	7	9	10	8	14	79
October	2	1	1	0	0	0	2	6
November	1	0	0	0	2	1	3	7
December	3	5	1	1	2	0	5	17

Month	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
January 2014	2	1	1	1	1	0	1	7
February	2	2	1	1	4	1	10	21
March	8	0	2	1	3	1	9	24
Total	224	111	100	92	122	87	276	1,012

Source: Susitna-Watana Recreation Intercept Survey

Table B1.6-2. Sample Days, Field Surveyor Effort, and Completed Surveys by Time of Day, March 2013–March 2014

Month	Sample Days	Total Surveys Completed	Field Surveyor Hours	Weekend Sample Days	Weekday Sample Days	7:00- 11:59 a.m. (Surveys)	12:00-4:59 p.m. (Surveys)	5:00-8:00 p.m. (Surveys)
March 2013	23	171	937	128	43	32	94	45
April	21	187	830	136	51	46	102	39
May	18	65	578	31	34	19	26	20
June	27	133	607	40	93	40	48	45
July	27	164	580	41	123	38	51	75
August	27	131	584	48	83	41	44	46
September	18	79	407	28	51	23	33	23
October	14	6	74	4	2	3	3	0
November	19	7	99	4	3	2	3	2
December	16	17	94	8	9	2	10	5
January 2014	18	7	140	3	4	1	6	0
February	15	21	95	12	9	4	8	9
March	17	24	103	17	7	0	12	12
Total	260	1,012	5,128	500	512	251	440	321

Source: Susitna-Watana Recreation Intercept Survey

Table B1.6-3. Online Surveys by Month, March 2013–March 2014

Month	Total Surveys Completed
March 2013	0
April	1
May	4
June	4
July	18
August	15
September	54
October	2
November	0
December	0
January 2014	0
February	0
March	8
Total	106

Source: Susitna-Watana Recreation Intercept Survey

1.7. Study Area and Analytical Sub-Areas

The Recreation Use Study Area (Study Area) is defined generally as the area encompassed by the following features: the Parks Highway corridor, from the "Y" at the Talkeetna Spur Road intersection to Cantwell; the Denali Highway corridor from Cantwell east to Paxson; west from Paxson along a 2-mile buffer south of the Denali Highway to the Matanuska-Susitna Borough (MSB) boundary; areas west of the MSB boundary between the Denali and Glenn Highways (including Lake Louise area); and extending west in a line from the MSB boundary, following the Chickaloon River, and connecting to the "Y" at the Talkeetna Spur Road. This includes areas ¼ mile west and ¼ mile north of the highways, respectively. The boundaries of the Recreation Use Study Area are the same as those used for the Demand Assessment, also referred to as the Recreation Supply and Demand Analysis Area.

The Study Area was subdivided into 59 grids to assist with survey analysis. These grids were then grouped into seven Sub-Areas of analysis (see Figure B1.7-1), including:

- West Denali Highway
- East Denali Highway
- Lake Louise Area
- Parks Highway
- Talkeetna Area
- Remote North
- Remote South

Details regarding the boundaries of the Study Area and each of the seven Sub-Areas are found in Section 3.0 (*Study Area*) of the 2014 Year-End Report.

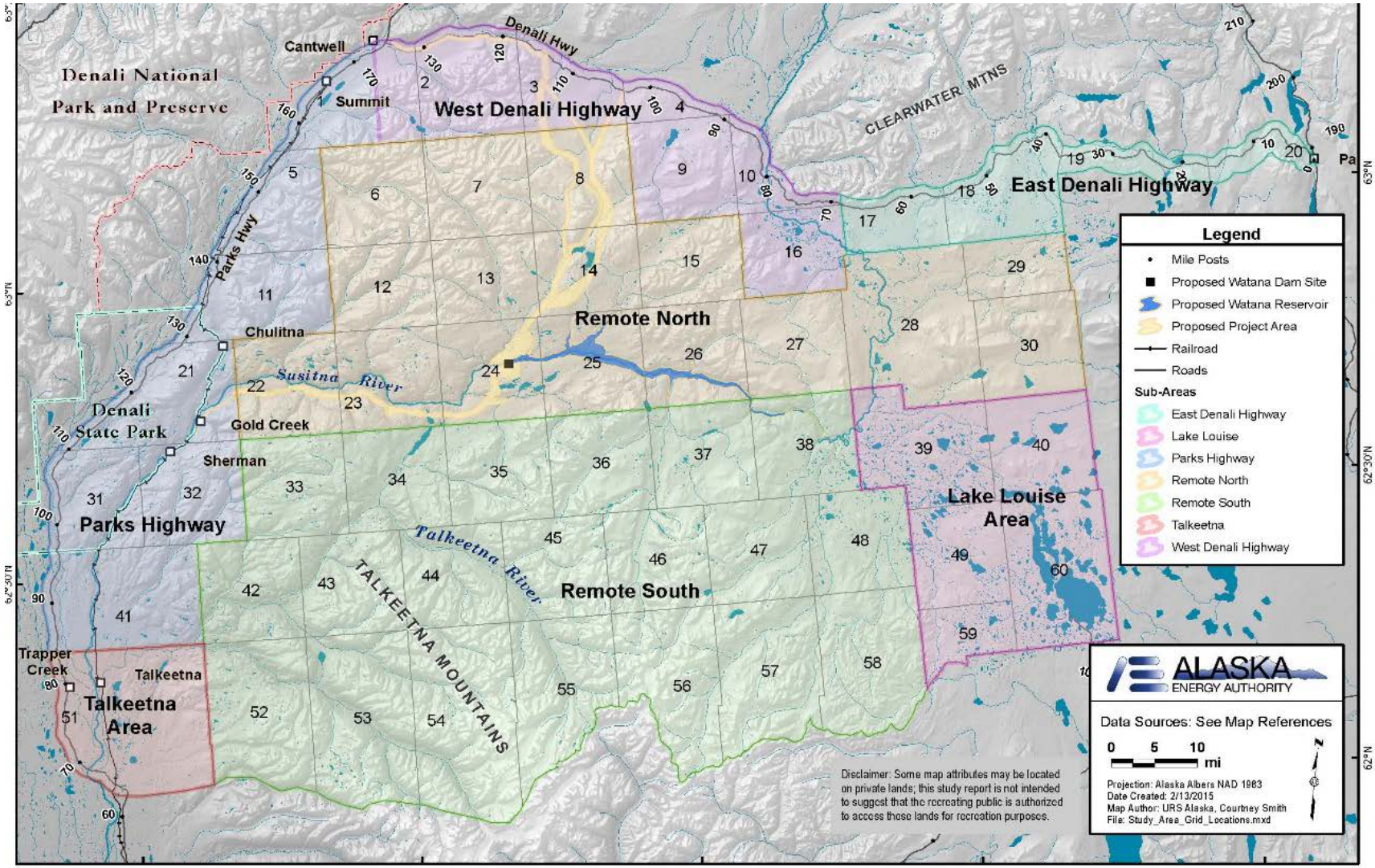


Figure B1.7-1. Sub-Areas of the Recreation Use Study

Source: Susitna-Watana Recreation Intercept Survey

2. SURVEY RESULTS

Results of the Susitna-Watana Recreation Intercept Survey are presented below. In many cases, survey data are presented in totals, as well as by the Sub-Area where the respondents' primary recreation activity took place.

2.1. Recreation Use

Table B2.1-1 provides an overview of survey results by type of visit (day or overnight), by all responses, and by Sub-Areas where users' recreation activities took place. Four in five (82 percent) recreation users were visitors to the Study Area and overnighted in the Study Area during their visit. An additional 3 percent were residents of the Study Area, who overnighted in the Study Area but away from their home. One in ten (11 percent) recreation users were visitors in the Study Area on a day-visit only (no overnight). Seven percent were Study Area residents recreating for the day only within the Study Area.

Recreation users who recreated in the East Denali Highway Sub-Area were more likely to overnight in the Sub-Area (93 percent) than others who recreated around the Lake Louise Area (85 percent), Remote South (80 percent), Parks Highway (80 percent), and Talkeetna Area (76 percent) Sub-Areas.

Table B2.1-1. Type of Visit (Day or Overnight), by Total and Sub-Area of Recreation Activity, Percent

	% of Total	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,118	n=403	n=254	n=297	n=317	n=203	n=55	n=30
	100%	36%	23%	27%	28%	18%	5%	3%
Overnight visit (non-Study-Area resident)	79%	73%	88%	92%	75%	84%	91%	70%
Overnight visit (Study-Area resident)	3%	3%	2%	1%	5%	1%	-	10%
All overnight visitors	82%	76%	90%	93%	80%	85%	91%	80%
Day visit (non-Study-Area resident)	11%	12%	7%	5%	12%	11%	7%	13%
Day visit (Study-Area resident)	7%	12%	3%	2%	8%	3%	2%	7%
All day visitors	18%	24%	10%	7%	20%	14%	9%	20%

Note: Due to rounding, some columns may not total 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey

3. OVERNIGHT VISITORS

3.1. Overnight Length of Stay

Recreation users who stayed overnight in the Study Area (including Study Area residents and non-residents) were asked how long they planned to spend in the Study Area and how many nights they had spent so far. On average, overnight visitors planned to stay a total of 3.7 nights in the Study Area (Table B3.1-1).

Length of intended stays (nights) for overnight recreational users whose recreational activity occurred in the Talkeetna Area Sub-Area were fewer (3.1 nights) than those whose recreational activity occurred in any of the other Sub-Areas.

Table B3.1-1. Intended Number of Overnights, by Total and Sub-Area of Recreation Activity, Percent

Intended Number of Overnights	% of Total	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=914	n=306	n=229	n=276	n=254	n=174	n=50	n=24
	100%	33%	25%	30%	28%	19%	5%	3%
1	27%	45%	17%	16%	37%	14%	6%	8%
2	31%	25%	30%	23%	28%	41%	24%	33%
3	17%	13%	18%	21%	17%	17%	28%	17%
4 – 7	16%	10%	23%	25%	12%	18%	26%	29%
8 – 14	6%	3%	6%	9%	4%	6%	10%	4%
15+	3%	2%	4%	3%	2%	3%	6%	8%
DK/Ref	1%	1%	2%	2%	<1%	1%	-	-
Average # of Intended Overnights	3.7 nights	3.1 nights	5.0 nights	4.5 nights	3.7 nights	3.5 nights	5.1 nights	4.9 nights

Base: Overnight visitors.

Note: Due to rounding, some columns may not total 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

At the time the intercept survey was conducted, recreational users had already spent an average of 2.2 nights, or about three-fifths of their intended overnight stay, in the Study Area (Table B3.1-2).

Table B3.1-2. Completed Number of Overnights, Percent

Completed Number of Overnights	% of Total
	n=900
	100%
0	17%
1	40%
2	19%
3	10%
4 – 7	10%
8 – 14	2%
15+	2%
DK/Ref	1%
Average # of completed overnights	2.2 nights

Base: Overnight visitors.

Note: Due to rounding, column may not total 100 percent.

Source: Susitna-Watana Recreation Intercept Survey.

3.1.1. Overnight Stay by Sub-Area

As seen in Table B3.1-3, of all overnight recreational users to the Study Area (including Study Area residents and non-residents), most popular overnight locations were in the Talkeetna Area (28 percent) and along the East Denali Highway (28 percent). Fewer recreation users overnighted in the Remote South (2 percent) and the Remote North (1 percent) Sub-Areas.

Table B3.1-3. Intended Overnight Stay, by Sub-Area, Percent

Sub-Area	% of Total
	n=907

Sub-Area	% of Total
Talkeetna Area	28%
East Denali Highway	28%
Parks Highway	20%
Lake Louise Area	20%
West Denali Highway	19%
Remote South	2%
Remote North	1%

Base: Overnight visitors.

Note: Multiple responses accepted; column will not add to 100 percent.

Source: Susitna-Watana Recreation Intercept Survey.

3.1.2. Overnight Stay by Selected Locations

As seen in Table B3.1-4, 33 percent of overnight visitors (including Study Area residents and non-residents) stayed in the Talkeetna/Talkeetna Lodge, 22 percent around Lake Louise, and 18 percent around Tangle Lakes on the eastern portion of the Denali Highway. Ten percent also stayed at Byers Lake Campground, and another 10 percent stayed at Brushkana Campground. A smaller percentage of visitors overnighted in the following locations: Maclaren Lodge, Cantwell, Alpine Creek Lodge, Paxson, and Trapper Creek.

Table B3.1-4. Intended Overnight Stay, by Specific Location, Percent

Locations in Study Area	% of Total
	n=758
	100%
Talkeetna/Talkeetna Lodge	33%
Lake Louise Area	22%
Tangle Lakes	18%
Byers Lake Campground	10%
Brushkana Campground	10%

Locations in Study Area	% of Total
Maclaren Lodge	7%
Cantwell	5%
Alpine Creek Lodge	4%
Paxson	3%
Trapper Creek	1%

Base: Overnight visitors.

Note: Multiple responses accepted; column will not add to 100 percent.

Source: Susitna-Watana Recreation Intercept Survey.

3.1.3. Type of Overnight Lodging

As seen in Table B3.1-5, 49 percent of recreation users who overnighted in the Study Area (including Study Area residents and non-residents) stayed in commercial lodging (hotel/motel/ B&B/lodge), 23 percent stayed in an established campground, 14 percent camped remotely, 13 percent stayed in undeveloped/on-road RV/camper/car/tent, and 11 percent stayed in a private home.

Overnight recreational users who recreated along the Parks Highway were much more likely to stay in commercial lodging (82 percent) than those who recreated in the Lake Louise Area (21 percent). Conversely, overnight recreational users who recreated along the road systems of Parks Highway or in the Talkeetna Area Sub-Areas were less likely to stay in an established campground (14 percent) than those who recreated in the West Denali Highway (43 percent) or East Denali Highway (43 percent) Sub-Areas.

Table B3.1-5. Intended Overnight Stay by Type of Lodging, by Total and Sub-Area of Recreation Activity, Percent

Type of Lodging	% of Total	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=895	n=302	n=226	n=267	n=254	n=171	n=48	n=22
	100%	34%	25%	30%	28%	19%	5%	2%
Hotel/Motel/B&B/Lodge	49%	71%	30%	38%	82%	21%	38%	36%
Established campground	23%	14%	43%	43%	14%	20%	27%	9%
Remote camping (tent/cabin)	14%	4%	13%	13%	6%	30%	25%	59%
Undeveloped/on-road	13%	6%	30%	21%	10%	9%	23%	14%

Type of Lodging	% of Total	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
RV/Camper/Car/Tent								
Private home	11%	14%	5%	3%	7%	27%	8%	18%

Base: Overnight visitors.

Note: Multiple responses accepted; columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

3.2. Day Recreation

3.2.1. Day Visits by Sub-Area

Among visitors who made day visits to the Study Area, 41 percent visited Talkeetna, 27 percent recreated along the Parks Highway, 21 percent along the East Denali Highway, and 20 percent stayed along the West Denali Highway. Fewer recreation users visited the Lake Louise Area (8 percent), Remote South (2 percent), or Remote North (1 percent) Sub-Areas for the day (Table B3.2-1).

Table B3.2-1. Intended Day Visit Only, by Sub-Area, Percent

Sub-Area	% of Total
	n=503
Talkeetna Area	41%
Parks Highway	27%
East Denali Highway	21%
West Denali Highway	20%
Lake Louise Area	8%
Remote South	2%
Remote North	1%

Note: Multiple responses accepted; column will not add to 100 percent.

Source: Susitna-Watana Recreation Intercept Survey.

3.2.2. Day Visit by Selected Locations

Over half (51 percent) of recreational users who were in the Study Area for the day visited Talkeetna. Among other locations in the Study Area, 14 percent visited Cantwell, and 12 percent visited Maclaren Lodge/River on the Denali Highway. A smaller percentage of day visitors went to Tangle Lakes, Trapper Creek, Alpine Creek Lodge, Byers Lake, Brushkana, and Paxson (Table B3.2-2).

Table B3.2-2. Intended Day Visit Only, by Specific Location, Percent

Locations in Study Area	% of Total
	n=406
Talkeetna	51%
Cantwell	14%
Maclaren Lodge/River	12%
Lake Louise	9%
Trapper Creek	7%
Tangle Lakes	7%
Alpine Creek Lodge	6%
Byers Lake	5%
Brushkana	4%
Paxson	4%

Note: Multiple responses accepted; column will not add to 100 percent.

Source: Susitna-Watana Recreation Intercept Survey.

3.3. Combined Overnight and Day Visit Recreational Use

3.3.1. Combined Overnight and Day Visits by Sub-Area

For overnight and day use recreation users combined, 39 percent visited the Talkeetna Area, and 27 percent recreated along both the East Denali Highway and Parks Highway Sub-Areas. One-fifth (20 percent) visited the West Denali Highway Sub-Area, while 19 percent visited the Lake Louise Area Sub-Area (Table B3.3-1).

Table B3.3-1. Intended Overnight and Day Visit Combined, by Sub-Area, Percent

Sub-Area	% of Total
	n=1,105
Talkeetna Area	39%
East Denali Highway	27%
Parks Highway.	27%
West Denali Highway	20%
Lake Louise Area	19%
Remote South	2%
Remote North	1%

Note: Multiple responses accepted; column will not add to 100 percent.
Source: Susitna-Watana Recreation Intercept Survey.

3.3.2. Combined Overnight and Day Visits by Selected Locations

For overnight and day use recreation users combined, 46 percent visited Talkeetna. Twenty-one percent visited Lake Louise, 17 percent Tangle Lakes, 11 percent visited Byers Lake, and 10 percent each visited Brushkana and Cantwell. Other locations listed on the survey were visited by 5 percent or less of combined overnight and day use recreation users (Table B3.3-2).

Table B3.3-2. Intended Overnight and Day Visit Combined, by Selected Locations, Percent

Locations in Study Area	% of Total n=950
Talkeetna	46%
Lake Louise	21%
Tangle Lakes	17%
Byers Lake	11%
Brushkana	10%
Cantwell	10%

Locations in Study Area	% of Total
Maclaren Lodge/River	5%
Trapper Creek	4%
Alpine Creek Lodge	3%
Paxson	2%

Note: Multiple responses accepted; column will not add to 100 percent.
Source: Susitna-Watana Recreation Intercept Survey.

3.4. All Recreation Activities During Current Outing

3.4.1. All Recreation Activities in Study Area

Recreation users were asked to identify all of the outdoor recreational activities they participated in within the Study Area on their current outing. During their outing, 46 percent of recreation users camped (roadside camping, remote camping, or both) and 25 percent reported hiking/backpacking. Forty percent engaged in some type of wildlife viewing (including bird watching). One-quarter (25 percent) of recreation users snowmachined, 25 percent fished (all species), and 21 percent boated (motorized and non-motorized). Nearly one in five (19 percent) recreation users rode the Alaska Railroad. Other activities in which over 10 percent of users participated included walking/running (18 percent), collecting berries/mushrooms (13 percent), hunting (13 percent), and riding ATVs/ORVs (11 percent) (Table B3.4-1).

Activities in which less than 10 percent of recreation users participated during their current outing include flightseeing (9 percent), skiing (8 percent), snowshoeing (8 percent), bicycling (7 percent), dog sledding (3 percent), swimming (2 percent), and ziplining (2 percent).

Table B3.4-1. All Recreational Activities During Current Outing in Study Area, Percent

Activity	% of Total
	n=1,118
Camping (roadside and remote)	46%
Roadside camping	29%
Remote camping	19%
Wildlife viewing (including bird watching)	40%
Wildlife viewing	33%

Activity	% of Total
Bird watching	19%
Hiking/backpacking	25%
Snowmachining	25%
Fishing (all species)	25%
Fishing for other species	17%
Fishing for salmon	5%
Ice-fishing	4%
Boating (non-motorized and motorized)	21%
Non-motorized boating (rafting/canoeing/ kayaking/pack raft)	11%
Motorized boating – (jet, prop, air)	11%
Alaska Railroad	19%
Walking/running	18%
Hunting	13%
Collecting berries/ foraging mushrooms	13%
Riding ATVs	11%
Flightseeing	9%
Skiing	8%
Snowshoeing	8%
Bicycling	7%
Dog sledding	3%
Swimming	2%

Activity	% of Total
Zipline	2%
Other*	7%

* "Other" included fewer than five responses for each activity, including: geocaching, gold panning/recreational mining, hockey, horseback riding, snowboarding, jet skiing, kite skiing, ice skating, target shooting, motorcycle riding, mountaineering, northern lights viewing, picnicking, rock hunting, roller skiing, skijoring, and sledding.

Note: Multiple responses accepted, so columns will not add to 100 percent.

Source: Susitna-Watana Recreation Intercept Survey.

3.4.2. All Recreation Activities by Sub-Area

This section provides a summary of all recreation activities during the current outing within each Sub-Area. As a proportion of all activities participated in each Sub-Area, the most common recreation activities are outlined below and in Table B3.4-2.

- *Camping* was a significant activity in all Sub-Areas (39 percent or higher), with the exception of the Talkeetna Area (14 percent) and Remote North (20 percent).
    - Roadside camping most often occurred in the East Denali Highway Sub-Area (49 percent) and West Denali Highway Sub-Area (43 percent)
    - Remote camping most often occurred in the Remote South Sub-Area (57 percent) and Lake Louise Area Sub-Area (34 percent).
- *Hiking/backpacking* most often occurred in the East Denali Highway Sub-Area (36 percent) and Parks Highway Sub-Area (25 percent).
- *Snowmachining* was the most popular recreation activity in the Lake Louise Area Sub-Area (55 percent) and Remote North Sub-Area (38 percent).
- *Fishing* for all types of species most often occurred in the Lake Louise Area Sub-Area (36 percent) and East Denali Highway Sub-Area (30 percent).
- *Boating* (both motorized and non-motorized) was most often participated in within the Talkeetna Area Sub-Area (24 percent), as well as in the East Denali Highway, Parks Highway, and Lake Louise Area Sub-Areas (each 21 percent).
- *Hunting* most often occurred in the Remote North (45 percent) and Remote South (40 percent) Sub-Areas.

The following were the top three recreational activities by Sub-Area:

- *Talkeetna Area* – Alaska Railroad (43 percent), wildlife viewing (including bird watching) (24 percent) and flightseeing (22 percent).
- *West Denali Highway* – Wildlife viewing (including bird watching) (53 percent), camping (roadside and remote camping combined) (52 percent), and hiking/backpacking (21 percent).

- *East Denali Highway* – Wildlife viewing (including bird watching) (58 percent), camping (roadside and remote camping combined) (57 percent), and hiking/backpacking (36 percent).
- *Parks Highway* – Camping (roadside and remote camping combined) (39 percent), wildlife viewing (including bird watching) (39 percent), and Alaska Railroad (35 percent).
- *Lake Louise Area* – Snowmachining (55 percent), camping (roadside and remote camping combined) (53 percent), wildlife viewing (including bird watching) (44 percent).
- *Remote North* – Hunting (45 percent), wildlife viewing (including bird watching) (39 percent) and snowmachining (38 percent).
- *Remote South* – Camping (roadside and remote camping combined) (57 percent), wildlife viewing (including bird watching) (50 percent), and hunting and riding ATVs (both 40 percent).

Table B3.4-2. All Recreational Activities During Current Outing in Sub-Areas and All Study Area, Percent

Activity	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,118	n=407	n=254	n=297	n=317	n=205	n=56	n=30
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Camping (roadside and remote)	46%	14%	52%	57%	39%	53%	20%	57%
Roadside camping	29%	11%	43%	49%	20%	21%	20%	-
Remote camping	19%	4%	10%	10%	20%	34%	-	57%
Wildlife viewing (Including bird watching)	40%	24%	53%	58%	39%	44%	39%	50%
Wildlife viewing	33%	18%	44%	50%	32%	35%	36%	50%
Bird watching	19%	10%	25%	29%	16%	27%	11%	10%
Hiking/backpacking	25%	15%	21%	36%	25%	16%	14%	17%
Snowmachining	25%	6%	18%	22%	17%	55%	38%	30%
Fishing (all species)	25%	10%	14%	30%	16%	36%	16%	10%
Fishing for salmon	5%	7%	1%	-	7%	-	-	7%

Activity	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
Fishing for other species	17%	3%	13%	29%	10%	20%	13%	7%
Ice-fishing	4%	<1%	1%	1%	2%	17%	4%	-
Boating (non-motorized and motorized)	21%	24%	2%	21%	21%	21%	11%	13%
Non-motorized boating (rafting/canoeing/ kayaking/pack raft)	11%	9%	2%	17%	11%	19%	-	7%
Motorized boating – (jet, prop, air)	11%	15%	<1%	6%	10%	6%	11%	7%
Alaska Railroad	19%	43%	-	-	35%	-	-	-
Walking/running	18%	20%	12%	20%	10%	13%	4%	10%
Hunting	13%	<1%	17%	22%	3%	13%	45%	40%
Collecting berries/ foraging mushrooms	13%	2%	15%	23%	6%	8%	13%	17%
Riding ATVs	11%	3%	13%	18%	3%	7%	20%	40%
Flightseeing	9%	22%	-	2%	3%	1%	4%	10%
Skiing	8%	11%	3%	1%	9%	5%	4%	7%
Snowshoeing	8%	4%	3%	3%	12%	10%	5%	10%
Bicycling	7%	8%	10%	10%	4%	3%	2%	-
Dog sledding	3%	4%	4%	3%	1%	2%	1%	-
Swimming	2%	3%	1%	2%	1%	1%	-	3%
Zipline	2%	6%	-	-	-	-	-	-
Other*	7%	10	6%	6%	7%	2%	2%	7%

* "Other" included fewer than 5 responses for each activity, including: geocaching, gold panning/recreational mining, hockey, horseback riding, snowboarding, jet skiing, kite skiing, ice skating, target shooting, motorcycle riding, mountaineering, northern lights viewing, picnicking, rock hunting, bike joring, roller skiing, skijoring, and sledding.

Note: Multiple responses accepted, so columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

3.4.3. Selected Recreation Activities by Grid

The following five figures display the grid identified by respondents of where they camped, boated (motorized and non-motorized), fished (all species), hunted, or snowmachined in the Study Area during their current outing (March 2013–March 2014) (Figures B3.4-1 through B3.4-5). The various levels of shading denote the number of respondents who identified participating in the specific recreation activity within that grid.

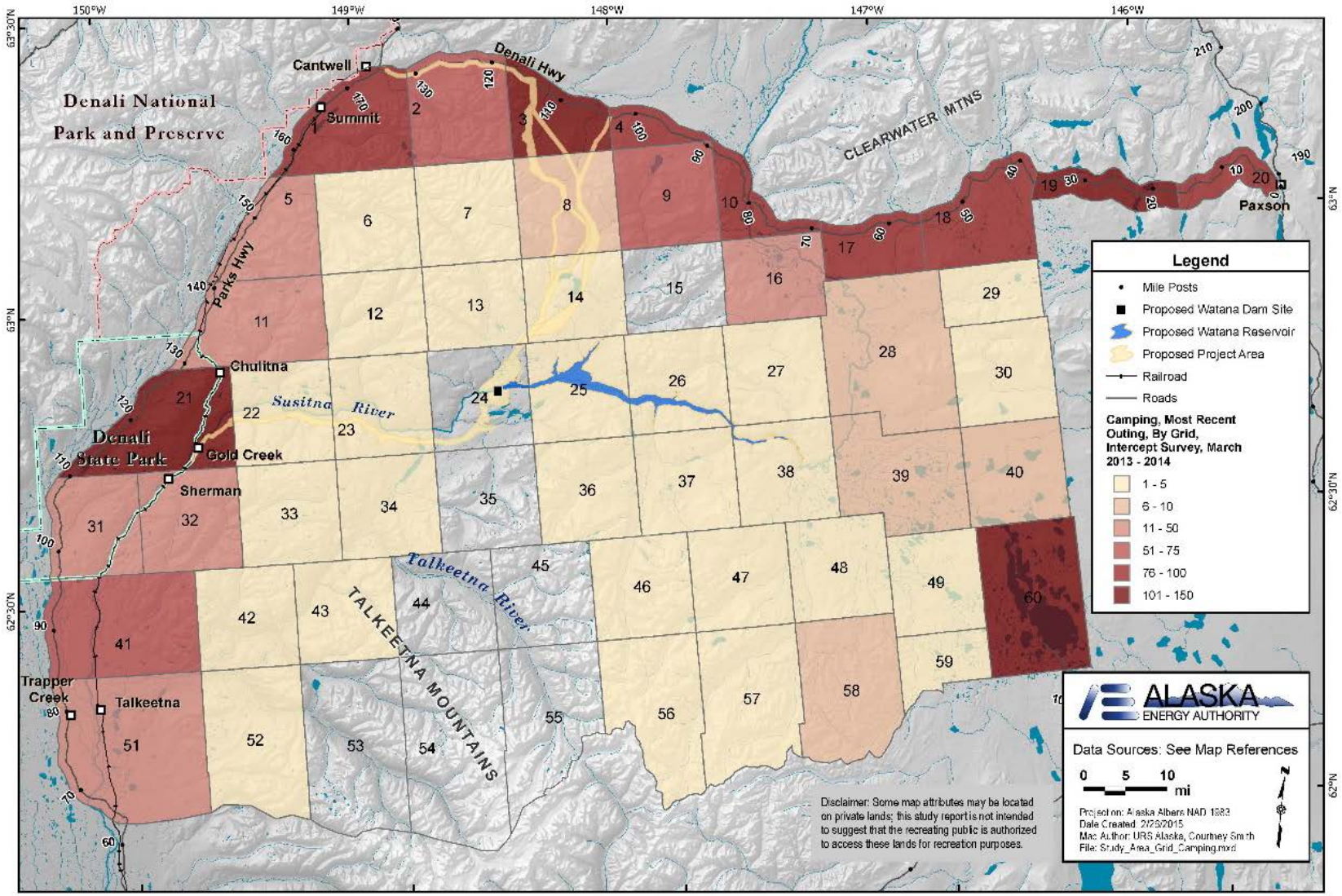


Figure B3.4-1. Number of Survey Respondents Camping, During Current Outing, by Grid, March 2013–March 2014

Source: Susitna-Watana Recreation Intercept Survey.

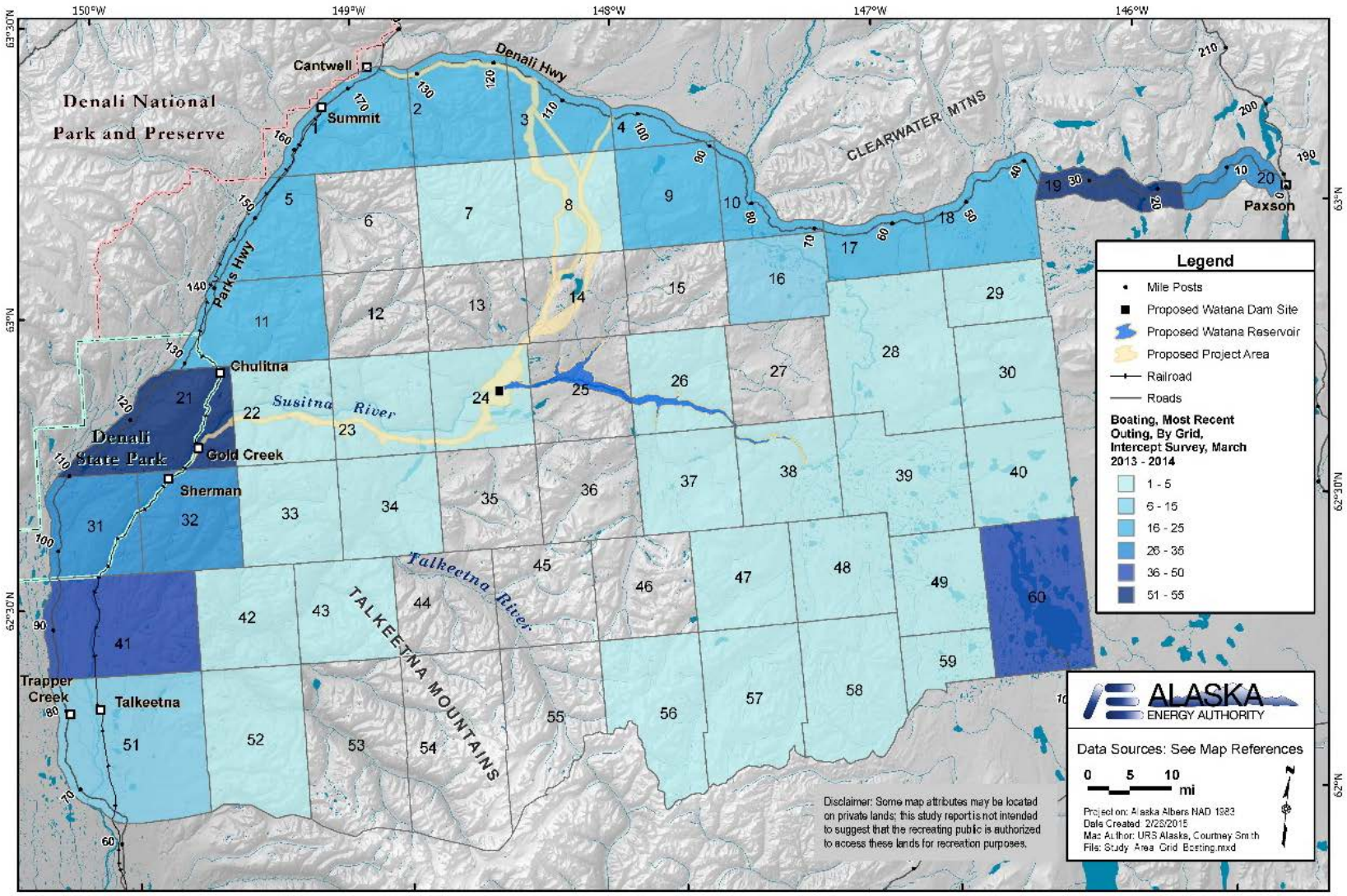


Figure B3.4-2. Number of Survey Respondents Boating, During Current Outing, by Grid (March 2013–March 2014)

Source: Susitna-Watana Recreation Intercept Survey.

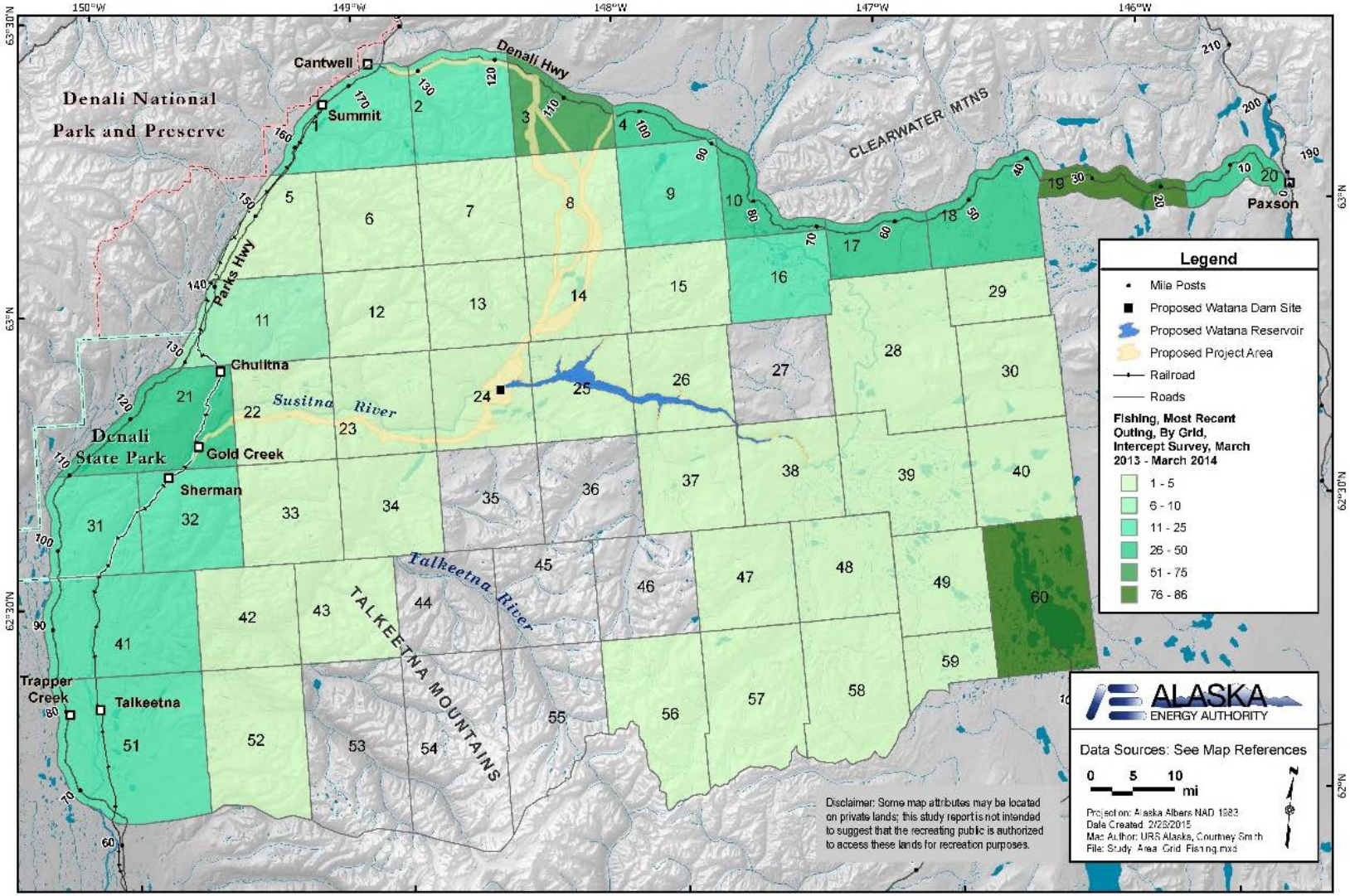


Figure B3.4-3. Number of Survey Respondents Fishing, During Current Outing, by Grid (March 2013–March 2014)

Source: Susitna-Watana Recreation Intercept Survey.

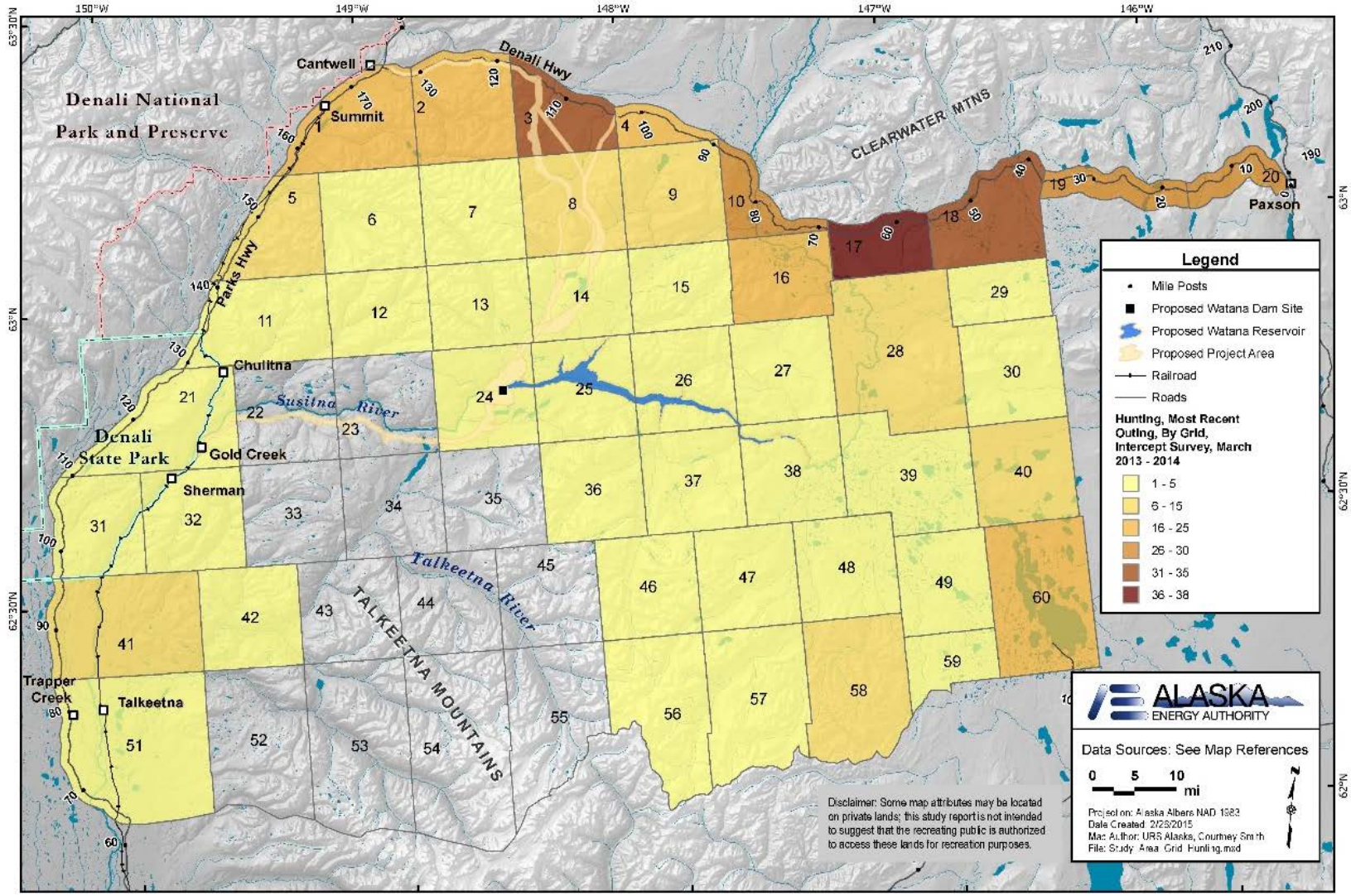


Figure B3.4-4. Number of Survey Respondents Hunting, During Current Outing, by Grid (March 2013-March 2014)

Source: Susitna-Watana Recreation Intercept Survey.

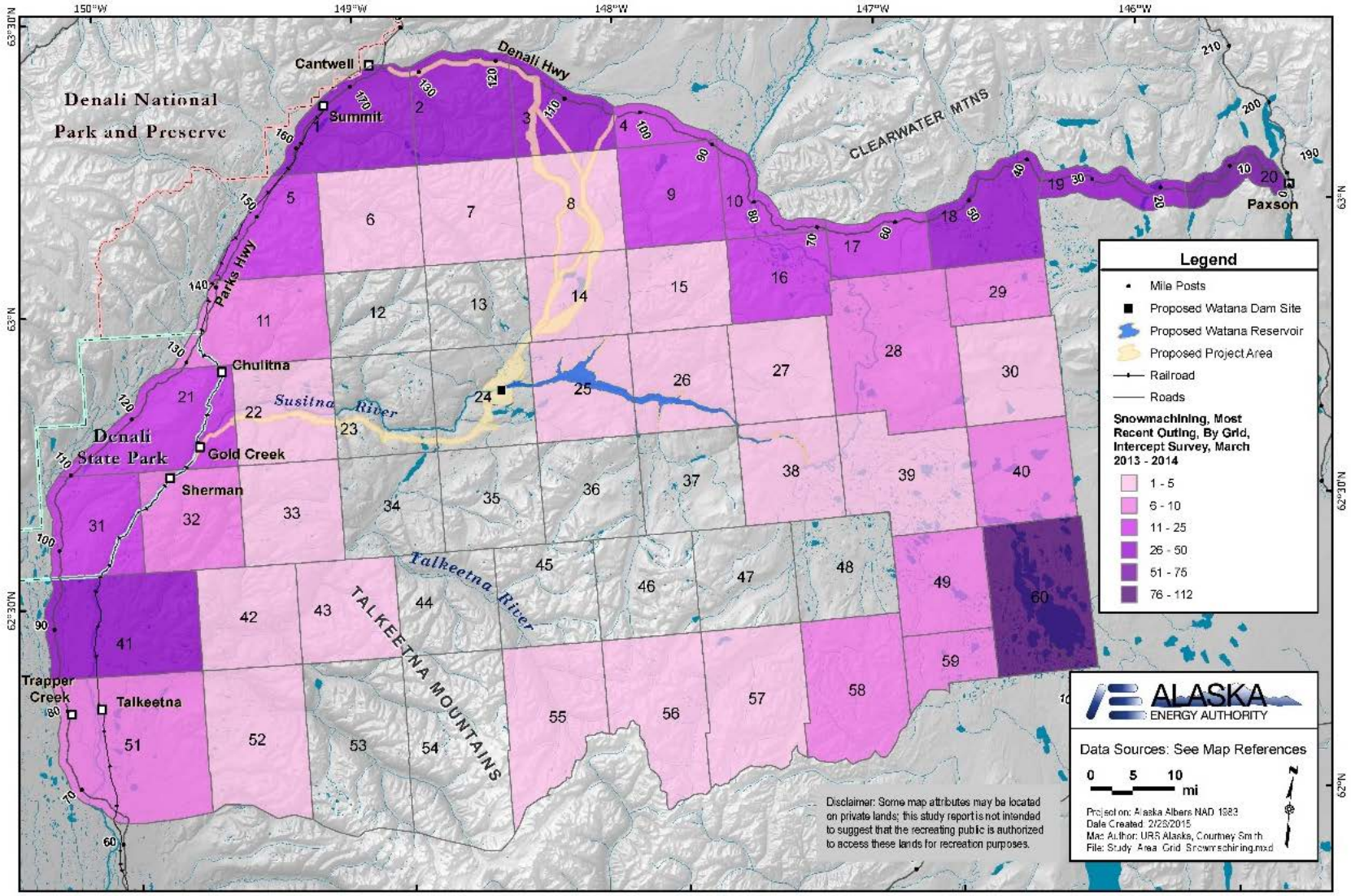


Figure B3.4-5. Number of Survey Respondents Snowmachining, During Current Outing, by Grid (March 2013–March 2014)

Source: Susitna-Watana Recreation Intercept Survey.

3.5. Primary Recreation Activity During Current Outing

3.5.1. Primary Recreation Activity in Study Area and Sub-Areas

During the outing in which they were surveyed (i.e., their current outing), recreation users were asked to identify a single activity as their primary recreation activity for that trip. Overall, primary activities varied across a large number of possible activities. One in five (21 percent) identified camping as their primary activity, while 17 percent reported snowmachining, 10 percent reported fishing, and 10 percent reported hunting. All other activities were reported as primary by less than 10 percent of those surveyed (Table B3.5-1).

As a proportion of primary activities participated in each Sub-Area, the top primary recreation activities are described below.

- *Camping* was the top primary activity in the East Denali Highway (30 percent), West Denali Highway (28 percent), and Parks Highway (25 percent) Sub-Areas.
    - Roadside camping was the top primary activity in the West Denali Highway (27 percent) and East Denali Highway (29 percent) Sub-Areas.
- *Snowmachining* was the top primary activity in the Lake Louise Area Sub-Area (40 percent).
- *Riding the Alaska Railroad* was the top recreational activity in the Talkeetna Area Sub-Area (14 percent).
- *Hunting* was top primary activity in the Remote South (40 percent) and Remote North (38 percent) Sub-Areas.

The following were the top three primary recreational activities identified within each Sub-Area:

- *Talkeetna Area* – Alaska Railroad (14 percent), flightseeing (13 percent), and boating (motorized and non-motorized combined) (12 percent).
- *West Denali Highway* – Camping (roadside and remote camping combined) (28 percent), hunting (17 percent), and snowmachining (12 percent).
- *East Denali Highway* – Camping (roadside and remote camping combined) (30 percent), hunting (20 percent), and snowmachining (16 percent).
- *Parks Highway* – Camping (roadside and remote camping combined) (25 percent), Alaska Railroad (14 percent), snowmachining (10 percent), and fishing for all species (10 percent).
- *Lake Louise Area* – Snowmachining (40 percent), camping (roadside and remote camping combined) (29 percent), and fishing (all species) (11 percent).
- *Remote North* – Hunting (38 percent), snowmachining (22 percent), and camping (remote tent/cabin) (16 percent).
- *Remote South* – Hunting (40 percent), remote camping (20 percent), and snowmachining (17 percent).

Table B3.5-1. Primary Recreation Activity During Current Outing in Sub-Areas and All Study Area, Percent

Primary Activity	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,115	n=403	n=253	n=297	n=317	n=203	n=55	n=30
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Camping (net)	21%	11%	28%	30%	25%	29%	16%	20%
Roadside camping	14%	7%	27%	29%	15%	12%	-	-
Remote camping	6%	4%	1%	1%	10%	16%	16%	20%
Snowmachining	17%	3%	12%	16%	10%	40%	22%	17%
Fishing (all species)	10%	10%	6%	9%	10%	11%	7%	17%
Fishing for salmon	4%	9%	1%	-	6%	-	4%	10%
Fishing for other species	5%	1%	4%	8%	3%	6%	2%	7%
Ice-fishing	2%	-	1%	1%	1%	4%	2%	-
Hunting	10%	-	17%	20%	2%	7%	38%	40%
Alaska Railroad	6%	14%	4%	-	14%	-	-	-
Boating (net)	6%	12%	2%	3%	10%	3%	5%	-
Motorized boating (jet/prop/air)	3%	7%	<1%	1%	5%	2%	5%	-
Non-motorized (rafting/canoeing/ kayaking/pack raft)	3%	5%	2%	2%	5%	<1%	-	-
Flightseeing	5%	13%	1%	-	5%	-	-	3%
Bicycling	3%	5%	6%	5%	2%	-	4%	-
Skiing	3%	8%	<1%	<1%	2%	-	-	-
Hiking/backpacking	3%	6%	3%	2%	4%	1%	2%	-

Primary Activity	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
Wildlife viewing (net)	3%	2%	7%	5%	3%	3%	2%	-
Wildlife viewing	2%	1%	6%	4%	2%	3%	2%	-
Bird watching	1%	1%	1%	<1%	1%	<1%	-	-
Dog sledding	2%	1%	5%	3%	2%	1%	2%	-
Walking/running	2%	2%	<1%	<1%	2%	1%	-	-
Snowshoeing	1%	1%	-	<1%	3%	1%	-	-
Collecting berries/mushrooms	1%	-	3%	2%	1%	-	-	-
Riding ATV's	1%	1%	1%	2%	<1%	-	-	-
Zipline	1%	2%	<1%	-	1%	-	-	-
Swimming	<1%	<1%	-	-	-	-	-	-
Other*	4%	7%	6%	3%	5%	1%	2%	3%
Don't know/Refused	1%	1%	<1%	<1%	<1%	-	-	-

* "Other" included fewer than 5 responses for each activity, including: photography, mountaineering, motorcycle riding, skijoring, horseback riding, snowboarding, gold panning/recreational mining, roller skiing, kite skiing, geocaching, northern lights viewing, and bike joring.

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

3.5.2. Primary Recreation Activity – Number of Days

Recreation users were asked how many days they conducted their primary recreation activity during their current outing. On average, all recreational users spent 3.1 days doing their primary recreation activity in the Study Area; the median was 2.0 days (Table B3.5-2). On average, the primary recreation activity of hunting was conducted for the longest period of time (6.1 days).

Table B3.5-2. Number of Days Conducting Primary Recreation During Current Outing, All Primary Activities and Selected Primary Activities, Percent

Number of Days	All Primary Activities	Snowmachining	Camping (Roadside)	Fishing (All Species)	Hunting
	n=1,111	n=185	n=158	n=114	n=108
	% of Total	% of Total	% of Total	% of Total	% of Total
1 day	37%	32%	13%	35%	9%
2 days	22%	31%	25%	23%	15%
3 days	19%	22%	28%	25%	19%
4–7 days	15%	11%	28%	11%	29%
8–14 days	5%	2%	4%	6%	23%
15+ days	1%	1%	1%	-	6%
Don't know/Refused	1%	2%	1%	-	-
Average # of days	3.1	2.4	3.8	2.7	6.1
Median # of days	2.0	2.0	3.0	2.0	4.0

Note: Due to rounding, some columns will not add to 100 percent.
Source: Susitna-Watana Recreation Intercept Survey.

3.5.3. Primary Recreation Activity – Guide Use

Most recreation users (93 percent) did not hire a guide for their primary recreation activity during their current outing in the Study Area (Table B3.5-3).

Table B3.5-3. Primary Recreation Activity During Current Outing, Use of Guide, Percent

Response	All Study Area
	n=1,114
	% of Total
Yes	6%
No	93%

Response	All Study Area
Don't know/Refused	<1%

Note: Due to rounding, column does not add to 100 percent.
Source: Susitna-Watana Recreation Intercept Survey.

Recreation users were most likely to hire a guide during their current outing for the following primary recreation activities: ziplining (63 percent), fishing for salmon (48 percent), dog sledding (23 percent), non-motorized boating (22 percent), and riding ATVs (18 percent).

3.5.4. Primary Recreation Activity – Previous Trip to Study Area

Two-thirds (66 percent) of recreation users had visited the Study Area previously to engage in the primary activity they identified during their current visit. Alaska residents were more likely than non-residents to have previously engaged in their primary activity in the Study Area (82 percent compared to 18 percent, respectively). Previous primary recreation use was highest in the Remote North (85 percent) and the Lake Louise Area (83 percent) Sub-Areas (Table B3.5-4).

Table B3.5-4. Previous Trip to Study Area for Primary Activity, All Study Area and Sub-Areas, Percent

Response	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,115	n=403	n=253	n=297	n=317	n=203	n=55	n=30
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Yes	66%	49%	68%	70%	58%	83%	85%	73%
No	33%	51%	32%	29%	42%	15%	15%	27%
Don't know/Refused	1%	<1%	<1%	<1%	1%	2%	-	-

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.
Source: Susitna-Watana Recreation Intercept Survey.

3.5.5. Primary Recreation Activity – First Trip to Study Area for Primary Activity

Of those who had visited the Study Area previously, and engaged in their primary recreation activity during the prior visit(s), almost one-third (32 percent) first visited the area for their primary activity in 1990 or before. Nineteen percent first visited between 1991 and 2000, 29 percent between 2001 and 2010, and 15 percent more recently (between 2011 and 2013) (Table B3.5-5). Although overall visitation is less by the volume, the Sub-Area with the longest history of previous visits was in Remote South (68 percent engaged in primary activity in 1990 or earlier).

Table B3.5-5. First Trip to Study Area for Primary Activity, All Study Area and Sub-Areas, Percent

Years	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=735	n=195	n=172	n=201	n=183	n=169	n=47	n=22
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
1990 or before	32%	28%	36%	32%	30%	38%	36%	68%
1991 – 2000	19%	18%	19%	20%	23%	20%	21%	14%
2001 – 2010	29%	30%	30%	31%	28%	28%	21%	9%
2011 – 2013	15%	18%	13%	12%	15%	11%	13%	9%
Don't know/Refused	4%	6%	2%	4%	4%	3%	9%	-

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

Of all recreation users who had visited the Study Area before and had engaged in their primary recreation activity on a prior trip, those who fished were most likely to have visited the Study Area in 1990 or earlier (40 percent), followed by hunters (39 percent) (Table B3.5-6).

Table B3.5-6. First Trip to Study Area for Primary Activity, All Study Area and Selected Primary Activity, Percent

Years	All Primary Activities	Snowmachining	Camping (Roadside)	Hunting	Fishing (All Species)
	n=735	n=164	n=100	n=90	n=78
	% of Total	% of Total	% of Total	% of Total	% of Total
1990 or before	32%	32%	33%	39%	40%
1991 – 2000	19%	22%	15%	17%	21%
2001 – 2010	29%	29%	32%	21%	31%
2011 – 2013	15%	9%	20%	19%	9%
Don't know/Refused	4%	8%	-	4%	-

Base: Recreational users who have visited the Study Area for their primary activity prior to current outing.

Note: Due to rounding, some columns will not add to 100 percent.

Source: Susitna-Watana Recreation Intercept Survey.

3.5.6. Primary Recreation Activity – Frequency of Visits to Study Area for Primary Activity

When asked how often they visit the Study Area for their primary recreation activity, the largest proportion of users (37 percent) said they visit two to 10 times per year. Twenty-nine percent of users visit more than 10 times per year, 21 percent visit once per year, and 10 percent visit once every few years. The Lake Louise Area and Talkeetna Area Sub-Areas were most frequently visited (more than 10 times per year) by recreation users engaged in their primary activity (41 percent and 40 percent, respectively) (Table B3.5-7).

Table B3.5-7. Frequency of Visits to Study Area for Primary Activity, All Study Area and Sub-Area, Percent

Frequency of Previous Visits	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=736	n=195	n=172	n=201	n=183	n=169	n=47	n=22
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
More than 10 times per year	29%	40%	13%	12%	31%	41%	17%	23%
Two to ten times per year	37%	32%	38%	31%	34%	43%	45%	59%
Once every year	21%	14%	27%	29%	21%	8%	21%	14%
Once every few years	10%	10%	16%	21%	10%	5%	15%	5%
Less often	3%	3%	5%	6%	3%	2%	-	-
Don't know/Refused	1%	1%	1%	1%	1%	1%	2%	-

Base: Recreational users who have visited the Study Area for their primary activity prior to current outing.

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

Snowmachining was the most frequent primary recreation activity in the Study Area (34 percent participated more than ten times per year and 48 percent between two and ten times per year) (Table B3.5-8).

Table B3.5-8. Frequency of Visits to Study Area for Primary Activity, All Primary Activities and Selected Primary Activities, Percent

Frequency of Previous Visits	All Primary Activities	Snowmachining	Camping (Roadside)	Hunting	Fishing (All Species)
	n=736	n=164	n=100	n=90	n=78
	% of Total	% of Total	% of Total	% of Total	% of Total
More than 10 times per year	29%	34%	3%	10%	23%
Two to ten times per year	37%	48%	27%	40%	47%
Once every year	21%	14%	32%	34%	21%
Once every few years	10%	2%	28%	13%	9%
Less often	3%	1%	9%	1%	-
Don't know/Refused	1%	1%	1%	1%	-

Base: Recreational users who have visited the Study Area for their primary activity prior to current outing.

Note: Due to rounding, some columns will not add to 100 percent.

Source: Susitna-Watana Recreation Intercept Survey.

3.6. Other (Non-Primary) Recreation Activities in Last 12 Months

Aside from their primary activity, 54 percent of recreation users engaged in other recreational activities in the Study Area over the 12 months prior to their current visit (Table B3.6-1).

Table B3.6-1. Other Non-Primary Activities in the Last 12 Months

	% of Total
	n=1,115
	100%
Yes	54%
No	46%
Don't know/Refused	<1%

Note: Due to rounding, column will not add to 100 percent.

Source: Susitna-Watana Recreation Intercept Survey

Among those who did engage in other (non-primary) recreational activities in the Study Area during the last 12 months, 62 percent camped, 53 percent fished, 48 percent snowmachined, 45 percent hiked/backpacked, and 44 percent boated. Other activities identified by recreation users include collecting berries/mushrooms (38 percent), hunting (37 percent), riding ATVs (33 percent), skiing (26 percent), snowshoeing (25 percent), bicycling (23 percent), and walking/running (22 percent). Less than 20 percent of recreation users participated in flightseeing, dog sledding, ziplining, swimming, or riding the Alaska Railroad (Table B3.6-2).

Table B3.6-2. Other Non-Primary Activities in the Last 12 Months, by Activity, by All Study Area and Sub-Area

Activity	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=601	n=167	n=115	n=130	n=160	n=156	n=33	n=19
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Camping (remote and roadside)	62%	67%	61%	55%	74%	60%	64%	63%
Remote camping	43%	51%	3 7%	23%	56%	49%	33%	63%
Roadside camping	27%	28%	35%	40%	28%	18%	36%	11%
Fishing (net)	53%	57%	52%	43%	53%	63%	48%	53%
Fishing for other species	42%	36%	44%	39%	39%	56%	42%	53%
Fishing for salmon	23%	46%	17%	9%	34%	13%	6%	26%
Ice-fishing	2%	2%	2%	-	1%	3%	3%	-
Snowmachining	48%	41%	38%	39%	44%	69%	48%	58%
Wildlife viewing (including bird watching)	45%	54%	42%	43%	48%	44%	48%	47%
Wildlife viewing	38%	42%	34%	36%	38%	40%	45%	47%
Bird watching	27%	35%	28%	25%	30%	25%	21%	21%
Hiking/backpacking	45%	59%	38%	36%	58%	33%	36%	47%
Boating (non-motorized and motorized)	44%	58%	28%	27%	46%	54%	24%	53%

Activity	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
Non-motorized boating (rafting/canoeing/ kayaking/pack raft)	28%	47%	21%	20%	37%	17%	9%	37%
Motorized boating (jet/prop/air)	27%	28%	12%	13%	22%	49%	21%	42%
Collecting berries/mushrooms	38%	52%	36%	31%	43%	33%	18%	26%
Hunting	37%	23%	38%	47%	31%	51%	42%	21%
Riding ATV's	33%	32%	29%	28%	29%	40%	33%	53%
Skiing	26%	49%	19%	7%	38%	15%	3%	37%
Snowshoeing	25%	37%	17%	14%	39%	19%	12%	16%
Bicycling	23%	46%	18%	12%	29%	11%	9%	26%
Walking/running	22%	42%	23%	15%	26%	17%	18%	26%
Alaska Railroad	16%	37%	10%	3%	34%	2%	-	21%
Flightseeing	14%	28%	10%	7%	15%	11%	12%	16%
Dog sledding	8%	11%	12%	8%	8%	5%	3%	21%
Swimming	8%	20%	2%	2%	11%	1%	-	16%
Zipline	1%	2%	1%	1%	2%	-	-	-
Other*	19%	35%	14%	8%	25%	12%	9%	37%

* "Other" included fewer than 5 responses for each activity, including: ice skating, photography, skijoring, horseback riding, gold panning/recreational mining, northern lights viewing, water skiing, hockey, sledding, jet skiing, target shooting, mountaineering, roller skiing, paddle boarding, and bike joring.

Note: Multiple responses accepted so columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

3.7. Current Outing – Hunting Activity

3.7.1. Current Outing – Primary Harvest Objective

Half (49 percent) of recreation users who hunted (either as their primary or other recreation activity) in the Study Area during their current outing hunted under a permit for caribou; 29 percent hunted for moose, 14 percent for bear, and 4 percent for ptarmigan (Table B3.7-1).

Table B3.7-1. All Hunting Activity During Current Outing, by Primary Harvest Objective, Percent

Type of Permit	% of Total
	n=140
	% of Total
Caribou (all)	49%
State draw permit one bull	31%
State registration permit any caribou	11%
Federal subsistence	5%
State community harvest	1%
Moose (all)	29%
State harvest ticket	16%
State draw permit any bull	6%
Federal subsistence	4%
State community harvest	3%
State draw permit cow	-
Bear (brown or black)	14%
Ptarmigan	4%
Waterfowl	-
Other*	4%

Base: Recreational users who hunted during their current outing.

* "Other" included fox, wolf, coyote, and rabbit.

Source: Susitna-Watana Recreation Intercept Survey.

3.8. Current Outing – Travel More than One-Half Mile into Study Area

3.8.1. Travel More than One-Half Mile into Study Area

During their current outing, most (80 percent) recreation users traveled more than one-half mile from a trailhead or main road into the Study Area (Table B3.8-1). The following type of recreational activity was most likely (>90 percent) to occur more than one-half mile from a trailhead or roadside:

- Alaska Railroad (100 percent).
- Motorized boating (96 percent).
- Snowshoeing (91 percent).

Table B3.8-1. Traveled More than One-Half Mile Into Study Area During Current Outing, All Activities and Selected Recreation Activities, Percent

Response	All Activities	Camping (Roadside)	Hiking/ Backpacking	Snow machining	Fishing (All Species)	Non-motorized Boating	Motorized Boating	Hunting
	n=1,115	n=321	n=282	n=277	n=274	n=127	n=121	n=141
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Yes	80%	65%	81%	88%	80%	85%	96%	89%
No	20%	35%	19%	12%	20%	15%	4%	11%
Don't know/ Refused	<1%	-	-	<1%	-	-	-	-

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

3.8.2. Travel More than One-Half Mile into Study Area by Sub-Area

Recreation users frequently traveled more than one-half mile off the road or from the trailhead along the Parks Highway (36 percent), the East (22 percent) and West (17 percent) Denali Highways, and in the Lake Louise Area (20 percent) Sub-Areas. Fewer recreation users traveled more than one-half mile from a road or trailhead in the Remote South (3 percent) and Remote North (5 percent) Sub-Areas (Table B3.8-2) during their current outing.

Table B3.8-2. Traveled More than One-Half Mile Into Study Area During Current Outing, by Sub-Area, Percent

Sub-Area	% of Total
	n=854
Parks Highway.	29%
East Denali Highway	18%
Lake Louise Area	16%
West Denali Highway	14%
Talkeetna Area	16%
Remote North	4%
Remote South	2%
Don't know/Refused	<1%

Base: Recreation users who traveled more than one-half mile from a trailhead or main road during the current outing.

Note: Due to rounding, the column will not add to 100 percent.

Source: Susitna-Watana Recreation Intercept Survey

3.8.3. Travel More than One-Half Mile into the Study Area – Frequency of Encounters with Others

Among recreation users who traveled more than one-half mile from a trailhead or road on their most recent outing, half (51 percent) encountered other people between one and six times, while 31 percent encountered people more than six times. Fourteen percent of recreation users never encountered other people on their excursion. Recreation users who had their excursion more than one-half mile from a trailhead or roadside in the Remote North, Remote South, or Parks Highway Sub-Areas were more likely (>55 percent) to have more than six encounters with other people during their excursion than those who had their excursion in other Sub-Areas (Table B3.8-3).

Table B3.8-3 Number of Encounters with Others More than One-Half Mile From Trailhead or Road on Current Outing, All Study Area and Sub-Areas of Current Outing, Percent

Response	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=865	n=173	n=146	n=183	n=307	n=173	n=41	n=25
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total

Response	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
Never	14%	6%	16%	15%	14%	7%	7%	16%
1 – 6 times	51%	39%	27%	32%	25%	40%	24%	20%
> 6 times	31%	44%	54%	50%	56%	51%	66%	64%
Don't know/Refused	5%	10%	3%	3%	5%	1%	2%	-

Base: Recreation users who traveled more than one-half mile from a trailhead or main road during the current outing.

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey

3.8.4. Travel More than One-Half Mile into the Study Area – Type of Trail Used

Also among those who traveled more than one-half mile from a trailhead or road, 45 percent traveled on both established trails as well as off-trail on their current outing. Forty-one percent traveled on established trails only, and 8 percent traveled off-trail only. Recreation users whose excursion was in the Remote North Sub-Area were least likely to travel on an established trail (15 percent) (Table B3.8-4).

Table B3.8-4. Type of Trail Used More than One-Half Mile From Trailhead or Road on Current Outing, All Study Area and Sub-Area of Current Outing, Percent

Response	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=866	n=173	n=146	n=184	n=307	n=173	n=41	n=25
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Established trails	41%	55%	37%	34%	48%	39%	15%	36%
Off-trail	8%	2%	12%	11%	6%	7%	12%	16%
Both established trails and off-trail	45%	31%	46%	53%	39%	53%	73%	48%
Don't know/Refused	5%	12%	5%	2%	7%	1%	-	-

Base: Recreation users who traveled more than one-half mile from a trailhead or main road during the current outing.

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

3.8.5. Travel More than One-Half Mile into the Study Area – Overnighted

Most recreation users (77 percent) who traveled more than one-half mile from a road or trailhead during their most recent visit to the Study Area did not camp or stay overnight at a location more than one-half mile from a trailhead or road. Recreation users whose excursion was in the Lake Louise Area or Remote South Sub-Areas were more likely (>30 percent) to camp or stay overnight than those who had an excursion in the other Sub-Areas (Table B3.8-5).

Table B3.8-5. Camped or Overnighted More than One-Half Mile from Trailhead or Road on Current Outing, All Study Area and Sub-Area of Current Outing, Percent

Response	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=866	n=173	n=146	n=184	n=307	n=173	n=41	n=25
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Yes	21%	8%	22%	21%	18%	35%	29%	36%
No	77%	91%	75%	76%	80%	65%	71%	64%
Don't know/Refused	2%	2%	3%	3%	2%	1%	-	-

Base: Recreation users who traveled more than one-half mile from a trailhead or main road during the current outing.

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

3.9. Recreation Experience

3.9.1. Recreation Experience – Crowding

Recreation users were asked to gauge how crowded they felt during their most recent outing in the Study Area on a scale of 1 to 10, with 1 being "not at all crowded" and 10 being "very crowded." The average recreation user rated the level of crowdedness at 2.5. Most respondents (77 percent) rated crowding as low (1, 2, and 3 combined), while 13 percent rated it in the mid-range (4, 5, and 6 combined), and 9 percent rated it as high (7, 8, 9, 10 combined) (Table B3.9-1).

Table B3.9-1. Recreation Experience, Rating of Crowdedness During Current Outing Percent

Responses	% of Total
	n=1,114
	100 %

Responses	% of Total
	n=1,114
Top (7 – 10) net	9%
10 – "Very crowded"	1%
9	1%
8	3%
7	4%
Mid (4 – 6) net	13%
6	2%
5	6%
4	5%
Low (1 – 3) net	77%
3	12%
2	14%
1 "Not at all crowded"	51%
Don't know/Refused	1%
Average rating	2.5

Note: Due to rounding, column will not add to 100 percent.
Source: Susitna-Watana Recreation Intercept Survey.

Respondents who recreated in the Remote South (3.0), East Denali Highway (2.8), or Remote North (2.7) Sub-Areas were more likely to rate the level of crowdedness higher than those who recreated in other Sub-Areas within the Study Area (Table B3.9-2).

Table B3.9-2. Recreation Experience, Average Rating of Crowdedness During Current Outing, by Sub-Area Location of Recreation Activity, Rate

Sub-Areas	Average Rating (1 "Not Crowded"- 10 "Very Crowded")	Sample
All Study Area	2.5	n=1,114
Remote South	3.0	n=30
East Denali Highway	2.8	n=297
Remote North	2.7	n=55
West Denali Highway	2.5	n=252
Lake Louise Area	2.4	n=203
Talkeetna Area	2.3	n=403
Parks Highway	2.3	n=316

Source: Susitna-Watana Recreation Intercept Survey.

Recreation users who hunted, fished for salmon, rode ATVs, fished for other non-salmon species, and collected berries/mushrooms (primary or other activity) were more likely to rate the level of crowdedness higher than respondents who participated in other recreation activities (>3.0 average rating) (Table B3.9-3).

Table B3.9-3. Recreation Experience, Average Rating of Crowdedness During Current Outing, by Selected Recreation Activity, Rate

Recreation Activity	Average Rating (1 "Not Crowded"- 10 "Very Crowded")	Sample
All activities combined	2.5	n=1,114
Hunting	3.6	n=141
Fishing for salmon	3.6	n=52
Riding ATVs	3.3	n=119
Fishing for non-salmon species	3.1	n=192

Recreation Activity	Average Rating (1 "Not Crowded"- 10 "Very Crowded")	Sample
Collecting berries/mushrooms	3.1	n=140
Roadside camping	2.8	n=320
Non-motorized boating	2.8	n=127
Motorized boating	2.8	n=121
Hiking/backpacking	2.6	n=281
Walking/running	2.6	n=202
Skiing	2.6	n=92
Bicycling	2.5	n=83
Wildlife/Bird viewing	2.5	n=443
Remote camping	2.5	n=210
Snowshoeing	2.4	n=85
Snowmachining	2.2	n=277
Flightseeing	2.1	n=97
Alaska Railroad	2.0	n=214
Dog sledding	2.0	n=37

Source: Susitna-Watana Recreation Intercept Survey.

3.9.2. Recreation Experience – Conflict

During their current outing, only 3 percent of recreation users experienced conflict with other individuals or groups that negatively impacted their recreation experience (Table B3.9-4).

Table B3.9-4. Recreation Experience, Experienced Conflict During Current Outing, All Study Area and Sub-Area of Recreation Activity, Percent

Response	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,114	n=403	n=252	n=297	n=316	n=203	n=55	n=30
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Yes	3%	3%	3%	5%	3%	3%	-	3%
No	95%	96%	96%	91%	96%	97%	95%	97%
Don't know/Refused	2%	1%	<1%	3%	2%	-	5%	-

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

3.9.3. Recreation Experience – Scenic Quality

Most recreation users (82 percent) did not report seeing any signs of infrastructure or human activity that detracted from the scenic quality of their surroundings on their current trip. Eighteen percent reported they did experience signs that detracted from the scenic quality within the area.

Recreation users who recreated in the Lake Louise Area Sub-Area were less likely to note a scenic detraction (8 percent) compared to other Sub-Areas (Table B3.9-5).

Table B3.9-5. Recreation Experience, Scenic Quality Detractions on Current Outing, All Study Area and Sub-Area of Recreation Activity, Percent

Response	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,114	n=403	n=252	n=297	n=316	n=203	n=55	n=30
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Yes	18%	19%	24%	22%	18%	8%	18%	33%
No	82%	81%	75%	77%	81%	91%	82%	67%
Don't know/Refused	1%	<1%	<1%	1%	1%	<1%	-	-

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

3.9.3.1. Recreation Experience – Scenic Quality, Types of Scenic Detractors

Among recreation users who reported signs of infrastructure or human activity that detracted from the scenic quality within the Study Area, 37 percent reported the detractor as trash, 17 percent reported vehicles, and 15 percent reported houses/cabins/structures. Less than 10 percent reported other detractors, such as people (9 percent), roads (9 percent), helicopters/planes (7 percent), or scientists/fish counters (7 percent) (Table B3.9-6).

Table B3.9-6. Recreation Experience, Type of Scenic Quality Detractions on Current Outing, All Study Area and Sub-Area of Recreation Activity, Percent

Response	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=191	n=73	n=60	n=63	n=54	n=17	n=10	n=10
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Trash	37%	32%	37%	48%	37%	41%	40%	40%
Vehicles	17%	15%	22%	11%	24%	29%	20%	30%
Houses/cabins/ structures	15%	10%	22%	29%	6%	18%	10%	-
People	9%	11%	7%	8%	6%	6%	10%	10%
Roads	9%	18%	7%	3%	13%	6%	20%	-
Helicopters/planes	7%	8%	5%	8%	11%	-	-	10%
Scientists/fish counters	7%	10%	3%	5%	13%	-	-	10%
Power lines	6%	12%	5%	-	13%	-	20%	10%
Communication towers	5%	8%	-	3%	6%	6%	10%	10%
Excrement	4%	4%	7%	6%	4%	6%	-	-
Mining related	3%	1%	2%	3%	2%	6%	10%	30%
Trails	2%	3%	2%	2%	2%	-	-	-
Railroad	-	-	-	-	-	-	-	-

Response	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
Other*	9%	10%	8%	6%	9%	12%	-	-

Base: Those whose scenic quality was detracted from by infrastructure or human activity on current outing.

* "Other" included the following individual responses: Igloo Hotel, high water, trees down in river, markers and ribbons on the shoreline, old dilapidated buildings, rock cairns (2 mentions), archaeological district signs, bullet holes in signs, defaced campground facilities/graffiti, smoke, fuel tanks, bear trap, and a gnome sitting on a boogie board in the middle of the Susitna River on a sand bar.

Note: Multiple responses accepted, so columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

Recreation users who were most likely to note trash as a scenic quality detraction on the current outing were most often participating in hunting, riding ATVs, bicycling, roadside camping, collecting berries/mushrooms, or hiking/backpacking (primary or other activity) (mentioned by 40 percent or more of recreation users engaged in these activities) (Table B3.9-7).

Table B3.9-7. Recreation Experience, Trash, Scenic Quality Detraction on Current Outing, by Selected Recreation Activity, Percent

Recreation Activity	"Trash" Mentioned	Sample
	% of Total	
All Activities Combined	37%	n=191
Hunting	63%	n=27
Riding ATVs	50%	n=26
Bicycling	48%	n=27
Roadside camping	45%	n=60
Collecting berries/mushrooms	41%	n=44
Hiking/backpacking	40%	n=62
Alaska Railroad	36%	n=33
Motorized boating	36%	n=22
Wildlife/Bird Viewing	35%	n=88

Recreation Activity	"Trash" Mentioned	Sample
Remote camping	35%	n=40
Fishing for non-salmon species	35%	n=31
Non-motorized boating	27%	n=22
Walking/running	23%	n=35
Snowmachining	18%	n=28
Fishing for salmon	13%	n=16

Base: Those whose scenic quality was detracted from by infrastructure or human activity on current outing.

Source: Susitna-Watana Recreation Intercept Survey.

3.9.4. Recreation Experience – Noise Detraction

Most recreational users (83 percent) did not recall any noises that detracted from their recreation experience in the Study Area. Recreation users in the Lake Louise Area were less likely to mention noise detraction (11 percent) than recreation users in any of the other Sub-Areas (Table B3.9-8).

Table B3.9-8. Recreation Experience, Noise Detractions on Current Outing, All Study Area and Sub-Area of Recreation Activity, Percent

Response	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,114	n=403	n=252	n=297	n=316	n=203	n=55	n=30
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Yes	16%	17%	20%	18%	16%	11%	18%	13%
No	83%	82%	79%	81%	83%	89%	82%	87%
Don't know/Refused	1%	<1%	<1%	1%	1%	-	-	-

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

3.9.4.1. Recreation Experience – Types of Noise Detraction

Among recreational users whose recreation experience was detracted by noise, helicopter and airplane sounds were most frequently mentioned as the source of the noise (20 percent mentioned for

each type). Jet aircraft sonic booms (16 percent), four wheeler/ATVs (14 percent), and noise from other people (11 percent) were also mentioned by more than 10 percent of recreation users who were impacted by noise (Table B3.9-9). Recreation users within the West Denali Highway, East Denali Highway, and Remote North Sub-Areas were most likely to be detracted by jet aircraft sonic boom noise (mentioned by 30 percent or more) than those recreating in the other Sub-Areas.

Table B3.9-9. Recreation Experience, Specified Noise Detractions on Current Outing, All Study Area and Sub-Area of Recreation Activity, Percent

Response	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=178	n=70	n=51	n=52	n=51	n=22	n=10	n=4
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Helicopters	20%	27%	16%	19%	29%	5%	10%	25%
Airplanes	20%	26%	14%	10%	20%	27%	10%	-
Jet aircraft sonic boom	16%	3%	33%	31%	8%	23%	30%	25%
Four wheeler/ATV	14%	13%	18%	19%	6%	9%	20%	25%
Noise from other people	11%	14%	4%	2%	12%	14%	10%	-
Boats	7%	7%	2%	8%	6%	18%	10%	25%
Cars/trucks/RV	7%	9%	8%	6%	8%	-	-	-
Gunshots	3%	3%	2%	2%	-	9%	-	-
Chainsaw	3%	6%	2%	-	4%	-	-	25%
Other*	29%	23%	24%	31%	29%	45%	20%	-
Don't know/Refused	1%	1%	-	-	1%	-	-	-

Base: Those for whom noise detracted from their recreation enjoyment on current outing.

* "Other" responses included: traffic, work trucks, bulldozers, train, bear deterrent noise, generator noise, snowmachines, dogs, mosquitos, and wolves.

Note: Multiple responses accepted; columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

Among recreational users whose recreation experience was detracted by noise, those respondents who had been fishing or hiking/backpacking were more disturbed by helicopter noise than users participating in other selected recreation activities (26 percent and 22 percent, respectively). However, the source of noise disturbance for recreational users participating in these activities was most frequently listed in the "other" category (Table B3.9-10).

Table B3.9-10. Recreation Experience, Specified Noise Detractions on Current Outing, by Selected Recreation Activity, Percent

Response	All Study Area	Wildlife Viewing/ Bird Viewing	Camping (Roadside)	Fishing (All Species)	Hiking/ Backpacking
	n=178	n=70	n=61	n=54	n=51
	% of Total	% of Total	% of Total	% of Total	% of Total
Helicopters	20%	14%	11%	26%	22%
Airplanes	20%	16%	7%	15%	12%
Jet aircraft sonic boom	16%	16%	18%	17%	10%
Four wheeler/ATV	14%	16%	16%	13%	15%
Noise from other people	11%	15%	10%	15%	10%
Boats	7%	7%	5%	9%	5%
Cars/trucks/RV	7%	10%	10%	4%	7%
Gunshots	3%	2%	3%	2%	5%
Chainsaw	3%	2%	2%	2%	3%
Other*	29%	30%	39%	26%	34%
Don't know/Refused	1%	-	-	-	-

Base: Those for whom noise detracted from their recreation enjoyment on current outing.

* "Other" responses include: traffic, work trucks, bulldozers, train, bear deterrent noise, generator, snow machines, dogs, mosquitos, and wolves.

Note: Multiple responses accepted; columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

3.10. Desired Levels of Facility, Infrastructure, and Information Within the Study Area

3.10.1. Desired Level of Facilities and Infrastructure

Recreation users were asked to indicate what level of infrastructure, recreation facilities, and sources of information they believe should be available in the Study Area. At least 10 percent of respondents indicated they believe there should be "a lot more" designated trails for non-motorized use (12 percent) and public cabins (10 percent) in the Study Area, more than for any other facility or infrastructure. Top among those items respondents frequently mentioned as needed "a little more" in the Study Area were trail maps (29 percent), public use cabins (28 percent), roadside toilets (25 percent), and designated trails for non-motorized use (22 percent) (Table B3.10-1). Tables B3.10-2 through B3.10-14 look at the desired levels of specific infrastructure by Sub-Area.

Table B3.10-1. Facilities and Infrastructure in the Study Area, Desired Level, All Recreation Users, Average Rating and Percent

Facilities, Infrastructure and Information	Average (1–5)	A lot more (5)	A little more (4)	The same (3)	A little less (2)	A lot less (1)	Don't Know
Designated trails for non-motorized use *(n=1,107)*	3.5	12%	22%	43%	2%	3%	18%
Public use cabins *(n=1,103)*	3.5	10%	28%	34%	1%	3%	24%
Roadside toilets *(n=1,109)*	3.4	7%	25%	55%	2%	2%	10%
Facilities for the disabled *(n=1,103)*	3.4	6%	18%	41%	1%	1%	33%
Trail maps *(n=1,107)*	3.4	6%	29%	45%	2%	2%	16%
Maintained roads *(n=1,111)*	3.2	5%	15%	68%	4%	3%	5%
Designated parking areas *(n=1,108)*	3.2	5%	19%	65%	3%	2%	7%
Boat launches *(n=1,106)*	3.2	4%	13%	52%	1%	2%	29%
Designated trail for off-road vehicles *(n=1,111)*	3.1	7%	15%	45%	7%	6%	20%
Visitor information *(n=1,108)*	3.1	2%	12%	73%	3%	2%	8%
Directional road signs *(n=1,107)*	3.1	3%	12%	72%	3%	2%	7%
RV accessible sites at campgrounds	3.0	3%	12%	52%	5%	5%	25%

Facilities, Infrastructure and Information	Average (1–5)	A lot more (5)	A little more (4)	The same (3)	A little less (2)	A lot less (1)	Don't Know
(n=1,110)							
Visitor centers *(n=1,100)*	3.0	1%	8%	70%	4%	4%	12%

Note: Due to rounding, some rows will not add to 100 percent.

Source: Susitna-Watana Recreation Intercept Survey.

Table B3.10-2. Maintained Roads in the Study Area, Desired Level, by All Study Area and by Sub-Areas of Recreation Use, Percent

Maintained Roads	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,111	n=402	n=252	n=295	n=316	n=203	n=55	n=30
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
A lot more	5%	2%	6%	5%	3%	13%	7%	3%
A little more	15%	15%	15%	14%	11%	19%	27%	17%
The same	68%	63%	69%	73%	69%	65%	58%	73%
A little less	4%	5%	4%	2%	4%	2%	-	3%
A lot less	3%	3%	3%	3%	4%	1%	5%	3%
Don't know	5%	11%	3%	2%	9%	<1%	2%	-

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

Table B3.10-3. Designated Parking Areas in the Study Area, Desired Level, by All Study Area and by Sub-Areas of Recreation Use, Percent

Designated Parking Areas	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,108	n=401	n=251	n=293	n=316	n=203	n=55	n=30
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total

Designated Parking Areas	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
A lot more	5%	1%	7%	4%	4%	11%	9%	3%
A little more	19%	17%	13%	15%	17%	26%	16%	23%
The same	65%	62%	70%	74%	63%	60%	69%	67%
A little less	3%	5%	3%	2%	4%	-	2%	7%
A lot less	2%	2%	2%	2%	2%	<1%	2%	-
Don't know	7%	13%	5%	3%	10%	2%	2%	-

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

Table B3.10-4. Roadside Toilets in the Study Area, Desired Level, by All Study Area and by Sub-Areas of Recreation Use, Percent

Roadside Toilets	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,109	n=401	n=252	n=294	n=316	n=203	n=55	n=30
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
A lot more	7%	2%	8%	6%	4%	14%	5%	7%
A little more	25%	21%	21%	26%	22%	31%	31%	37%
The same	55%	57%	58%	59%	56%	45%	53%	43%
A little less	2%	3%	2%	1%	3%	1%	2%	7%
A lot less	2%	2%	2%	2%	1%	2%	2%	7%
Don't know	10%	16%	8%	6%	13%	6%	7%	-

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey

Table B3.10-5. RV Accessible Sites at Campgrounds in the Study Area, Desired Level, by All Study Area and by Sub-Areas of Recreation Use, Percent

RV Accessible Sites at Campgrounds	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,110	n=402	n=252	n=295	n=315	n=203	n=55	n=30
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
A lot more	3%	1%	3%	3%	2%	4%	4%	-
A little more	12%	11%	9%	11%	10%	16%	18%	10%
The same	52%	44%	53%	58%	48%	57%	51%	60%
A little less	5%	3%	6%	6%	4%	5%	5%	3%
A lot less	5%	5%	5%	5%	7%	2%	7%	10%
Don't know	25%	36%	25%	17%	29%	16%	15%	17%

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

Table B3.10-6. Trail Maps in the Study Area, Desired Level, by All Study Area and by Sub-Areas of Recreation Use, Percent

Trail Maps	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,107	n=401	n=252	n=294	n=315	n=202	n=55	n=30
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
A lot more	6%	5%	5%	6%	5%	7%	4%	10%
A little more	29%	36%	29%	25%	30%	25%	22%	17%
The same	45%	35%	42%	47%	39%	57%	56%	60%
A little less	2%	2%	2%	1%	3%	<1%	4%	10%
A lot less	2%	1%	2%	2%	2%	1%	5%	3%

Trail Maps	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
Don't know	16%	21%	21%	19%	21%	9%	9%	-

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

Table B3.10-7. Designated Trails For Non-Motorized Use in the Study Area, Desired Level, by All Study Area and by Sub-Areas of Recreation Use, Percent

Designated Trails for Non-motorized Use	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,107	n=401	n=252	n=294	n=316	n=201	n=55	n=30
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
A lot more	12%	14%	12%	12%	14%	8%	7%	7%
A little more	22%	24%	26%	22%	23%	20%	16%	20%
The same	43%	35%	38%	46%	34%	55%	55%	67%
A little less	2%	1%	2%	2%	2%	1%	2%	7%
A lot less	3%	<1%	2%	4%	3%	3%	4%	-
Don't know	18%	25%	20%	15%	24%	12%	16%	-

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

Table B3.10-8. Designated Trails for Off-Road Vehicles in the Study Area, Desired Level, by All Study Area and by Sub-Areas of Recreation Use, Percent

Designated Trails for Off-road Vehicles	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,111	n=402	n=252	n=295	n=316	n=203	n=55	n=30
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total

Designated Trails for Off-road Vehicles	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
A lot more	7%	6%	6%	8%	4%	8%	9%	3%
A little more	15%	14%	10%	14%	14%	22%	15%	17%
The same	45%	41%	44%	44%	39%	50%	55%	70%
A little less	7%	7%	11%	8%	8%	2%	7%	7%
A lot less	6%	4%	8%	7%	6%	5%	5%	3%
Don't know	20%	28%	21%	19%	29%	14%	9%	-

Note: Due to rounding, some columns will not add to 100 percent.

Source: Susitna-Watana Recreation Intercept Survey.

Table B3.10-9. Directional Road Maps in the Study Area, Desired Level, by All Study Area and by Sub-Areas of Recreation Use, Percent

Directional Road Maps	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,107	n=399	n=250	n=294	n=315	n=203	n=55	n=30
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
A lot more	3%	2%	2%	3%	1%	5%	4%	7%
A little more	12%	12%	9%	11%	13%	13%	7%	10%
The same	72%	66%	80%	79%	69%	76%	80%	77%
A little less	3%	5%	4%	3%	2%	<1%	4%	3%
A lot less	2%	2%	<1%	1%	3%	2%	4%	-
Don't know	7%	13%	4%	3%	12%	2%	2%	3%

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

Table B3.10-10. Visitor Information in the Study Area, Desired Level, by All Study Area and by Sub-Areas of Recreation Use, Percent

Visitor Information	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,108	n=402	n=252	n=295	n=314	n=202	n=55	n=30
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
A lot more	2%	<1%	2%	4%	1%	2%	2%	3%
A little more	12%	11%	12%	10%	11%	21%	16%	13%
The same	73%	73%	73%	76%	74%	68%	71%	77%
A little less	3%	4%	4%	2%	3%	2%	5%	3%
A lot less	2%	2%	<1%	2%	3%	1%	2%	3%
Don't know	8%	10%	8%	5%	9%	5%	4%	-

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

Table B3.10-11. Visitor Centers in the Study Area, Desired Level, by All Study Area and by Sub-Areas of Recreation Use, Percent

Visitor Centers	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,100	n=397	n=250	n=293	n=313	n=201	n=55	n=30
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
A lot more	1%	1%	1%	3%	<1%	2%	2%	-
A little more	8%	6%	6%	6%	5%	13%	5%	10%
The same	70%	74%	67%	69%	72%	68%	75%	73%
A little less	4%	5%	6%	5%	4%	2%	7%	3%
A lot less	4%	2%	4%	4%	4%	6%	4%	7%

Visitor Centers	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
Don't know	12%	12%	17%	13%	14%	7%	7%	7%

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

Table B3.10-12. Public Use Cabins in the Study Area, Desired Level, by All Study Area and by Sub-Areas of Recreation Use, Percent

Public Use Cabins	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,103	n=397	n=251	n=294	n=312	n=203	n=55	n=29
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
A lot more	10%	10%	10%	9%	9%	10%	7%	10%
A little more	28%	26%	25%	26%	28%	33%	22%	24%
The same	34%	31%	31%	38%	29%	38%	47%	48%
A little less	1%	1%	1%	1%	2%	2%	5%	3%
A lot less	3%	1%	4%	3%	2%	3%	4%	-
Don't know	24%	31%	29%	23%	30%	13%	15%	14%

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

Table B3.10-13. Boat Launches in the Study Area, Desired Level, by All Study Area and by Sub-Areas of Recreation Use, Percent

Boat Launches	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,106	n=399	n=250	n=293	n=316	n=203	n=55	n=30
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
A lot more	4%	3%	3%	3%	2%	6%	4%	3%

Boat Launches	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
A little more	13%	13%	10%	9%	11%	22%	20%	17%
The same	52%	45%	47%	56%	44%	59%	53%	57%
A little less	1%	1%	<1%	1%	1%	-	-	3%
A lot less	2%	1%	1%	2%	3%	<1%	2%	3%
Don't know	29%	37%	40%	28%	40%	13%	22%	17%

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

Table B3.10-14. Facilities for the Disabled in the Study Area, Desired Level, by All Study Area and by Sub-Areas of Recreation Use, Percent

Facilities for the Disabled	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,103	n=399	n=249	n=291	n=314	n=203	n=55	n=29
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
A lot more	6%	6%	9%	7%	5%	5%	4%	3%
A little more	18%	17%	16%	15%	16%	20%	18%	7%
The same	41%	40%	36%	46%	34%	47%	60%	69%
A little less	1%	-	<1%	1%	1%	1%	-	-
A lot less	1%	<1%	<1%	1%	1%	<1%	2%	-
Don't know	33%	37%	39%	31%	43%	27%	16%	21%

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

3.11. Recreation User (Respondent) Demographics

3.11.1. Party Size

A party, for purposes of this study, means those sharing expenses such as food, lodging, and transportation. Recreation users were most frequently (44 percent) in the Study Area as part of a party of 2. Average party size among respondents was 2.9 (Table B3.11-1).

Table B3.11-1. Party Size, by All Study Area and by Sub-Areas of Recreation Use, Percent

Party Size	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,113	n=403	n=252	n=297	n=316	n=202	n=55	n=30
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
1	17%	26%	12%	10%	16%	15%	11%	50%
2	44%	45%	47%	47%	50%	42%	29%	7%
3	13%	9%	11%	15%	10%	20%	16%	7%
4	12%	11%	12%	16%	11%	9%	22%	20%
5 – 10	13%	8%	15%	10%	13%	14	22%	3%
11+	1%	1%	2%	1%	<1%	<1%	-	-
Average party size	2.9	2.4	3.2	3.0	2.7	2.8	3.4	3.2

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

3.11.2. Group Size

Many recreation users traveled in the Study Area as part of a group, meaning a set of friends or relatives traveling with the respondent, but not necessarily sharing expenses. Average group size among recreation users was 4.1. This includes 38 percent of recreation users who traveled in a group of 2, and 20 percent who traveled in a group of 5 to 10 people (Table B3.11-2).

Table B3.11-2. Group Size, by All Study Area and by Sub-Areas of Recreation Use, Percent

Group Size	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,114	n=403	n=252	n=297	n=316	n=202	n=55	n=30
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
1	12%	18%	10%	9%	12%	11%	11%	13%
2	38%	39%	40%	38%	42%	35%	20%	50%

Group Size	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
3	12%	7%	11%	15%	9%	19%	13%	3%
4	14%	13%	14%	18%	13%	12%	24%	7%
5 – 10	20%	17%	20%	15%	21%	20%	31%	20%
11+	4%	6%	6%	5%	3%	1%	2%	7%
DK/Ref.	<1%	<1%	-	-	-	<1%	-	-
Average party size	4.1	4.1	4.4	4.2	4.0	3.4	4.2	3.6

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey

3.11.3. Age

The average age among recreation users who participated in the Recreation Intercept Survey was 48.5 years old. One quarter (25 percent) of respondents were between 45 and 54 years old. Another quarter (24 percent) were between 55 and 64 years old (Table B3.11-3).

Table B3.11-3. Respondent Age, by All Study Area and by Sub-Areas of Recreation Use, Percent

Age (Years)	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,093	n=393	n=249	n=289	n=309	n=200	n=53	n=30
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
16–24	4%	6%	3%	2%	4%	2%	4%	-
25–34	16%	18%	13%	13%	18%	14%	11%	17%
35–44	18%	16%	19%	21%	19%	18%	15%	23%
45–54	25%	22%	29%	26%	20%	30%	38%	33%
55–64	24%	26%	26%	25%	26%	24%	26%	17%
65+	12%	12%	10%	13%	13%	14%	6%	10%

Age (Years)	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
Average age (years)	48.5	47.9	49.5	49.8	48.1	50.0	49.4	47.6

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

3.11.4. Gender

More male respondents (65 percent of total responses) completed the survey than females (34 percent). Male respondents were much more likely than females to complete the survey when recreating in Remote South and Remote North Sub-Areas (83 percent and 80 percent, respectively) (Table B3.11-4).

Table B3.11-4. Respondent Gender, by All Study Area and by Sub-Areas of Recreation Use, Percent

Gender	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,117	n=403	n=253	n=297	n=317	n=203	n=55	n=30
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Male	65%	59%	66%	72%	57%	70%	80%	83%
Female	34%	41%	34%	27%	43%	30%	18%	17%
Unknown	<1%	-	-	<1%	<1%	-	2%	-

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

3.11.5. 2012 Household Income

Average 2012 household income among respondents was $96,200. The most frequently cited income range among respondents was $100,000 to $149,999 (22 percent), followed by $75,001 to $99,999 (17 percent). Respondents recreating in Remote South Sub-Area had an average 2012 household income of $83,500 compared to $107,200 for those recreating in Remote North (Table B3.11-5).

Table B3.11-5. Respondent 2012 Household Income, by All Study Area and by Sub-Areas of Recreation Use, Percent

Household Income (2012)	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,114	n=403	n=252	n=297	n=316	n=203	n=55	n=30

Household Income (2012)	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Less than $20,000	4%	7%	3%	1%	3%	5%	4%	7%
$20,001 – $35,000	6%	6%	8%	5%	6%	6%	5%	7%
$35,001 – $50,000	8%	11%	7%	6%	6%	8%	5%	10%
$50,001 – $75,000	16%	15%	17%	18%	18%	17%	11%	30%
$75,001 – $99,999	17%	15%	16%	15%	17%	17%	13%	17%
$100,000 – $149,999	22%	17%	19%	25%	22%	21%	35%	13%
$150,000+	16%	16%	19%	20%	17%	12%	18%	13%
Don't know/Refused	11%	11%	11%	10%	10%	14%	9%	3%
Average income	$96,200	$91,000	$97,500	$104,400	$99,500	$90,800	$107,200	$83,500

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

3.11.6. Residency

Residents of Alaska made up 71 percent of the respondents. Respondents engaging in a recreational activity in the Talkeetna Area were less likely to be a resident of Alaska than those recreating elsewhere in the Study Area (Table B3.11-6).

Table B3.11-6. Alaska Residency of Respondents, by All Study Area and by Sub-Areas of Recreation Use, Percent

Response	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,114	n=403	n=252	n=297	n=316	n=203	n=55	n=30
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Yes	71%	47%	68%	73%	63%	90%	85%	90%
No	29%	53%	32%	27%	37%	10%	15%	10%

Response	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
Don't know/Refused	<1%	-	-	-	-	<1%	-	-

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

3.11.6.1. Alaska Residency

Of the Alaska resident recreation users, most lived in the Municipality of Anchorage (36 percent), followed closely by those living in the MSB (33 percent) (Table B3.11-7).

Table B3.11-7. Location of Alaska Resident Respondents, by All Study Area and by Sub-Areas of Recreation Use, Percent

Response	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=793	n=190	n=172	n=216	n=198	n=182	n=47	n=27
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Municipality of Anchorage	36%	35%	30%	30%	42%	43%	34%	46%
MSB	33%	54%	28%	15%	39%	32%	30%	46%
Fairbanks North Star Borough	13%	4%	20%	28%	9%	2%	21%	-
Valdez-Cordova Census Area	5%	-	1%	7%	-%	14%	2%	-
Kenai Peninsula Borough	5%	2%	7%	10%	4%	2%	6%	8%
Denali Borough	3%	2%	9%	2%	4%	-	4%	-
Rest of Alaska*	3%	1%	3%	6%	2%	3%	-	-
Don't know/Refused	<1%	1%	1%	-	-	-	2%	-

* "Rest of Alaska" included: Juneau, Sitka, Atka, Bethel, Eek, Perryville, Chignik, Dillingham, Ekwok, Kodiak, Ouzinkie, Unalakleet, Fort Greeley, Delta Junction, Tok, and Nenana.

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

3.11.7. Special Needs

Most respondents (94 percent) did not have anyone in their party with a disability or special need related to outdoor recreation activities. Five percent of parties did have someone with a disability or special need (Table B3.11-8).

Table B3.11-8. Member of Party Disabled or with Special Needs, by All Study Area and by Sub-Areas of Recreation Use, Percent

Response	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,113	n=403	n=252	n=297	n=316	n=202	n=55	n=30
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Yes	5%	4%	5%	4%	5%	4%	4%	-
No	94%	95%	95%	94%	94%	95%	91%	100%
Don't know/Refused	1%	1%	<1%	2%	1%	1%	5%	-

Note: Due to rounding, some columns will not add to 100 percent. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Source: Susitna-Watana Recreation Intercept Survey.

3.11.7.1. Type of Special Need

Among those who did report having someone with a disability or special need in their party, almost half (47 percent) identified that challenge as trouble walking/need easy paths, followed by 14 percent who needed wheelchair access to facilities, and 12 percent who needed wheelchair access to trails (Table B3.11-9).

Table B3.11-9. Type of Special Need, by All Study Area

Response	All Study Area
	n=51
	% of Total
Trouble walking/need easy paths	47%
Wheelchair access to facilities	14%
Wheelchair access to trails	12%

Response	All Study Area
Ramps	6%
Other	31%
Don't know/Refused	8%

Base: All respondents who indicated any member in their party had a disability or special need.

Note: Multiple responses accepted, the column will not add to 100 percent.

Source: Susitna-Watana Recreation Intercept Survey

ATTACHMENT B-1: SUSITNA-WATANA RECREATION INTERCEPT SURVEY INSTRUMENT

(See next page.)

Susitna-Watana Recreation Intercept Survey

Interviewer Name _____ **Refusals**_____ **S1** _____ **S2** _____ **Q1** _____

Date _____ **Survey Location (grid number)** _____

Time _____ **Survey Location (additional info)**_____

Hi, I'm _____ with the McDowell Group. We're conducting a recreation study for the State of Alaska as part of the Susitna-Watana Hydroelectric Project. I'd like to ask you a few questions about your recreation in the Study Area. (Show Study Area Map) **When you participate you will be entered in a drawing for your choice of a $1,000 gift certificate from Amazon.com or Cabela's.**

S1. Are you participating in any outdoor recreational activities on this outing?

1❒ Yes 2❒ No (thank and end survey)

S2. Have you completed an in-person Susitna-Watana Recreation survey this year?

1❒ Yes (thank and end survey) 2❒ No

1. Are you in the Study Area just for the day, on an overnight visit, just passing through on your way to somewhere else, or do you live in the Study Area? (Show Study Area Map)

1❒ Just passing through (Probe, then thank and end survey)
2❒ Day visit → **Where are you visiting in the Study Area?** (check boxes Q4)
3❒ Overnight visit (skip to Q1a)
4❒ Live in the Study Area (if they are overnighting away from home continue/if day visit skip to Q4)

1a. In total, how many nights will you spend in the Study Area on this trip? # _____ 1❒ DK/ref.
1b. As of today, how many nights have you spent in the Study Area so far? # _____ 1❒ DK/ref.

2. Considering your entire trip, are you overnighting in any of these places on this trip? (Show list 1-9)

2a. Are you overnighting anywhere else in the Study Area on this trip?
(Show map, probe for specific grid locations.)

3. How many nights are you spending in _____? 3a. In what type of lodging?

Q 2/3	2a. Grid #	Hotel/ motel/ B&B	Lodge	Private home	Established campground (RV/tent/etc.)	Undeveloped/ on-road RV/ camper/car/ tent	Remote camping (tent/cabin)	Other	Q4. DAY VISIT ?
01☐ **Talkeetna**	**#51**								01❒
02☐ **Talkeetna Lodge**	**#41**								02❒
03☐ **Trapper Creek**	**#51**								03❒
04☐ **McKinley Princess**	**#31**								04❒
05☐ **Byers Lake**	**#21**								05❒
06☐ **Cantwell**	**#1**								06❒
07☐ **Brushkana**	**#3**								07❒
08☐ **Tangle Lakes**	**#19**								08❒
09☐ **Lake Louise**	**#60**								09❒
10☐ **Other**									10❒
11☐ **Other**									11❒
12☐ **Other**									12❒
13☐ **Other**									13❒
14☐ **Other**									14❒
15☐ **Other**									15❒
16☐ **Other**									16❒
17☐ **Other**									17❒
18☐ **Other**									18❒

4. Are you visiting anywhere in the Study Area without spending the night?

1❒ None

5. Please tell me if you have participated, or will participate, in any of the following recreational activities within the Study Area on <u>this</u> outing. (Show list below, check all that apply) **Are you participating in any other kinds of recreation on this outing?** (Record under "other")

5a. Can you tell me where you have or will _____ in the Study Area on this outing? (Show map, ask for each activity. Record grid numbers.)

6. Which activity was the primary reason for <u>this</u> outing to the Study Area? _____ (activity letter)
1❒DK/ref.

6aa. How many days will you (primary activity) **on this outing?** _____ (day=any part of a day) 02❒ DK/ref.

6a. Did you hire a guide for (primary activity) **on this outing?** 01❒ Yes 02❒ No 03❒ DK/ref.

6b. Have you <u>ever</u> been to the Study Area for (primary activity) **before this outing?**

1❒ Yes 2❒ No (skip to Q7) 3❒ DK/ref. (skip to Q7)

6c. What year did you first (primary activity) **in the Study Area?** _____ 1❒ DK/ref.

6d. In general, how often do you (primary activity) **in the Study Area?** (Read 1-5)

1❒ More than 10 times per year
2❒ Two to ten times per year
3❒ Once every year
4❒ Once every few years
5❒ Less often
6❒ DK/ref.

7. Have you engaged in <u>any other recreational activities</u> in the Study Area in the last 12 months?

1❒ Yes 2❒ No (skip to Q7c) 3❒ DK/ref. (skip to Q7c)

7a. Which activities did you participate in on those outings? (Show list, check all that apply, ask for other)

7b. On about how many days in the last 12 months, <u>not counting this outing</u>, did you (activity) **within the Study Area?**

	Q5. This outing	***Q5a. Where*** *grid #*	***Q7a. Past 12 mos.***	***Q7b. # of days***
A. Alaska Railroad	1❒		1❒	
B. Bird watching	2❒		2❒	
C. Bicycling	3❒		3❒	
D. Camping-remote tent/cabin	4❒		4❒	
E. Camping-RV/campground/roadside	5❒		5❒	
F. Collecting berries/mushrooms	6❒		6❒	
G. Dog sledding	7❒		7❒	
H. Fishing for salmon	8❒		8❒	
I. Fishing for other species	9❒		9❒	
J. Flightseeing	10❒		10❒	
K. Hunting	11❒◆		11❒	
L. Hiking/backpacking	12❒		12❒	
M. Motorized boating (jet, prop, air)	13❒		13❒	
N. Rafting/canoeing/kayaking/pack raft (non-motorized)	14❒		14❒	

	Q5. This outing	***Q5a. Where*** *grid #*	***Q7a. Past 12 mos.***	***Q7b. # of days***
O. Riding ATV's	15❒		15❒	
P. Skiing	16❒		16❒	
Q. Snowmachining	17❒		17❒	
R. Snowshoeing	18❒		18❒	
S. Walking/running	19❒		19❒	
T. Wildlife viewing	20❒		20❒	
U. Other _____	21❒		21❒	
V. Other _____	22❒		22❒	
W. Other _____	23❒		23❒	
X. Other _____	24❒		24❒	

◆ **5b. (If hunting): Please show me which one of these is your <u>primary</u> harvest objective for this hunt. No individual information you provide will be shared with anyone. All data will be presented as group totals.** (Show list; select only one.) 2❒ No (skip back up to Q6)

01❒ Caribou – Federal subsistence
02❒ Caribou – State draw permit one bull
03❒ Caribou – State registration permit any caribou
04❒ Caribou – State community harvest
05❒ Caribou – Non-resident
06❒ Moose – Federal subsistence
07❒ Moose – State draw permit any bull
08❒ Moose – State draw permit cow
09❒ Moose – State community harvest
10❒ Moose – State harvest ticket
11❒ Moose – Non-resident
12❒ Bear (brown or black)
13❒ Waterfowl
14❒ Ptarmigan
15❒ Other_____

(**Skip Back Up to Q6)**

7c. On this outing, did you travel more than one-half mile from a trailhead or main road into the Study Area? 1❒ Yes 2❒ No (skip to Q8) 3❒ DK/ref (skip to Q8)

7d. Where was your most recent excursion into the Study Area of more than one-half mile?

(show detail map) **grid number/s** _____1❒ DK/ref.

7e. How often did you encounter other people on that excursion? (read 1-3)

1❒ Never 2❒ 1 to 6 times 3❒ >6 times 4❒ DK/ref.

7f. On that excursion, did you travel on established trails, off-trail, or both?

1❒ Established trails 2❒ Off-trail 3❒ Both 4❒ DK/ref.

7g. On that excursion, did you camp or stay overnight in the Study Area more than one-half mile from a trailhead or road? 1❒ Yes 2❒ No 3❒ DK/ref.

8. Overall, how crowded have you felt on this outing while in the Study Area using a scale of 1 – 10, where 1 means "not at all crowded" and 10 means "very crowded"? (Circle answer)

Not at all crowded Very crowded

1	2	3	4	5	6	7	8	9	10	11❒ DK/ref.

8a. If 7 to 10: Do you recall any place in particular where you felt crowded?
(Show map, record grid number. Record place name if mentioned. Probe) 1❒ DK/ref.

Grid #	**Place name if mentioned**
_____	_____
_____	_____
_____	_____

9. On this outing did you experience any conflict with other individuals or groups that negatively impacted your recreation experience?

1❒ Yes 2❒ No (skip to Q10) 3❒ DK/ref (skip to Q10)

9a. What type of activity was the other individual or group engaged in?
(could be recreation or other activity)

_____ 1❒ DK/ref (skip to Q10)

9b. What specifically caused the conflict?

_____ 1❒ DK/ref

10. Do you recall <u>seeing</u> any signs of infrastructure or human activity that detracted from the scenic quality within the area?

1❒ Yes 2❒ No (skip to Q11) 3❒ DK/ref. (skip to Q11)

10a. Specifically, what did you see that detracted from the scenic quality?

(Do not read, check all that apply, probe)

01❒ Roads
02❒ Communication towers
03❒ Power lines
04❒ Railroad
05❒ Trash
06❒ Trails
07❒ Vehicles (RV, ORV, motorcycles, cars, etc.)
08❒ People
09❒ Other: _____
10❒ DK/ref.

11. Do you recall if any <u>noises</u> detracted from your enjoyment of the area?

1❒ Yes 2❒ No (skip to Q12) 3❒ DK/ref. (skip to Q12)

11a. Specifically, what type of noises? (Do not read, check all that apply, probe)

01❒ Noise from other people 05❒ Helicopters 09❒ Chainsaw

02❒ Gunshots 06❒ Boats 10❒ Other_____

03❒ Airplanes 07❒ Four wheeler/ATV 11❒ DK/ref.

04❒ Jet aircraft sonic boom 08❒ Cars/trucks/RV

12. Next, I am going to show you a list of outdoor recreation facilities, infrastructure, and sources of information in the Study Area. Please tell me whether you think there should be a lot more, a little more, a little less, a lot less, or the same number in the future.

	A lot more	A little more	The same	A little less	A lot less	Don't Know
a. Maintained roads	1	2	3	4	5	6
b. Designated parking areas	1	2	3	4	5	6
c. Roadside toilets	1	2	3	4	5	6
d. RV accessible sites at campgrounds	1	2	3	4	5	6
e. Trail maps	1	2	3	4	5	6
f. Designated trails for non-motorized use	1	2	3	4	5	6
g. Designated trails for off-road vehicles	1	2	3	4	5	6
h. Directional road signs	1	2	3	4	5	6
i. Visitor information	1	2	3	4	5	6
j. Visitor centers	1	2	3	4	5	6
k. Public use cabins	1	2	3	4	5	6
l. Boat launches	1	2	3	4	5	6
m. Facilities for the disabled	1	2	3	4	5	6

[Read] Next, I would like to ask you about the size of your traveling party.

13. Including yourself, how many people are traveling in your immediate party? By party, I mean those sharing expenses such as food, lodging, and transportation.

1❒ # _____ in party 2❒ DK/ref.

14. Including yourself, what is the total number of people traveling in your group? By group, I mean friends or relatives that are traveling with you, but not necessarily sharing expenses.

1❒ # _____ in group 2❒ DK/ref.

15. Are you a resident of Alaska?

1❒ Yes 2❒ No (skip to Q15c) 3❒ DK/ref. (skip to Q15c)

15a. What is your home zip code?_____ 01❒ DK/ref.
(skip to Q20)

15b. What community do you live in? _____ 01❒ DK/ref. (skip to Q20)
(skip to Q20)

15c. Do you live in the United States?

1❒ Yes 2❒ No (skip to Q16) 3❒ DK/ref. (skip to Q22)

15d. What is your home zip code?_____ 01❒ DK/ref. (to 15e)
(skip to Q17,or Q20 if seasonal resident)

15e. What community and state do you live in? _____ _____ 01❒ DK/ref. (skip to Q17)

(skip to Q17,or Q20 if seasonal resident**)**

16. In what country do you live? (Do not read) 01❒ DK/ref.

51❒ Australia	57❒ Germany	63❒ Netherlands	69❒ Taiwan
52❒ Austria	58❒ India	64❒ New Zealand	70❒ United Kingdom
53❒ Belgium	59❒ Italy	65❒ Russia	71❒ Other
54❒ Canada	60❒ Japan	66❒ Spain	
55❒ China	61❒ Korea	67❒ Sweden	
56❒ France	62❒ Mexico	68❒ Switzerland	

(skip to Q20 if seasonal resident)

NON-ALASKA RESIDENTS

17. Now I'd like you to estimate your traveling party's total spending within Alaska so far on this trip. Do not include multi-day packages such as cruises or overnight railroad packages.

Your best guess is fine. $_____ 1❒ DK/ref.

18. Did your party purchase any multi-day packages that included lodging, transportation, and activities?

1❒ Yes → **18a. Can you estimate the price per-person for this package? $**_____ 1❒ DK/ref

2❒ No **18b. Did your package include an overnight cruise?** 1❒ Yes 2❒ No 3❒ DK/ref.

3❒ DK/ref.

19. Please tell me in which of these areas you have spent money on this trip.
(Read a-e, **circle letter**.) (show map if needed.)

19a. About how much has your party spent on lodging in (area)**? Transportation in** (area)**?**
(Repeat for each area visited and category. If "none," enter $0. If "don't know," enter DK.)

	Lodging	Transportation	Food/ Beverage	Gifts/souvenirs/ clothing	Other
a. Anchorage area	$	$	$	$	$
b. Mat-Su Borough	$	$	$	$	$
c. Denali Borough	$	$	$	$	$
d. Fairbanks area	$	$	$	$	$
e. Kenai Peninsula Borough	$	$	$	$	$

	Lodging	Transportation	Food/ Beverage	Gifts/souvenirs/ clothing	Other
Total	$	$	$	$	$

SKIP TO READ BEFORE Q22

ALASKA RESIDENTS

[Read] Now, I would like to ask you about your trip expenditures.

20. Can you estimate your traveling party's total spending so far on this outing?

Your best guess is fine. $_____ 1❒ DK/ref.

21. Please tell me in which of these areas you have spent money on this outing.
(Read a-e, **circle letter**.) (show map if needed.)

21a. About how much has your party spent on lodging in (area)**? Transportation in** (area)**?**
(Repeat for each area visited and category. If "none," enter $0. If "don't know," enter DK.)

	Lodging	Transportation	Food/ Beverage	Gifts/souvenirs/ clothing	Other
a. Anchorage area	$	$	$	$	$
b. Mat-Su Borough	$	$	$	$	$
c. Denali Borough	$	$	$	$	$
d. Fairbanks area	$	$	$	$	$
e. Kenai Peninsula Borough	$	$	$	$	$
Total	$	$	$	$	$

ALL RESPONDENTS

***[Read]* I have just a few more questions for demographic purposes.**

22. In what year were you born? 19_____ 01❒ DK/ref.

23. Including yourself, how many people live in your household for at least six months of the year?
#_____ 01❒ DK/ref.

24. Please point to the category that best describes your household [income] in 2012? 2❒ **No**

01❒ Less than $20,000

02❒ $20,001 to $35,000

03❒ $35,001 to $50,000

05❒ $75,001 to $99,999

06❒ $100,000 to $149,999

07❒ $150,000 or more

04❒ $50,001 to $75,000

25. Is anyone in your party disabled or have special needs related to outdoor recreation activities?

1❒ Yes 2❒ No (skip to Read) 3❒ DK/Ref (skip to Read)

25a. Specifically, what type of needs do they have?

1❒ Wheelchair access to trails 4❒ DK/ref.
2❒ Wheelchair access to facilities 3❒ Other: _____

[Read] To be entered in the drawing for your choice of a $1,000 Amazon.com or Cabela's gift certificate, I need your first name and email address. (If no email, ask for phone #) **Your contact information will not be used or shared for any other purpose beyond this study.**

1❒ Refused (thank and end survey)

First name_____ Email/phone_____

26. As part of this recreation study we may be conducting additional research. Would you be willing to participate in a follow-up survey? 1❒ Yes 2❒ No

Thank you for participating in this survey!

27. Observed mode of transportation.

01❒ Car/Van/Truck
02❒ RV/Motorhome/Camper
03❒ Motorcycle
04❒ Four-wheeler
06❒ Alaska Railroad
07❒ Snowmachine
08❒ Dogsled
09❒ Bicycle
10❒ Motorcoach
11❒ Pedestrian
12❒ Other: _____

28. Gender (DO NOT ASK) 1❒ Male 2❒ Female 3❒ Unknown

APPENDIX C: SUSITNA-WATANA RECREATION INTERCEPT OBSERVATION TALLY RESULTS SUMMARY

Susitna-Watana Hydroelectric Project
(FERC No. 14241)

Recreation Resources Study
Study Plan Section 12.5

Technical Memorandum - 2014 Year-End Report
Recreation Use Demand Assessment

Appendix C - Susitna-Watana Recreation Intercept Observation Tally Results Summary

Prepared for

Alaska Energy Authority

SUSITNA-WATANA HYDRO

Clean, reliable energy for the next 100 years.

Prepared by

AECOM and McDowell Group

September 2015

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LIST OF ACRONYMS, ABBREVIATIONS, AND DEFINITIONS

Abbreviation	Definition
ATV	all-terrain vehicle
ISR	Initial Study Report

1. METHODOLOGY

In combination with the Susitna-Watana Recreation Intercept Survey, the survey crews conducted observation tallies at intercept locations identified in Section 12.4 of the Initial Study Report (ISR) and in Appendix B Figure B1.0-1. Tallies were conducted at 283 different sites along the intercept sample route (Table C1.0-1), concentrated in the following five Sub-Areas within the Recreation Use Study Area: Talkeetna Area, West Denali Highway, East Denali Highway, Parks Highway, and Lake Louise Area. Surveyors recorded observed recreation activity on a pre-printed tally form (e.g., the number of people present, the number of vehicles entering/exiting the access site, types of recreation activities evident). If no activity was observed, a tally for that location was not conducted.

Table C1.0-1. Number of Intercept Observation Tally Sites, by Geographical Location

Intercept Observation Tally Sub-Area Locations	Number of Sites
Talkeetna Area	12
West Denali Highway	93
East Denali Highway	106
Parks Highway	67
Lake Louise Area	5
Total	283

Source: Susitna-Watana Recreation Intercept Observation Tally.

Over the year-long intercept survey sample period (March 2013–March 2014), 2,943 observation tallies were reported, with 35 percent of those tallies occurring in the Talkeetna Area Sub-Area (Table C1.0-2). Most tallies were logged in August 2013 (540 tallies) (Table C1.0-2).

Table C1.0-2. Number of Intercept Observation Tallies Conducted, by Geographical Location and by Month (March 2013–March 2014)

	Talkeetna Area	West Denali Highway	East Denali Highway	Parks Highway	Lake Louise Area	Total
Mar 2013	44	8	2	95	16	165
Apr 2013	99	18	7	192	26	342
May 2013	122	40	3	82	4	251
June 2013	118	56	55	207	21	457
July 2013	105	73	67	59	26	330
Aug 2013	114	141	136	131	18	540
Sept 2013	65	127	115	49	19	375
Oct 2013	68	1	0	14	2	85
Nov 2013	54	3	0	19	4	80
Dec 2013	73	4	0	14	4	95
Jan 2014	22	0	0	0	2	24
Feb 2014	85	3	0	13	6	107
Mar 2014	71	2	0	12	7	92
Total	1,040	476	385	887	155	2,943

Source: Susitna-Watana Recreation Intercept Observation Tally.

2. SUMMARY OF TALLY OBSERVATIONS

Results of the tally observations are presented below by selected activity (i.e., snowmachining, all-terrain vehicle [ATV], biking, motorized boating, non-motorized boating, dog sledding, horse) and seasonality.

2.1. Observed Snowmachining Activity

A total of 808 snowmachines were observed in April 2013, almost half (48 percent) of all snowmachines observed over the entire year (March 2013–March 2014) (Table C2.1-1). Most snowmachining observed occurred in the Lake Louise Area Sub-Area, followed by the Parks Highway and Talkeetna Area Sub-Areas.

Table C2.1-1. Number of Snowmachines Observed, by Geographical Location and by Month (March 2013–March 2014)

	Talkeetna Area	West Denali Highway	East Denali Highway	Parks Highway	Lake Louise Area	Total
Mar 2013	44	31	10	70	322	477
Apr 2013	78	25	15	345	345	808
May 2013	8	17	18	63	0	106
June 2013	0	0	0	0	0	0
July 2013	0	0	1	0	6	7
Aug 2013	0	0	0	0	5	5
Sept 2013	0	0	1	0	0	1
Oct 2013	0	2	0	0	0	2
Nov 2013	11	2	0	15	0	28
Dec 2013	15	5	0	13	0	33
Jan 2014	3	0	0	0	3	6
Feb 2014	33	17	0	7	2	59
Mar 2014	33	7	0	20	83	143
Total	225	106	45	533	766	1,675

Source: Susitna-Watana Recreation Intercept Observation Tally.

Snowmachine trailer capacity (i.e., the number of snowmachines a trailer would have been capable of transporting) for 7,196 snowmachines was observed over the entire year (March 2013–March 2014) (Table C2.1-2). Most snowmachine trailer capacity observed occurred along the Parks Highway, followed by the Lake Louise Area and Talkeetna Area Sub-Areas (Figure C2.1-1).

Table C2.1-2. Number of Snowmachine Trailer Capacity Observed, by Geographical Location and by Month (March 2013–March 2014)

	Talkeetna Area	West Denali Highway	East Denali Highway	Parks Highway	Lake Louise Area	Total
Mar 2013	358	304	43	1,090	357	2,152
Apr 2013	485	130	212	1,962	942	3,731
May 2013	77	66	13	201	5	362
June 2013	2	0	0	8	8	18
July 2013	2	0	3	6	0	11
Aug 2013	0	0	0	0	4	4
Sept 2013	0	2	10	0	0	12
Oct 2013	0	2	0	0	0	2
Nov 2013	26	13	0	87	0	126
Dec 2013	86	8	0	69	6	169
Jan 2014	42	0	0		31	73
Feb 2014	116	36	0	41	16	209
Mar 2014	99	28	0	38	162	327
Total	1,293	589	281	3,502	1,531	7,196

Source: Susitna-Watana Recreation Intercept Observation Tally.

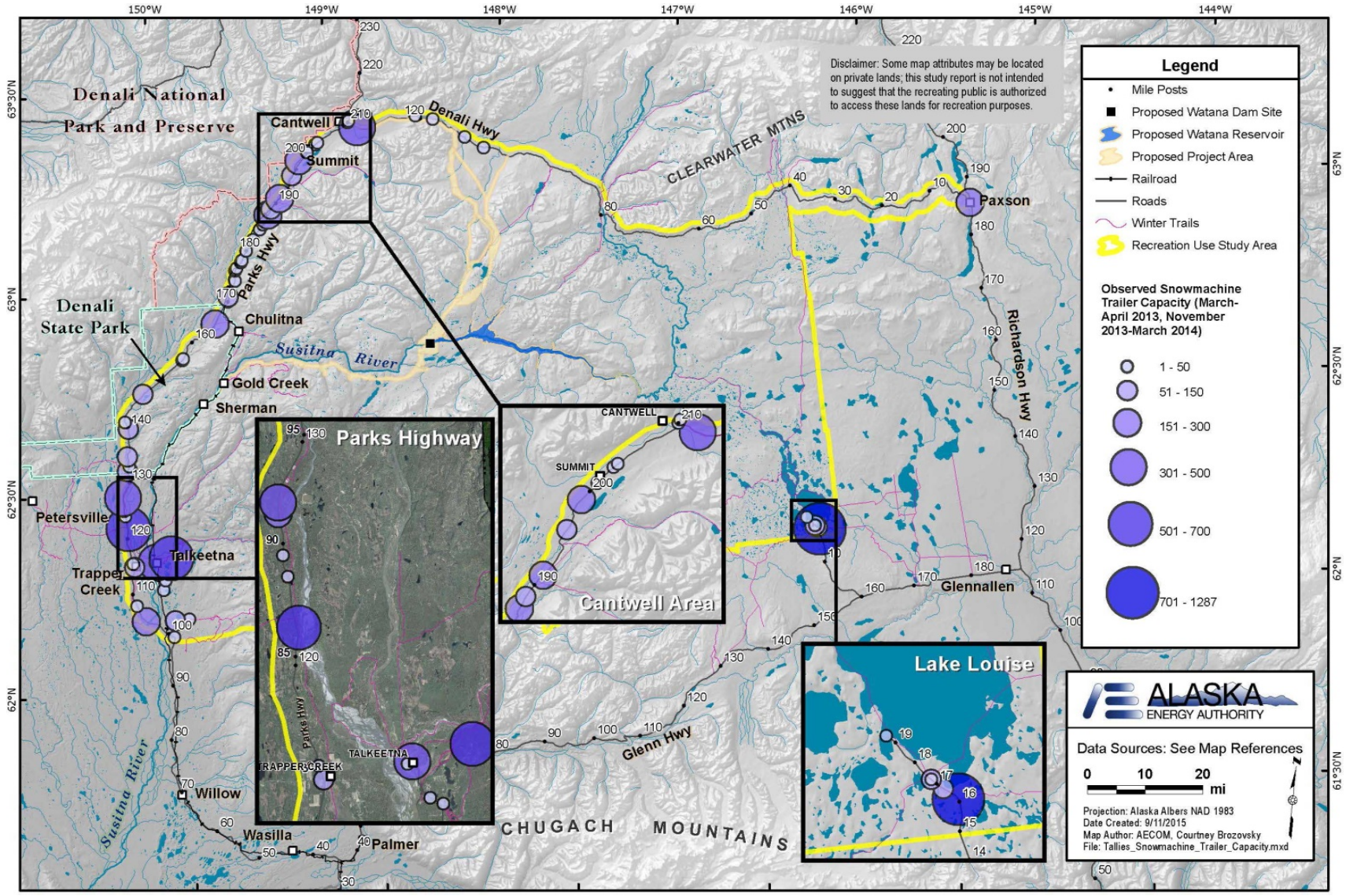


Figure C2.1-1. Observed Snowmachine Trailer Capacity (March–April 2013, November 2013–March 2014)

Source: Susitna-Watana Recreation Intercept Observation Tally.

2.2. Observed ATV Activity

Over the survey sample period, 1,208 ATVs were observed. Most observations were made on the East Denali Highway (371 observations), West Denali Highway (327 observations), and Talkeetna Area (325 observations). Observed ATV use peaked in August 2013 (405 total observations) (Table C2.2-1).

Table C2.2-1. Number of ATVs Observed, by Geographical Location and by Month (March 2013–March 2014)

	Talkeetna Area	West Denali Highway	East Denali Highway	Parks Highway	Lake Louise Area	Total
Mar 2013	1	0	0	1	2	4
Apr 2013	7	0	3	3	22	35
May 2013	49	7	0	4	3	63
June 2013	44	17	39	25	0	125
July 2013	106	36	61	25	9	237
Aug 2013	64	138	152	46	5	405
Sept 2013	30	124	116	16	21	307
Oct 2013	12	0	0	0	0	12
Nov 2013	6	3	0	3	0	12
Dec 2013	1	1	0	0	0	2
Jan 2014	1	0	0	0	0	1
Feb 2014	0	1	0	0	0	1
Mar 2014	4	0	0	0	0	4
Total	325	327	371	123	62	1,208

Source: Susitna-Watana Recreation Intercept Observation Tally.

Most observed ATV trailer capacity (i.e., the number of ATVs a trailer would have been capable of transporting) peaked at 762 in September 2013 along the West Denali Highway, followed by 468 in August 2013 on the eastern portion of the Denali Highway Sub-Area (Table C2.2-2). From March 2013–March 2014, most ATV trailer capacity was observed in the West Denali Highway Sub-Area, followed by the East Denali Highway Sub-Area (Figure C2.2-1).

Table C2.2-2. Number of ATV Trailer Capacity Observed, by Geographical Location and by Month (March 2013–March 2014)

	Talkeetna Area	West Denali Highway	East Denali Highway	Parks Highway	Lake Louise Area	Total
Mar 2013	28	0	0	117	1	146
Apr 2013	0	0	2	35	9	46
May 2013	67	3	0	36	2	108
June 2013	113	10	27	41	2	193
July 2013	198	83	69	26	19	395
Aug 2013	138	414	468	105	25	1,150
Sept 2013	41	762	310	42	44	1,199
Oct 2013	39	0	0	2	0	41
Nov 2013	4	4	0	7	0	15
Dec 2013	4	1	0	0	0	5
Jan 2014	0	0	0	0	0	0
Feb 2014	0	0	0	0	0	0
Mar 2014	0	0	0	0	0	0
Total	632	1,277	876	411	102	3,298

Source: Susitna-Watana Recreation Intercept Observation Tally.

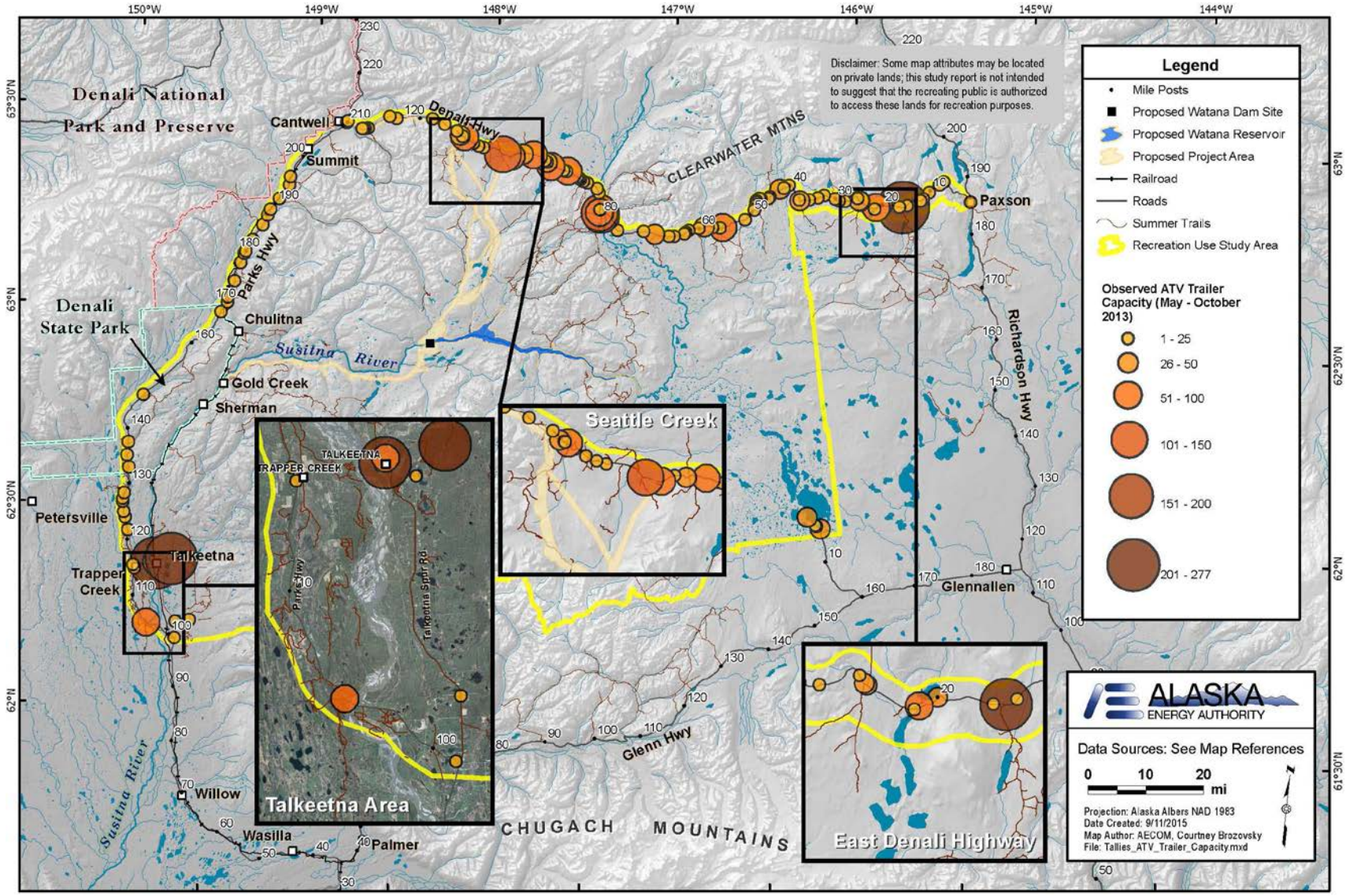


Figure C2.2-1. Observed ATV Trailer Capacity (May–October 2013)

Source: Susitna-Watana Recreation Intercept Observation Tally.

2.3. Observed Biking Activity

Over the survey sample period, 612 bikes were observed. Most observations were made in the Talkeetna Area Sub-Area (276 observations), followed by the Parks Highway Sub-Area (151 observations). Observed bike use peaked in July 2013 (216 total observations) (Table C2.3-1).

Table C2.3-1. Number of Bikes Observed, by Geographical Location and by Month (March 2013–March 2014)

	Talkeetna Area	West Denali Highway	East Denali Highway	Parks Highway	Lake Louise Area	Total
Mar 2013	1	0	0	0	0	1
Apr 2013	15	0	0	3	0	18
May 2013	41	6	0	18	4	69
June 2013	49	12	13	40	0	114
July 2013	101	29	51	20	15	216
Aug 2013	48	10	27	66	11	162
Sept 2013	8	1	6	4	0	19
Oct 2013	4	0	0	0	0	4
Nov 2013	1	0	0	0	0	1
Dec 2013	1	0	0	0	0	1
Jan 2014	0	0	0	0	0	0
Feb 2014	5	0	0	0	0	5
Mar 2014	2	0	0	0	0	2
Total	276	58	97	151	30	612

Source: Susitna-Watana Recreation Intercept Observation Tally.

2.4. Observed Motorized Boating Activity

Over the survey sample period, 292 motorized boats were observed. Observed motorized boat use peaked in July 2013 (117 total observations) (Table C2.4-1). Most observations were made in the Lake Louise Area Sub-Area (171 observations), followed by Talkeetna Area Sub-Area (84 observations)

Table C2.4-1. Number of Motorized Boats Observed, by Geographical Location and by Month (March 2013–March 2014)

	Talkeetna Area	West Denali Highway	East Denali Highway	Parks Highway	Lake Louise Area	Total
Mar 2013	0	0	0	0	3	3
Apr 2013	0	0	0	1	0	1
May 2013	0	0	0	0	0	0
June 2013	13	2	2	1	6	24
July 2013	48	0	8	0	61	117
Aug 2013	11	4	6	4	47	72
Sept 2013	7	3	5	1	53	69
Oct 2013	5	0	0	0	1	6
Nov 2013	0	0	0	0	0	0
Dec 2013	0	0	0	0	0	0
Jan 2014	0	0	0	0	0	0
Feb 2014	0	0	0	0	0	0
Mar 2014	0	0	0	0	0	0
Total	84	9	21	7	171	292

Source: Susitna-Watana Recreation Intercept Observation Tally.

Over the survey sample period (March 2013–March 2014), 1,171 motorized boat trailers were observed (Table C2.4-2). Most observations were made in the Talkeetna Area Sub-Area (637 observations), followed by Lake Louise Area Sub-Area (394 observations) (Figure C2.4-1).

Table C2.4-2. Number of Motorized Boat Trailers Observed, by Geographical Location and by Month (March 2013–March 2014)

	Talkeetna Area	West Denali Highway	East Denali Highway	Parks Highway	Lake Louise Area	Total
Mar 2013	0	0	0	0	3	3
Apr 2013	0	0	0	0	0	0
May 2013	31	0	0	0	1	32
June 2013	110	1	3	16	40	170
July 2013	198	0	20	0	140	358
Aug 2013	220	8	29	7	77	341
Sept 2013	59	35	17	4	129	244
Oct 2013	19	0	0	0	4	23
Nov 2013	0	0	0	0	0	0
Dec 2013	0	0	0	0	0	0
Jan 2014	0	0	0	0	0	0
Feb 2014	0	0	0	0	0	0
Mar 2014	0	0	0	0	0	0
Total	637	44	69	27	394	1,171

Source: Susitna-Watana Recreation Intercept Observation Tally.

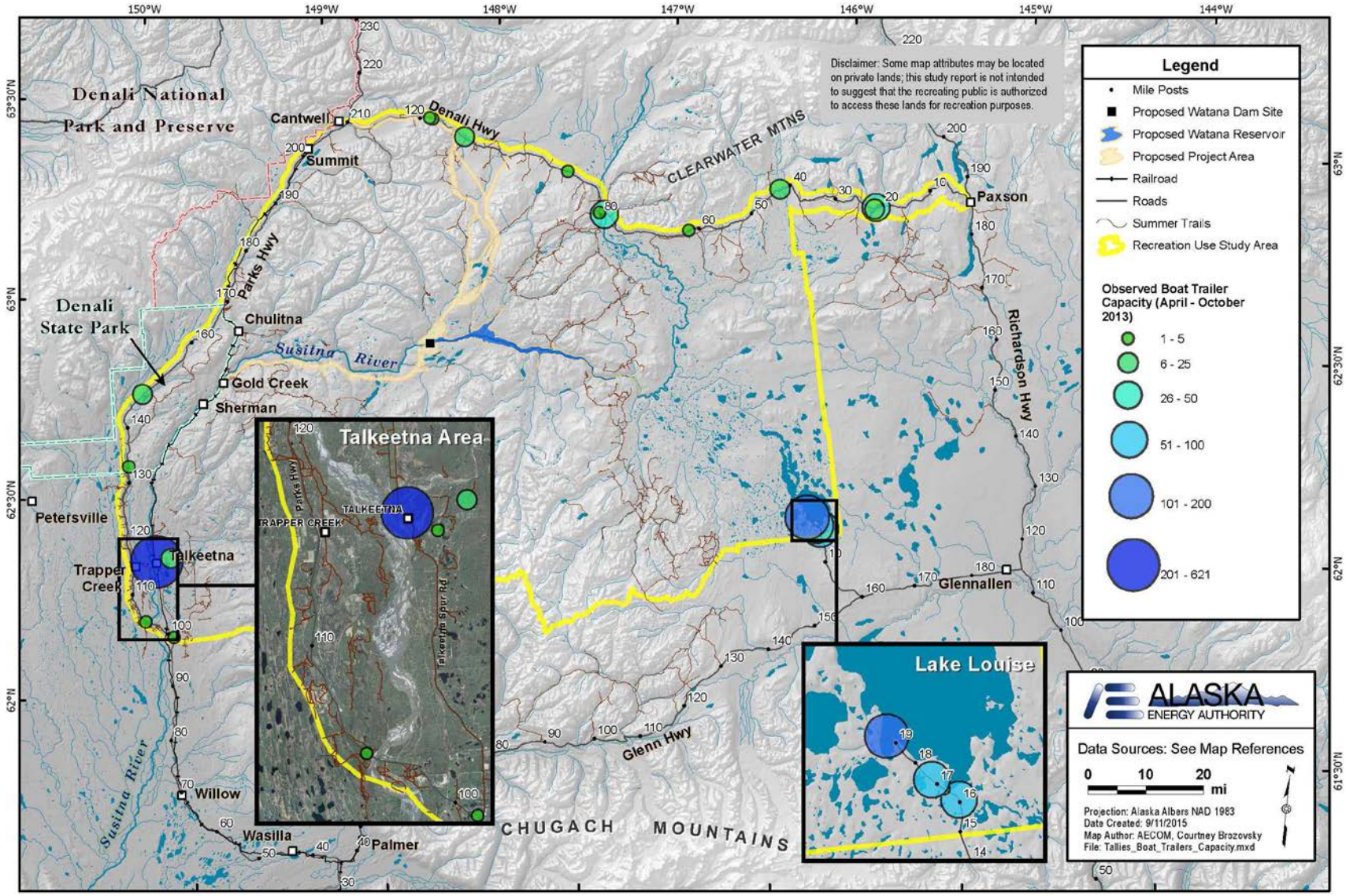


Figure C2.4-1. Observed Boat Trailer Capacity (April –October 2013)

Source: Susitna-Watana Recreation Intercept Observation Tally.

2.5. Observed Non-Motorized Boating Activity

Over the survey sample period, 396 non-motorized boats were observed. Most observations were made along the East Denali Highway Sub-Area (176 observations), followed by the Parks Highway Sub-Area (105 observations) (Table C2.5-1, Figure C2.4-1). Observed non-motorized boat use peaked in July 2013 (130 total observations) and August 2013 (134 total observations).

Table C2.5-1. Number of Non-Motorized Boats Observed, by Geographical Location and by Month (March 2013-March 2014)

	Talkeetna Area	West Denali Highway	East Denali Highway	Parks Highway	Lake Louise Area	Total
Mar 2013	0	0	0	0	0	0
Apr 2013	0	0	0	0	0	0
May 2013	2	0	0	0	0	2
June 2013	9	5	36	28	1	79
July 2013	35	4	63	20	8	130
Aug 2013	21	10	55	40	8	134
Sept 2013	2	3	22	16	3	46
Oct 2013	1	0	0	0	0	1
Nov 2013	1	0	0	0	0	1
Dec 2013	0	0	0	0	0	0
Jan 2014	0	0	0	0	0	0
Feb 2014	1	0	0	0	0	1
Mar 2014	1	0	0	1	0	2
Total	73	22	176	105	20	396

Source: Susitna-Watana Recreation Intercept Observation Tally.

2.6. Observed Dog Sledding Activity

Over the survey sample period, there were 47 observations of dog sledding activity (Table C2.6-1) with a total of 150 vehicles with dog boxes observed (Table C2.6-2). Dog sledding activity was observed most frequently on the Parks Highway Sub-Area (18 observations), followed by West Denali Highway Sub-Area (14 observations). Observed dog sledding activity in peaked in March and April 2013 (12 total observations in each month). Observed vehicles with dog box units were most noted in the Lake Louise Area Sub-Area and at the western entrance to the Denali Highway Sub-Area (Figure C2.6-1).

Table C2.6-1. Number of Observed Dog Sled Activity, by Geographical Location and by Month (March 2013–March 2014)

	Talkeetna Area	West Denali Highway	East Denali Highway	Parks Highway	Lake Louise Area	Total
Mar 2013	0	2	0	7	3	12
Apr 2013	1	1	0	8	2	12
May 2013	0	0	0	1	0	1
June 2013	1	0	0	0	0	1
July 2013	0	0	0	0	0	0
Aug 2013	0	0	0	0	0	0
Sept 2013	0	0	0	0	1	1
Oct 2013	0	0	0	0	0	0
Nov 2013	1	3	0	0	0	4
Dec 2013	0	3	0	0	0	3
Jan 2014	0	0	0	0	1	1
Feb 2014	1	3	0	0	0	4
Mar 2014	4	2	0	2	0	8
Total	8	14	0	18	7	47

Source: Susitna-Watana Recreation Intercept Observation Tally.

Table C2.6-2. Vehicle Count with Dog Sled Box Units Observed, by Geographical Location and by Month (March 2013–March 2014)

	Talkeetna Area	West Denali Highway	East Denali Highway	Parks Highway	Lake Louise Area	Total
Mar 2013	0	3	0	7	18	28
Apr 2013	1	1	0	8	17	27
May 2013	0	0	0	1	0	1
June 2013	8	0	0	0	0	8
July 2013	0	0	0	0	0	0
Aug 2013	0	0	0	0	0	0
Sept 2013	0	0	0	0	16	16
Oct 2013	0	0	0	0	0	0
Nov 2013	1	13	0	0	0	14
Dec 2013	0	13	0	0	0	13
Jan 2014	0	0	0	0	16	16
Feb 2014	1	17	0	0	0	18
Mar 2014	4	3	0	2	0	9
Total	15	50	0	18	67	150

Source: Susitna-Watana Recreation Intercept Observation Tally.

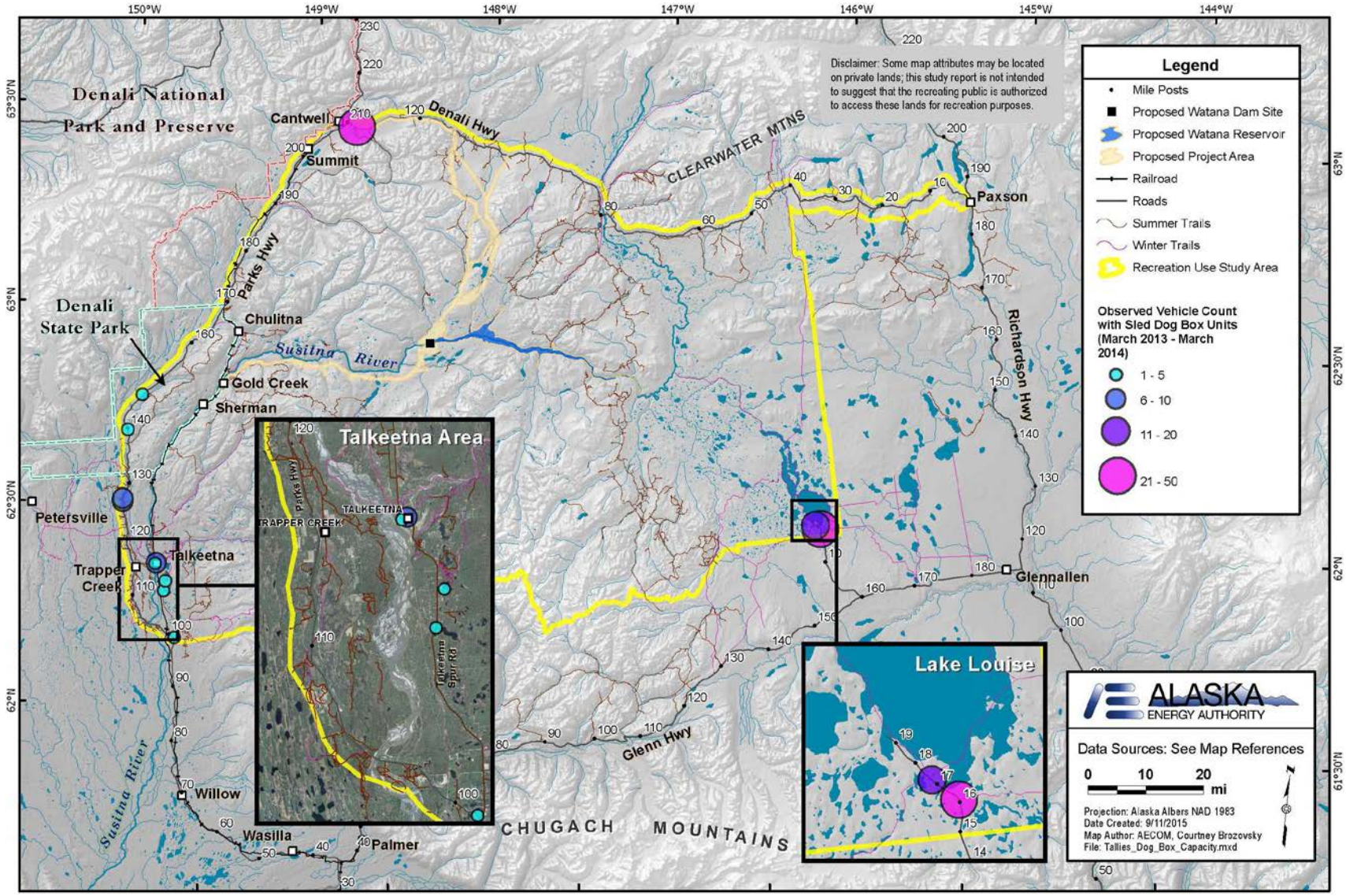


Figure C2.6-1. Observed Vehicle Count with Sled Dog Box Units (March 2013–March 2014)

Source: Susitna-Watana Recreation Intercept Observation Tally.

2.7. Observed Horse Trailers

Figure C2.7-1 maps the observed vehicles with horse trailers (April–October 2013). The heaviest use was observed along the entire Denali Highway.

2.8. Seasonal Observations

Figure C2.8-1 maps the observed vehicle count during the winter recreation season (March–April 2013, and November 2013–March 2014). The heaviest vehicle use was observed in the Talkeetna Area, Lake Louise Area, Parks Highway, and the western entrance to the Denali Highway.

Figure C2.8-2 maps the observed vehicle count during the summer recreation season (May–July 2013). The heaviest vehicle use was observed in the Talkeetna Area and area around Tangle Lakes (East Denali Highway); however, observations were spread out along the entire Denali Highway.

Figure C2.8-3 maps the observed vehicle count during the fall hunting recreation season (August–October 2013). The heaviest vehicle use was observed in the Talkeetna area, Parks Highway, and the area around Tangle Lakes (East Denali Highway); however, observations were spread out along the entire Denali Highway.

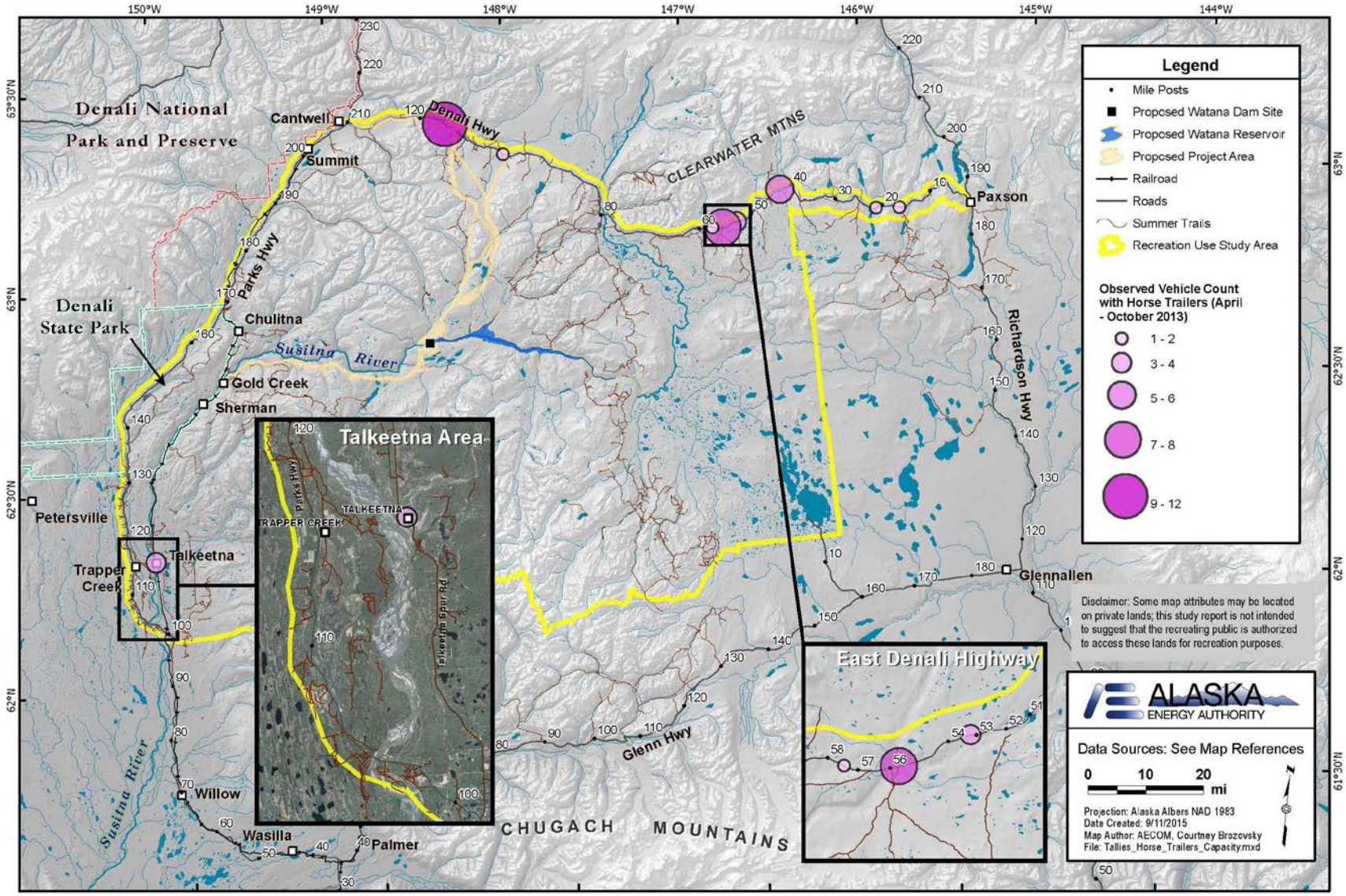


Figure C2.7-1. Observed Vehicle Count with Horse Trailers (April–October 2013)

Source: Susitna-Watana Recreation Intercept Observation Tally, McDowell Group.

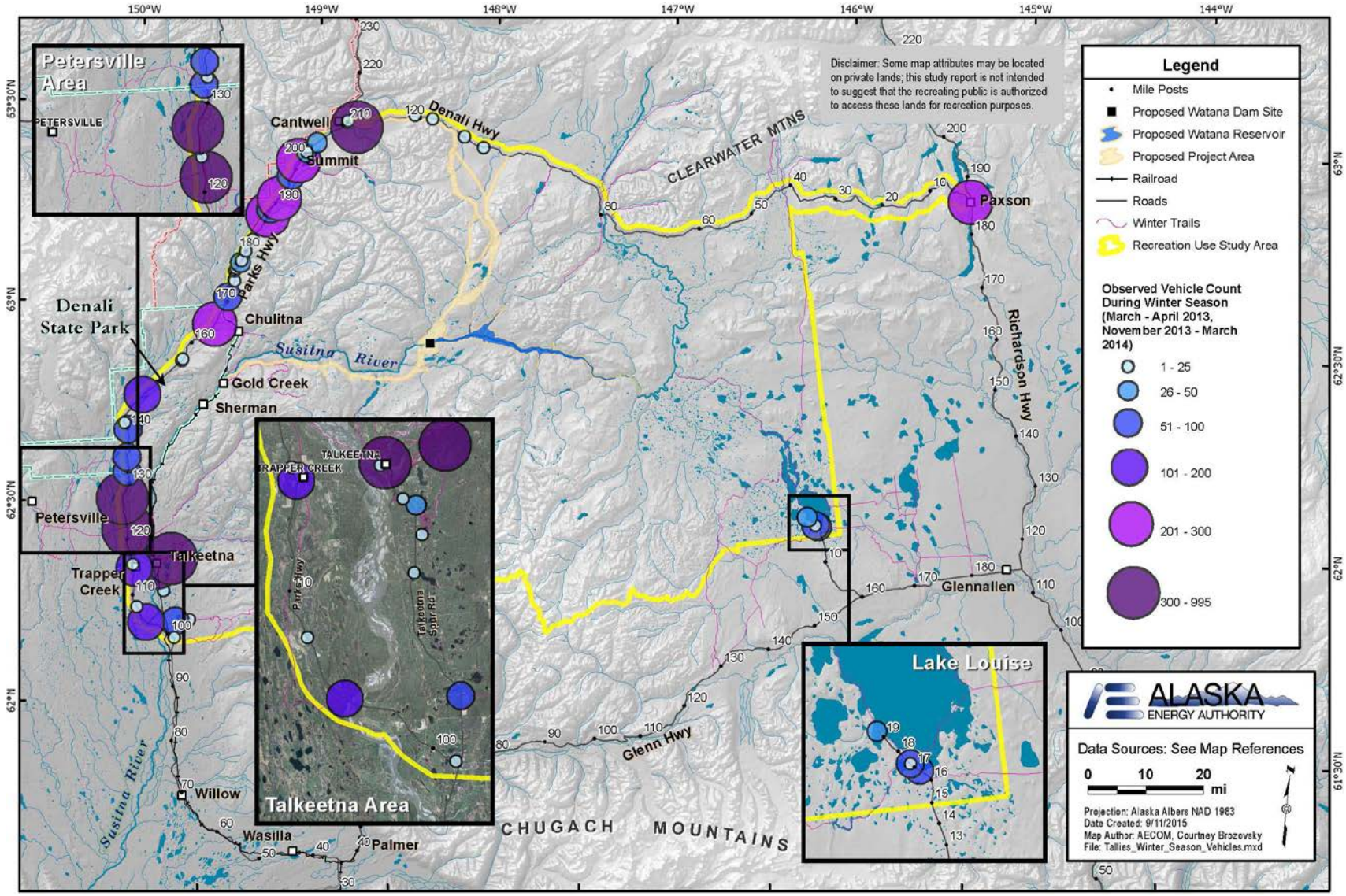


Figure C2.8-1. Observed Vehicle Count During Winter Season (March–April 2013 and November 2013–March 2014)

Source: Susitna-Watana Recreation Intercept Observation Tally.

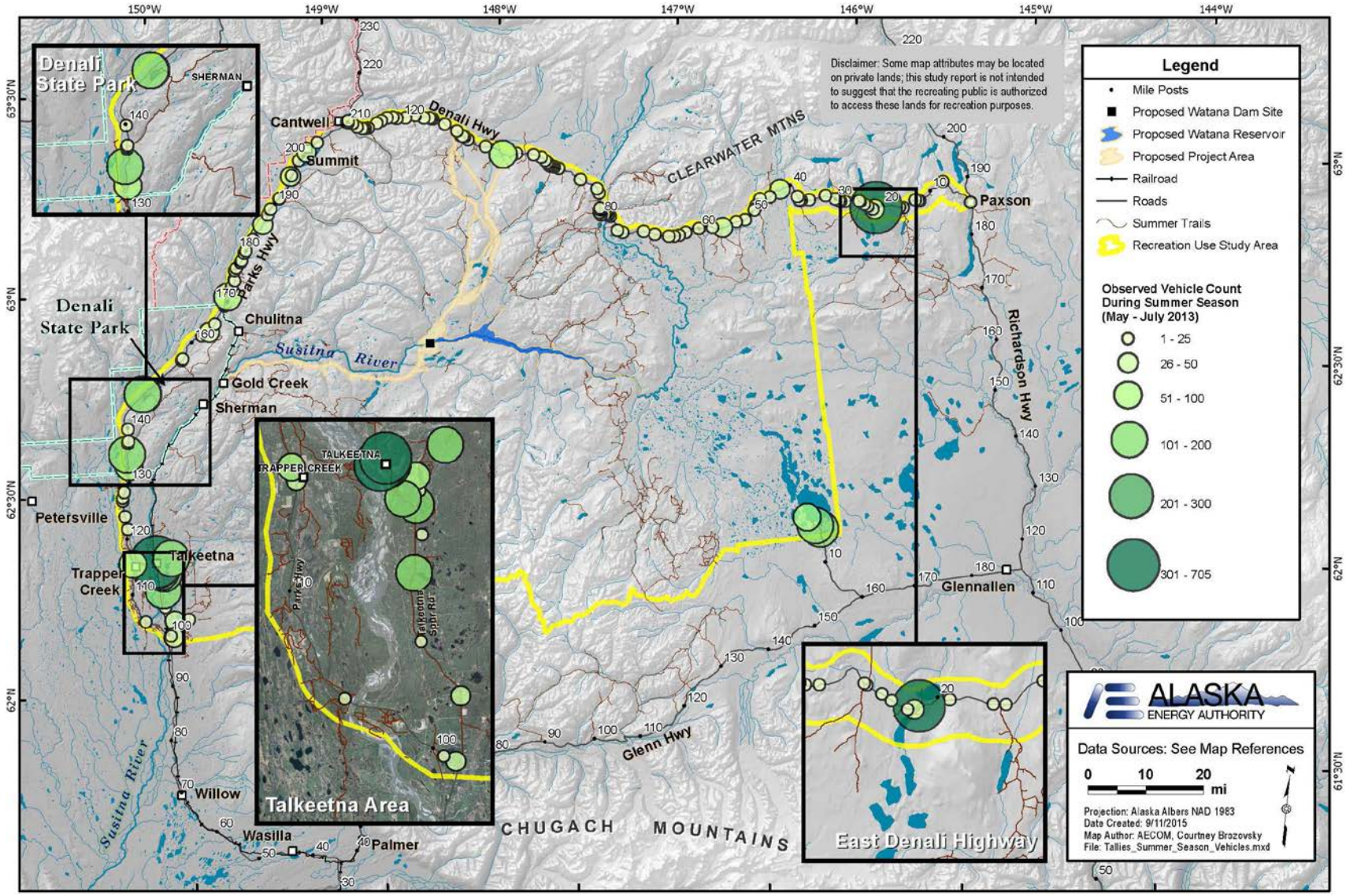


Figure C2.8-2. Observed Vehicle Count During Summer Season (May–July 2013)

Source: Susitna-Watana Recreation Intercept Observation Tally.

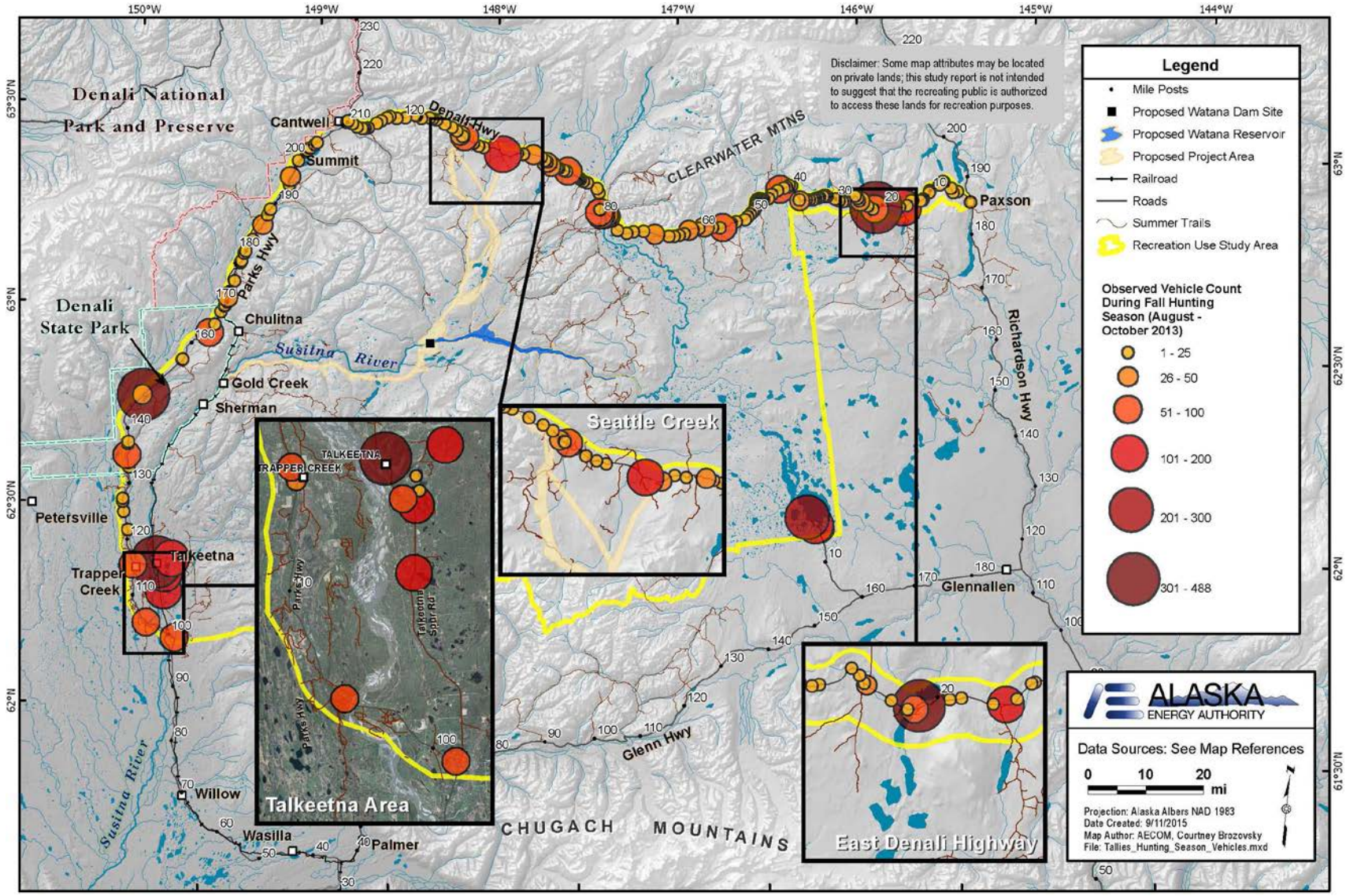


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Source: Susitna-Watana Recreation Intercept Observation Tally.

APPENDIX D: SUSITNA-WATANA RECREATION REGIONAL RESIDENT HOUSEHOLD MAIL SURVEY RESULTS SUMMARY

Susitna-Watana Hydroelectric Project
(FERC No. 14241)

Recreation Resources Study
Study Plan Section 12.5

Technical Memorandum - 2014 Year-End Report
Recreation Use Demand Assessment

Appendix D - Susitna-Watana Recreation Regional Resident Household Mail Survey Results Summary

Prepared for

Alaska Energy Authority



Prepared by

AECOM and McDowell Group

October 2015

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LIST OF ACRONYMS, ABBREVIATIONS, AND DEFINITIONS

Abbreviation	Definition
ATV	all-terrain vehicle
GED	General Educational Development
ORV	off-road vehicle
RV	recreation vehicle

1. METHODOLOGY

The purpose of the Regional Resident Household Mail Survey was to gather information from a sample of regional households about their recreation activities in the Recreation Use Study Area, and to collect perspectives about recreational opportunities.

1.1. Mail Survey Sample Plan and Response

A sample of 15,936 regional households, randomly selected from a list of unduplicated Alaska registered voter households, received a mail survey. One survey was sent to each voter household. The sample was split into two separate mailings (starting with 7,500 postcards mailed in May 2013 [surveys mailed in June] and the remaining 8,436 postcards/surveys mailed in October 2013). The study team tracked surveys that were undeliverable, returned, deaths, and refusals; the final sample was 14,538, including 6,997 in the June sample and 7,541 in the October sample.

The sample area for the mail survey included a random selection of voter households from the Fairbanks North Star Borough, Denali Borough (except Cantwell), Matanuska-Susitna Borough (including Talkeetna/Trapper Creek, and Eureka), Municipality of Anchorage, Valdez-Cordova Census Area, Glennallen, Chistochina, Slana, Nabesna, Chisana, and Mentasta Lake, and the Delta area, including Big Delta, Delta Junction, and Deltana. To boost the sample of smaller communities near (or in) the Recreation Use Study Area, the sample also included all unduplicated voter households from Cantwell, Paxson, Tazlina, Gakona, Gulkana, Copper Center, Kenny Lake, Lake Louise, Tonsina, Chitna, Fort Greely, Dot Lake, and Tanacross.

Recipients of the mail survey were also given the option of completing the survey online. To accommodate the two different methods of delivery, the survey design differed slightly between the mail survey and the online version. Instructions on how to complete the survey and the URL address were included in the cover letter. Each survey booklet had a unique password imprinted on the back cover, allowing users access to a secure online survey site.

The Dillman methodology for maximizing mail survey responses was used as a guide (Dillman et al. 2009[1]). The process/schedule included:

June 2013 Mail Survey Schedule:

- May 28, mailed pre-survey postcard informing 7,500 households that a mail survey would arrive shortly, asking them for their cooperation in completing and returning the survey, and informing them about the $1,000 gift card prize.
- A total of 29 postcards were undeliverable and removed from the sample.
- June 3–6, mailed the survey booklet, including cover letter, to 7,471 households. About half the sample (3,750 households) included a $1 incentive.

[1] Dillman, Don A., Jolene D. Smyth, and Leah Melani Christian. 2009. *Internet, Mail, and Mixed-Mode Surveys: The Tailored Design Method*. John Wiley & Sons, Inc., Hoboken, New Jersey.

- A total of 474 additional surveys were returned with no forwarding address or surveys were returned for other reasons (such as they moved, died, or refused) and removed from the sample. The new total sample was 6,997.
- June 21, mailed a second copy of the survey, including cover letter, to 4,500 nonrespondents.
- July 15, final due date to receive survey responses.
- December 31, survey was officially closed (both by mail and online).
- A total of 1,704 surveys were completed and returned for a response rate of 24.4 percent.
- June–December 2013, survey data cleaned, coded, and entered into the survey database.

October 2013 Mail Survey Schedule:

- October 21, mailed pre-survey postcard to 8,436 households.
- A total of 362 postcards were undeliverable and removed from the sample.
- October 24–27, mailed the survey booklet to 8,074 households, including cover letter, and $1 incentive to all sample households.
- A total of 533 additional surveys were returned with no forwarding address or surveys were returned for other reasons (e.g., respondents had moved, died, or refused) and removed from the sample. The new total sample was 7,541.
- November 12, mailed post-mailer reminder/thank you postcard to all sample households.
- November 19–21, mailed a second copy of the survey, including cover letter, to 4,500 nonrespondents.
- November 30, stated final due date to receive surveys.
- December 31, survey was officially closed.
- A total of 2,278 surveys were completed and returned for a response rate of 30.2 percent.
- November–December 2013, survey data cleaned, coded, and entered into the survey database.

The combined response was 3,982 completed surveys for a combined response rate of 27.4 percent.

Mail survey results were weighted by place of residence, age, and income so that overall results were statistically representative of the entire survey area population. A discussion of weighting of the mail survey results in found in Section 5.1.2 of the Recreation Use Demand Assessment 2014 Study Implementation Report, as summarized in Table D1.1-1.

Table D1.1-1. Mail Sample Components, June and October 2013 Mailings Combined

Regional Household Mail Sample Components	June Mailing	October Mailing	Combined Total
Voter registration list, unduplicated randomly selected households	7,500	8,436	15,936
Surveys undeliverable for incorrect addresses	29	362	391
Number of surveys mailed	7,471	8,074	15,545
Surveys returned with no forwarding address	457	512	969
Surveys returned for other reasons (moved, died, refusal)	17	21	38
Total mail survey sample	6,997	7,541	14,538
Second mailing of surveys to non-respondent Households	4,500	4,800	9,300
Completed surveys returned by mail	1,413	1,889	3,302
Completed surveys returned online	291	389	680
Total completed surveys	1,704	2,278	3,982
Response rate	24.4%	30.2%	27.4%
Number of surveys removed from weighted sample (no age provided)			427
Total weighted sample			3,555

Source: Susitna-Watana Recreation Regional Household Mail Survey.

1.2. Mail Survey Content/Design Process

The mail survey included a map in the survey booklet so respondents could visually review the boundaries of the Recreation Use Study Area (or Study Area). One of the maps also included grids to aid the respondents in commenting on a specific area within the Study Area (see Figure 3-1 in the 2014 Study Implementation Report).

The Study Area is defined generally as the area encompassed by the following features: the Parks Highway corridor, from the "Y" at the Talkeetna Spur Road intersection to Cantwell; the Denali Highway corridor from Cantwell east to Paxson; west from Paxson along a 2-mile buffer south of the Denali Highway to the Matanuska-Susitna Borough boundary; areas west of the Matanuska-Susitna Borough boundary between the Denali and Glenn Highways (including Lake Louise area); and extending west in a line from the Matanuska-Susitna Borough boundary, following the Chickaloon River, and connecting to the "Y" at the Talkeetna Spur Road. This includes areas ¼ mile west and ¼ mile north of the highways, respectively. The boundaries of the Recreation Use Study Area are the same as those used for the demand assessment, also referred to as the Recreation Supply and Demand Analysis Area.

The Study Area was subdivided into 59 grids to assist with survey analysis. These grids were then grouped into seven Sub-Areas of analysis (see Figure 3-1 in the 2014 Study Implementation Report), including:

- West Denali Highway
- East Denali Highway
- Lake Louise Area
- Parks Highway
- Talkeetna Area
- Remote North
- Remote South

Details regarding the boundaries of the Study Area and each of the seven Sub-Areas are found in Chapter 3 of the 2014 Study Implementation Report.

The content of the Regional Resident Household Mail Survey overlapped with the Recreation Intercept Survey, which is described in detail in Appendix B. Similar to the intercept survey, the mail survey included questions regarding Study Area access, quality of experience, recreation facilities and infrastructure, aesthetics (including cultural identity, identity with place, dependence on place, and social bonding with place), party and group size, and demographics. To assist the Socioeconomics Study (Section 15), specific questions regarding snowmachining, hunting, sportfishing, and recreational boating (without fishing) activity were also included in the mail survey.

Copies of the June and October mail survey are included in Attachments D-1 and D-2, respectively.

2. SURVEY RESULTS

Results of the Regional Resident Household Mail Survey are presented below. In many cases, survey data are presented in totals, as well as by the Sub-Area where the respondent's primary recreation activity took place. Unless noted otherwise, all results include combined data (responses by mail and online) from the June and October 2013 mailings.

2.1. Study Area Residents

Of all respondents, 3 percent lived within the Recreation Use Study Area, as defined in Section 3 of the 2014 Study Implementation Report (Table D2.1-1).

Table D2.1-1. Residency within Study Area, Percent

Response	% of Total
	n=3,525
Yes	3%
No	97%

Note: "n" values are unweighted.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.2. Study Area Recreation Participation

The survey asked if respondents recreated in the Study Area between November 2012 and October 2013; 31 percent of respondents had participated in an outdoor recreational activity within the Study Area (Table D2.2-1).

Table D2.2-1. Recreation within Study Area (November 2012–October 2013), Percent

Response	% of Total
	n=3,416
Yes	31%
No	69%

Note: "n" values are unweighted.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.3. Number of Days Recreating

The average number of days recreation users recreated in the Study Area between November 2012 and October 2013 was 15 days; the median was 5 days (Table D2.3-1). Of the 33 recreation users that spent more than 60 days recreating in the Study Area, 31 of those recreation users live in the Study Area.

Table D2.3-1. Number of Days Recreated in Study Area (November 2012–October 2013), October 2013 Mailing Only, Percent

Number of Days	% of Total
	n=563
1 day	13%
2 – 7 days	55%
8 – 14 days	13%
15 – 25 days	9%
26+ days	10%
Average number of recreation days in Study Area	15.0 days
Median number of recreation days in Study Area	5.0 days

Base: Those that recreated in the Recreation Use Study Area.

Note: "n" values are unweighted.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.3.1. All Recreation Activities

Recreation users were asked to identify all of their outdoor recreational activities in the Study Area. Between November 2012 and October 2013, 55 percent of recreation users camped (either roadside camping or remote camping or both) and 45 percent engaged in some type of wildlife viewing (including bird watching). Hiking/backpacking and walking/running were participated in each by 36 percent of recreation users. Almost a quarter (23 percent) of recreation users collected berries or mushrooms. The same amount (23 percent) fished (all species). Just over one in five users (22 percent) boated (motorized and/or non-motorized). One out of five (20 percent) recreation users rode an off-road vehicle (ORV) and a similar number (19 percent) hunted. A total of 16 percent participated in snowmachining. Other activities in which over 10 percent of users participated included bicycling (13 percent), and riding the Alaska Railroad (11 percent) (Table D2.3-2).

Activities in which less than 10 percent of recreation users participated included: skiing (9 percent), flightseeing (8 percent), snowshoeing (7 percent), dog sledding (2 percent), gold panning (<1 percent), trapping (<1 percent), swimming (<1 percent), and ziplining (<1 percent) (Table D2.2-3).

Table D2.3-2. All Recreation Activities in Study Area (November 2012–October 2013), Percent

Activity	% of Total
	n=1,182
Camping (remote and roadside camping combined)	55%
Remote camping	33%
Roadside camping	31%
Wildlife viewing (including bird watching)	45%
Wildlife viewing	42%
Bird watching	18%
Hiking/backpacking	36%
Walking/running	36%
Collecting berries/mushrooms	23%
Fishing (all species)	23%
Fishing for other species	16%
Fishing for salmon	13%
Riding ATVs	20%
Hunting	19%
Snowmachining	16%
Non-motorized boating (rafting/canoeing/kayaking/pack raft)	13%
Bicycling	13%
Alaska Railroad	11%
Skiing	9%
Motorized boating – (jet, prop, air)	9%
Flightseeing	8%
Snowshoeing	7%
Dog sledding	2%
Gold panning	<1%
Trapping	<1%

Activity	% of Total
Swimming	<1%
Zipline	<1%
Other*	2%

* "Other" included gold panning, waterskiing, dirt biking, photography, rock climbing, mountaineering, motorcycling, playing basketball, playing volleyball, meditation/reflection, "jeeping," geocaching, shooting, and trapping.

Base: Those that recreated in the Recreation Use Study Area.

Note: "n" values are unweighted. Multiple responses accepted; columns will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.3.2. Average Number of Days by Type of Activity

The activity with the most days reported by recreation users was snowmachining (11.4 days), followed closely by dog sledding (10 days) and motorized boating (9.9 days). The activity with the smallest number of days was 2.8 days for riding the Alaska Railroad (Table D2.3-3).

Table D2.3-3. All Recreation Activities in Study Area, Average Number of Days, by Type of Recreation Activity (November 2012 to October 2013)

Activity	Average Number of Days
	n=1,103
Snowmachining	11.4
Dog sledding	10.0
Motorized boating – (jet, prop, air)	9.9
Wildlife viewing (including bird watching)	9.1
Bird watching	9.4
Wildlife viewing	7.7
Bicycling	8.4
Fishing (all species)	8.3
Fishing for salmon	7.5
Fishing for other species	7.4
Riding ATVs	8.0
Walking/running	8.0
Hunting	7.9

Activity	Average Number of Days
Skiing	7.5
Camping (remote and roadside camping combined)	7.3
Remote camping	7.7
Roadside camping	4.7
Snowshoeing	7.0
Hiking/backpacking	6.0
Non-motorized boating (rafting/canoeing/kayaking/pack raft)	5.3
Collecting berries/mushrooms	4.4
Flightseeing	3.2
Alaska Railroad	2.8
Other*	6.6

* "Other" included gold panning, waterskiing, dirt biking, photography, rock climbing, mountaineering, motorcycling, playing basketball, playing volleyball, meditation/reflection, "jeeping," geocaching, shooting, and trapping.

Base: Those that recreated in the Recreation Use Study Area.

Note: "n" values are unweighted. Multiple responses accepted; columns will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.4. Most Recent Recreation Outing

Recreation users were asked in what activities they participated on their most recent visit to the Study Area. A total of 38 percent of recreation users camped (either roadside camping or remote camping or both), and 30 percent engaged in some type of wildlife viewing (including bird watching). Walking/running was participated in by 24 percent of recreation users, followed by hiking/backpacking (22 percent). Other activities in which 10 or more percent of recreation users participated included collecting berries or mushrooms (12 percent), boating (motorized and non-motorized) (11 percent), and riding ATVs (10 percent) (Table D2.4-1).

Activities in which less than 10 percent of recreation users participated during their most recent outing included: snowmachining (7 percent), riding the Alaska Railroad (7 percent), bicycling (7 percent), flightseeing (4 percent), skiing (4 percent), snowshoeing (2 percent), and dog sledding (1 percent) (Table D2.3-1).

Table D2.4-1. All Recreation Activities in Study Area, Most Recent Outing, Percent

Activity	% of Total
	n=1,178
Camping (roadside and remote camping combined)	38%
Roadside camping	21%
Remote camping	20%
Wildlife Viewing (including bird watching)	30%
Wildlife viewing	28%
Bird watching	10%
Walking/running	24%
Hiking/backpacking	22%
Hunting	15%
Fishing (all species)	13%
Fishing for other species	9%
Fishing for salmon	6%
Collecting berries/mushrooms	12%
Riding ATVs	10%
Snowmachining	7%
Alaska Railroad	7%
Bicycling	7%
Non-motorized boating (rafting/canoeing/kayaking/pack raft)	6%
Motorized boating (jet, prop, air)	5%
Flightseeing	4%
Skiing	4%
Snowshoeing	2%
Dog sledding	1%
Other*	6%

* "Other" included gold panning, waterskiing, dirt biking, photography, rock climbing, mountaineering, motorcycling, playing basketball, playing volleyball, meditation/reflection, "jeeping," geocaching, shooting, and trapping.

Base: Those that recreated in the Recreation Use Study Area.

Note: "n" values are unweighted. Multiple responses accepted; columns will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.4.1. Overnight Stay – Most Recent Outing

On their most recent outing, 66 percent of recreation users overnighted in the Study Area. All recreation users (100 percent) who had a primary recreation activity (see Section 2.5) in the Talkeetna Area Sub-Area overnighted in the Study Area. Recreation users who engaged in in a primary recreation activity along the Parks Highway were less likely to overnight (44 percent overnighted) in the Recreation Use Study Area (Table 2.4-2).

Table D2.4-2. Overnight Stay, Most Recent Outing, by All Study Area and Sub-Area of Primary Recreation Activity

Response	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
	n=1,184	n=270	n=204	n=183	n=476	n=88	n=73	n=40
Yes	66%	100%	70%	80%	44%	82%	72%	71%
No	34%	-	30%	20%	56%	18%	28%	29%

Base: Those who reported a primary activity in their most recent outing in the Recreation Use Study Area. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Note: "n" values are unweighted.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.4.1.1. Overnight Length of Stay – Most Recent Outing

On average, regional recreational users spent 4 nights in the Study Area on their most recent outing. Most users stayed between 2 and 7 nights on their most recent outing (67 percent). Recreation users whose primary activity occurred in the Remote North Sub-Area during their most recent outing were likely to spend the most number of overnights in the Study Area (6.3 percent), and those likely to spend the least number of nights were those whose primary activity was in the Talkeetna Area (3.7 nights) or the Parks Highway (3.7 nights) Sub-Areas (Table D2.3-3).

Table D2.4-3. Number of Overnights, Most Recent Outing, by All Study Area and Sub-Area of Recreation Activity, Percent

Number of Nights Spent	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
	n=7,538	n=269	n=132	n=132	n=208	n=67	n=51	n=27
1	23%	26%	19%	21%	26%	9%	9%	7%
2 – 7	67%	65%	69%	67%	66%	71%	67%	69%
8 – 14	7%	7%	9%	9%	4%	19%	18%	24%
15+	3%	3%	3%	3%	3%	-	7%	-
Average number of nights spent in Study Area	4.0	3.7	4.5	4.0	3.7	4.8	6.3	5.1

Base: Those who reported a primary activity in their most recent outing and overnighted in the Recreation Use Study Area. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Note: "n" values are unweighted. Due to rounding, some columns may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.4.1.2. Overnight Location – Most Recent Outing by Sub-Area

Of those recreational users who overnighted within the Study Area, 41 percent indicated they stayed in the Talkeetna Area Sub-Area, followed by 22 percent in the West Denali Highway Sub-Area. Fewer recreation users overnighted in the Remote North (4 percent) and the Remote South (2 percent) Sub-Areas (Table D2.4-4).

Table D4.3-4. Location of Overnight Stay by Sub-Area, Percent

Overnight Location	% of Total
	n=707
Talkeetna Area	41%
West Denali Highway	22%
Parks Highway	21%
East Denali Highway	17%
Lake Louise Area	12%
Remote North	4%

Overnight Location	% of Total
Remote South	2%

Base: Those who reported a primary activity in their most recent outing and overnighted in the Recreation Use Study Area.
Note: "n" values are unweighted. Multiple responses accepted; columns will not add to 100 percent.
Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.4.1.3. Type of Overnight Lodging – Most Recent Outing

As seen in Table D2.4-5, 33 percent of recreation users who overnighted in the Study Area during their most recent outing stayed in a remote tent or cabin, followed by those who stayed in an undeveloped roadside campsite (24 percent) and those who stayed in an established campground (22 percent).

Table D2.4-5. Overnight Stay, Most Recent Outing, by Type of Lodging, Percent

Type of Lodging	% of Total
	n=760
Remote camping (tent/cabin)	33%
Undeveloped roadside camping (RV/camper/car/tent)	24%
Established campground	22%
Hotel/motel/B&B/lodge	20%
Private home	5%
Other*	1%

* "Other" was not specified by respondents.
Base: Those who reported a primary activity in their most recent outing and overnighted in the Recreation Use Study Area.
Note: "n" values are unweighted. Multiple responses accepted; column will not add to 100 percent.
Source: Susitna-Watana Recreation Regional Household Mail Survey.

Recreation users who overnighted in the Talkeetna Area Sub-Area were more likely to stay in a hotel/motel/B&B/lodge (33 percent) than those who overnighted in the West Denali Highway (7 percent), East Denali Highway (13 percent), and Lake Louise Area (11 percent) Sub-Areas. Since there are no hotels located in Remote North or South Sub-Areas, no one reported overnighting in this type of lodging.

Recreational users who overnighted in the West or East Denali Highway Sub-Areas were more likely to overnight in an undeveloped campsite (49 percent and 43 percent, respectively) than those who overnighted in the Lake Louise Area (25 percent), Parks Highway (17 percent), and Talkeetna Area (17 percent) Sub-Areas (Table D2.4-6).

Table D2.4-6. Overnight Stay, Most Recent Outing, by Type of Lodging, by All Study Area and Sub-Area of Overnight Stay, Percent

Type of Lodging	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
	n=760	n=270	n=151	n=140	n=147	n=85	n=25	n=13
Remote camping (tent/cabin)	33%	27%	27%	25%	34%	32%	100%	100%
Undeveloped/on-road RV/camper/ car/tent	24%	17%	49%	43%	17%	25%	-	-
Established campground	22%	21%	19%	28%	35%	30%	-	-
Hotel/motel/B&B/ lodge	20%	33%	7%	13%	14%	11%	-	-
Private home	5%	8%	6%	-	2%	5%	-	-
Other*	1%	1%	1%	-	<1%	1%	-	-

* "Other" was not specified by respondents.

Base: Those who reported a primary activity, overnighted in the Recreation Use Study Area and indicated the type of lodging used during their most recent outing. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Note: "n" values are unweighted. Multiple responses accepted, so some columns will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

Recreational users who remotely camped had the most number of nights in the Remote North Sub-Area (7.7 nights). Overnighting in an undeveloped campground was longest in the East Denali Highway Sub-Area (4.3 nights). Those staying overnight in an established campground stayed the longest in the Lake Louise Area Sub-Area (3.6 nights) (Table D2.4-7).

Table D2.4-7. Average Number of Overnights, Most Recent Outing, by Type of Lodging, by Sub-Area of Overnight Stay Location, Percent

Type of Lodging	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=270	n=151	n=140	n=147	n=85	n=25	n=13
Remote camping (tent/cabin)	5.1	5.8	2.8	4.1	4.1	7.7	3.5
Undeveloped/on-road RV/camper/car/tent	2.6	3.0	4.3	3.4	2.2	-	-

Type of Lodging	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
Established campground	2.4	2.0	2.7	2.4	3.6	-	-
Hotel/motel/B&B/lodge	2.0	3.6	2.5	1.8	2.5	-	-
Private home	3.1	8.6	-	7.2	4.7	-	-
Other*	0.9	2.0	1.0	2.0	7.0	-	-

* "Other" was not specified by respondents.

Base: Those who reported a primary activity, overnighted in the Recreation Use Study Area and indicated the type of lodging used during their most recent outing. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Note: "n" values are unweighted.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.4.2. Party Size

A party, for purposes of this study, means those sharing expenses such as food, lodging, and transportation on the most recent outing. Recreation users were most frequently (39 percent) in the Study Area as part of a party of 2. Average party size among all respondents was 3.5 (Table D2.4-8).

Table D2.4-8. Party Size, Most Recent Outing, by All Study Area and by Sub-Area of Primary Recreation Activity, Percent

Number in Party	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
	n=1,160	n=266	n=199	n=182	n=466	n=86	n=73	n=40
1	8%	7%	8%	10%	8%	4%	4%	11%
2	39%	38%	43%	42%	39%	37%	40%	34%
3	17%	17%	17%	16%	16%	12%	19%	19%
4 – 6	30%	31%	25%	25%	31%	39%	31%	21%
7+	7%	7%	6%	7%	6%	8%	6%	16%
Average party size	3.5	3.4	3.3	3.4	3.6	3.6	3.5	3.6

Base: Those who reported a primary activity in their most recent outing in the Recreation Use Study Area. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Note: "n" values are unweighted. Due to rounding, some columns may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

Based on primary activity in the Study Area (see Section 2.5), recreational users had larger party sizes if they were riding the Alaska Railroad (average party size of 4.7 people), snowmachining (4.5 people), or bicycling (4.1 people) (Table D2.4-9).

Table D2.4-9. Average Party Size, Most Recent Outing, by Selected Primary Recreation Activity, Percent

Recreation Activity	Average Party Size	Sample
All activities combined	3.5	n=1,160
Alaska Railroad	4.7	n=39
Snowmachining	4.5	n=58
Bicycling	4.1	n=29
Riding ATVs	3.6	n=37
Remote camping	3.6	n=125
Roadside camping	3.5	n=133
Hiking/Backpacking	3.2	n=77
Walking/running	3.1	n=90
Fishing for Salmon	3.1	n=30
Wildlife/Bird Viewing	3.0	n=108
Hunting	2.9	n=159
Collecting berries/mushrooms	2.8	n=61
Fishing for non-Salmon species	2.8	n=39

Base: Those who reported a primary activity in their most recent outing in the Recreation Use Study Area.

Note: "n" values are unweighted.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.4.2.1. Children in Party

The average number of children under the age of 18 in a recreation party was 0.7. The majority of all parties, regardless of which Sub-Area they recreated in, did not include children (Table D2.4-10).

Table D2.4-10. Children Under Age 18 in Party, Most Recent Outing, by All Study Area and by Sub-Area of Primary Recreation Activity, October 2013 Mailing Only, Percent

Number of Children	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
	n=684	n=154	n=117	n=121	n=263	n=52	n=37	n=23
Zero	68%	66%	66%	74%	69%	51%	68%	65%
1	12%	17%	16%	14%	10%	15%	12%	18%
2	13%	12%	15%	7%	13%	20%	14%	8%
3	4%	3%	2%	2%	4%	9%	1%	10%
4 – 6	2%	1%	1%	2%	3%	5%	6%	-
7+	<1%	-	-	1%	<1%	1%	-	-
Average number of children in party	0.7	0.6	0.6	0.5	0.8	1.0	0.7	0.6

Base: Those who reported a primary activity in their most recent outing in the Recreation Use Study Area with a party size of two or more people (October mailing only). Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Note: "n" values are unweighted. Due to rounding, some columns may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.4.2.2. Household Members in Party

The average number of household members in a recreation party was 2.2. Parties with the largest number of household members (on average) participated in their primary recreation activity in the Lake Louise Area or Remote South Sub-Areas (2.5 household members), compared to the lowest number of household members in the party in the East Denali Highway Sub-Area (1.8 household members) (Table D2.4-11).

Table D2.4-11. Household Members in Party, Most Recent Outing, by All Study Area and Sub-Area of Primary Recreation Activity, October 2013 Mailing Only, Percent

Number of Household	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
	n=554	n=129	n=102	n=94	n=214	n=44	n=26	n=19
1	35%	33%	37%	46%	34%	28%	26%	37%
2	39%	41%	34%	40%	42%	38%	43%	32%
3	11%	12%	18%	9%	9%	9%	27%	10%
4 – 6	14%	13%	11%	4%	13%	25%	4%	12%
7+	1%	1%	-	1%	1%	-	-	9%
Average number of household members in party	2.2	2.4	2.1	1.8	2.3	2.5	2.1	2.5

Base: Those who reported a primary activity in their most recent outing in the Recreation Use Study Area with a party size of 2 people or more (October mailing only). Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Note: "n" values are unweighted. Due to rounding, some columns may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.4.2.3. Special Needs Members in Party

Most respondents (95 percent) did not have anyone in their party with a disability or special need related to outdoor recreation activities. Five percent of parties did have someone with a disability or special need (Table D2.4-12).

Table D2.4-12. Member of Party Disabled or With Special Needs, Percent

Response	% of Total
	n=1,166
Yes	5%
No	95%

Base: Those who reported a primary activity in their most recent outing in the Recreation Use Study Area.

Note: "n" values are unweighted.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.4.2.3.1. Type of Special Need

Among those who identified as having a disability or special need, 25 percent of those respondents identified they needed wheelchair access to trails, and slightly more (31 percent) indicated they needed wheelchair access to facilities (Table D2.4-13). Sixty-three percent of disabled people indicated other special needs, including issues regarding mobility, use of devices, service animal access, and senior support.

Table D2.4-13. Type of Special Need, Percent

Response	% of Total
	n=59
Wheelchair access to trails	25%
Wheelchair access to facilities	31%
Other*	63%

* "Other" included disabled right leg and left shoulder, leg brace, service animal access to trails, bench to rest every so often, walking with a cane, stroller, prosthetic leg, limited mobility, cannot walk far, mobility problems, heart condition, elderly family members, and walking difficulties due to Multiple Sclerosis.

Base: Those who reported a primary activity in their most recent outing in the Recreation Use Study Area and indicated any member in their party had a disability or special need.

Note: "n" values are unweighted. Multiple responses accepted; column will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.4.3. Group Size

Many recreation users traveled in the Study Area as part of a group, meaning a set of friends or relatives traveling with the respondent, but did not necessarily share expenses. Average group size among recreation users was 4.1. This includes 34 percent of recreation users who traveled in a group of 2, and 12 percent who traveled in a group of 7 or more people (Table D2.4-14).

Table D2.4-14. Group Size, Most Recent Outing, by All Study Area and by Sub-Area of Primary Recreation Activity, Percent

Number in Group	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
	n=1,143	n=260	n=199	n=181	n=461	n=79	n=72	n=39
1	7%	7%	8%	9%	7%	2%	4%	5%
2	34%	32%	35%	36%	36%	29%	33%	29%
3	16%	14%	16%	15%	16%	12%	21%	27%

Number in Group	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
4 – 6	31%	33%	29%	30%	31%	39%	27%	25%
7+	12%	13%	12%	11%	11%	18%	15%	13%
Average group size	4.1	4.0	3.9	3.8	4.4	4.6	4.4	4.1

Base: Those who reported a primary activity in their most recent outing in the Recreation Use Study Area.

Note: "n" values are unweighted. Due to rounding, some columns may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

Similar to party size (Section 2.4.2), and based on their primary recreation activity in the Study Area, recreational users had larger group sizes if they were snowmachining (6.0 people), riding the Alaska Railroad (average party size of 5.0 people), or bicycling (4.9 people) (Table D2.4-15).

Table D2.4-15. Average Group Size, Most Recent Outing, by Selected Primary Recreation Activity, Percent

Recreation Activity	Average Group Size	Sample
All activities combined	4.1	n=1,143
Snowmachining	6.0	n=58
Alaska Railroad	5.0	n=35
Bicycling	4.9	n=29
Riding ATVs	4.4	n=37
Roadside camping	4.3	n=129
Remote camping	4.0	n=123
Fishing for salmon	3.9	n=29
Wildlife/bird viewing	3.6	n=106
Hiking/backpacking	3.6	n=77
Walking/running	3.4	n=88
Collecting berries/mushrooms	3.4	n=59
Hunting	3.3	n=158
Fishing for non-salmon species	3.0	n=40

Base: Those who reported a primary activity in their most recent outing in the Recreation Use Study Area.

Note: "n" values are unweighted.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.5. Primary Recreation Activity – Most Recent Outing

2.5.1. All Primary Recreation Activity by Sub-Area

Recreation users were asked to indicate one primary recreation activity for their most recent outing in the Study Area between November 2012 and October 2013. The Parks Highway Sub-Area had the highest primary activity participation rate (44 percent), followed by the Talkeetna Area Sub-Area (26 percent). The Remote North and Remote South Sub-Areas had the lowest participation rates at 6 percent and 4 percent, respectively (Table D2.5-1).

Table D2.5-1. Sub-Area of All Primary Recreation Activity during Most Recent Outing, All Study Area, Percent

Sub-Area	All Study Area
	n=1,133
	% of Total
Parks Highway	44%
Talkeetna Area	26%
West Denali Highway	18%
East Denali Highway	13%
Lake Louise Area	7%
Remote North	6%
Remote South	4%

Base: Those who reported a primary activity in their most recent outing in the Recreation Use Study Area.
Note: "n" values are unweighted. Multiple responses accepted; column will not add to 100 percent.
Source: Susitna-Watana Recreation Regional Household Mail Survey.

Table D2.5-2 provides data on which Sub-Areas the primary recreation activity occurred within in relation to the residency of the recreation users. Where the respondent lives had some determination on where they recreate within the Study Area. For example, recreation users who reside in the Denali Borough were considerably more likely to recreate along the West Denali Highway Sub-Area (80 percent) compared to those who live in the Valdez-Cordova Census Area (8 percent).

Table D2.5-2. Sub-Area of All Primary Recreation Activity, Most Recent Outing, All Study Area and by Alaska Residency, Percent

Sub-Area	All Study Area	Munic. of Anchorage	Matanuska-Susitna Borough	Denali Borough	Fairbanks North Star Borough	Valdez-Cordova CA	Within Study Area
	n=1,133	n=599	n=268	n=30	n=157	n=79	n=92
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Parks Highway	44%	44%	51%	17%	41%	2%	70%
Talkeetna Area	26%	33%	20%	13%	15%	3%	13%
West Denali Highway	18%	14%	16%	80%	32%	8%	12%
East Denali Highway	13%	8%	9%	2%	31%	73%	2%
Lake Louise Area	7%	8%	8%	-	1%	14%	7%
Remote North	6%	7%	6%	7%	4%	4%	3%
Remote South	4%	5%	3%	-	1%	2%	1%

Base: Those who reported a primary activity in their most recent outing in the Recreation Use Study Area. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Note: "n" values are unweighted. Multiple responses accepted; columns will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.5.2. Primary Recreation Activity

Overall, primary recreation activities that were identified varied across a large number of possible activities. Almost one in four (23 percent) identified camping (remote and roadside camping combined) as their primary activity, while 13 percent reported hunting, 9 percent reported wildlife viewing (including bird watching), 8 percent reported hiking/backpacking, and another 8 percent reported walking/running. All other activities were reported as primary by 5 percent or less of regional household recreation users in the Study Area surveyed (Table D2.5-3).

Table D2.5-3. Primary Recreation Activity, Most Recent Outing, by All Study Area and by Sub-Area of Primary Recreation Activity, Percent

Activity	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
	n=1,167	n=265	n=202	n=180	n=474	n=87	n=73	n=40
Hunting	13%	4%	21%	34%	2%	20%	34%	26%
Roadside camping	12%	17%	10%	12%	11%	15%	-	-

Activity	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
Remote camping	12%	19%	9%	7%	7%	18%	7%	22%
Wildlife viewing	9%	8%	17%	10%	11%	4%	18%	4%
Hiking/backpacking	8%	11%	6%	6%	9%	5%	3%	11%
Walking/running	8%	9%	3%	1%	10%	3%	2%	-
Snowmachining	5%	5%	3%	7%	5%	10%	6%	-
Collecting berries/ mushrooms	5%	2%	10%	7%	4%	1%	2%	10%
Alaska Railroad	4%	2%	-	-	7%	-	-	-
Fishing for non-salmon species	3%	3%	2%	3%	4%	8%	4%	4%
Riding ATVs	3%	2%	2%	2%	4%	8%	1%	5%
Fishing for salmon	3%	2%	1%	-	5%	-	8%	3%
Bicycling	3%	3%	4%	3%	3%	-	1%	-
Skiing	2%	6%	1%	-	3%	-	-	3%
Flightseeing	2%	1%	1%	-	4%	2%	6%	9%
Non-motorized boating (rafting/canoeing/ kayaking/pack raft)	2%	1%	1%	1%	3%	1%	3%	-
Motorized boating (jet, prop, air)	1%	2%	<1%	1%	1%	2%	2%	-
Bird watching	1%	<1%	1%	2%	1%	2%	-	3%
Snowshoeing	<1%	<1%	-	-	1%	-	-	-
Dog sledding	<1%	<1%	1%	2%	<1%	-	-	2%
Other*	4%	2%	6%	3%	5%	<1%	3%	-

* "Other" included gold panning, waterskiing, dirt biking, photography, rock climbing, mountaineering, motorcycling, playing basketball, playing volleyball, meditation/reflection, "jeeping," geocaching, shooting, and trapping.

Base: Those that recreated in the Recreation Use Study Area. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Note: "n" values are unweighted. Due to rounding, some columns may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.5.3. Primary Recreation Activity by Sub-Area

As a proportion of primary activities participated in each Sub-Area, the top primary activities follow:

- *Camping* (remote and roadside combined) was the top primary activity in the Talkeetna Area (37 percent), Lake Louise Area (33 percent), and Parks Highway (18 percent) Sub-Areas.
- *Hunting* was the top primary activity in the East Denali Highway and Remote North (34 percent each), Remote South (26 percent), and West Denali Highway (21 percent) Sub-Areas.

As a proportion of all primary recreation activities identified within each Sub-Area, the following were the top three primary recreational activities (Table D2.5-3):

- *Talkeetna Area* – Camping (roadside and remote camping combined) (37 percent), hiking/backpacking (11 percent), and wildlife viewing, including bird watching (9 percent).
- *West Denali Highway* – Hunting (21 percent), camping (roadside and remote camping combined) (20 percent), and wildlife viewing, including bird watching (17 percent).
- *East Denali Highway* – Hunting (34 percent), camping (roadside and remote camping combined) (19 percent), and wildlife viewing, including bird watching (12 percent).
- *Parks Highway* – Camping (roadside and remote camping combined) (18 percent), wildlife viewing, including bird watching (12 percent), and walking/running (10 percent).
- *Lake Louise Area* – Camping (roadside and remote camping combined) (33 percent), hunting (20 percent), and snowmachining (10 percent).
- *Remote North* – Hunting (34 percent), wildlife viewing, including bird watching (18 percent), and fishing for all species (12 percent).
- *Remote South* – Hunting (26 percent), camping (roadside) (22 percent), and hiking/backpacking (11 percent).

2.5.3.1. Selected Primary Recreation Activities by Grid

Figures D2.5-1 through D2.5-10 (presented at the end of Chapter 2) display the grid identified by respondents of where they camped (remote, roadside, and remote/roadside combined), fished (all species), hiked/backpacked, hunted, walked/run, snowmachined, collected berries/harvested mushrooms, or viewed wildlife (including bird watching) on their most recent outing to the Study Area. The various levels of shading denote the number of respondents who identified participating in the specific recreation activity within that grid.

2.5.3.2. Hunting – Primary Harvest Objective

Most recreation users in the Study Area that identified hunting as their primary activity during their most recent outing hunted for caribou (58 percent), followed by moose (26 percent). Thirty

percent of these hunters were hunting caribou with a state draw permit (one bull), 22 percent were hunting for moose with a state harvest ticket, and 20 percent were hunting caribou with a state registration permit (any caribou) (Table D2.4-4).

Table D2.5-4. Hunting – Primary Harvest Objective, Most Recent Outing, Percent

Primary Harvest Objective	All Study Area
	% of Total
	n=160
Caribou (all permits)	58%
State draw permit one bull	30%
State registration permit any caribou	20%
Federal subsistence	7%
Non-resident	-
State community harvest	<1%
Moose (all permits)	26%
State harvest ticket	22%
State community harvest	2%
State draw permit any bull	1%
Federal subsistence	1%
State draw permit cow	-
Non-resident	-
Upland game birds	9%
Bear (brown or black)	5%
Waterfowl	<1%
Other*	1%

* "Other" included foxes and wolves.

Base: Those whose primary activity during their most recent outing in the Recreation Use Study Area was hunting.

Note: "n" values are unweighted. Due to rounding, column may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.5.4. Primary Recreation Activity – Previous Trip to Study Area

Three out of four recreation users (75 percent) had participated in their primary activity in the Study Area in the past. Five percent of respondents lived in the Study Area and are presumed to have previous experience with their primary activity (Table D2.5-5).

Table D2.5-5. Previous Primary Activity Experience in Study Area, Percent

Response	All Study Area
	n=1,174
	% of Total
Yes	75%
No	21%
Live in the Study Area	5%

Base: Those who reported a primary activity in their most recent outing in the Recreation Use Study Area.
Note: "n" values are unweighted. Due to rounding, some columns may not total 100 percent.
Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.5.4.1. First Trip to Study Area for Primary Activity

When asked what year they first visited the Study Area for their primary activity, most users (35 percent) first visited between 2001 and 2010. A slightly smaller percent (32 percent) had a longer history in the Study Area, having participated in their primary activity before 1991. Recreation users who most recently participated in their primary activity in the Remote South Sub-Area had the longest history participating in their activity in the Study Area; 44 percent since 1991, followed by those who primary recreation activity occurred in the Remote North (42 percent) and Lake Louise Area (41 percent) Sub-Areas (Table D2.5-6).

Table D2.5-6. First Year of Primary Activity in Study Area, by All Study Area and by Sub-Area of Primary Recreation Activity, Percent

Response	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=930	n=214	n=165	n=158	n=377	n=73	n=61	n=31
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Before 1991	32%	24%	33%	38%	32%	41%	42%	44%
1991 – 2000	20%	22%	23%	21%	21%	21%	20%	10%
2001 – 2010	35%	40%	34%	29%	34%	24%	31%	28%
2011 – 2013	13%	13%	9%	13%	13%	15%	7%	18%

Base: Those who reported a primary activity in their most recent outing and previously in the Recreation Use Study Area. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Note: "n" values are unweighted. Due to rounding, some columns may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.5.5. Frequency of Visits to Study Area for Primary Activity

More recreation users participated in their primary activity in the Study Area two to ten times per year (41 percent) than other response categories. Fifteen percent of those participated in their primary activity more than ten times per year. The Study Area was most frequently visited by recreation users who had participated in their primary activity in the Remote South Sub-Area (23 percent more than ten times per year and 58 percent two to ten times per year), followed by those who most recent outing was in Lake Louse Area Sub-Area (21 percent [>ten times] and 53 percent [two to ten times per year]) (Table D2.5-7)

Table D2.5-7. Primary Activity – Frequency of Visits in Study Area for Primary Recreation Activity, by All Study Area and by Sub-Area of Primary Recreation Activity, Percent

Response	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=957	n=224	n=166	n=162	n=386	n=76	n=61	n=31
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
More than 10 times per year	15%	13%	12%	5%	20%	21%	12%	23%
2 to 10 times per year	41%	46%	36%	44%	39%	53%	39%	58%
Once every year	22%	24%	29%	28%	17%	12%	24%	7%
Once every few years	18%	14%	20%	18%	18%	11%	23%	12%
Less often	4%	3%	4%	5%	5%	3%	3%	-

Base: Those who reported a primary activity in their most recent outing and previously in the Recreation Use Study Area. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Note: "n" values are unweighted. Due to rounding, some columns may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.5.6. Guide Use

Most recreation users (96 percent) did not hire a guide for any portion of their most recent outing for any of their recreation activities in the Study Area. Guides were infrequently used regardless of which Sub-Area the primary activity occurred (Table D2.5-8).

Table D2.5-8. Hired Guide, Most Recent Outing, by All Study Area and Sub-Area of Primary Recreation Activity, Percent

Response	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,181	n=268	n=204	n=183	n=476	n=87	n=73	n=40
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Yes	4%	5%	3%	1%	6%	3%	6%	4%
No	96%	95%	97%	99%	94%	97%	94%	96%

Base: Those who reported a primary activity in their most recent outing in the Recreation Use Study Area. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Note: "n" values are unweighted. Due to rounding, some columns may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

Of the 4 percent of recreation users who did hire a guide, 83 percent did so for their primary activity, including those who were primarily camping, fishing for salmon, flightseeing, hunting, hiking/backpacking, motorized boating, non-motorized boating, riding ATVs, skiing, wildlife viewing (including bird watching), or snowmachining (Table D2.5-9).

Table D2.5-9. Hired Guide for Primary Recreation Activity, All Study Area and by Sub-Area of Primary Recreation Activity, Percent

Response	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=45	n=14	n=5	n=3	n=29	n=3	n=4	n=2
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Yes	83%	47%	93%	100%	92%	100%	100%	100%
No	17%	53%	8%	-	8%	-	-	-

Base: Those who reported a primary activity in their most recent outing and used a guide in the Recreation Use Study Area. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Note: "n" values are unweighted. Due to rounding, some columns may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.5.7. Recreation Experience – Most Recent Outing

2.5.7.1. Crowding

Recreation users were asked to gauge how crowded they felt during their most recent outing in the Study Area. Most users (80 percent) rated the level of crowdedness as "not crowded." Only 4 percent indicated they felt "very crowded." Higher levels of "very crowded" were noted by users

participating in a primary recreation activity in the East Denali Highway Sub-Area (11 percent) (Table D2.5-10).

The top three primary recreation activities where users were most likely to feel "very crowded" were hunting (15 percent), skiing (11 percent), and RV camping (6 percent). All other ratings of "very crowded" were less than 5 percent, including:

- 4 percent of those riding the Alaska Railroad
- 4 percent non-motorized boating
- 3 percent remote camping
- 3 percent collecting berries
- 3 percent walking or running

Table D2.5-10. Perceptions of Crowdedness, Most Recent Outing, by All Study Area and by Sub-Area of Primary Recreation Activity, Percent

Response	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
	n=1,163	n=266	n=201	n=181	n=469	n=86	n=73	n=40
Very crowded	4%	2%	5%	11%	2%	3%	4%	6%
Somewhat crowded	17%	14%	21%	19%	14%	24%	26%	19%
Not crowded	80%	84%	74%	71%	84%	73%	70%	74%

Base: Those who reported a primary activity in their most recent outing in the Recreation Use Study Area. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Note: "n" values are unweighted. Due to rounding, some columns may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

Of the 21 percent who felt "very crowded" (4 percent) or "somewhat crowded" (17 percent), most felt crowded in the Talkeetna Area Sub-Area (35 percent), followed by 23 percent in the West Denali Highway Sub-Area. People recreating in the Remote South Sub-Area were the least likely to feel crowded (3 percent) (Table D2.5-11).

Table D2.5-11. Sub-Area of Where Recreation User Felt "Very Crowded" or "Somewhat Crowded," Percent

Sub-Area	% of Total
	n=153
Talkeetna Area	35%
West Denali Highway	23%
East Denali Highway	19%
Parks Highway	13%
Lake Louise Area	7%
Remote North	5%
Remote South	3%

Base: Those who reported a primary activity and felt "very crowded" or "somewhat crowded" during their most recent outing in the Recreation Use Study Area.

Note: Note: "n" values are unweighted. Because respondents could recreate in multiple Sub-Areas, columns will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.5.7.2. Conflict

During their most recent outing, 6 percent of recreation users experienced conflict. Most conflict was felt in the Remote North Sub-Area (14 percent) (Table D2.5-12). Of the 6 percent experiencing conflict, the type of activity the other individual or group causing the conflict were engaged in included:

- **Hunters (15 reported incidences)** – noisy, shooting unsafely, rude, belligerent, too many using same trail, encroachment into camp/crowded hunting area, gun noise, competing for same animal, ATVs, limited camping space available.
- **ATVs (7)** – noise, trash, dust, manners, alcohol abuse.
- **Camping (6)** – loud, rude, fighting, defecating around parking/camping area, leaving trash, blasting rock music, disturbing animals.
- **Snowmachining (3)** – reckless speed, too close to skiers.
- **Boaters (3)** – travel at the wrong time, rude, inconsiderateness.
- **Fishing (3)** – too many people fishing in small spot, yelling "fish on."

Table D2.5-12. Conflict, Most Recent Outing, by Study Area and by Sub-Area of Primary Recreation Activity, Percent

Response	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
	n=1,161	n=265	n=200	n=181	n=465	n=86	n=73	n=40
Yes	6%	7%	6%	8%	5%	5%	14%	8%
No	94%	93%	94%	92%	95%	95%	86%	92%

Base: Those who reported a primary activity during their most recent outing in the Recreation Use Study Area. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Note: "n" values are unweighted. Due to rounding, some columns may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.5.7.3. Scenic Quality Detractions

The majority of recreation users (57 percent saying "nothing") did not report seeing any signs of infrastructure or human activity that detracted from the scenic quality on their most recent outing. Among the 43 percent who did report signs of infrastructure or human activity that detracted from the scenic quality within the Study Area, 20 percent reported the detractor as trash, 17 percent said vehicles, and 10 percent said people. Less than 10 percent reported a number of other detractors, including power lines (8 percent), communication towers (8 percent), trails (5 percent), roads (5 percent), roadside camping areas (3 percent), Alaska Railroad (3 percent), and other detractors (7 percent) (Table D2.5-13).

Recreation users whose primary recreation activity occurred in the Lake Louise Area Sub-Area were more likely to note a scenic detraction (50 percent) compared to other Sub-Areas. Trash was the most often noted detractor for those whose primary recreation activity occurred in the Lake Louise Area (28 percent), Remote South (22 percent), West Denali Highway (21 percent), Parks Highway (20 percent), and Talkeetna Area (19 percent) Sub-Areas (Table D2.5-13).

Table D2.5-13. Scenic Quality Detractors, Most Recent Outing, by All Study Area and by Sub-Area of Primary Recreation Activity, Percent

Response	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
	n=1,108	n=254	n=194	n=178	n=443	n=82	n=67	n=39
Nothing	57%	58%	54%	61%	54%	50%	56%	70%
Trash	20%	19%	21%	15%	20%	28%	18%	22%
Vehicles	17%	19%	18%	20%	16%	12%	25%	12%

Response	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
People	10%	6%	11%	17%	9%	9%	17%	9%
Power lines	8%	11%	6%	2%	12%	13%	6%	13%
Communication towers	8%	8%	6%	4%	9%	10%	4%	7%
Trails	5%	5%	6%	5%	6%	7%	10%	4%
Roads	5%	3%	5%	1%	6%	3%	3%	-
Roadside camping areas	3%	2%	4%	6%	3%	-	5%	-
Railroad	3%	2%	<1%	-	5%	-	6%	-
Other*	7%	4%	11%	9%	6%	9%	7%	6%

* "Other" included eroded ATV tracks, dam study aircraft, derelict cabins, boats, private development, rundown buildings along highway, air traffic (especially helicopters), Ahtna signs, F15s, open pit/placer mining, signs, road paving, road construction, mile markers, road signs, discarded clothing, old mining equipment, graffiti, human waste, overflowing port-a-potties, messy trails on hills and roadside, airboats, junky lots, orange fencing around cabin, shabby housing, and gravel pit.

Base: Those who reported a primary activity during their most recent outing in the Recreation Use Study Area. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Note: "n" values are unweighted. Multiple responses accepted; columns will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

Recreation users who were most likely to note trash as a scenic quality detraction on their current outing were participating in collecting berries/mushrooms, wildlife viewing/bird watching, or bicycling (Table D2.5-14).

Table D2.5-14. Trash, Scenic Quality Detractors, Most Recent Outing, by Selected Recreation Activity, Percent

Recreation Activity	"Trash" Mentioned	Sample
	% of Total	
All activities combined	20%	n=1,108
Collecting berries/mushrooms	30%	n=61
Wildlife viewing/bird watching	29%	n=116
Bicycling	29%	n=26
Walking/running	24%	n=85
Fishing for non-salmon species	24%	n=38

Recreation Activity	"Trash" Mentioned	Sample
Non-motorized boating	24%	n=22
Hunting	23%	n=156
Fishing for salmon	19%	n=128
Remote camping	19%	n=118
Hiking/backpacking	19%	n=73
Motorized boating	17%	n=13
Roadside camping	16%	n=125
Snowmachining	11%	n=56
Alaska Railroad	11%	n=35
Riding ATVs	11%	n=34
Skiing	10%	n=26

Base: Those who reported a primary activity during their most recent outing in the Recreation Use Study Area.

Note: "n" values are unweighted.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.5.7.4. Noise Detraction

The majority of recreation users (65 percent saying "nothing") did not report any noises that detracted from their recreation experience on their most recent outing. Among the 35 percent who did report noise detraction within the Study Area, 10 percent reported the noise of cars/trucks/RVs, 10 percent reported noise caused by other people, and 10 percent from ATVs. Less than 10 percent reported a number of other detractors, including airplanes (7 percent), helicopters (6 percent), gunshots (5 percent), heavy equipment (4 percent), jet aircraft sonic boom (3 percent), snowmachines (3 percent), boats (3 percent), chainsaw (1 percent), and other detractors (2 percent) (Table D2.3-15).

Recreation users whose primary recreation activity occurred in the East Denali Highway Sub-Area were less likely to note a noise detractor (30 percent) compared to other Sub-Areas. Cars/trucks/RV noise was the most often noted detractor for those whose primary recreation activity occurred along West Denali Highway (15 percent) and Parks Highway (11 percent) Sub-Areas. (Table D2.4-15).

Table D2.5-15. Noise Detractors, Most Recent Outing, by Study Area and by Sub-Area of Primary Recreation Activity, Percent

Response	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,089	n=251	n=193	n=172	n=433	n=79	n=69	n=37
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Nothing	65%	61%	61%	70%	67%	62%	62%	63%
Cars/trucks/RV	10%	7%	15%	10%	11%	5%	9%	7%
Noise from other people	10%	10%	13%	10%	10%	10%	17%	15%
Four wheeler/ATV	10%	11%	11%	11%	8%	7%	16%	5%
Airplanes	7%	8%	5%	4%	7%	10%	11%	20%
Helicopters	6%	5%	5%	5%	7%	4%	9%	16%
Gunshots	5%	6%	3%	4%	3%	8%	1%	5%
Heavy equipment	4%	4%	5%	2%	5%	3%	4%	12%
Jet aircraft sonic boom	3%	-	7%	7%	2%	4%	1%	7%
Snow machine	3%	6%	5%	1%	2%	-	2%	-
Boats	3%	1%	2%	2%	2%	9%	8%	5%
Chainsaw	1%	3%	1%	-	<1%	-	1%	-
Other*	2%	2%	2%	2%	1%	4%	-	-

* "Other" responses included railroad, barking dogs, generators, and buses.

Base: Those who reported a primary activity during their most recent outing in the Recreation Use Study Area. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Note: "n" values are unweighted. Multiple responses accepted; columns will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

Table D2.5-16 identifies any noise detractions experienced by recreation users for selected primary recreation activities. The majority of respondents did not report noises that detracted from their recreation experience.

Table D2.5-16. Specified Noise Detractions, Most Recent Outing, by Selected Primary Recreation Activity, Percent

Response	All Study Area	Wildlife Viewing/ Bird Watching	Camping (Roadside)	Camping (Remote)	Hunting	Snow-machining	Fishing (All Species)	Hiking/ Backpacking
	n=1,086	n=113	n=121	n=115	n=152	n=55	n=67	n=72
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Nothing	65%	63%	60%	61%	61%	89%	61%	53%
Cars/trucks/RV	10%	9%	10%	8%	9%	3%	15%	18%
Noise from other people	10%	12%	17%	13%	10%	2%	13%	10%
Four wheeler/ATV	10%	8%	11%	9%	11%	-	15%	19%
Airplanes	7%	6%	4%	7%	7%	5%	12%	13%
Helicopters	6%	7%	-	5%	9%	5%	11%	9%
Gunshots	5%	2%	5%	8%	4%	-	5%	5%
Heavy equipment	4%	7%	4%	5%	2%	-	3%	6%
Jet aircraft sonic boom	3%	2%	2%	4%	9%	5%	2%	2%
Snowmachines	3%	3%	3%	2%	1%	2%	-	-
Boats	3%	2%	1%	2%	4%	-	15%	15%
Chainsaw	1%	1%	3%	2%	1%	-	-	-
Other*	2%	-	2%	3%	-	1%	4%	4%

* "Other" responses included railroad, barking dogs, generators, and buses.

Base: Those who reported a primary activity during their most recent outing in the Recreation Use Study Area. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Note: "n" values are unweighted. Multiple responses accepted; columns will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.5.8. Remote Travel – Most Recent Outing

2.5.8.1. Travel More than One-Half Mile into the Recreation Use Study Area

During their most recent outing, most recreation users travelled more than one-half mile from a trailhead or main road into the Study Area (60 percent) (Table D2.5-17). The following types of recreational activities were most likely (>60 percent) to occur more than one-half mile from a trailhead or roadside:

- Riding ATVs (99 percent)
- Skiing (91 percent)
- Hunting (88 percent)
- Snowmachining (84 percent)
- Hiking/backpacking (74 percent)
- Remote camping (74 percent)
- Fishing for salmon (62 percent)

Table D2.5-17. Traveled More than One-Half Mile Into Study Area, Most Recent Outing, June and October 2013 Mailings Combined, Percent

Response	All Study Area	Riding ATVs	Skiing	Hunting	Snow-machine	Hiking/ back-packing	Remote Camping	Roadside Camping	Wildlife viewing (incl. birding)	Fishing for non-salmon	Fishing for salmon
	n=1,156	n=37	n=27	n=158	n=57	n=77	n=124	n=131	n=120	n=39	n=30
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Yes	60%	99%	91%	88%	84%	74%	74%	46%	37%	59%	62%
No	40%	1%	9%	12%	16%	26%	26%	54%	63%	41%	38%

Base: Those who reported a primary activity during their most recent outing in the Recreation Use Study Area. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Note: "n" values are unweighted.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.5.8.2. Mode of Transportation Used

Walking or hiking into areas more than one-half mile into the Study Area was the most common transportation mode used (56 percent), followed by ATVs (26 percent). While the mode of motorized boat was only used 8 percent of the time for the entire Study Area, within the Lake Louise Area Sub-Area, it was used 28 percent on users' most recent outings. An airplane was used by 24 percent of users recreating in the Remote South Sub-Area on their most recent outing (compared to 5 percent for the entire Study Area) (Table D2.5-18).

Table D2.5-18. Mode of Transportation Used to Travel More than One-Half Mile Into Study Area, Most Recent Outing, Percent

Response	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=685	n=169	n=118	n=110	n=245	n=63	n=52	n=35
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Walked/hiked	56%	64%	54%	56%	60%	44%	39%	52%
Off-road vehicle/ATV	26%	18%	43%	30%	14%	31%	38%	26%
Snow machine	11%	10%	12%	11%	14%	17%	10%	5%
Motorized boat	8%	6%	3%	5%	6%	28%	14%	5%
Non-motorized boat	7%	3%	5%	10%	8%	13%	4%	-
Ski	6%	12%	2%	2%	10%	1%	2%	8%
Airplane	5%	4%	1%	1%	7%	3%	12%	24%
Snowshoe	2%	2%	2%	3%	3%	4%	2%	3%
Other*	4%	2%	4%	3%	5%	1%	2%	2%

* "Other" included mountain bike/bicycle/fat-tire bike, dog sled, train, RV, truck, dirt bike, car.

Base: Those who reported a primary activity during their most recent outing and traveled more than one-half mile from a trailhead or main road into the Recreation Use Study Area. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Note: "n" values are unweighted. Multiple responses accepted; columns will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.5.8.3. Type of Trail Used

Among those who traveled more than one-half mile from a trailhead or road into the Study Area, 59 percent traveled on established trails as well as off-trail during their most recent outing. Thirty-five percent traveled on established trails only and 6 percent traveled off-trail only. Recreation users whose primary recreation activity occurred in the Parks Highway Sub-Area were most likely to travel on an established trail (40 percent), and those in the Remote South Sub-Area were least likely to travel on an established trail (17 percent) (Table D2.5-19).

Table D2.5-19. Type of Trail Used More than One-Half Mile From Trailhead or Road, Most Recent Outing, by All Study Area and by Sub-Area of Primary Recreation Activity, Percent

Response	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=961	n=169	n=120	n=113	n=246	n=64	n=52	n=35
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Established trails	35%	35%	31%	22%	40%	29%	26%	17%
Off-trail	6%	3%	7%	10%	5%	1%	11%	-
Both established trails and off-trail	59%	62%	62%	68%	55%	70%	63%	83%

Base: Those who reported a primary activity during their most recent outing and traveled more than one-half mile from a trailhead or main road into the Recreation Use Study Area. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Note: "n" values are unweighted.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.5.8.4. Overnighted

Most recreation users (66 percent) who traveled one-half mile from a trailhead or road during their most recent visit to the Study Area did not camp or stay overnight. Recreation users whose excursion was in the Remote South or Lake Louise Area Sub-Areas were more likely (>50 percent) to camp or stay overnight than those who had a primary recreation activity in the other Sub-Areas (Table D2.5-20).

Table D2.5-20. Camped or Overnighted More than One-Half Mile From Trailhead or Road, Most Recent Outing, by All Study Area and by Sub-Area of Primary Recreation Activity, Percent

Response	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=678	n=167	n=119	n=110	n=240	n=63	n=52	n=35
	100%	100%	100%	100%	100%	100%	100%	100%
Yes	34%	37%	30%	27%	28%	53%	47%	58%
No	66%	63%	70%	73%	72%	47%	53%	42%

Base: Those who reported a primary activity during their most recent outing and traveled more than one-half mile from a trailhead or main road into the Recreation Use Study Area. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Note: "n" values are unweighted.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.5.9. Motivators to Recreate in the Recreation Use Study Area – Most Recent Outing

The factors most likely to be considered "very important" in the decision to recreate in the Study Area are "the scenery" (82 percent), followed by "the opportunity to experience remote Alaska" (63 percent). The factors least likely to be considered "very important" are "the opportunity to hunt" (26 percent) and "the opportunity to fish" (28 percent) (Table D2.5-21).

Table D2.5-21. Motivators to Recreate in the Study Area, All Study Area, Percent

	Very Important	Somewhat Important	Not Important
Wildlife viewing opportunities (n=1,088)	57%	31%	12%
The opportunity to hunt (n=1,025)	26%	8%	66%
The opportunity to fish (n=1,028)	28%	23%	48%
The opportunity to experience remote Alaska (n=1,088)	63%	27%	10%
The opportunity to experience solitude (n=1,084)	56%	32%	12%
The opportunity to challenge yourself (n=1,046)	36%	31%	33%
The scenery (n=1,130)	82%	15%	3%

Base: Those who reported a primary activity during their most recent outing in the Recreation Use Study Area.

Note: "n" values are unweighted. Due to rounding, some rows may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.5.10. Motivators to Recreate in the Recreation Use Study Area and Primary Recreation Activity Sub-Areas – Most Recent Outing

Table D2.3-22 presents the motivator most likely to be considered "very important" as a factor in the decision to recreate in the Study Area, sorted by the Sub-Areas in which the primary recreation activity occurred on the most recent outing. Tables D2.5-23 to D2.5-29 present recreation motivators by Sub-Area.

Table D2.5-22. "Very Important" Rating, Motivators to Recreate in the Study Area, by All Study Area and by Sub-Areas of Primary Recreation Activity, Percent

Factor	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,130	n=263	n=193	n=173	n=456	n=84	n=570	n=40
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Wildlife viewing opportunities	57%	43%	72%	65%	59%	66%	67%	57%
The opportunity to hunt	26%	13%	39%	47%	13%	51%	46%	44%
The opportunity to fish	28%	20%	32%	35%	23%	51%	40%	39%
The opportunity to experience remote Alaska	63%	55%	72%	70%	61%	72%	77%	71%
The opportunity to experience solitude	56%	54%	67%	62%	55%	63%	55%	73%
The opportunity to challenge yourself	36%	33%	45%	44%	35%	34%	31%	49%
The scenery	82%	83%	82%	83%	85%	83%	79%	94%

Base: Those who reported a primary activity during their most recent outing in the Recreation Use Study Area. "Very important" responses only.
Note: "n" values are unweighted.
Source: Susitna-Watana Recreation Regional Household Mail Survey.

Table D2.5-23. Motivators to Recreate in the Study Area, Primary Recreation Activity – Talkeetna Area Sub-Area, Percent

	Very Important	Somewhat Important	Not Important
Wildlife viewing opportunities (n=249)	43%	40%	17%
The opportunity to hunt (n=234)	13%	6%	81%
The opportunity to fish (n=239)	20%	27%	52%
The opportunity to experience remote Alaska (n=252)	55%	35%	10%
The opportunity to experience solitude (n=249)	54%	34%	12%
The opportunity to challenge yourself (n=248)	33%	33%	35%
The scenery (n=263)	83%	13%	4%

Base: Those who reported a primary activity in the Talkeetna Area Sub-Area during their most recent outing.
Note: "n" values are unweighted. Due to rounding, some rows may not total 100 percent.
Source: Susitna-Watana Recreation Regional Household Mail Survey.

Table D2.5-24. Motivators to Recreate in the Study Area, Primary Recreation Activity - West Denali Highway Sub-Area, Percent

	Very Important	Somewhat Important	Not Important
Wildlife viewing opportunities (n=184)	72%	19%	9%
The opportunity to hunt (n=175)	39%	11%	50%
The opportunity to fish (n=174)	32%	25%	43%
The opportunity to experience remote Alaska (n=185)	72%	23%	5%
The opportunity to experience solitude (n=186)	67%	24%	10%
The opportunity to challenge yourself (n=176)	45%	23%	31%
The scenery (n=193)	82%	16%	2%

Base: Those who reported a primary activity in the West Denali Highway Sub-Area during their most recent outing.
Note: "n" values are unweighted. Due to rounding, some rows may not total 100 percent.
Source: Susitna-Watana Recreation Regional Household Mail Survey.

Table D2.5-25. Motivators to Recreate in the Study Area, Primary Recreation Activity - East Denali Highway Sub-Area, Percent

	Very Important	Somewhat Important	Not Important
Wildlife viewing opportunities (n=170)	65%	24%	10%
The opportunity to hunt (n=164)	47%	7%	46%
The opportunity to fish (n=156)	35%	26%	39%
The opportunity to experience remote Alaska (n=166)	70%	20%	10%
The opportunity to experience solitude (n=164)	62%	28%	10%
The opportunity to challenge yourself (n=158)	44%	30%	26%
The scenery (n=173)	83%	12%	5%

Base: Those who reported a primary activity in the East Denali Highway Sub-Area during their most recent outing.
Note: "n" values are unweighted. Due to rounding, some rows may not total 100 percent.
Source: Susitna-Watana Recreation Regional Household Mail Survey.

Table D2.5-26. Motivators to Recreate in the Study Area, Primary Recreation Activity – Parks Highway Sub-Area, Percent

	Very Important	Somewhat Important	Not Important
Wildlife viewing opportunities (n=444)	59%	30%	12%
The opportunity to hunt (n=413)	13%	8%	79%
The opportunity to fish (n=418)	23%	23%	54%
The opportunity to experience remote Alaska (n=438)	61%	27%	12%
The opportunity to experience solitude (n=441)	55%	33%	13%
The opportunity to challenge yourself (n=428)	35%	29%	35%
The scenery (n=456)	85%	13%	2%

Base: Those who reported a primary activity in the Parks Highway Sub-Area during their most recent outing.
Note: "n" values are unweighted. Due to rounding, some rows may not total 100 percent.
Source: Susitna-Watana Recreation Regional Household Mail Survey.

Table D2.5-27. Motivators to Recreate in the Study Area, Primary Recreation Activity – Lake Louise Area Sub-Area, Percent

	Very Important	Somewhat Important	Not Important
Wildlife viewing opportunities (n=84)	66%	26%	8%
The opportunity to hunt (n=75)	51%	6%	43%
The opportunity to fish (n=79)	51%	23%	26%
The opportunity to experience remote Alaska (n=83)	72%	21%	7%
The opportunity to experience solitude (n=84)	63%	33%	4%
The opportunity to challenge yourself (n=82)	34%	41%	24%
The scenery (n=84)	83%	15%	2%

Base: Those who reported a primary activity in the Lake Louise Area Sub-Area during their most recent outing.
Note: "n" values are unweighted. Due to rounding, some rows may not total 100 percent.
Source: Susitna-Watana Recreation Regional Household Mail Survey.

Table D2.5-28. Motivators to Recreate in the Study Area, Primary Recreation Activity – Remote North Sub-Area, Percent

	Very Important	Somewhat Important	Not Important
Wildlife viewing opportunities (n=66)	67%	25%	8%
The opportunity to hunt (n=65)	46%	9%	45%
The opportunity to fish (n=61)	40%	23%	37%
The opportunity to experience remote Alaska (n=66)	77%	19%	4%
The opportunity to experience solitude (n=67)	55%	38%	7%
The opportunity to challenge yourself (n=61)	31%	37%	33%
The scenery (n=70)	79%	20%	2%

Base: Those who reported a primary activity in the Remote North Sub-Area during their most recent outing.
Note: "n" values are unweighted. Due to rounding, some rows may not total 100 percent.
Source: Susitna-Watana Recreation Regional Household Mail Survey.

Table D2.5-29. Motivators to Recreate in the Study Area, Primary Recreation Activity – Remote South Sub-Area, Percent

	Very Important	Somewhat Important	Not Important
Wildlife viewing opportunities (n=39)	57%	29%	15%
The opportunity to hunt (n=37)	44%	10%	46%
The opportunity to fish (n=39)	39%	17%	44%
The opportunity to experience remote Alaska (n=40)	71%	29%	-
The opportunity to experience solitude (n=39)	73%	23%	4%
The opportunity to challenge yourself (n=39)	49%	38%	13%
The scenery (n=40)	94%	4%	2%

Base: Those who reported a primary activity in the Remote South Sub-Area during their most recent outing.
Note: "n" values are unweighted. Due to rounding, some rows may not total 100 percent.
Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.5.10.1. By Selected Primary Recreation Activity

Table D2.5-30 presents the level of importance of motivators for recreation users whose primary recreation activity during their most recent outing in the Study Area was fishing (for all species combined). Understandably, "the opportunity to fish" is considered "very important" by most users (92 percent), followed by "the scenery" (79 percent).

Table D2.5-30. Motivators to Recreate in the Study Area, Primary Recreation Activity – Fishing for All Species (Combined), Percent

	Very Important	Somewhat Important	Not Important
Wildlife viewing opportunities (n=60)	36%	40%	23%
The opportunity to hunt (n=56)	25%	9%	66%
The opportunity to fish (n=70)	92%	6%	2%
The opportunity to experience remote Alaska (n=61)	57%	33%	10%
The opportunity to experience solitude (n=62)	48%	42%	11%
The opportunity to challenge yourself (n=62)	26%	36%	38%
The scenery (n=64)	79%	19%	2%

Base: Those who reported fishing for all species as their primary activity during their most recent outing in the Recreation Use Study Area.
Note: "n" values are unweighted. Due to rounding, some rows may not total 100 percent.
Source: Susitna-Watana Recreation Regional Household Mail Survey.

Table D2.5-31 presents the level of importance of motivators for recreation users whose primary recreation activity during their most recent outing in the Study Area was hunting. Understandably, "the opportunity to hunt" is considered "very important" by most users (97 percent), followed by "the scenery" (73 percent) and "wildlife viewing opportunities" (73 percent), as well as "the opportunity to experience remote Alaska" (71 percent).

Table D2.5-31. Motivators to Recreate in the Study Area, Primary Recreation Activity – Hunting, Percent

	Very Important	Somewhat Important	Not Important
Wildlife viewing opportunities (n=149)	73%	22%	5%
The opportunity to hunt (n=157)	97%	3%	1%
The opportunity to fish (n=141)	42%	27%	31%
The opportunity to experience remote Alaska (n=147)	71%	22%	7%
The opportunity to experience solitude (n=142)	61%	29%	10%
The opportunity to challenge yourself (n=132)	46%	33%	21%
The scenery (n=150)	73%	23%	4%

Base: Those who reported hunting as their primary activity during their most recent outing in the Recreation Use Study Area.
Note: "n" values are unweighted. Due to rounding, some rows may not total 100 percent.
Source: Susitna-Watana Recreation Regional Household Mail Survey.

Table D2.5-32 presents the level of importance of motivators for recreation users whose primary recreation activity during their most recent outing in the Study Area was hiking or backpacking. "The scenery" is considered "very important" by most users (88 percent), followed by "the opportunity to experience remote Alaska" (72 percent).

Table D2.5-32. Motivators to Recreate in the Study Area, Primary Recreation Activity – Hiking/Backpacking, Percent

	Very Important	Somewhat Important	Not Important
Wildlife viewing opportunities (n=75)	47%	40%	13%
The opportunity to hunt (n=70)	13%	3%	84%
The opportunity to fish (n=73)	19%	23%	58%
The opportunity to experience remote Alaska (n=74)	72%	20%	8%
The opportunity to experience solitude (n=77)	67%	25%	9%
The opportunity to challenge yourself (n=74)	43%	36%	21%
The scenery (n=77)	88%	13%	-

Base: Those who reported hiking/backpacking as their primary activity during their most recent outing in the Recreation Use Study Area.
Note: "n" values are unweighted. Due to rounding, some rows may not total 100 percent.
Source: Susitna-Watana Recreation Regional Household Mail Survey.

Table D2.5-33 presents the level of importance of motivators for recreation users whose primary recreation activity during their most recent outing in the Study Area was wildlife viewing, including bird watching. "The scenery" is considered "very important" by most users (95 percent), understandably followed by "wildlife viewing opportunities" (83 percent).

Table D2.5-33. Motivators to Recreate in the Study Area, Primary Recreation Activity – Wildlife Viewing, Including Bird Watching, Percent

	Very Important	Somewhat Important	Not Important
Wildlife viewing opportunities (n=118)	83%	15%	3%
The opportunity to hunt (n=101)	6%	5%	88%
The opportunity to fish (n=103)	16%	27%	57%
The opportunity to experience remote Alaska (n=111)	60%	30%	10%
The opportunity to experience solitude (n=112)	54%	31%	15%
The opportunity to challenge yourself (n=104)	19%	36%	45%
The scenery (n=115)	95%	3%	2%

Base: Those who reported wildlife viewing and bird watching as their primary activity during their most recent outing in the Recreation Use Study Area.

Note: "n" values are unweighted. Due to rounding, some rows may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

Table D2.5-34 presents the level of importance of motivators for recreation users whose primary recreation activity during their most recent outing in the Study Area was remote camping. "The scenery" is considered "very important" by most users (85 percent), followed by "the opportunity to experience remote Alaska" (71 percent).

Table D2.5-34. Motivators to Recreate in the Study Area, Primary Recreation Activity – Remote Camping, Percent

	Very Important	Somewhat Important	Not Important
Wildlife viewing opportunities (n=116)	52%	38%	10%
The opportunity to hunt (n=105)	14%	20%	66%
The opportunity to fish (n=110)	28%	38%	34%
The opportunity to experience remote Alaska (n=119)	71%	22%	7%
The opportunity to experience solitude (n=118)	66%	28%	7%
The opportunity to challenge yourself (n=113)	41%	30%	30%
The scenery (n=123)	85%	10%	4%

Base: Those who reported remote camping as their primary activity during their most recent outing in the Recreation Use Study Area.

Note: "n" values are unweighted. Due to rounding, some rows may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

Table D2.5-35 presents the level of importance of motivators for recreation users whose primary recreation activity during their most recent outing in the Study Area was roadside camping. "The scenery" is considered "very important" by most users (79 percent), followed by "wildlife viewing opportunities" (56 percent).

Table D2.5-35. Motivators to Recreate in the Study Area, Primary Recreation Activity – Roadside Camping, Percent

	Very Important	Somewhat Important	Not Important
Wildlife viewing opportunities (n=118)	56%	28%	16%
The opportunity to hunt (n=113)	15%	6%	80%
The opportunity to fish (n=116)	25%	28%	47%
The opportunity to experience remote Alaska (n=122)	50%	36%	14%
The opportunity to experience solitude (n=123)	49%	38%	14%

	Very Important	Somewhat Important	Not Important
The opportunity to challenge yourself (n=117)	23%	30%	47%
The scenery (n=131)	79%	15%	6%

Base: Those who reported roadside camping as their primary activity during their most recent outing in the Recreation Use Study Area.
Note: "n" values are unweighted. Due to rounding, some rows may not total 100 percent.
Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.5.11. Connectedness to the Recreation Use Study Area – Most Recent Outing

Recreation users were asked to provide their level of agreement (strongly agree, agree, neutral, disagree, and strongly disagree) with five statements regarding their connectedness to the Study Area. The statement that resonated most with users was "this area means a lot to me" with 45 percent of users "strongly agreeing," followed by "no other place can compare to this area" (24 percent) (Table D2.5-36).

Table D2.5-36. Statements Regarding Connectedness to the Study Area, All Study Area, Percent and Average Score

	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Average Score (1–5)
The area means a lot to me (n=1,156)	45%	29%	24%	2%	1%	4.2
No other place can compare to this area (n=1,144)	24%	30%	37%	8%	2%	3.7
Recreating here is more important to me than doing it in any other place (n=1,144)	15%	18%	44%	19%	3%	3.2
This area is close to my home (n=1,150)	17%	31%	21%	21%	9%	3.3
My family has been coming to this area for generations (n=1,147)	12%	12%	24%	22%	30%	2.5

Base: Those who reported a primary activity during their most recent outing in the Recreation Use Study Area.
Note: "n" values are unweighted. Due to rounding, some rows may not total 100 percent.
Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.5.11.1. By Sub-Area of Primary Recreation Activity

Table D2.5-37 provides the average rating of agreement with each of the five statements for the entire Study Area as well as the Sub-Areas of primary recreation activity. Generally, the level of agreement was similar regardless of which Sub-Area the primary recreation activity took place in. Tables D2.5-38 to D2.5-44 show the ratings of agreement with each of the five statements within each Sub-Area.

Table D2.5-37. Statements Regarding Connectedness to the Study Area, by All Study Area and by Sub-Areas of Primary Recreation Activity, Average Score

Factor	All Study Area	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=1,156	n=263	n=196	n=183	n=469	n=88	n=70	n=40
The area means a lot to me	4.2	4.1	4.3	4.4	4.2	4.2	4.1	4.4
No other place can compare to this area	3.7	3.6	3.7	3.8	3.7	3.7	3.8	3.8
Recreating here is more important to me than doing it in any other place	3.2	3.2	3.4	3.4	3.2	3.4	3.4	3.4
This area is close to my home	3.3	3.3	3.1	2.9	3.5	3.1	3.2	3.3
My family has been coming to this area for generations	2.5	2.4	2.7	2.8	2.4	3.0	2.9	2.6

Base: Those who reported a primary activity during their most recent outing in the Recreation Use Study Area.

Note: "n" values are unweighted.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

Table D2.5-38. Statements Regarding Connectedness to the Study Area – Talkeetna Area Sub-Area of Primary Recreation Activity, Percent

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The area means a lot to me (n=263)	41%	30%	26%	2%	1%
No other place can compare to this area (n=262)	24%	27%	39%	8%	1%
Recreating here is more important to me than doing it in any other place (n=262)	15%	14%	48%	21%	2%
This area is close to my home (n=262)	16%	34%	21%	21%	8%
My family has been coming to this area for generations (n=264)	11%	9%	25%	23%	33%

Base: Those who reported a primary activity in the Talkeetna Area Sub-Area during their most recent outing.

Note: "n" values are unweighted. Due to rounding, some rows may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

Table D2.5-39. Statements Regarding Connectedness to the Study Area – West Denali Highway Sub-Area of Primary Recreation Activity, Percent

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The area means a lot to me (n=196)	53%	27%	19%	1%	<1%
No other place can compare to this area (n=197)	28%	32%	29%	9%	3%
Recreating here is more important to me than doing it in any other place (n=194)	18%	23%	42%	14%	3%
This area is close to my home (n=195)	17%	23%	26%	23%	11%
My family has been coming to this area for generations (n=197)	16%	15%	19%	25%	25%

Base: Those who reported a primary activity in the West Denali Highway Sub-Area during their most recent outing.

Note: "n" values are unweighted. Due to rounding, some rows may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

Table D2.5-40. Statements Regarding Connectedness to the Study Area – East Denali Highway Sub-Area of Primary Recreation Activity, Percent

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The area means a lot to me (n=183)	61%	22%	14%	1%	2%
No other place can compare to this area (n=179)	29%	32%	33%	4%	2%
Recreating here is more important to me than doing it in any other place (n=180)	18%	27%	32%	19%	3%
This area is close to my home (n=179)	11%	21%	26%	28%	14%
My family has been coming to this area for generations (n=179)	15%	20%	17%	24%	25%

Base: Those who reported a primary activity in the East Denali Highway Sub-Area during their most recent outing.

Note: "n" values are unweighted. Due to rounding, some rows may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

Table D2.5-41. Statements Regarding Connectedness to the Study Area – Parks Highway Sub-Area of Primary Recreation Activity, Percent

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The area means a lot to me (n=469)	45%	29%	24%	2%	-
No other place can compare to this area (n=464)	26%	29%	35%	9%	1%

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Recreating here is more important to me than doing it in any other place (n=465)	15%	17%	44%	21%	3%
This area is close to my home (n=470)	20%	38%	17%	17%	7%
My family has been coming to this area for generations (n=463)	8%	10%	26%	24%	31%

Base: Those who reported a primary activity in the Parks Highway Sub-Area during their most recent outing.

Note: "n" values are unweighted. Due to rounding, some rows may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

Table D2.5-42. Statements Regarding Connectedness to the Study Area – Lake Louise Area Sub-Area of Primary Recreation Activity, Percent

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The area means a lot to me (n=88)	45%	29%	25%	-	-
No other place can compare to this area (n=87)	23%	36%	31%	10%	-
Recreating here is more important to me than doing it in any other place (n=87)	19%	20%	46%	13%	1%
This area is close to my home (n=86)	16%	26%	23%	20%	15%
My family has been coming to this area for generations (n=86)	21%	18%	25%	17%	19%

Base: Those who reported a primary activity in the Lake Louise Area Sub-Area during their most recent outing.

Note: "n" values are unweighted. Due to rounding, some rows may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

Table D2.5-43. Statements Regarding Connectedness to the Study Area – Remote North Sub-Area of Primary Recreation Activity, Percent

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The area means a lot to me (n=70)	46%	27%	22%	2%	2%
No other place can compare to this area (n=69)	27%	33%	34%	4%	2%
Recreating here is more important to me than doing it in any other place (n=70)	18%	22%	45%	13%	2%
This area is close to my home (n=68)	18%	25%	32%	16%	10%
My family has been coming to this area for generations (n=70)	18%	14%	30%	17%	21%

Base: Those who reported a primary activity in the Remote North Sub-Area during their most recent outing.
Note: "n" values are unweighted. Due to rounding, some rows may not total 100 percent.
Source: Susitna-Watana Recreation Regional Household Mail Survey.

Table D2.5-44. Statements Regarding Connectedness to the Study Area – Remote South Sub-Area of Primary Recreation Activity, Percent

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The area means a lot to me (n=40)	54%	36%	10%	-	-
No other place can compare to this area (n=40)	26%	34%	32%	8%	-
Recreating here is more important to me than doing it in any other place (n=38)	19%	29%	25%	27%	-
This area is close to my home (n=40)	20%	23%	22%	32%	2%
My family has been coming to this area for generations (n=40)	16%	22%	7%	19%	36%

Base: Those who reported a primary activity in the Remote South during their most recent outing.
Note: "n" values are unweighted. Due to rounding, some rows may not total 100 percent.
Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.5.11.2. By Selected Primary Recreation Activity

Table D2.5-45 provides the average rating of agreement with each of the five statements of connectedness to the Study Area by a selection of primary recreation activities. Generally, the level of agreement with the statements was similar regardless of the primary recreation activity.

Table D2.5-45. Statements Regarding Connectedness to the Study Area, All Study Area and by Selected Primary Recreation Activity, Average Score

Factor	Remote Camping	Roadside Camping	Fishing for All Species	Hunting	Hiking/ Backpacking	Snow-machining	Wildlife Viewing (incl. Bird Watching
	n=124	n=131	n=72	n=157	n=77	n=56	n=120
The area means a lot to me	4.3	4.0	4.0	4.3	4.0	4.4	4.2
No other place can compare to this area	3.7	3.6	3.4	3.6	3.6	4.0	3.8
Recreating here is more important to me than doing it in any other place	3.4	3.1	3.0	3.4	3.0	3.8	3.2

Factor	Remote Camping	Roadside Camping	Fishing for All Species	Hunting	Hiking/ Backpacking	Snow-machining	Wildlife Viewing (incl. Bird Watching
This area is close to my home	3.0	3.2	3.0	3.1	3.4	3.4	3.4
My family has been coming to this area for generations	2.7	2.5	2.2	2.9	2.1	2.8	2.6

Base: Those who reported a primary activity during their most recent outing in the Recreation Use Study Area.

Note: "n" values are unweighted.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.6. Desired Levels of Facility, Infrastructure, and Information

The following sections present the desired levels of facilities, infrastructure, and information, as documented in the combined mail survey results, by the Study Area, Sub-Area of primary recreation activity, and by the selected primary recreation activity.

2.6.1. Recreation Use Study Area

Recreation users were asked to indicate what level of infrastructure, recreation facilities, and sources of information they believe should be available in the Study Area. Nineteen percent of respondents indicated they believe there should be "a lot more" designated trails for non-motorized use and 17 percent wanted "a lot more" public use cabins in the Study Area. Other infrastructure facilities that respondents felt there should be "a lot more" of included trail maps (14 percent), roadside toilets (13 percent), and designated trails for off-road vehicles (11 percent). The facilities or infrastructure that received the highest average scores were public use cabins (3.6), roadside toilets (3.6), and trail maps (3.6) (Table D2.6-1).

Table D2.6-1. Desired Level of Facilities and Infrastructure in the Study Area, All Study Area, Percent and Average Score

Facility or Infrastructure	A lot more (5)	A little more (4)	The same (3)	A little less (2)	A lot less (1)	Average Score (1–5)
Maintained roads (n=1,149)	8%	23%	63%	3%	3%	3.3
Designated parking areas (n=1,141)	8%	29%	57%	2%	3%	3.4
Roadside toilets (n=1,149)	13%	38%	44%	1%	3%	3.6
RV accessible sites at campgrounds (n=1,133)	5%	18%	56%	11%	9%	3.0
Trail maps (n=1,137)	14%	38%	43%	2%	3%	3.6
Designated trails for non-motorized use (n=1,144)	19%	30%	43%	2%	6%	3.5

Facility or Infrastructure	A lot more (5)	A little more (4)	The same (3)	A little less (2)	A lot less (1)	Average Score (1–5)
Designated trail for off-road vehicles (n=1,139)	11%	20%	47%	10%	12%	3.1
Directional road signs (n=1,145)	6%	18%	70%	2%	3%	3.2
Visitor information (n=1,142)	6%	25%	63%	3%	4%	3.3
Visitor centers (n=1,141)	4%	15%	69%	6%	6%	3.1
Public use cabins (n=1,151)	17%	35%	41%	2%	4%	3.6
Boat launches (n=1,141)	6%	17%	71%	2%	4%	3.2
Facilities for the disabled (n=1,133)	8%	27%	61%	2%	3%	3.3

Base: Those who reported a primary activity during their most recent outing in the Recreation Use Study Area.

Note: "n" values are unweighted. Due to rounding, some rows may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.6.1.1. Sub-Area of Primary Recreation Activity

In the Talkeetna Area Sub-Area, the most desired level of facilities or infrastructure identified by recreation users included public use cabins (average score of 3.8), trail maps (3.6), and designated trails for non-motorized use (3.6) (Table D2.6-2).

Table D2.6-2. Talkeetna Area Sub-Area, Desired Level of Facilities and Infrastructure in the Study Area, Primary Recreation Activity, Percent

Facility or Infrastructure	A lot more (5)	A little more (4)	The same (3)	A little less (2)	A lot less (1)	Average Score (1–5)
Maintained roads (n=259)	5%	27%	62%	4%	2%	3.3
Designated parking areas (n=259)	6%	35%	53%	3%	3%	3.4
Roadside toilets (n=261)	12%	40%	43%	1%	4%	3.5
RV accessible sites at campgrounds (n=255)	5%	24%	52%	12%	8%	3.1
Trail maps (n=256)	12%	45%	40%	2%	1%	3.6
Designated trails for non-motorized use (n=257)	20%	32%	44%	2%	3%	3.6
Designated trail for off-road vehicles (n=254)	7%	23%	52%	8%	9%	3.1
Directional road signs (n=259)	8%	19%	68%	3%	1%	3.3
Visitor information (n=258)	6%	22%	67%	4%	2%	3.3

Facility or Infrastructure	A lot more (5)	A little more (4)	The same (3)	A little less (2)	A lot less (1)	Average Score (1–5)
Visitor centers (n=259)	5%	14%	72%	5%	4%	3.1
Public use cabins (n=260)	20%	39%	38%	2%	1%	3.8
Boat launches (n=256)	7%	16%	72%	3%	1%	3.2
Facilities for the disabled (n=256)	8%	25%	65%	1%	1%	3.4

Base: Those who reported a primary activity in the Talkeetna Area Sub-Area during their most recent outing.

Note: "n" values are unweighted. Due to rounding, some rows may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

In the West Denali Highway Sub-Area, the most desired level of facilities or infrastructure identified by recreation users included roadside toilets (average score of 3.6), public use cabins (3.5), and trail maps (3.5) (Table D2.6-3).

Table D2.6-3. West Denali Highway Sub-Area, Desired Level of Facilities and Infrastructure in the Study Area, Primary Recreation Activity, Percent

Facility or Infrastructure	A lot more (5)	A little more (4)	The same (3)	A little less (2)	A lot less (1)	Average Score (1–5)
Maintained roads (n=196)	9%	22%	65%	1%	3%	3.3
Designated parking areas (n=191)	13%	27%	56%	1%	3%	3.4
Roadside toilets (n=196)	14%	36%	47%	1%	2%	3.6
RV accessible sites at campgrounds (n=191)	4%	18%	53%	17%	9%	2.9
Trail maps (n=191)	13%	37%	42%	3%	5%	3.5
Designated trails for non-motorized use (n=191)	16%	32%	39%	4%	9%	3.4
Designated trail for off-road vehicles (n=193)	16%	19%	43%	12%	11%	3.2
Directional road signs (n=192)	6%	19%	68%	2%	5%	3.2
Visitor information (n=193)	5%	26%	61%	3%	4%	3.3
Visitor centers (n=189)	5%	11%	70%	5%	9%	3.0
Public use cabins (n=196)	16%	29%	45%	4%	5%	3.5
Boat launches (n=190)	6%	11%	73%	5%	5%	3.1
Facilities for the disabled (n=193)	5%	23%	64%	4%	4%	3.2

Base: Those who reported a primary activity in the West Denali Highway Sub-Area during their most recent outing.

Note: "n" values are unweighted. Due to rounding, some rows may not total 100 percent.
Source: Susitna-Watana Recreation Regional Household Mail Survey.

In the East Denali Highway Sub-Area, the most desired level of facilities or infrastructure identified by recreation users included designated trails for non-motorized use (average score of 3.6), public use cabins (3.5), and roadside toilets (3.5) (Table D2.6-4).

Table D2.6-4. East Denali Highway Sub-Area, Desired Level of Facilities and Infrastructure in the Study Area, Primary Recreation Activity, Percent

Facility or Infrastructure	A lot more (5)	A little more (4)	The same (3)	A little less (2)	A lot less (1)	Average Score (1–5)
Maintained roads (n=183)	10%	18%	67%	2%	3%	3.3
Designated parking areas (n=182)	7%	23%	65%	2%	3%	3.3
Roadside toilets (n=180)	6%	45%	47%	1%	1%	3.5
RV accessible sites at campgrounds (n=177)	4%	9%	62%	15%	11%	2.8
Trail maps (n=180)	9%	33%	52%	2%	3%	3.4
Designated trails for non-motorized use (n=181)	17%	37%	39%	2%	5%	3.6
Designated trail for off-road vehicles (n=182)	8%	25%	40%	13%	14%	3.0
Directional road signs (n=181)	3%	19%	73%	1%	4%	3.2
Visitor information (n=181)	5%	17%	68%	6%	4%	3.1
Visitor centers (n=179)	2%	9%	76%	6%	7%	2.9
Public use cabins (n=180)	11%	37%	44%	4%	4%	3.5
Boat launches (n=181)	5%	10%	80%	2%	4%	3.1
Facilities for the disabled (n=176)	6%	29%	60%	1%	4%	3.3

Base: Those who reported a primary activity in the East Denali Highway Sub-Area during their most recent outing.
Note: "n" values are unweighted. Due to rounding, some rows may not total 100 percent.
Source: Susitna-Watana Recreation Regional Household Mail Survey.

In the Parks Highway Sub-Area, the most desired level of facilities or infrastructure identified by recreation users included public use cabins (average score of 3.7), roadside toilets (3.6), trail maps (3.6), and designated trails for non-motorized use (3.6) (Table D2.6-5).

Table D2.6-5. Parks Highway Sub-Area, Desired Level of Facilities and Infrastructure in the Study Area, Primary Recreation Activity, Percent

Facility or Infrastructure	A lot more (5)	A little more (4)	The same (3)	A little less (2)	A lot less (1)	Average Score (1–5)
Maintained roads (n=463)	6%	23%	64%	3%	4%	3.2
Designated parking areas (n=464)	8%	29%	58%	2%	2%	3.4
Roadside toilets (n=465)	14%	38%	43%	1%	4%	3.6
RV accessible sites at campgrounds (n=464)	5%	20%	55%	10%	9%	3.0
Trail maps (n=463)	15%	41%	39%	2%	2%	3.6
Designated trails for non-motorized use (n=466)	21%	33%	40%	2%	4%	3.6
Designated trail for off-road vehicles (n=460)	12%	18%	46%	10%	15%	3.0
Directional road signs (n=466)	7%	19%	71%	1%	3%	3.3
Visitor information (n=461)	5%	31%	58%	1%	4%	3.3
Visitor centers (n=465)	4%	18%	68%	5%	5%	3.1
Public use cabins (n=464)	18%	40%	38%	1%	4%	3.7
Boat launches (n=464)	5%	16%	73%	2%	4%	3.2
Facilities for the disabled (n=461)	7%	29%	59%	2%	2%	3.2

Base: Those who reported a primary activity in the Parks Highway Sub-Area during their most recent outing.

Note: "n" values are unweighted. Due to rounding, some rows may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

In the Lake Louise Area Sub-Area, the most desired level of facilities or infrastructure identified by recreation users included trail maps (average score of 3.6), designated parking areas (3.5), and roadside toilets (3.5) (Table D2.6-6).

Table D2.6-6. Lake Louise Area Sub-Area, Desired Level of Facilities and Infrastructure in the Study Area, Primary Recreation Activity, Percent

Facility or Infrastructure	A lot more (5)	A little more (4)	The same (3)	A little less (2)	A lot less (1)	Average Score (1–5)
Maintained roads (n=87)	11%	23%	61%	1%	4%	3.4
Designated parking areas (n=86)	14%	25%	59%	1%	1%	3.5
Roadside toilets (n=87)	11%	31%	54%	3%	1%	3.5

Facility or Infrastructure	A lot more (5)	A little more (4)	The same (3)	A little less (2)	A lot less (1)	Average Score (1–5)
RV accessible sites at campgrounds (n=86)	6%	20%	65%	5%	3%	3.2
Trail maps (n=87)	14%	32%	50%	2%	1%	3.6
Designated trails for non-motorized use (n=86)	10%	32%	48%	2%	7%	3.4
Designated trail for off-road vehicles (n=87)	10%	30%	48%	6%	7%	3.3
Directional road signs (n=85)	7%	15%	73%	3%	2%	3.2
Visitor information (n=88)	4%	20%	71%	3%	2%	3.2
Visitor centers (n=87)	3%	12%	74%	7%	4%	3.0
Public use cabins (n=86)	15%	27%	48%	3%	6%	3.4
Boat launches (n=87)	6%	23%	69%	1%	1%	3.3
Facilities for the disabled (n=85)	4%	36%	57%	1%	3%	3.4

Base: Those who reported a primary activity in the Lake Louise Area Sub-Area during their most recent outing.
Note: "n" values are unweighted. Due to rounding, some rows may not total 100 percent.
Source: Susitna-Watana Recreation Regional Household Mail Survey.

In the Remote North Sub-Area, the most desired level of facilities or infrastructure identified by recreation users included trail maps (average score of 3.8), roadside toilets (3.6), maintained roads (3.5), and public use cabins (3.5) (Table D2.6-7).

Table D2.6-7. Remote North Sub-Area, Desired Level of Facilities and Infrastructure in the Study Area, Primary Recreation Activity, Percent

Facility or Infrastructure	A lot more (5)	A little more (4)	The same (3)	A little less (2)	A lot less (1)	Average Score (1–5)
Maintained roads (n=72)	22%	25%	46%	-	8%	3.5
Designated parking areas (n=71)	15%	23%	56%	-	7%	3.4
Roadside toilets (n=73)	23%	27%	42%	1%	7%	3.6
RV accessible sites at campgrounds (n=70)	6%	26%	52%	5%	10%	3.1
Trail maps (n=70)	26%	24%	42%	1%	7%	3.8
Designated trails for non-motorized use (n=71)	12%	14%	51%	2%	21%	3.0
Designated trail for off-road vehicles (n=71)	17%	22%	45%	7%	10%	3.3
Directional road signs (n=71)	12%	17%	63%	-	9%	3.2

Facility or Infrastructure	A lot more (5)	A little more (4)	The same (3)	A little less (2)	A lot less (1)	Average Score (1–5)
Visitor information (n=70)	11%	25%	53%	3%	9%	3.3
Visitor centers (n=71)	6%	17%	64%	2%	11%	3.0
Public use cabins (n=73)	18%	25%	48%	1%	7%	3.5
Boat launches (n=71)	10%	20%	65%	-	4%	3.3
Facilities for the disabled (n=73)	9%	27%	53%	5%	6%	3.3

Base: Those who reported a primary activity in the Remote North Sub-Area during their most recent outing.

Note: "n" values are unweighted. Due to rounding, some rows may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

In the Remote South Sub-Area, the most desired level of facilities or infrastructure identified by recreation users included trail maps (average score of 3.6), public use cabins (3.5), and maintained roads (3.3) (Table D2.6-8).

Table D2.6-8. Remote South Sub-Area, Desired Level of Facilities and Infrastructure in the Study Area, Primary Recreation Activity, Percent

Facility or Infrastructure	A lot more (5)	A little more (4)	The same (3)	A little less (2)	A lot less (1)	Average Score (1–5)
Maintained roads (n=40)	12%	24%	54%	-	11%	3.3
Designated parking areas (n=40)	12%	17%	58%	-	13%	3.1
Roadside toilets (n=40)	12%	20%	50%	-	17%	3.1
RV accessible sites at campgrounds (n=40)	7%	16%	39%	11%	26%	2.7
Trail maps (n=40)	24%	29%	39%	-	8%	3.6
Designated trails for non-motorized use (n=40)	17%	23%	40%	2%	17%	3.2
Designated trail for off-road vehicles (n=39)	14%	13%	47%	8%	17%	3.0
Directional road signs (n=39)	2%	16%	70%	-	12%	3.0
Visitor information (n=40)	2%	21%	60%	5%	11%	3.0
Visitor centers (n=40)	-	17%	65%	7%	11%	2.9
Public use cabins (n=40)	24%	26%	37%	5%	8%	3.5
Boat launches (n=40)	9%	15%	63%	2%	11%	3.1
Facilities for the disabled (n=420)	11%	24%	51%	-	14%	3.2

Base: Those who reported a primary activity in the Remote South Sub-Area during their most recent outing.

Note: "n" values are unweighted. Due to rounding, some rows may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey

2.6.1.2. Selected Primary Recreation Activity

Table D2.6-9 provides the average rating of desired level of facilities and infrastructure in the Study Area by a selection of primary recreation activities. Generally, the level of agreement was similar regardless of the primary recreation activity.

Table D2.6-9. Desired Level of Facilities and Infrastructure in the Study Area, by Selected Primary Recreation Activity, Average Score

Facility or Infrastructure	Remote Camping	Roadside Camping	Fishing for All Species	Hunting	Hiking/ Backpacking	Snow-machining	Wildlife Viewing (incl. Bird Watching
	n=124	n=126	n=71	n=156	n=77	n=54	n=118
Maintained roads	3.2	3.4	3.3	3.3	3.2	3.5	3.5
Designated parking areas	3.2	3.5	3.4	3.5	3.3	3.5	3.6
Roadside toilets	3.4	3.8	3.5	3.4	3.5	3.5	3.8
RV accessible sites at campgrounds	2.9	3.4	3.0	2.9	2.9	3.1	3.1
Trail maps	3.6	3.6	3.5	3.4	3.8	3.5	3.7
Designated trails for non-motorized use	3.5	3.5	3.4	3.1	3.9	3.0	3.8
Designated trail for off-road vehicles	3.1	3.3	3.0	3.2	2.7	3.7	2.9
Directional road signs	3.1	3.3	3.2	3.0	3.2	3.3	3.4
Visitor information	3.1	3.4	3.3	3.0	3.3	3.0	3.5
Visitor centers	3.0	3.2	3.2	2.7	3.1	2.7	3.3
Public use cabins	3.7	3.6	3.7	3.1	3.6	3.5	3.8
Boat launches	3.1	3.2	3.4	3.1	3.2	3.1	3.3
Facilities for the disabled	3.4	3.3	3.5	3.3	3.3	3.1	3.6

Base: Those who reported a primary activity during their most recent outing in the Recreation Use Study Area.

Note: "n" values are unweighted.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.7. Respondent Demographics

2.7.1. Age

The average age among respondents who participated in the survey was 47.2 years old. Eighteen percent of respondents were between 45 and 54 years old. Nearly one quarter of respondents (24 percent) were between 55 and 64. Table D2.7-1 shows respondents' ages by Sub-Area.

Table D2.7-1. Respondent Age, by All Respondents and by Sub-Areas of Primary Recreation Activity, Percent

Age (Years)	All Respondents	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=3,555	n=270	n=204	n=184	n=5,479	n=88	n=73	n=40
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
<25	7%	7%	8%	7%	4%	-	11%	-
25 – 34	18%	25%	19%	18%	23%	19%	13%	26%
35 – 44	21%	25%	26%	20%	23%	26%	20%	28%
45 – 54	18%	19%	13%	16%	19%	26%	19%	15%
55 – 64	24%	18%	23%	28%	24%	18%	20%	25%
65+	12%	6%	11%	10%	8%	11%	17%	6%
Average age	47.2	43.5	45.9	47.4	45.8	47.8	47.3	45.4

Base: All respondents. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Note: "n" values are unweighted. Due to rounding, some columns may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.7.2. Gender

Slightly more female respondents (52 percent of total responses) completed the survey than males (48 percent). Male respondents were more likely to complete the survey when recreating in the East Denali Highway (65 percent), Lake Louise Area (57 percent), or Remote North (56 percent) Sub-Areas (Table D2.7-2).

Table D2.7-2. Respondent Gender, by All Respondents and by Sub-Area of Primary Recreation Activity, Percent

Response	All Respondents	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=3,543	n=270	n=202	n=184	n=476	n=88	n=73	n=40
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Male	48%	43%	54%	65%	47%	57%	56%	52%
Female	52%	57%	46%	35%	53%	43%	44%	48%

Base: All respondents. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Note: "n" values are unweighted.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.7.3. Marital Status

Sixty percent of respondents were married. Respondents that had a primary recreation activity in the Lake Louise Area Sub-Area were most likely to be married (74 percent), compared to those recreating in Remote South Sub-Area (56 percent). (Table D2.7-3).

Table D2.7-3. Respondent Marital Status, by All Respondents and by Sub-Areas of Primary Recreation Activity, Percent

Marital Status	All Respondents	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=3,523	n=266	n=203	n=182	n=473	n=88	n=73	n=40
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Yes	60%	57%	63%	64%	64%	74%	58%	56%
No	40%	43%	37%	36%	36%	26%	42%	44%

Base: All respondents. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Note: "n" values are unweighted.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.7.4. Household Size

The average household size of the Regional Resident Household Mail Survey respondent was 2.7. Recreation users who had a primary recreation activity in the Lake Louise Area or Remote South Sub-Areas tended to have larger households (3.0 people) (Table D2.7-4).

Table D2.7-4. Respondent Household Size (At Least 6 Months of the Year), by All Respondents and by Sub-Areas of Primary Recreation Activity, Percent

Number in Household	All Respondents	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=3,521	n=269	n=203	n=183	n=477	n=88	n=73	n=40
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
1	19%	17%	14%	19%	17%	11%	13%	16%
2	38%	37%	45%	45%	40%	42%	36%	28%
3–5	38%	43%	38%	34%	40%	37%	45%	46%
6+	4%	2%	3%	2%	4%	10%	6%	10%
Average household size	2.7	2.6	2.6	2.5	2.7	3.0	2.8	3.0

Base: All respondents. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Note: "n" values are unweighted. Due to rounding, some columns may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

Just over one-third of respondent households (35 percent) included children under the age of 18. Recreation users who had a primary recreation activity in the Lake Louise Area or Remote South Sub-Areas were more likely to have children in the household than those who recreated in other Sub-Areas in the Study Area (47 percent and 46 percent, respectively) (Table D2.7-5).

Table D2.7-5. Respondent Children (<18 years old) in the Household, by All Respondents and by Sub-Areas of Primary Recreation Activity, Percent

Response	All Respondents	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=3,401	n=241	n=186	n=167	n=452	n=86	n=70	n=38
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Yes	35%	36%	36%	30%	37%	47%	31%	46%
No	65%	64%	64%	70%	63%	53%	69%	54%

Base: All respondents. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Note: "n" values are unweighted.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.7.5. Household Income (2012)

Average 2012 household income among respondents was $83,000. The most frequently cited income range among respondents was $100,000 to $149,999 (20 percent), followed by $50,001-$75,000 (18 percent). Respondents recreating along the Parks Highway or in the Lake Louise Area Sub-Areas had a slightly higher average 2012 household income of $90,000 (Table D2.7-6).

Table D2.7-6. Respondent 2012 Household Income, by All Respondents and by Sub-Area of Primary Recreation Activity, Percent

Response	All Respondents	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=3,555	n=270	n=204	n=184	n=479	n=88	n=73	n=40
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Less than $20,000	8%	4%	7%	2%	4%	3%	7%	7%
$20,001 – $35,000	12%	9%	12%	9%	10%	5%	13%	10%
$35,001 – $50,000	13%	13%	13%	8%	10%	16%	13%	17%
$50,001 – $75,000	18%	22%	17%	28%	22%	11%	18%	17%
$75,001 – $99,999	17%	15%	20%	19%	18%	31%	15%	21%
$100,000 – $149,999	20%	20%	22%	22%	20%	20%	18%	9%
$150,000+	12%	16%	10%	11%	15%	15%	15%	19%
Average income	$83,000	$89,000	$83,000	$88,000	$90,000	$90,000	$84,000	$85,000

Base: All respondents. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Note: "n" values are unweighted. Due to rounding, some columns may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.7.6. Race and Ethnicity

Most respondents across all Sub-Areas were white (86 percent), followed by Alaska Native/American Indian (10 percent) (Table D2.7-7).

Table D2.7-7. Race and Ethnicity, by All Respondents and by Sub-Areas of Primary Recreation Activity, Percent

Response	All Respondents	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=3,513	n=267	n=203	n=181	n=475	n=88	n=72	n=40
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
White	86%	93%	84%	92%	93%	86%	87%	94%
American Indian/ Alaska Native	10%	5%	11%	9%	5%	11%	9%	9%
Asian	4%	2%	2%	-	3%	3%	2%	4%
Hispanic	3%	2%	2%	1%	2%	3%	3%	2%
Black or African American	2%	1%	3%	1%	1%	-	1%	1%
Native Hawaiian or Other Pacific Islander	1%	<1%	1%	-	<1%	-	-	-
Some other race	2%	2%	2%	2%	1%	2%	3%	6%

Base: All respondents. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Note: "n" values are unweighted. Multiple responses accepted; columns will not add to 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.7.7. Educational Attainment

Most respondents had attended college or graduated with a bachelor's degree (28 percent), some college (no degree) (27 percent), graduate or professional degree (18 percent), or an associate's degree (10 percent). Respondents who had a primary recreation activity in the Talkeetna Area Sub-Area were most likely to have a bachelor's or advanced degree (59 percent combined) (Table D2.7-8).

Table D2.7-8. Respondent Highest Educational Attainment, by All Respondents and by Sub-Areas of Primary Recreation Activity, Percent

Response	All Respondents	Talkeetna Area	West Denali Hwy.	East Denali Hwy.	Parks Hwy.	Lake Louise Area	Remote North	Remote South
	n=3,528	n=268	n=203	n=181	n=476	n=87	n=72	n=40
	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total	% of Total
Less than 9th grade	1%	-	<1%	-	1%	-	-	-
9th to 12th grade, no diploma	2%	1%	1%	2%	1%	-	3%	-
High school graduate, General Educational Development (GED), or alternative	15%	10%	16%	8%	11%	14%	8%	15%
Some college, no degree	27%	21%	25%	26%	23%	31%	44%	18%
Associate's degree	10%	8%	9%	11%	8%	13%	12%	18%
Bachelor's degree	28%	38%	29%	30%	33%	24%	23%	24%
Graduate or professional degree	18%	21%	18%	24%	23%	17%	11%	26%

Base: All respondents. Respondents may recreate in more than one Study Area Sub-Area so the total sample is not the sum of the samples for each Sub-Area.

Note: "n" values are unweighted. Due to rounding, some columns may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.7.8. Professional Guide Status

One percent of respondents identified themselves as a professional guide (Table D2.7-9). Of those 1 percent who professionally guided (often for multiply recreation activities), 45 percent were fishing guides, 18 percent were hunting guides, 13 percent were snowmachining guides, 11 percent were boat or float guides, and 44 percent guided other activities.

Table D2.7-9. Professional Guide Status, Percent

Response	All Respondents
	n=3,549
	% of Total
Yes	1%
No	99%

Base: All respondents.

Note: "n" values are unweighted. Due to rounding, some columns may not total 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.7.9. Ownership of Recreational Cabin

Seventeen percent of respondents owned a recreational cabin in Alaska.

Table D2.7-10. Respondent Recreational Cabin Ownership, Percent

Response	All Respondents
	n=3,536
	% of Total
Yes	17%
No	83%

Base: All respondents.

Note: "n" values are unweighted.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

2.7.10. Alaska Residency

Of the Regional Resident Household Mail Survey respondents, most lived in the Municipality of Anchorage (59 percent), followed by respondents who lived in the Matanuska-Susitna Borough (17 percent) and Fairbanks North Star Borough (17 percent). Three percent of respondents lived within the identified Study Area (Table D2.7-11).

Table D2.7-11 Respondent Alaska Residency, Percent

Response	All Respondents
	n=3,555
	% of Total
Municipality of Anchorage	59%
Matanuska-Susitna Borough	17%
Fairbanks North Star Borough	17%
Valdez-Cordova Census Area	6%
Denali Borough	1%
Within Study Area*	3%

Base: All respondents.

* Includes Talkeetna, Trapper Creek, Cantwell, Paxson, and Lake Louise. These respondents are duplicated within the other boroughs for which their community is located.

Note: "n" values are unweighted. Due to duplication of count between Within Study Area residents and residents in the Matanuska-Susitna Borough, Denali Borough, and Valdez-Cordova Census Area, column does not add to 100 percent.

Source: Susitna-Watana Recreation Regional Household Mail Survey.

Figures

Figure D2.5-1. Hunting, Primary Activity by Grid

Figure D2.5-2. Camping (All Types), Primary Activity by Grid

Figure D2.5-3. Camping (Roadside), Primary Activity by Grid

Figure D2.5-4. Camping (Remote), Primary Activity by Grid

Figure D2.5-5. Wildlife Viewing, Including Bird Watching, Primary Activity by Grid

Figure D2.5-6. Hiking/Backpacking, Primary Activity by Grid

Figure D2.5-7. Walking/Running, Primary Activity by Grid

Figure D2.5-8. Snowmachining, Primary Activity by Grid

Figure D2.5-9. Collecting Berries/Mushrooms, Primary Activity by Grid

Figure D2.5-10. Fishing, Primary Activity by Grid

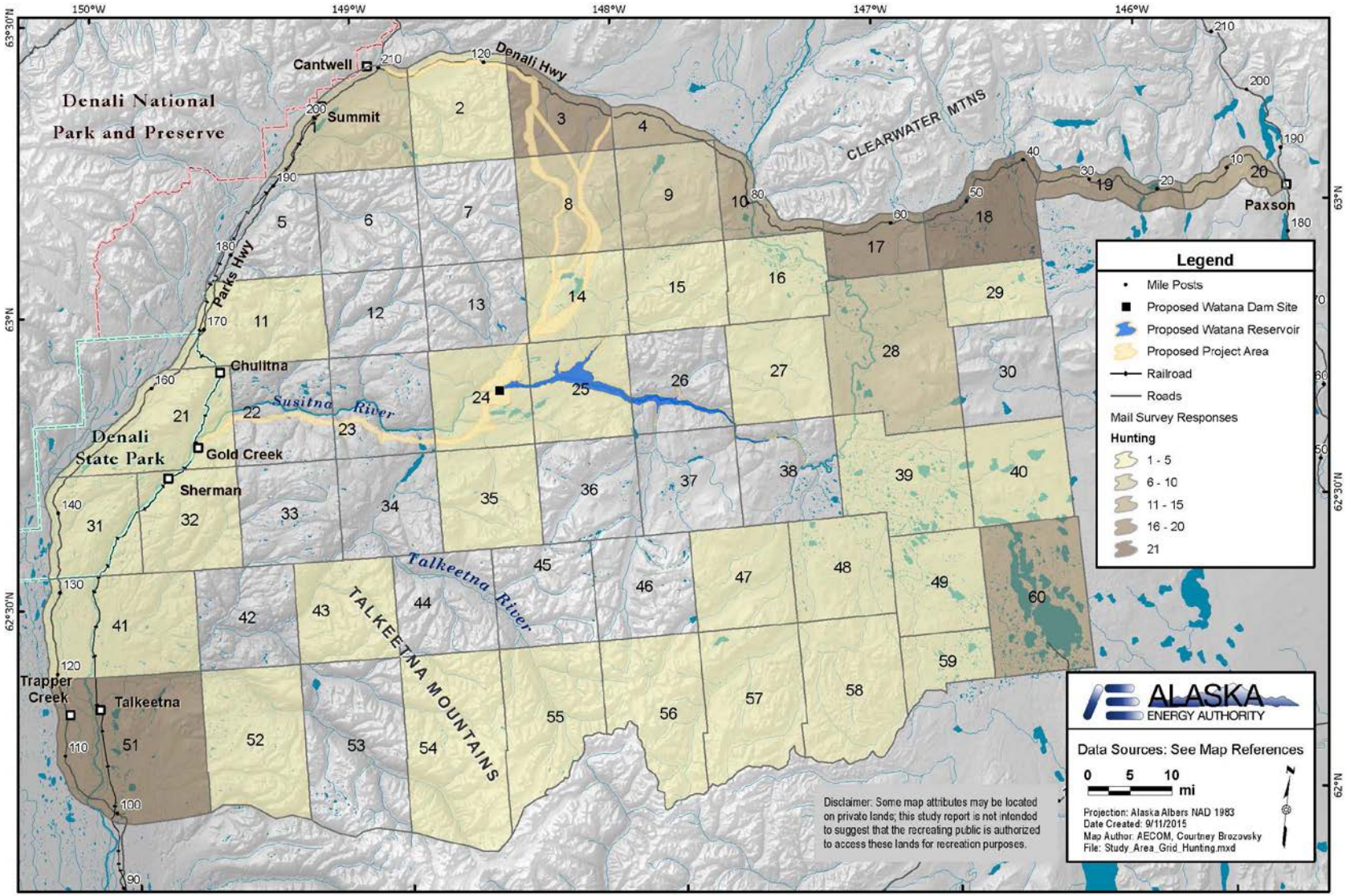


Figure D2.5-1. Hunting, Primary Activity by Grid

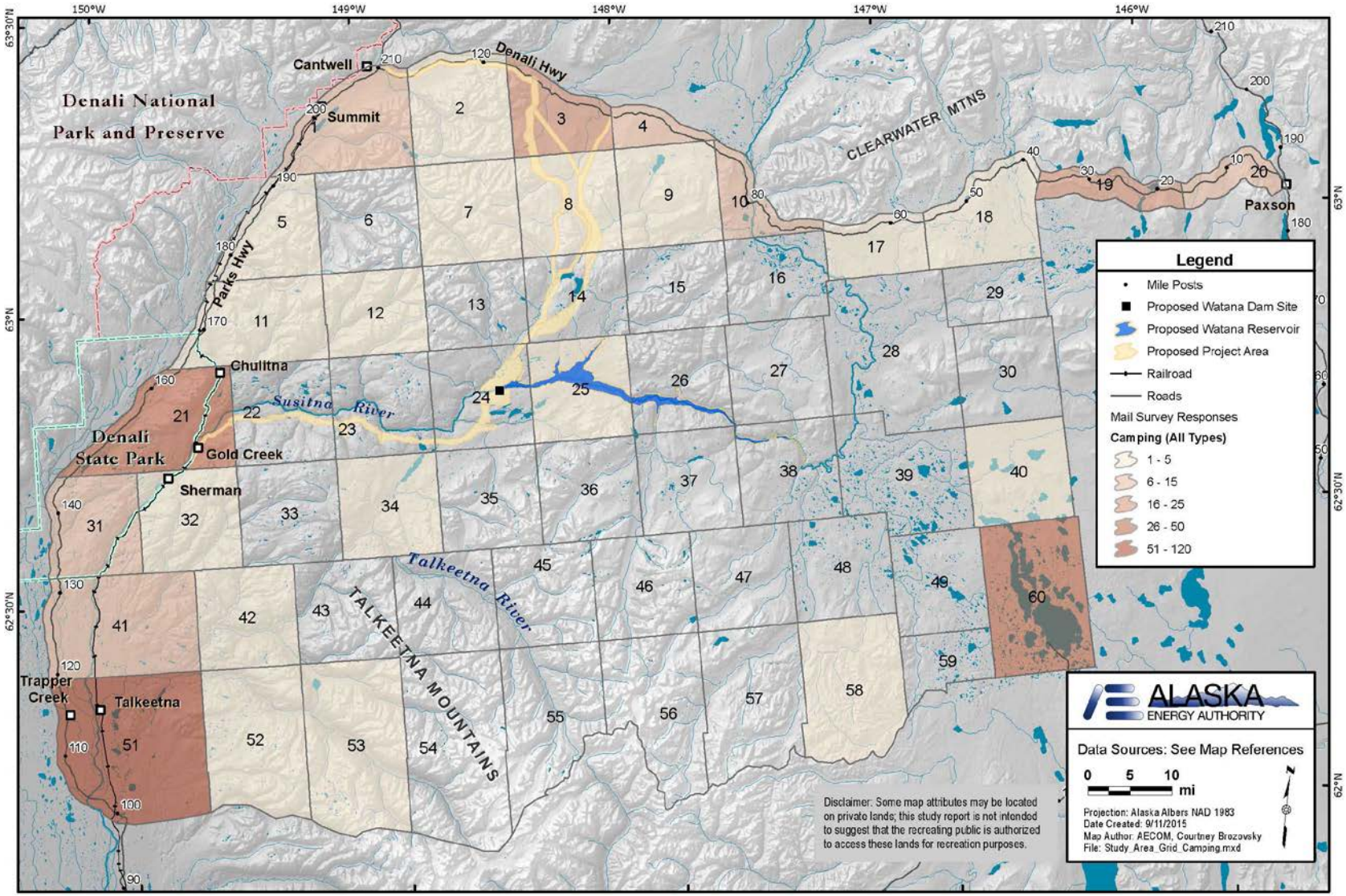


Figure D2.5-2. Camping (All Types), Primary Activity by Grid

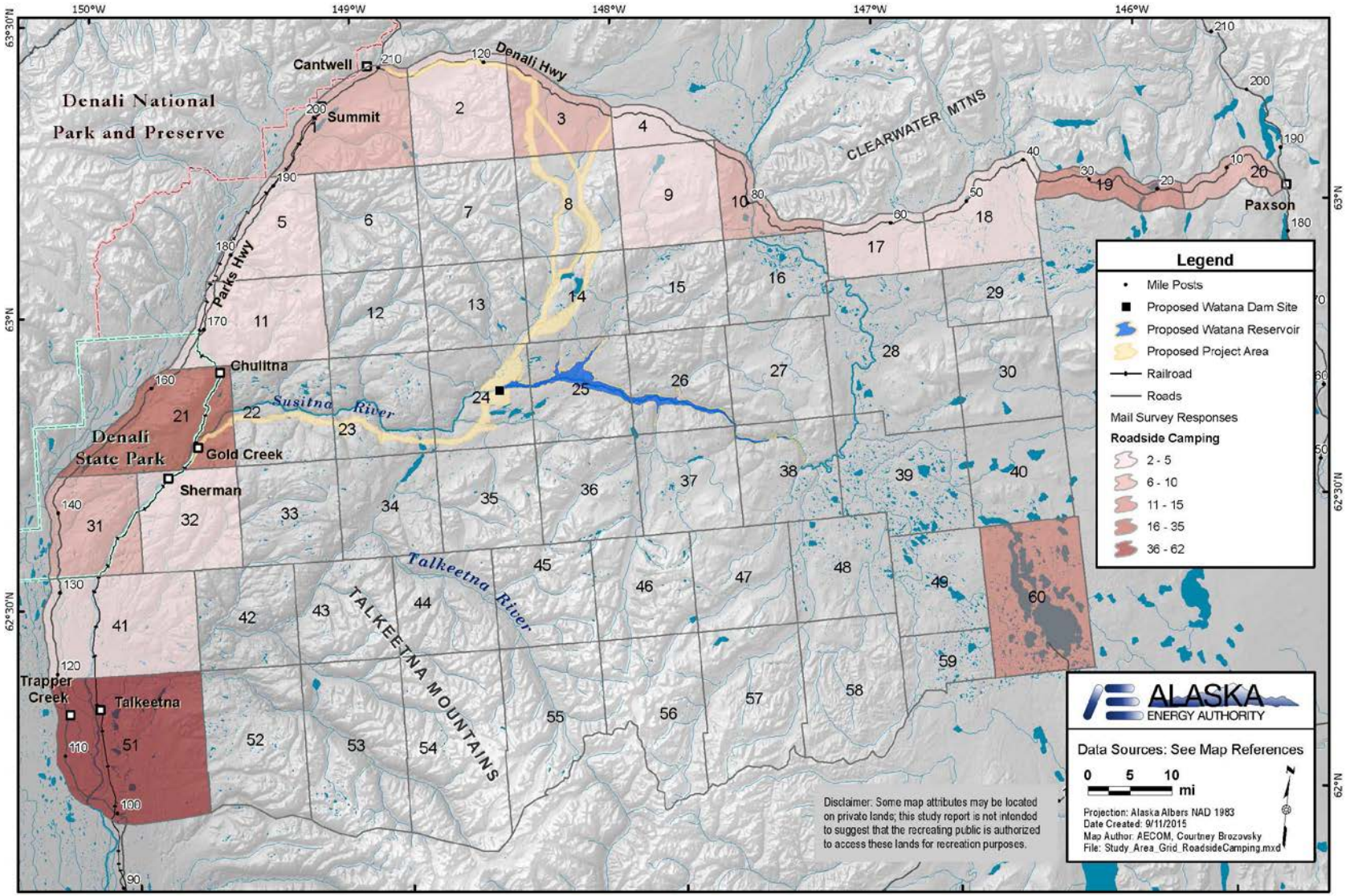


Figure D2.5-3. Camping (Roadside), Primary Activity by Grid

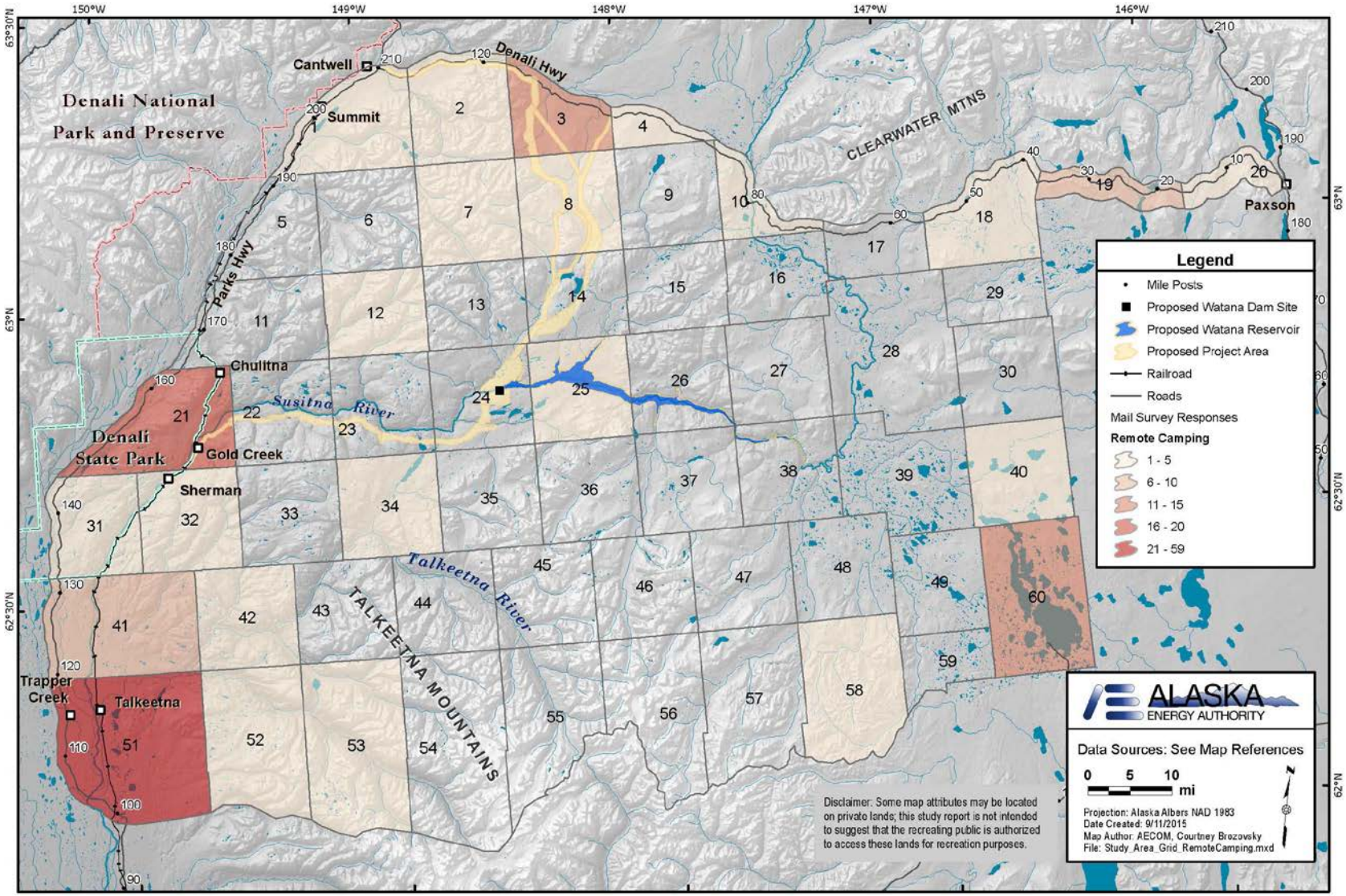


Figure D2.5-4. Camping (Remote), Primary Activity by Grid

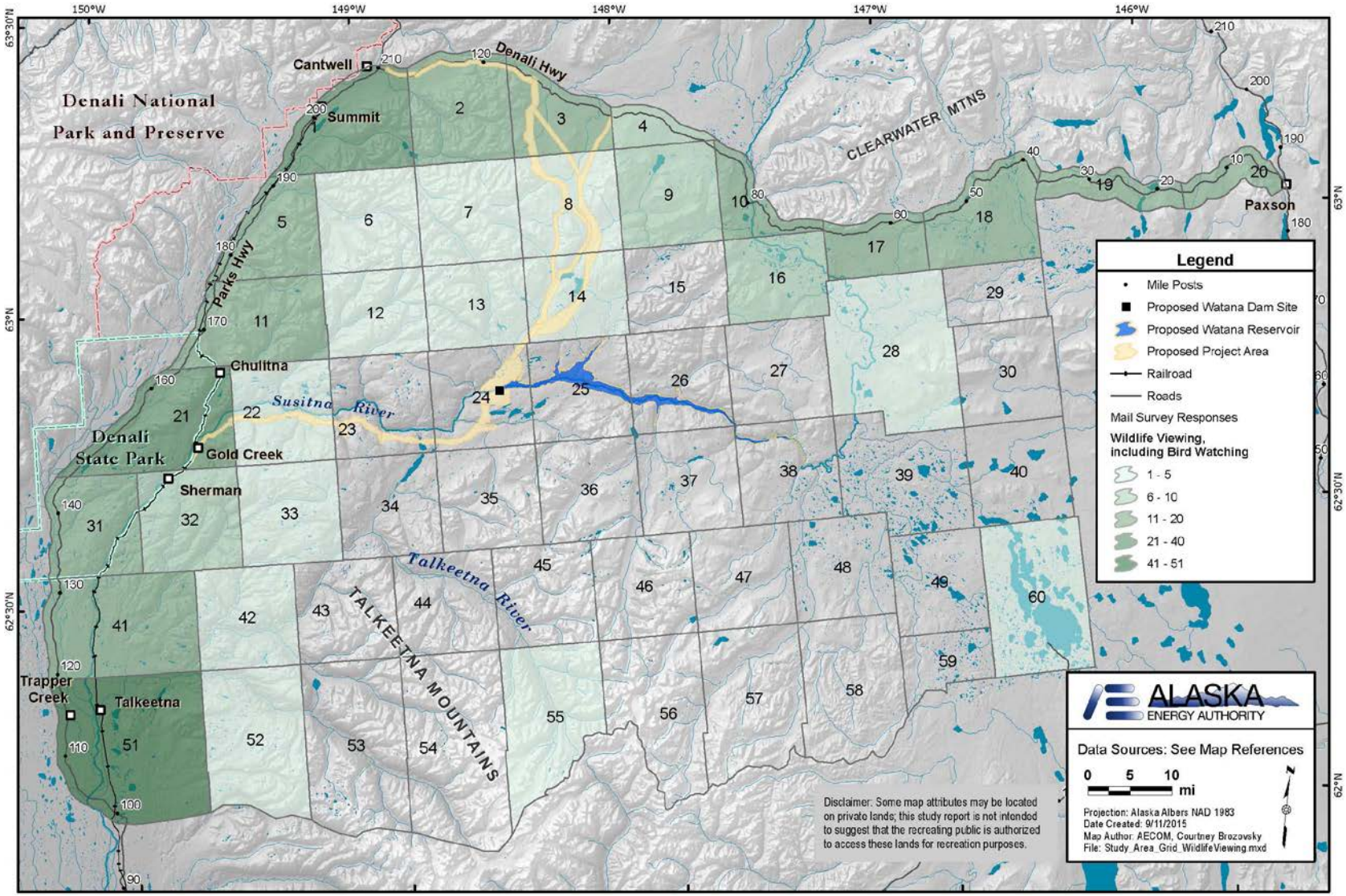


Figure D2.5-5. Wildlife Viewing, Including Bird Watching, Primary Activity by Grid

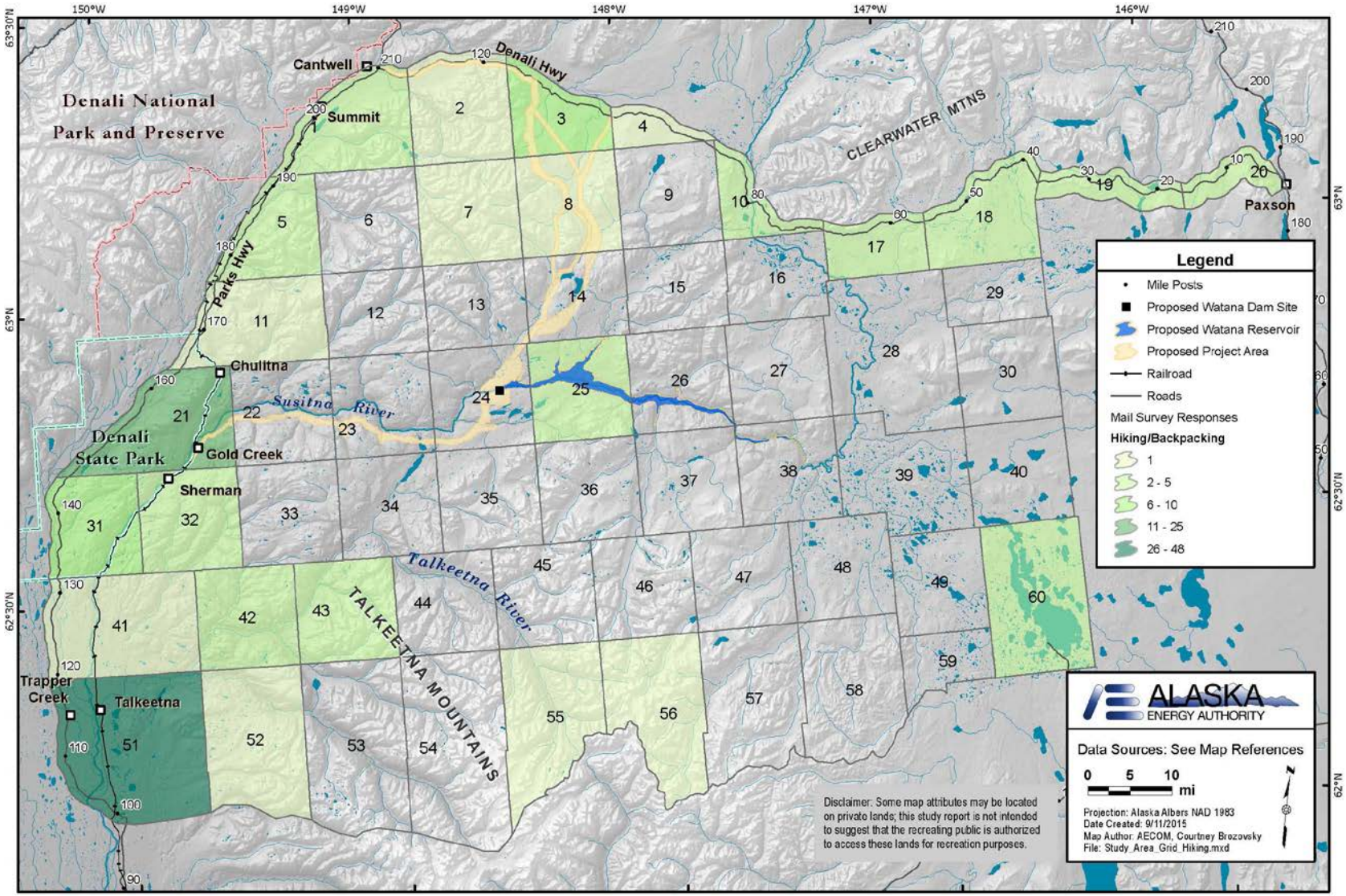


Figure D2.5-6. Hiking/Backpacking, Primary Activity by Grid

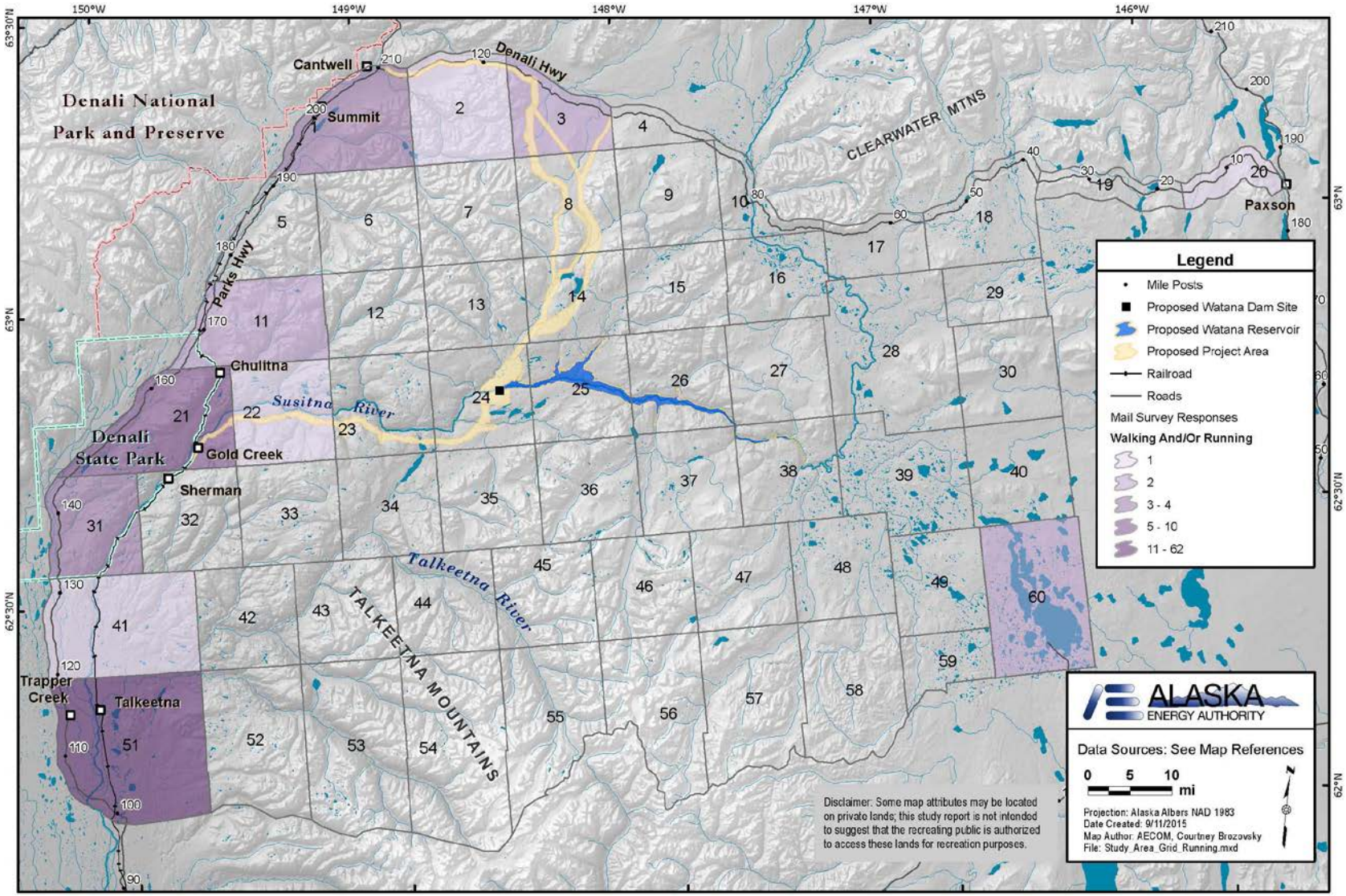


Figure D2.5-7. Walking/Running, Primary Activity by Grid

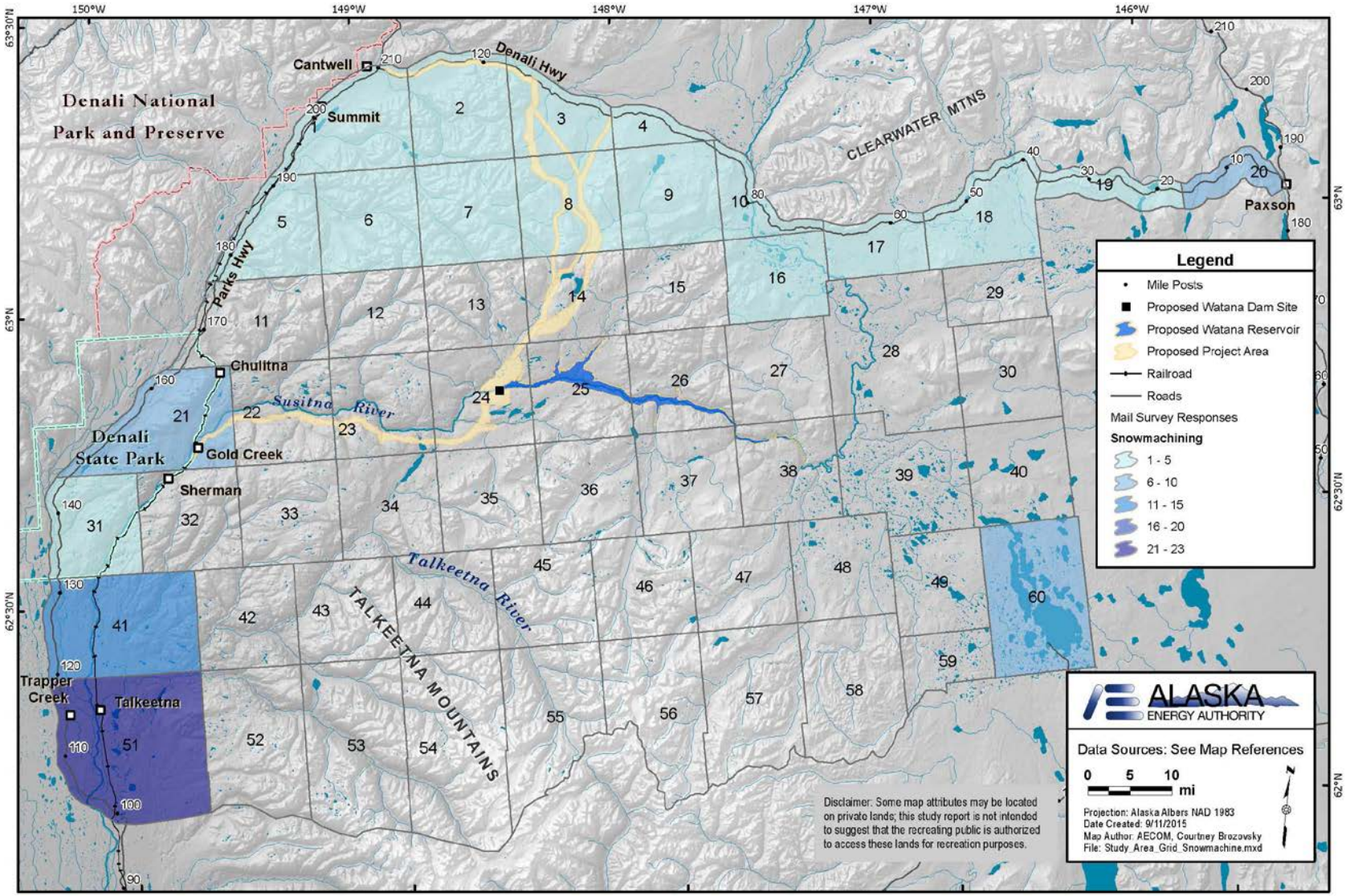


Figure D2.5-8. Snowmachining, Primary Activity by Grid

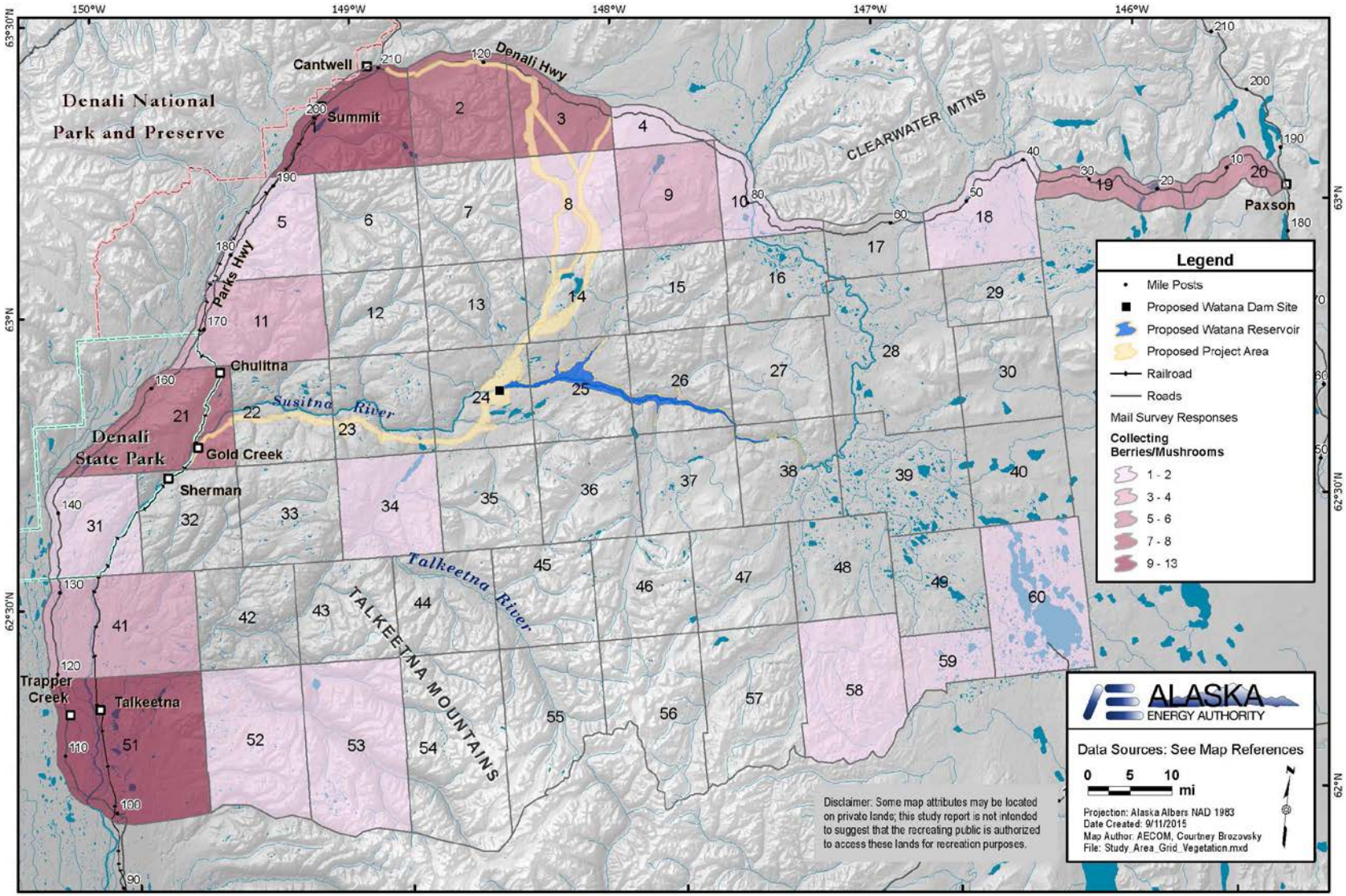


Figure D2.5-9. Collecting Berries/Mushrooms, Primary Activity by Grid

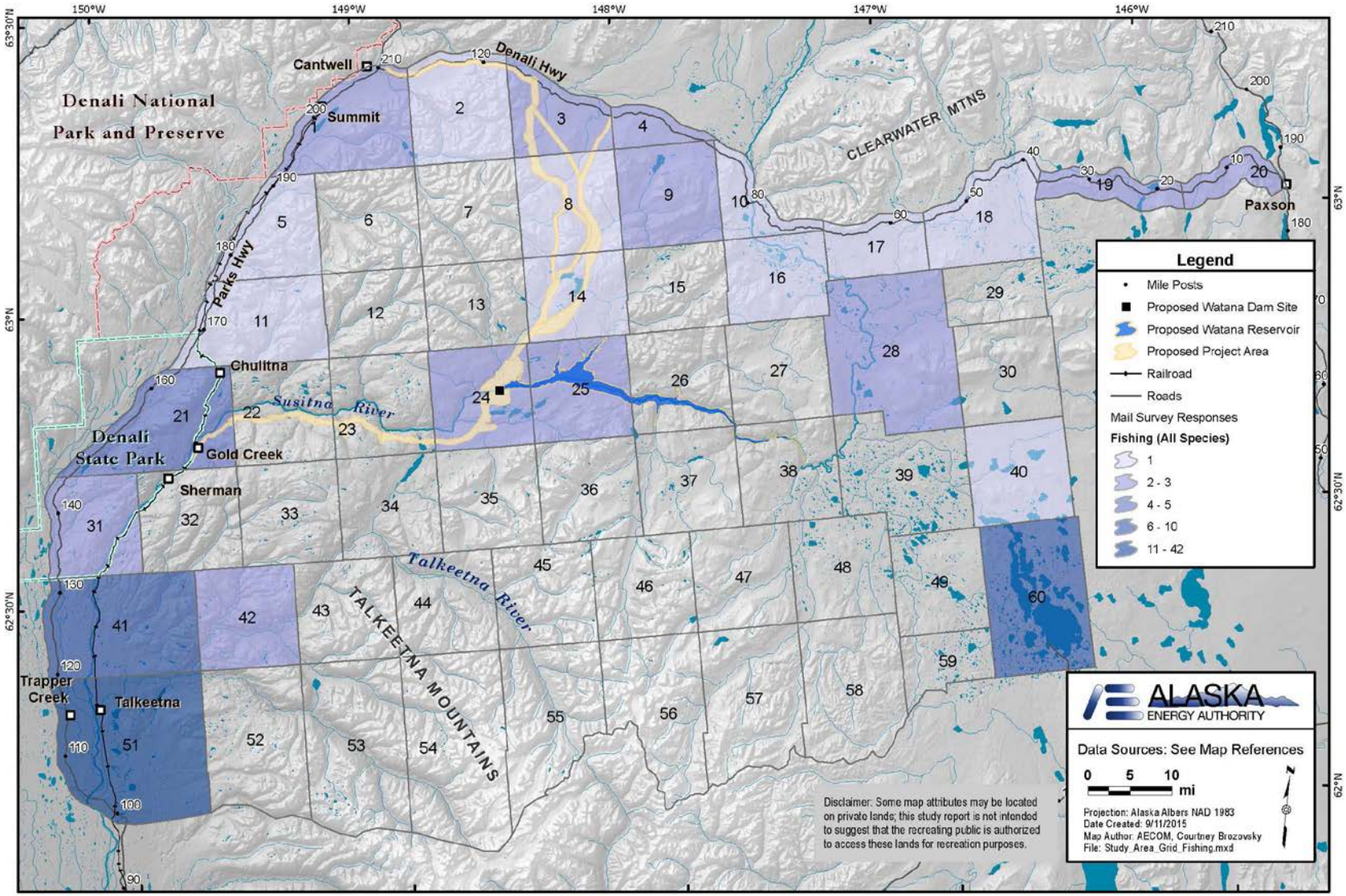
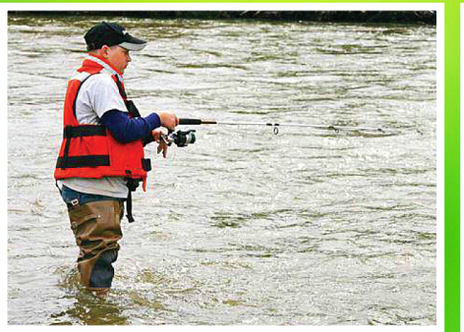


Figure D2.5-10. Fishing, Primary Activity by Grid

ATTACHMENT D-1

2013 ALASKA RECREATION SURVEY (JUNE)

2013 Alaska Recreation SURVEY









Alaska Outdoor Recreation

Thank you for helping us learn more about outdoor recreation activities in Alaska. The next four pages contain questions about your snow machining, fishing, recreational boating, and hunting outings. Below is a tutorial of how to complete the questions. The text in red illustrates the type of information that you would provide as answers to your questions. **Please review this tutorial before going to Question 1 on the next page.**

Tutorial for your review and reference

Recreational Snow Machining Anywhere In Alaska

1. Do you **ever** snow machine recreationally in Alaska? **(Circle the correct choice)** (Yes) GO TO QUESTION 2 / No GO TO NEXT PAGE

2. In the table below, please list all of the locations where you snow machined recreationally between January and April 2013. If you **did not** snow machine on any day between January and April 2013, please check this box ☐ and go to Question 4 on the next page.

Snow Machining between January and April 2013

Describe the location where you snow machined Please be as specific as possible.	**Write the name where you accessed this location** Trailhead name, nearest town or point of interest, highway milepost	**Number of snow machining days** How many days did you snow machine at this location?	**Snow Machining Location**
Turnagain Pass Trail	*Trailhead in Sunnyside*	*6*	0
Denali Highway (South Parks Highway)	*North of Willow by Susitna North*	*3*	1
Willow Lake Loop Trail	*Willow*	*2*	2
Sterling Highway (Resurrection Pass Trail)	*Cooper Landing*	*1*	3
			4
			5
			6
			7
			8
			9
If you snow machined at more than 9 locations and would like to complete additional trip summaries, you can complete them online at www.alaskarecreationsurvey.com or check the box to the right and we will mail you additional summaries once we receive this completed questionnaire.			☐ Yes, please send me additional summaries

When did you snow machine at each location?

Please write the number of each **Snow Machining Location** in the calendar below. **The Snow Machining Location** numbers are presented in the column to the left. Write in the **Snow Machining Location** number for each day that you snow machined at that location between January and April 2013.

2013

January

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

February

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16 0
17 0	18	19	20	21	22	23
24	25	26	27 1	28		

March

S	M	T	W	T	F	S
					1 0	2 1
3 1	4	5	6	7	8	9
10	11	12	13 0	14	15	16
17	18	19	20	21	22	23 2
24 2 / 31	25	26	27	28	29	30

April

S	M	T	W	T	F	S
	1	2	3	4	5	6 0
7 0	8	9	10	11 0	12	13
14	15	16	17	18	19	20 3
21	22	23	24	25	26	27
28	29	30				

3. What is the total number of days you snow machined between January and April 2013? *12* days

PLEASE CONTINUE TO NEXT PAGE

Recreational Snow Machining Anywhere In Alaska

If you have any questions on how to complete this summary, please refer to the tutorial on Page 1.

1. Do you **ever** snow machine recreationally in Alaska? **(Circle the correct choice)**

   Yes → GO TO QUESTION 2

   No → GO TO NEXT PAGE

2. In the table below, please list all of the locations where you snow machined recreationally between January and April 2013. If you **did not** snow machine on any day between January and April 2013, please check this box ☐ and go to Question 4 on the next page.

Snow Machining between January and April 2013

Describe the location where you snow machined Please be as specific as possible.	**Write the name where you accessed this location** Trailhead name, nearest town or point of interest, highway milepost	**Number of snow machining days** How many days did you snow machine at this location?	**Snow Machining Location**
Example: Turnagain Pass Trail	*Trailhead in Sunnyside*	*6*	0
			1
			2
			3
			4
			5
			6
			7
			8
			9

If you snow machined at more than 9 locations and would like to complete additional trip summaries, you can complete them online at www.alaskarecreationsurvey.com or check the box to the right and we will mail you additional summaries once we receive this completed questionnaire.

☐ Yes, please send me additional summaries

When did you snow machine at each location?

Please write the number of each **Snow Machining Location** in the calendar below. **The Snow Machining Location** numbers are presented in the column to the left. Write in the **Snow Machining Location** number for each day that you snow machined at that location between January and April 2013.

2013

January

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

February

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16 0
17 0	18	19	20	21	22	23
24	25	26	27	28		

March

S	M	T	W	T	F	S
					1 0	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24 / 31	25	26	27	28	29	30

April

S	M	T	W	T	F	S
	1	2	3	4	5	6 0
7 0	8	9	10	11 0	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

3. What is the total number of days you snow machined between January and April 2013? _____ days

PLEASE CONTINUE TO NEXT PAGE

Recreational Fishing Anywhere In Alaska

If you have any questions on how to complete this summary, please refer to the tutorial on Page 1.

4. Do you **ever** fish recreationally in Alaska? **(Circle the correct choice)**

   Yes ☛ What type of species do you target **(circle all that apply)**? Halibut Rockfish Trout Coho Sockeye Chinook Chum Pink Salmon Grayling Dolly Varden/Arctic char Other

   No ☛ GO TO NEXT PAGE

5. In the table below, please list all of the locations where you fished recreationally between May and October 2012. If you **did not** fish on any day between May and October 2012, please check this box ☐ and go to Question 7 on the next page.

Fishing between May and October 2012

Describe the waterbody where you fished Please be as specific as possible.	**Write the name where you accessed this location** Boat launch, nearest town or point of interest	**Number of fishing days** How many days did you fish at this location?	**Fishing Location**
Example: Kenai River	*Cooper Landing Boat Launch*	*10*	0
			1
			2
			3
			4
			5
			6
			7

If you fished at more than 7 locations and would like to complete additional trip summaries, you can complete them online at www.alaskarecreationsurvey.com or check the box to the right and we will mail you additional summaries once we receive this completed questionnaire.

☐ Yes, please send me additional summaries

When did you fish at each location?

Please write the number of each **Fishing Location** in the calendar below. The **Fishing Location** numbers are presented in the column to the left. Write in the **Fishing Location** number for each day that you fished at that location between May and October 2012.

2012

May

S	M	T	W	T	F	S
		1	2 0	3 0	4 0	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

June

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9 0
10 0	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

July

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12 0	13	14
15	16	17	18	19	20	21
22	23 0	24	25	26	27	28
29	30	31				

August

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

September

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15 0
16 0	17	18	19	20	21	22
23 30	24	25	26	27	28	29

October

S	M	T	W	T	F	S
	1	2	3	4 0	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

6. What is the total number of days you fished recreationally between May and October 2012? _____ days

PLEASE CONTINUE TO NEXT PAGE

Recreational Boating Anywhere In Alaska

If you have any questions on how to complete this summary, please refer to the tutorial on Page 1.

7. **Other than fishing**, do you **ever** go recreational boating in Alaska? **(Circle the correct choice)**

   Yes ☛ What type of recreational boating do you do **(circle all that apply)**?
   Canoeing Kayaking Motor/Air boating Drift boating Rafting Sailing Other

   No ☛ GO TO NEXT PAGE

8. In the table below, please list all of the locations where you went recreational boating between May and October 2012. If you **did not** go recreational boating on any day between May and October 2012, please check this box ☐ and go to Question 10 on the next page.

Recreational Boating between May and October 2012

Describe the waterbody where you went recreational boating Please be as specific as possible. If you went fishing, please complete a fishing summary.	**Write the name where you accessed this location** Boat launch, nearest town or point of interest	**Number of recreational boating days** How many days did you go recreational boating at this location?	**Recreational Boating Location**
Example: Valdez Harbor	*Valdez*	*9*	0
			1
			2
			3
			4
			5
			6
			7
If you went recreational boating at more than 7 locations and would like to complete additional trip summaries, you can complete them online at www.alaskarecreationsurvey.com or check the box to the right and we will mail you additional summaries once we receive this completed questionnaire.			☐ Yes, please send me additional summaries

When did you go recreational boating at each location?
Please write the number of each **Recreation Boating Location** in the calendar below. The **Recreational Boating Location** numbers are presented in the column to the left. Write in the **Recreational Location** number for each day that you went recreational boating at that location between May and October 2012.

2012

May

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18 0	19 0
20 0	21	22	23	24	25	26
27	28	29	30	31		

June

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

July

S	M	T	W	T	F	S
1	2	3	4 0	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20 0	21
22	23	24	25	26	27	28
29	30 0	31				

August

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11 0
12 0	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

September

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23 / 30	24	25	26	27	28	29

October

S	M	T	W	T	F	S
	1 0	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

9. What is the total number of days you went recreational boating between May and October 2012? _____ days

PLEASE CONTINUE TO NEXT PAGE

Recreational Hunting Anywhere In Alaska

If you have any questions on how to complete this summary, please refer to the tutorial on Page 1.

10. Do you **ever** hunt recreationally in Alaska? **(Circle the correct choice)**

Yes ☛ What type of game do you hunt **(circle all that apply)?**
Big game Small game Upland Birds Waterfowl Other

No ☛ GO TO NEXT PAGE

11. In the table below, please list all of the locations where you hunted recreationally between June and November 2012. If you **did not** go hunting on any day between June and November 2012, please check this box ☐ and go to the next page.

Hunting between June and November 2012

Describe the location where you hunted Please be as specific as possible.	**Write the name where you accessed this location** Highway milepost, nearest town or point of interest	**Number of hunting days** How many days did you hunt at this location?	**Hunting Location**
Example: Denali Highway	*Cantwell*	*6*	0
			1
			2
			3
			4
			5
			6
			7
			8

If you hunted at more than 8 locations and would like to complete additional trip summaries, you can complete them online at www.alaskarecreationsurvey.com or check the box to the right and we will mail you additional summaries once we receive this completed questionnaire.

☐ Yes, please send me additional summaries

When did you hunt at each location?

Please write the number of each **Hunting Location** in the calendar below. The **Hunting Location** numbers are presented in the column to the left. Write in the **Hunting Location** number for each day that you hunted at that location between June and November 2012.

2012

June

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

July

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15 0	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

August

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

September

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14 0	15 0
16 0	17	18	19	20	21	22
23 30	24	25	26	27	28	29 0

October

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17 0	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

November

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

12. What is the total number of days you hunted recreationally between June and November 2012? _____ days

PLEASE CONTINUE TO NEXT PAGE

Recreation in the Study Area

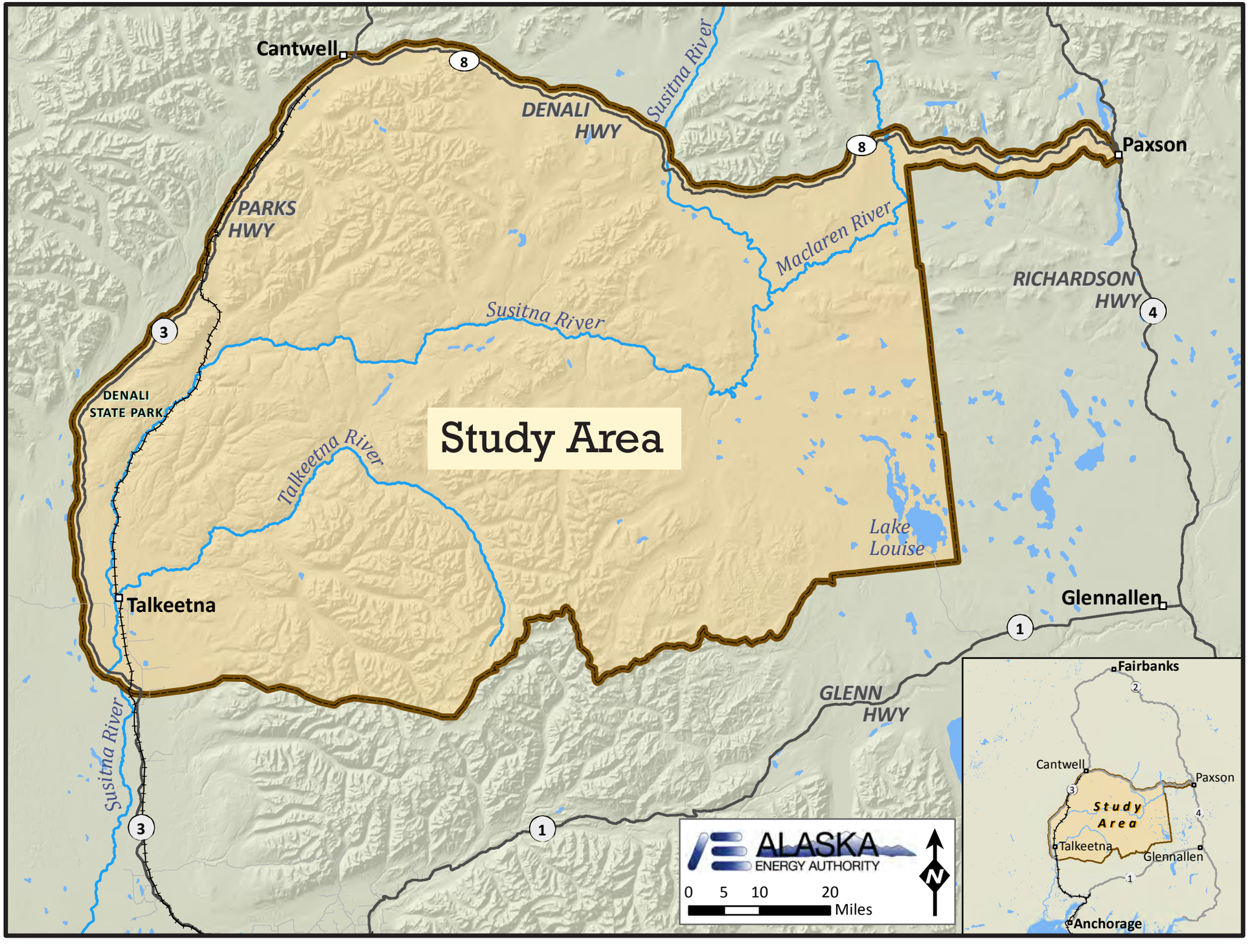
13. Do you live within the Study Area highlighted on the map on page 7? 1 ☐ Yes (skip to Q14a) 2 ☐ No

14. Did you visit the Study Area for any outdoor recreational activities between May 2012 and April 2013?

1 ☐ Yes (continue to Q14a-c) 2 ☐ No (skip to Q33 on page 14)

Recreation Activities	RECREATION Between May 2012 and April 2013		Most Recent Trip
	14a. Check box for each activity that you participated in within the Study Area.	**14b.** About how many days (all or part of a day) did you participate in this activity within the Study Area?	**14c.** What activities did you participate in on your most recent visit to the Study Area?
A. Riding the Alaska Railroad	1 ☐	# _____ days	1 ☐
B. Bird watching	2 ☐	# _____ days	2 ☐
C. Bicycling	3 ☐	# _____ days	3 ☐
D. Camping - remote tent	4 ☐	# _____ days	4 ☐
E. Camping - RV/cabin/campground/roadside tent	5 ☐	# _____ days	5 ☐
F. Collecting berries/mushrooms	6 ☐	# _____ days	6 ☐
G. Dog sledding	7 ☐	# _____ days	7 ☐
H. Fishing for salmon	8 ☐	# _____ days	8 ☐
I. Fishing for other species	9 ☐	# _____ days	9 ☐
J. Flightseeing	10 ☐	# _____ days	10 ☐
K. Hunting	11 ☐	# _____ days	11 ☐
L. Hiking/backpacking	12 ☐	# _____ days	12 ☐
M. Motorized boating (jet, prop, air)	13 ☐	# _____ days	13 ☐
N. Rafting/canoeing/kayaking/pack raft (non-motorized)	14 ☐	# _____ days	14 ☐
O. Riding ATV's	15 ☐	# _____ days	15 ☐
P. Skiing	16 ☐	# _____ days	16 ☐
Q. Snow machining	17 ☐	# _____ days	17 ☐
R. Snowshoeing	18 ☐	# _____ days	18 ☐
S. Walking/running	19 ☐	# _____ days	19 ☐
T. Wildlife viewing	20 ☐	# _____ days	20 ☐
Please write in any additional recreational activities you participated in while in the Study Area between May 2012 and April 2013			
U. Specify other activity_____	21 ☐	# _____ days	21 ☐
V. Specify other activity_____	22 ☐	# _____ days	22 ☐
W. Specify other activity_____	23 ☐	# _____ days	23 ☐
X. Specify other activity_____	24 ☐	# _____ days	24 ☐

PLEASE CONTINUE TO NEXT PAGE


Cantwell
Susitna River
DENALI HWY
Paxson
PARKS HWY
Maclaren River
RICHARDSON HWY
Susitna River
DENALI STATE PARK
Study Area
Talkeetna River
Lake Louise
Talkeetna
Glennallen
GLENN HWY
Susitna River
ALASKA ENERGY AUTHORITY
0 5 10 20
Miles
N
Fairbanks
Cantwell
Paxson
Study Area
Talkeetna
Glennallen
Anchorage

Your Most Recent Outing to the Study Area

15. What was your primary recreational activity on your most recent outing in the Study Area?

CHECK ONLY ONE ACTIVITY

01 ☐ Riding the Alaska Railroad
02 ☐ Bird watching
03 ☐ Bicycling
04 ☐ Camping-remote tent
05 ☐ Camping-RV/cabin/campground/roadside tent
06 ☐ Collecting berries/mushrooms
07 ☐ Dog sledding
08 ☐ Fishing for salmon
09 ☐ Fishing for other species
10 ☐ Flightseeing
11 ☐ Hunting
12 ☐ Hiking/backpacking
13 ☐ Motorized boating (jet, prop, air)
14 ☐ Rafting/canoeing/kayaking/pack raft (non-motorized)
15 ☐ Riding ATV's
16 ☐ Skiing
17 ☐ Snow machining
18 ☐ Snowshoeing
19 ☐ Walking/running
20 ☐ Wildlife viewing
21 ☐ Other activity_____

15a. (IF HUNTING WAS YOUR PRIMARY ACTIVITY)
Which of these was your primary harvest objective? (Do not include trapping.)

Please select only one.

01 ☐ Caribou – Federal subsistence
02 ☐ Caribou – State draw permit one bull
03 ☐ Caribou – State registration permit any caribou
04 ☐ Caribou – State community harvest
05 ☐ Caribou – Non-resident
06 ☐ Moose – Federal subsistence
07 ☐ Moose – State draw permit any bull
08 ☐ Moose – State draw permit cow
09 ☐ Moose – State community harvest
10 ☐ Moose – State harvest ticket
11 ☐ Moose – Non-resident
12 ☐ Bear (brown or black)
13 ☐ Waterfowl
14 ☐ Upland game birds
15 ☐ Other _____

16. Where did you participate in your primary activity on your most recent outing in the Study Area? **Grid #**_____
(Please write in the grid number/s found on the map on page 10.)

17. Had you ever been to the Study Area for this primary activity prior to your most recent trip?
1 ☐ Yes 2 ☐ No (skip to Q18 on the next page) 3 ☐ Live in study area

17a. What year did you first visit the study area for this activity? Year _____
(If you live within the Study Area, please indicate what year you moved there.)

17b. In general, how often do you participate in this activity in the Study Area?

01 ☐ More than 10 times per year
02 ☐ Two to ten times per year
03 ☐ Once every year
04 ☐ Once every few years
05 ☐ Less than once every few years

PLEASE CONTINUE TO NEXT PAGE

Your Most Recent Outing to the Study Area

18. Did you hire a guide for any portion of your most recent outing to the Study Area? 01 ☐ Yes 02 ☐ No (skip to Q19)

18a. Did you hire the guide for your primary activity? 01 ☐ Yes 02 ☐ No

19. On your last outing, did you spend a night anywhere in the Study Area (besides your primary residence if you live in the Study Area)**?**

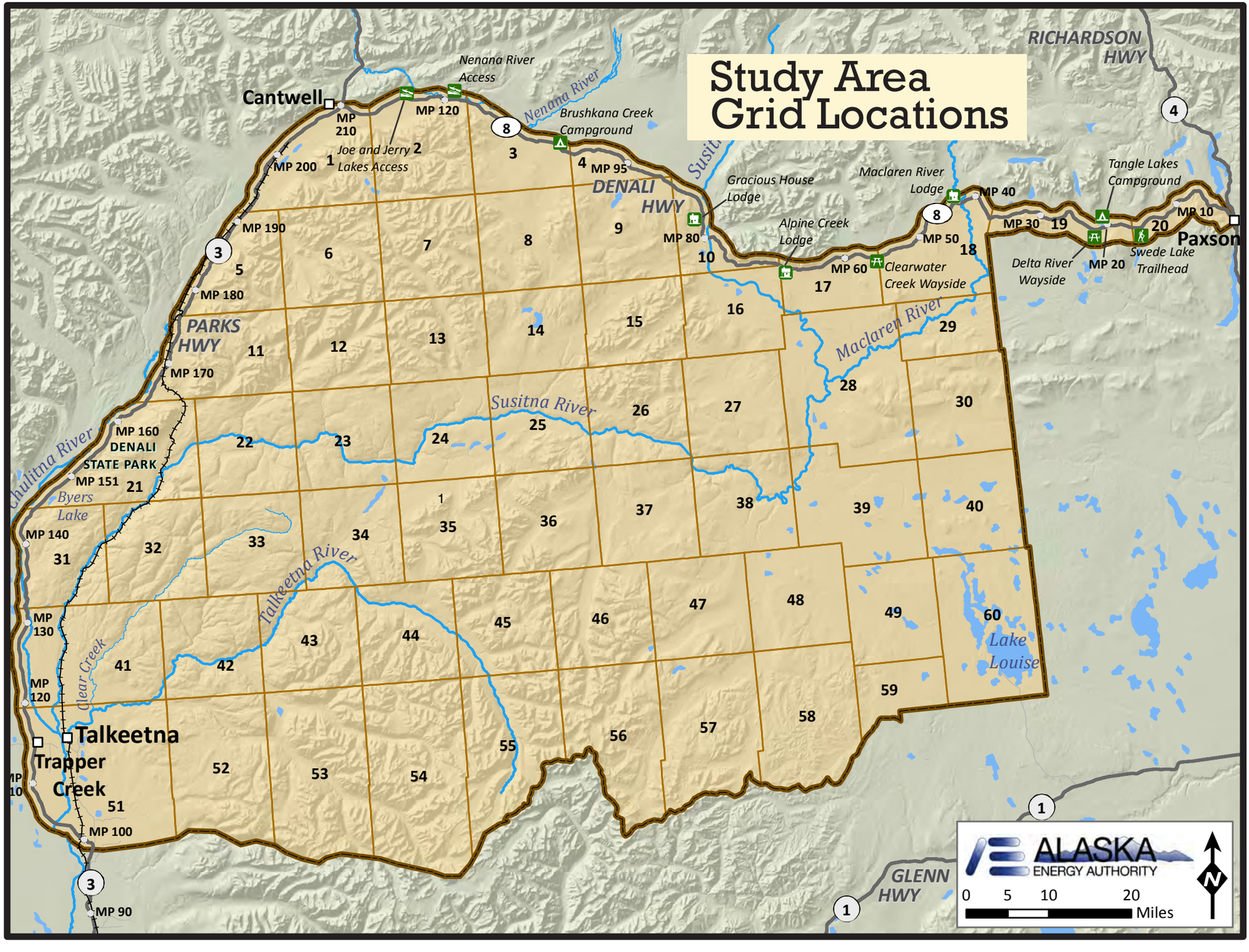
01 ☐ Yes 02 ☐ No (skip to Q22 on page 11)

20. How many nights did you spend in the Study Area on your last outing? # _____ (If you live in the Study Area, count only nights away from home.)

21. Please record how many nights you spent in each location below and the type of lodging. For additional locations, write in the location name and the grid number found on the map on page 10.

	Grid Number	Hotel/motel/ B&B	Lodge	Private home	Established campground (RV/tent/etc.)	Undeveloped/on-road RV/ camper/ car/ tent	Remote camping (tent)	Other
EXAMPLE: Denali Hwy Mile 45	*#3*					*4*	*2*	
Talkeetna	#51							
Trapper Creek	#51							
Byers Lake	#21							
Cantwell	#1							
Brushkana Creek Campground	#3							
Tangle Lakes	#19							
Lake Louise	#60							
Additional location:								
Additional location:								
Additional location:								
Additional location:								
Additional location:								
Additional location:								

PLEASE CONTINUE TO NEXT PAGE


Study Area
Grid Locations
Cantwell
Nenana River Access
Nenana River
Brushkana Creek Campground
Joe and Jerry Lakes Access
MP 210
MP 200
MP 190
MP 180
MP 170
MP 160
DENALI STATE PARK
MP 151
MP 140
MP 130
MP 120
MP 100
MP 90
MP 120
MP 95
MP 80
MP 60
MP 50
MP 40
MP 30
MP 20
MP 10
DENALI HWY
PARKS HWY
RICHARDSON HWY
GLENN HWY
Gracious House Lodge
Alpine Creek Lodge
Clearwater Creek Wayside
Maclaren River Lodge
Tangle Lakes Campground
Delta River Wayside
Swede Lake Trailhead
Paxson
Susitna River
Maclaren River
Talkeetna River
Clear Creek
Byers Lake
Lake Louise
Talkeetna
Trapper Creek
ALASKA ENERGY AUTHORITY
0 5 10 20
Miles
N

Your Most Recent Outing to the Study Area

22. Including yourself, how many people were traveling in your immediate PARTY, sharing expenses such as food, lodging, and transportation on your most recent outing in the Study Area?

_____ in party

23. Including yourself, what was the total number of people traveling in your GROUP on your most recent outing in the Study Area?
(A group is defined as friends or relatives traveling with you, but not necessarily sharing expenses.)

_____ in group

24. Was there anyone in your party with a disability or special need related to outdoor recreation activities?

1 ☐ Yes → **24a. Specifically, what type of needs do they have?**
2 ☐ No

1 ☐ Wheelchair access to trails
2 ☐ Wheelchair access to facilities
3 ☐ Other: _____

25. On your last outing in the Study Area, did you feel very crowded, somewhat crowded, or not crowded?

01 ☐ Very crowded 02 ☐ Somewhat crowded 03 ☐ Not crowded (skip to Q26)

25a. If somewhat or very crowded: Do you recall any places in particular where you felt crowded? 1 ☐ No (continue to Q26)
Please write in the name of the location/s below and the grid numbers of those locations (Map on page 10).

Place names	**Grid #**
_____	_____
_____	_____
_____	_____

26. On your last outing did you experience any conflict with other individuals or groups that negatively impacted your recreation experience in the Study Area?
1 ☐ Yes 2 ☐ No (skip to Q27)

26a. What type of activity was the other individual or group engaged in? (This could be recreation or other activity.)

_____

26b. What specifically caused the conflict?

_____

27. What signs, if any, of infrastructure or human activity detracted from the scenic quality within the Study Area? (Check all that apply)

01 ☐ Nothing
02 ☐ Communication towers
03 ☐ Power lines
04 ☐ Railroad
05 ☐ Trash
06 ☐ Roads
07 ☐ Trails
08 ☐ Roadside camping areas
09 ☐ Vehicles (RV, ATV, motorcycles, cars, etc.)
10 ☐ People
11 ☐ Other: _____

PLEASE CONTINUE TO NEXT PAGE

Your Most Recent Outing to the Study Area

28. What noises, if any, detracted from your enjoyment of the Study Area? (Check all that apply)

01 ☐ Nothing
02 ☐ Gunshots
03 ☐ Airplanes
04 ☐ Jet aircraft sonic boom
05 ☐ Helicopters
06 ☐ Boats
07 ☐ Four wheeler/ATV
08 ☐ Cars/trucks/RV
09 ☐ Noise from other people
10 ☐ Heavy equipment (road work, quarries, construction)
11 ☐ Chainsaw
12 ☐ Other_____

29. On your most recent outing, did you travel more than one-half mile from a trailhead or main road into the Study Area on foot, in an off-road vehicle, by watercraft, or by a small airplane that landed in a remote part of the Study Area?

1 ☐ Yes 2 ☐ No (skip to Q30)

29a. Which modes of transportation did you use to travel more than one-half mile into the Study Area? (Check all that apply)

01 ☐ Walked/hiked
02 ☐ Off-road vehicle
03 ☐ Power boat
04 ☐ Non-motorized watercraft (canoe, kayak, raft etc.)
05 ☐ Airplane (Landed more than one-half mile into the Study Area.)
06 ☐ Other: _____

29b. If you traveled by foot or off-road vehicle, did you travel on established trails, off-trail, or both?

1 ☐ Established trails 2 ☐ Off-trail 3 ☐ Both 4 ☐ Did not travel by foot or off-road vehicle

29c. Did you camp in the Study Area more than one-half mile from a trailhead or main road? 1 ☐ Yes 2 ☐ No

30. When considering your most recent outing, how important were the following factors in your decision to recreate in the Study Area? (Please circle your answer)

	Very important	Somewhat important	Not important
a. Wildlife viewing opportunities	1	2	3
b. The opportunity to hunt	1	2	3
c. The opportunity to fish	1	2	3
d. The opportunity to experience remote Alaska	1	2	3
e. The opportunity to experience solitude	1	2	3
f. The opportunity to challenge yourself	1	2	3
g. The scenery	1	2	3

PLEASE CONTINUE TO NEXT PAGE

Your Most Recent Outing to the Study Area

31. Do you agree or disagree with each of the following statements? (Please circle your answer)

I recreate in the Study Area because...	*Strongly Agree*	*Agree*	*Neutral*	*Disagree*	*Strongly Disagree*
a. This area means a lot to me.	1	2	3	4	5
b. No other place can compare to this area.	1	2	3	4	5
c. Recreating here is more important to me than doing it in any other place.	1	2	3	4	5
d. This area is close to my home.	1	2	3	4	5
e. My family has been coming to this area for generations.	1	2	3	4	5

32. Below is a list of outdoor recreation facilities, infrastructure, and sources of information in the Study Area. Please indicate whether there should be more, less or the same in the future. (Please circle your answer)

	A lot more	A little more	The same	A little less	A lot less
a. Maintained roads	1	2	3	4	5
b. Designated parking areas	1	2	3	4	5
c. Roadside toilets	1	2	3	4	5
d. RV accessible sites at campgrounds	1	2	3	4	5
e. Trail maps	1	2	3	4	5
f. Designated trails for non-motorized use	1	2	3	4	5
g. Designated trails for off-road vehicles	1	2	3	4	5
h. Directional road signs	1	2	3	4	5
i. Visitor information	1	2	3	4	5
j. Visitor centers	1	2	3	4	5
k. Public use cabins	1	2	3	4	5
l. Boat launches	1	2	3	4	5
m. Facilities for the disabled	1	2	3	4	5

PLEASE CONTINUE TO NEXT PAGE

Demographics

33. In what year were you born? 19_____

34. Your gender: 1 ☐ Male 2 ☐ Female

35. Are you married? 1 ☐ Yes 2 ☐ No

36. Including yourself, how many people live in your household for at least six months of the year? #_____

37. Do children under the age of 18 live in your household? 1 ☐ Yes 2 ☐ No

38. Which category best describes your household income before taxes for 2012?

01 ☐ Less than $20,000
02 ☐ $20,001 to $35,000
03 ☐ $35,001 to $50,000
04 ☐ $50,001 to $75,000
05 ☐ $75,001 to $99,999
06 ☐ $100,000 to $149,999
07 ☐ $150,000 or more

39. Which category best describes your race?

01 ☐ White
02 ☐ Black or African American
03 ☐ Hispanic
04 ☐ American Indian or Alaska Native
05 ☐ Asian
06 ☐ Native Hawaiian or Other Pacific Islander
07 ☐ Some other race

40. What is the highest degree or level of school you have COMPLETED?

01 ☐ Less than 9th grade
02 ☐ 9th to 12th grade, no diploma
03 ☐ High school graduate, GED, or alternative
04 ☐ Some college, no degree
05 ☐ Associate's degree
06 ☐ Bachelor's degree
07 ☐ Graduate or professional degree

41. Are you a professional guide for any recreation activities?

1 ☐ Yes → **Q 41a. What type of activities do you guide?** (Check all that apply)
2 ☐ No (continue to Q42)

01 ☐ Snow machining
02 ☐ Fishing
03 ☐ Hunting
04 ☐ Boat/float tour
05 ☐ Other_____

42. Do you or your family own a cabin in Alaska?

1 ☐ Yes → **Q42a. Approximately where is your cabin located?** _____
2 ☐ No

Cabin location

43. As part of this recreation study we may be conducting additional research. Would you be willing to participate in a follow-up survey? Your contact information will not be used or shared for any other purpose.

1 ☐ Yes 2 ☐ No

43a. To follow up with you, may we have your email address or phone number?

Email address or phone number_____

Thank you for participating in this survey!


PASSCODE

ATTACHMENT D-2

2013 ALASKA OUTDOOR RECREATION SURVEY (OCTOBER)

2013 Alaska Outdoor Recreation SURVEY









Alaska Outdoor Recreation

Thank you for helping us learn more about outdoor recreation activities in Alaska. The next four pages contain questions about your fishing, boating, hunting, and snowmaching outings. Below is a tutorial of how to complete the questions. The text in red illustrates the type of information that you would provide as answers to your questions. **Please review this tutorial before going to Question 1 on the next page.**

Tutorial for your review and reference

Sport Fishing Anywhere In Alaska

1. Have you **ever** sport fished in Alaska? **(Circle the correct choice)**

   Yes ☛ What type of species do you target **(circle all that apply)**? Halibut Rockfish Trout Coho Sockeye Chinook Chum Pink salmon Grayling Dolly Varden/Arctic char Other

   No ☛ GO TO NEXT PAGE

2. In the table below, please list all of the locations where you sport fished between May and October 2013. If you **did not** fish on any day between May and October 2013, please check this box ☐ and go to the next page.

Fishing between May and October 2013

Describe the waterbody where you fished Please be as specific as possible.	**Write the name where you accessed this location** Boat launch, nearest town or point of interest	**Number of fishing days** How many days did you fish at this location?	**Fishing Location**
Kenai River	*Cooper Landing Boat Launch*	*6*	0
Kenai River	*Kenai City Boat Launch*	*3*	1
Little Susitna River	*Parks Highway*	*2*	2
Prince William Sound	*Whittier Boat Harbor*	*1*	3
			4
			5
			6
			7

If you fished at more than 7 locations and would like to complete additional trip summaries, you can complete them online at *www.alaskarecreationsurvey.com/ExtraPages.pdf* or check the box to the right and we will mail you additional summaries once we receive this completed questionnaire.

☐ Yes, please send me additional summaries

When did you fish at each location?

Please write the number of each **Fishing Location** in the calendar below. **The Fishing Location** numbers are presented in the column to the left. Write in the **Fishing Location** number for each day that you fished at that location between May and October 2013.

May 2013

Sun	Mon	Tues	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

June 2013

Sun	Mon	Tues	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9 0	10	11	12	13	14	15
16	17	18 1	19	20	21 0	22
23	24	25	26	27	28	29
30						

July 2013

Sun	Mon	Tues	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18 0	19	20
21	22	23 1	24	25	26	27
28	29	30	31			

August 2013

Sun	Mon	Tues	Wed	Thu	Fri	Sat
				1	2	3
4	5	6 1	7	8	9	10
11	12 2	13	14	15	16	17
18	19	20	21 2	22	23	24
25	26	27	28	29	30	31

September 2013

Sun	Mon	Tues	Wed	Thu	Fri	Sat
1	2	3	4	5 0	6	7
8	9 3	10	11	12	13	14
15	16	17	18 0	19	20	21
22	23	24	25	26	27	28
29	30					

October 2013

Sun	Mon	Tues	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10 0	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

3. What is the total number of days you fished between May and October 2013? *12* days

PLEASE CONTINUE TO NEXT PAGE

Sport Fishing Anywhere In Alaska

If you have any questions on how to complete this summary, please refer to the tutorial on Page 1.

1. Have you **ever** sport fished in Alaska? **(Circle the correct choice)**

   Yes ☛ What type of species do you target **(circle all that apply)**? Halibut Rockfish Trout Coho Sockeye Chinook Chum Pink salmon Grayling Dolly Varden/Arctic char Other

   No ☛ GO TO NEXT PAGE

2. In the table below, please list all of the locations where you sport fished between May and October 2013. If you **did not** fish on any day between May and October 2013, please check this box ☐ and go to Question 4 on the next page.

Sport Fishing between May and October 2013

Describe the waterbody where you fished Please be as specific as possible.	**Write the name where you accessed this location** Boat launch, nearest town or point of interest	**Number of fishing days** How many days did you fish at this location?	**Fishing Location**
Example: Kenai River	*Cooper Landing Boat Launch*	*10*	0
			1
			2
			3
			4
			5
			6
			7
If you sport fished at more than 7 locations and would like to complete additional trip summaries, you can complete them online at *www.alaskarecreationsurvey.com/ExtraPages.pdf* or check the box to the right and we will mail you additional summaries once we receive this completed questionnaire.			☐ Yes, please send me additional summaries

When did you fish at each location?

Please write the number of each **Fishing Location** in the calendar below. The **Fishing Location** numbers are presented in the column to the left. Write in the **Fishing Location** number for each day that you fished at that location between May and October 2013.

May 2013

Sun	Mon	Tues	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8 0	9 0	10 0	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

June 2013

Sun	Mon	Tues	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15 0
16	17	18	19	20	21	22
23 0	24	25	26	27	28	29
30						

July 2013

Sun	Mon	Tues	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11 0	12	13
14	15	16	17	18	19	20
21	22 0	23	24	25	26	27
28	29	30	31			

August 2013

Sun	Mon	Tues	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

September 2013

Sun	Mon	Tues	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21 0
22 0	23	24	25	26	27	28
29	30					

October 2013

Sun	Mon	Tues	Wed	Thu	Fri	Sat
		1	2	3 0	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

3. What is the total number of days you sport fished between May and October 2013? _____ days

PLEASE CONTINUE TO NEXT PAGE

Recreational Boating Anywhere In Alaska

If you have any questions on how to complete this summary, please refer to the tutorial on Page 1.

4. **Other than fishing**, have you **ever** gone **recreational boating** in Alaska? **(Circle the correct choice)**

   Yes ☛ What type of recreational boating do you do **(circle all that apply)**?
   Canoeing Kayaking Motor/Air boating Drift boating Rafting Sailing Other

   No ☛ GO TO NEXT PAGE

5. In the table below, please list all of the locations where you went recreational boating between May and October 2013. If you **did not** go recreational boating on any day between May and October 2013, please check this box ☐ and go to Question 7 on the next page.

Recreational Boating between May and October 2013

Describe the waterbody where you went recreational boating Please be as specific as possible. If you went fishing, please complete a fishing summary.	**Write the name where you accessed this location** Boat launch, nearest town or point of interest	**Number of recreational boating days** How many days did you go recreational boating at this location?	**Recreational Boating Location**
Example: Valdez Harbor	*Valdez*	*9*	0
			1
			2
			3
			4
			5
			6
			7

If you went recreational boating at more than 7 locations and would like to complete additional trip summaries, you can complete them online at *www.alaskarecreationsurvey.com/ExtraPages.pdf* or check the box to the right and we will mail you additional summaries once we receive this completed questionnaire.

☐ Yes, please send me additional summaries

When did you go recreational boating at each location?
Please write the number of each **Recreation Boating Location** in the calendar below. The **Recreational Boating Location** numbers are presented in the column to the left. Write in the **Recreational Location** number for each day that you went recreational boating at that location between May and October 2013.

May 2013

Sun	Mon	Tues	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24 0	25 0
26 0	27	28	29	30	31	

June 2013

Sun	Mon	Tues	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

July 2013

Sun	Mon	Tues	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10 0	11	12	13
14	15	16	17	18	19	20 0
21	22	23	24	25	26	27
28	29 0	30	31			

August 2013

Sun	Mon	Tues	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17 0
18 0	19	20	21	22	23	24
25	26	27	28	29	30	31

September 2013

Sun	Mon	Tues	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

October 2013

Sun	Mon	Tues	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	0 7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

6. What is the total number of days you went recreational boating between May and October 2013? _____ days

PLEASE CONTINUE TO NEXT PAGE

Hunting Anywhere In Alaska

If you have any questions on how to complete this summary, please refer to the tutorial on Page 1.

7. Have you **ever** hunted in Alaska? **(Circle the correct choice)**

Yes ☛ What type of game do you hunt **(circle all that apply)?**
Big game Small game Upland birds Waterfowl Other

No ☛ GO TO NEXT PAGE

8. In the table below, please list all of the locations where you hunted between May and October 2013. If you **did not** go hunting on any day between May and October 2013, please check this box ☐ and go to Question 10 on the next page.

Hunting between May and October 2013

Describe the location where you hunted Please be as specific as possible.	**Write the name where you accessed this location** Highway milepost, nearest town or point of interest	**Number of hunting days** How many days did you hunt at this location?	**Hunting Location**
Example: Denali Highway	*Cantwell*	*6*	0
			1
			2
			3
			4
			5
			6
			7
			8

If you hunted at more than 8 locations and would like to complete additional trip summaries, you can complete them online at *www.alaskarecreationsurvey.com/ExtraPages.pdf* or check the box to the right and we will mail you additional summaries once we receive this completed questionnaire.

☐ Yes, please send me additional summaries

When did you hunt at each location?
Please write the number of each **Hunting Location** in the calendar below. The **Hunting Location** numbers are presented in the column to the left. Write in the **Hunting Location** number for each day that you hunted at that location between May and October 2013.

May 2013

Sun	Mon	Tues	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

June 2013

Sun	Mon	Tues	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16 0	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

July 2013

Sun	Mon	Tues	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

August 2013

Sun	Mon	Tues	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16 0	17 0
18 0	19	20	21	22	23	24
25	26	27	28	29	30	31 0

September 2013

Sun	Mon	Tues	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18 0	19	20	21
22	23	24	25	26	27	28
29	30					

October 2013

Sun	Mon	Tues	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

9. What is the total number of days you hunted between May and October 2013? _____ days

PLEASE CONTINUE TO NEXT PAGE

Recreational Snow Machining Anywhere In Alaska

If you have any questions on how to complete this summary, please refer to the tutorial on Page 1.

10. Have you **ever** snow machined recreationally in Alaska? **(Circle the correct choice)**

Yes ☛ GO TO QUESTION 11 No ☛ GO TO NEXT PAGE

11. In the table below, please list all of the locations where you snow machined recreationally between May and October 2013. If you **did not** snow machine on any day between May and October 2013, please check this box ☐ and go to the next page.

Snow Machining between May and October 2013

Describe the location where you snow machined Please be as specific as possible.	**Write the name where you accessed this location** Trailhead name, nearest town or point of interest, highway milepost	**Number of snow machining days** How many days did you snow machine at this location?	**Snow Machining Location**
Example: Turnagain Pass Trail	*Trailhead in Sunnyside*	*6*	0
			1
			2
			3
			4
			5
			6
			7
			8
			9

If you snow machined at more than 9 locations and would like to complete additional trip summaries, you can complete them online at *www.alaskarecreationsurvey.com/ExtraPages.pdf* or check the box to the right and we will mail you additional summaries once we receive this completed questionnaire.

☐ Yes, please send me additional summaries

When did you snow machine at each location?

Please write the number of each **Snow Machining Location** in the calendar below. The **Snow Machining Location** numbers are presented in the column to the left. Write in the **Snow Machining Location** number for each day that you snow machined at that location between May and October 2013.

May 2013

Sun	Mon	Tues	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30 0	31	

June 2013

Sun	Mon	Tues	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

July 2013

Sun	Mon	Tues	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

August 2013

Sun	Mon	Tues	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

September 2013

Sun	Mon	Tues	Wed	Thu	Fri	Sat
1 0	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20 0	21
22	23	24	25	26	27	28
29	30					

October 2013

Sun	Mon	Tues	Wed	Thu	Fri	Sat
		1	2	3	4	5
0 6	7	8	9	10 0	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25 0	26
27	28	29	30	31		

PLEASE CONTINUE TO NEXT PAGE

12. What is the total number of days you snow machined recreationally between May and October 2013? _____ days

Recreation in the Study Area

Next, we would like to ask you about all of your outdoor recreational activity in a specific study area. A map displaying the Study Area is found on the next page (page 7).

13. Do you live within the Study Area highlighted on the map on page 7?

1 ☐ Yes 2 ☐ No

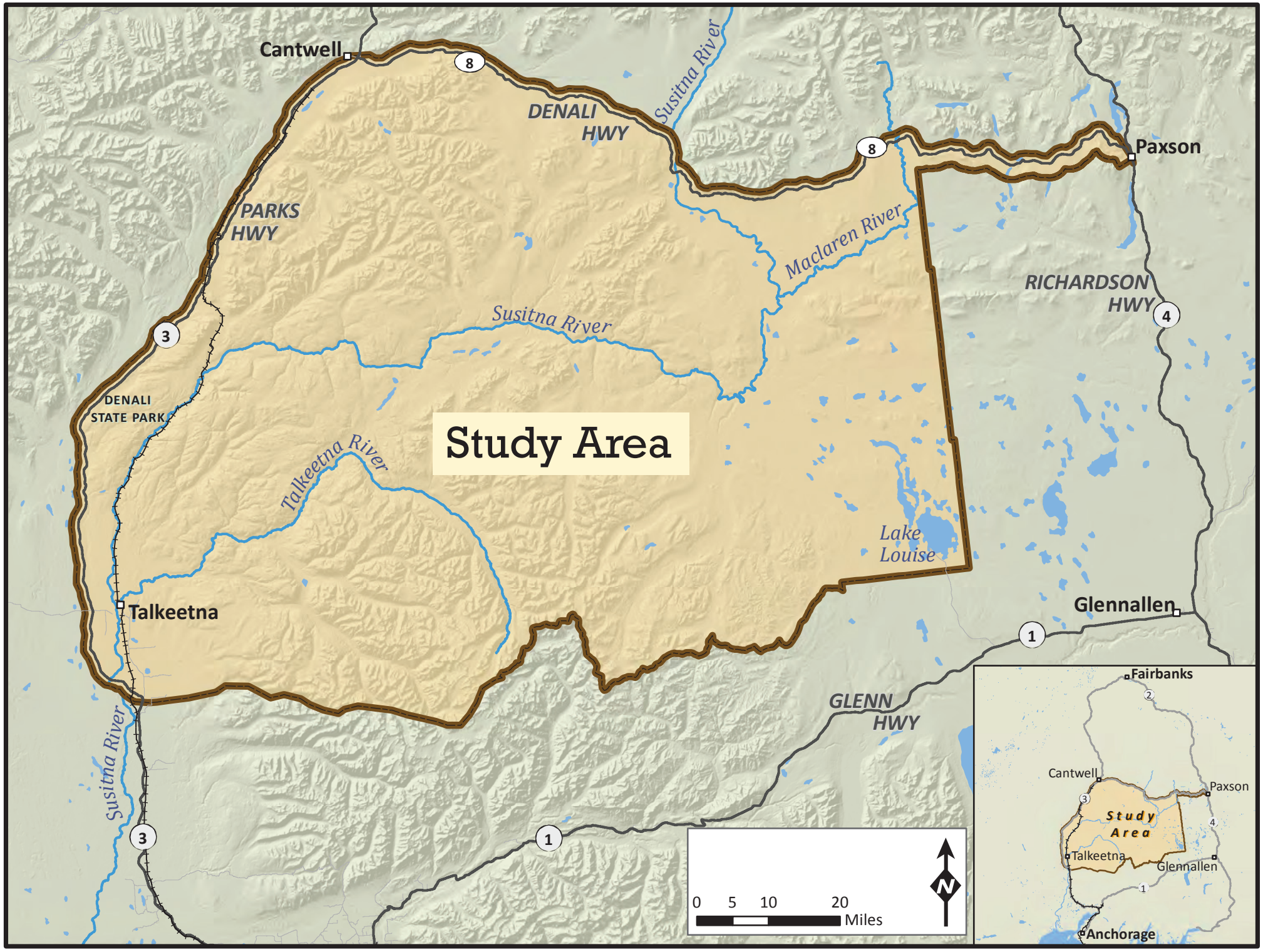
14. Between November 2012 and October 2013, how many total days did you recreate in the Study Area?

_____ of days (continue to Q14a-c)

2 ☐ Did not recreate in the Study Area (skip to Q33)

Recreation Activities	RECREATION Between November 2012 and October 2013 — 14a. Check box for each activity that you participated in within the Study Area.	14b. About how many days (all or part of a day) did you participate in this activity within the Study Area?	Most Recent Trip Between November 2012 and October 2013 — 14c. What activities did you participate in on your most recent visit to the Study Area?
A. Riding the Alaska Railroad	1 ☐	# _____ days	1 ☐
B. Bird watching	2 ☐	# _____ days	2 ☐
C. Bicycling	3 ☐	# _____ days	3 ☐
D. Camping - remote tent/cabin	4 ☐	# _____ days	4 ☐
E. Camping - RV/campground/roadside	5 ☐	# _____ days	5 ☐
F. Collecting berries/mushrooms	6 ☐	# _____ days	6 ☐
G. Dog sledding	7 ☐	# _____ days	7 ☐
H. Fishing for salmon	8 ☐	# _____ days	8 ☐
I. Fishing for other species	9 ☐	# _____ days	9 ☐
J. Flightseeing	10 ☐	# _____ days	10 ☐
K. Hunting	11 ☐	# _____ days	11 ☐
L. Hiking/backpacking	12 ☐	# _____ days	12 ☐
M. Motorized boating (jet, prop, air)	13 ☐	# _____ days	13 ☐
N. Rafting/canoeing/kayaking/pack raft (non-motorized)	14 ☐	# _____ days	14 ☐
O. Riding ATV's	15 ☐	# _____ days	15 ☐
P. Skiing	16 ☐	# _____ days	16 ☐
Q. Snow machining	17 ☐	# _____ days	17 ☐
R. Snowshoeing	18 ☐	# _____ days	18 ☐
S. Walking/running	19 ☐	# _____ days	19 ☐
T. Wildlife viewing	20 ☐	# _____ days	20 ☐
Please write in any additional recreational activities you participated in while in the Study Area between November 2012 and October 2013			
U. Specify other activity_____	21 ☐	# _____ days	21 ☐
V. Specify other activity_____	22 ☐	# _____ days	22 ☐

PLEASE CONTINUE TO NEXT PAGE


Cantwell
8
DENALI HWY
Susitna River
8
Paxson
PARKS HWY
Maclaren River
RICHARDSON HWY
4
3
Susitna River
DENALI STATE PARK
Study Area
Talkeetna River
Lake Louise
Talkeetna
Glennallen
1
GLENN HWY
Susitna River
3
1
0 5 10 20
Miles
N
Fairbanks
2
Cantwell
Paxson
3
Study Area
4
Talkeetna
Glennallen
1
Anchorage

Your Most Recent Outing to the Study Area Between November 2012 and October 2013

15. What was your primary recreational activity on your most recent outing in the Study Area?

CHECK ONLY ONE PRIMARY ACTIVITY for your most recent activity in the study area between November 2012 and October 2013

01 ☐ Riding the Alaska Railroad
02 ☐ Bird watching
03 ☐ Bicycling
04 ☐ Camping-remote tent/cabin
05 ☐ Camping-RV/campground/roadside
06 ☐ Collecting berries/mushrooms
07 ☐ Dog sledding
08 ☐ Fishing for salmon
09 ☐ Fishing for other species
10 ☐ Flightseeing
11 ☐ Hunting
12 ☐ Hiking/backpacking
13 ☐ Motorized boating (jet, prop, air)
14 ☐ Rafting/canoeing/kayaking/pack raft (non-motorized)
15 ☐ Riding ATV's
16 ☐ Skiing
17 ☐ Snow machining
18 ☐ Snowshoeing
19 ☐ Walking/running
20 ☐ Wildlife viewing
21 ☐ Other activity_____

15a. (IF HUNTING WAS YOUR PRIMARY ACTIVITY)
Which of these was your primary harvest objective? (Do not include trapping.)

Please select only one.

01 ☐ Caribou – Federal subsistence
02 ☐ Caribou – State draw permit one bull
03 ☐ Caribou – State registration permit any caribou
04 ☐ Caribou – State community harvest
05 ☐ Caribou – Non-resident
06 ☐ Moose – Federal subsistence
07 ☐ Moose – State draw permit any bull
08 ☐ Moose – State draw permit cow
09 ☐ Moose – State community harvest
10 ☐ Moose – State harvest ticket
11 ☐ Moose – Non-resident
12 ☐ Bear (brown or black)
13 ☐ Waterfowl
14 ☐ Upland game birds
15 ☐ Other _____

16. Where did you participate in your primary activity on your most recent outing in the Study Area? **Grid #**_____
(Please write in the grid number/s found on the map **on page 10.**)

17. Had you ever been to the Study Area for this primary activity prior to your most recent trip?
1 ☐ Yes 2 ☐ No (skip to Q18 on the next page) 3 ☐ Live in study area

17a. What year did you first visit the study area for this primary activity? Year _____
(If you live within the Study Area, please indicate what year you moved there.)

17b. In general, how often do you participate in this primary activity in the Study Area?

01 ☐ More than 10 times per year
02 ☐ Two to ten times per year
03 ☐ Once every year
04 ☐ Once every few years
05 ☐ Less than once every few years

PLEASE CONTINUE TO NEXT PAGE

Your Most Recent Outing to the Study Area Between November 2012 and October 2013

18. Did you hire a guide for any portion of your most recent outing to the Study Area? 01 ☐ Yes 02 ☐ No (skip to Q19)

18a. Did you hire the guide for your primary activity? 01 ☐ Yes 02 ☐ No

19. On your most recent outing to the Study Area between November 2012 and October 2013, did you spend any nights in the Study Area (besides your primary residence if you live in the Study Area)**?**

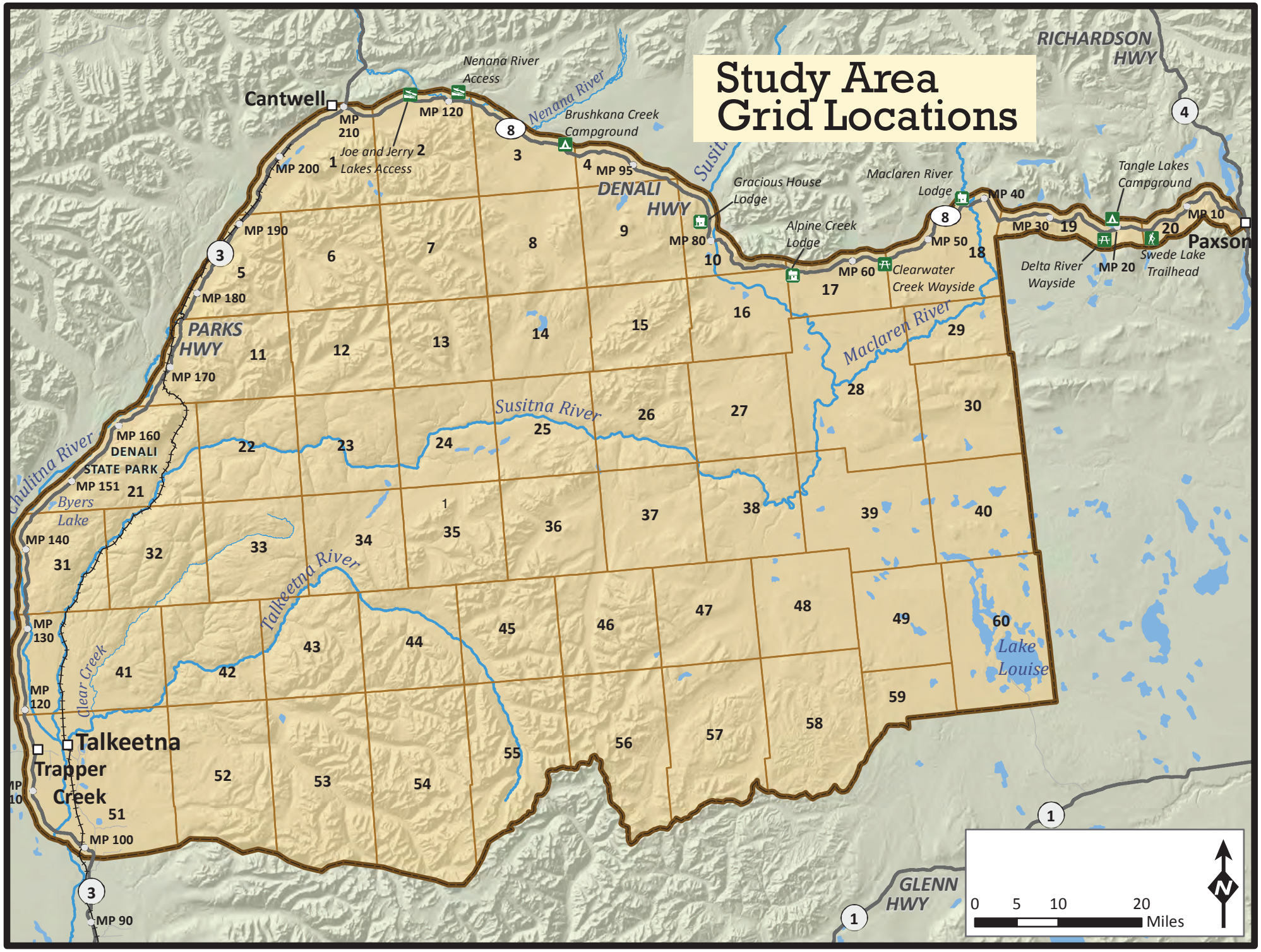
01 ☐ Yes 02 ☐ No (skip to Q22 on page 11)

20. How many nights did you spend in the Study Area on your most recent outing? # _____ (If you live in the Study Area, count only nights away from home.)

21. Please record the number of nights you spent in each location below and the type of lodging used during your most recent outing. For additional locations, write in the location name and the grid number found on the map on page 10. ***In the example below, the party spent 6 nights on the Denali Highway, including 4 nights in an undeveloped campground and 2 nights in a remote tent.***

	Grid Number	Hotel/motel/ B&B	Lodge	Private home	Established campground (RV/tent/etc.)	Undeveloped/ roadside RV/ camper/car/tent	Remote tent/cabin	Other	Total Nights Each Location
EXAMPLE: Denali Hwy Mile 45	*#3*					*4*	*2*		*6*
Talkeetna	#51								
Trapper Creek	#51								
Byers Lake	#21								
Cantwell	#1								
Brushkana Creek Campground	#3								
Tangle Lakes	#19								
Lake Louise	#60								
Additional location:									
Additional location:									
Additional location:									
Additional location:									
Additional location:									
Additional location:									

PLEASE CONTINUE TO NEXT PAGE


Study Area
Grid Locations
Cantwell
MP 210
MP 200
MP 190
MP 180
MP 170
MP 160
DENALI
STATE PARK
MP 151
MP 140
MP 130
MP 120
MP 100
MP 90
Talkeetna
Trapper
Creek
Nenana River
Access
MP 120
Joe and Jerry
Lakes Access
Nenana River
Brushkana Creek
Campground
MP 95
DENALI
HWY
Gracious House
Lodge
MP 80
Alpine Creek
Lodge
MP 60
Clearwater
Creek Wayside
Maclaren River
Lodge
MP 50
MP 40
MP 30
Delta River
Wayside
MP 20
Swede Lake
Trailhead
Tangle Lakes
Campground
MP 10
Paxson
RICHARDSON
HWY
PARKS
HWY
Susitna River
Maclaren River
Talkeetna River
Clear Creek
Byers
Lake
Lake
Louise
GLENN
HWY
0 5 10 20
Miles
N

Your Most Recent Outing to the Study Area Between November 2012 and October 2013

22. Including yourself, how many people were traveling in your immediate PARTY, sharing expenses such as food, lodging, and transportation on your most recent outing in the Study Area?

_____ in party

22a. How many people in your party were under the age of 18? # _____ in party

22b. How many people in your party live in your household for at least 6 months of the year? # _____ in party

23. Including yourself, what was the total number of people traveling in your GROUP on your most recent outing in the Study Area?
(A "group" is defined as friends or relatives traveling with you, but not necessarily sharing expenses.)

_____ in group

24. Was there anyone in your party with a disability or special need related to outdoor recreation activities?

1 ☐ Yes → **24a. Specifically, what type of needs do they have?**
2 ☐ No

1 ☐ Wheelchair access to trails
2 ☐ Wheelchair access to facilities
3 ☐ Other: _____

25. On your most recent outing in the Study Area, did you feel very crowded, somewhat crowded, or not crowded?

01 ☐ Very crowded 02 ☐ Somewhat crowded 03 ☐ Not crowded (skip to Q26)

25a. If somewhat or very crowded: Do you recall any places in particular where you felt crowded? 1 ☐ No (continue to Q26)
Please write in the name of the location/s below and the grid numbers of those locations (Map on page 10).

Place names	**Grid #**
_____	_____
_____	_____

26. On your most recent outing, did you experience any conflict with other individuals or groups that negatively impacted your recreation experience in the Study Area?

1 ☐ Yes 2 ☐ No (skip to Q27)

26a. What type of activity was the other individual or group engaged in? (This could be recreation or other activity.)

_____

26b. What specifically caused the conflict?

_____

27. What signs, if any, of infrastructure or human activity detracted from the scenic quality within the Study Area? (Check all that apply)

01 ☐ Nothing
02 ☐ Communication towers
03 ☐ Power lines
04 ☐ Railroad
05 ☐ Trash
06 ☐ Roads
07 ☐ Trails
08 ☐ Roadside camping areas
09 ☐ Vehicles (RV, ATV, motorcycles, cars, etc.)
10 ☐ People
11 ☐ Other: _____

PLEASE CONTINUE TO NEXT PAGE

Your Most Recent Outing to the Study Area Between November 2012 and October 2013

28. What noises, if any, detracted from your enjoyment of the Study Area? (Check all that apply)

01 ☐ Nothing
02 ☐ Gunshots
03 ☐ Airplanes
04 ☐ Jet aircraft sonic boom
05 ☐ Helicopters
06 ☐ Boats
07 ☐ Four wheeler/ATV
08 ☐ Cars/trucks/RV
09 ☐ Noise from other people
10 ☐ Heavy equipment (road work, quarries, construction)
11 ☐ Chainsaw
12 ☐ Snow machine
13 ☐ Other_____

29. On your most recent outing, did you travel more than one-half mile from a trailhead or main road into the Study Area?

1 ☐ Yes 2 ☐ No (skip to Q30)

29a. Which modes of transportation did you use to travel more than one-half mile into the Study Area? (Check all that apply)

01 ☐ Off-road vehicle/ATV
02 ☐ Motorized watercraft (skip to Q29c)
03 ☐ Non-motorized watercraft (canoe, kayak, raft, etc.) (skip to Q29c)
04 ☐ Airplane (landed more than one-half mile into the Study Area) (skip to Q29c)
05 ☐ Snow Machine
06 ☐ Ski
07 ☐ Snoeshoe
08 ☐ Walked/hiked
09 ☐ Other: _____

29b. Did you travel on established trails, off-trail, or both?

1 ☐ Established trails 2 ☐ Off-trail 3 ☐ Both

29c. Did you camp in the Study Area more than one-half mile from a trailhead or main road? 1 ☐ Yes 2 ☐ No

30. When considering your most recent outing, how important were the following factors in your decision to recreate in the Study Area?
(Please circle your answer)

	Very important	Somewhat important	Not important
a. Wildlife viewing opportunities	1	2	3
b. The opportunity to hunt	1	2	3
c. The opportunity to fish	1	2	3
d. The opportunity to experience remote Alaska	1	2	3
e. The opportunity to experience solitude	1	2	3
f. The opportunity to challenge yourself	1	2	3
g. The scenery	1	2	3

PLEASE CONTINUE TO NEXT PAGE

Your Most Recent Outing to the Study Area Between November 2012 and October 2013

31. Do you agree or disagree with each of the following statements? (Please circle your answer)

I recreate in the Study Area because...	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
a. This area means a lot to me.	1	2	3	4	5
b. No other place can compare to this area.	1	2	3	4	5
c. Recreating here is more important to me than doing it in any other place.	1	2	3	4	5
d. This area is close to my home.	1	2	3	4	5
e. My family has been coming to this area for generations.	1	2	3	4	5

32. Below is a list of outdoor recreation facilities, infrastructure, and sources of information in the Study Area. Please indicate whether there should be more, less or the same in the future. (Please circle your answer)

	A lot more	A little more	The same	A little less	A lot less
a. Maintained roads	1	2	3	4	5
b. Designated parking areas	1	2	3	4	5
c. Roadside toilets	1	2	3	4	5
d. RV accessible sites at campgrounds	1	2	3	4	5
e. Trail maps	1	2	3	4	5
f. Designated trails for non-motorized use	1	2	3	4	5
g. Designated trails for off-road vehicles	1	2	3	4	5
h. Directional road signs	1	2	3	4	5
i. Visitor information	1	2	3	4	5
j. Visitor centers	1	2	3	4	5
k. Public use cabins	1	2	3	4	5
l. Boat launches	1	2	3	4	5
m. Facilities for the disabled	1	2	3	4	5

PLEASE CONTINUE TO NEXT PAGE

Demographics

33. In what year were you born? 19_____

34. Your gender: 1 ☐ Male 2 ☐ Female

35. Are you married? 1 ☐ Yes 2 ☐ No

36. Including yourself, how many people live in your household for at least six months of the year? #_____

37. Do children under the age of 18 live in your household? 1 ☐ Yes 2 ☐ No

38. Which category best describes your household income before taxes for 2012?

01 ☐ Less than $20,000
02 ☐ $20,000 to $34,999
03 ☐ $35,000 to $49,999
04 ☐ $50,000 to $74,999
05 ☐ $75,000 to $99,999
06 ☐ $100,000 to $149,999
07 ☐ $150,000 or more

39. Which categories (or categories) best describe your race? (Check all that apply)

01 ☐ White
02 ☐ Black or African American
03 ☐ Hispanic
04 ☐ American Indian or Alaska Native
05 ☐ Asian
06 ☐ Native Hawaiian or Other Pacific Islander
07 ☐ Some other race

40. What is the highest degree or level of school you have COMPLETED?

01 ☐ Less than 9th grade
02 ☐ 9th to 12th grade, no diploma
03 ☐ High school graduate, GED, or alternative
04 ☐ Some college, no degree
05 ☐ Associate's degree
06 ☐ Bachelor's degree
07 ☐ Graduate or professional degree

41. Are you a professional guide for any recreation activities?

1 ☐ Yes → **Q 41a. What type of activities do you guide?** (Check all that apply)
2 ☐ No (continue to Q42)

01 ☐ Snow machining
02 ☐ Fishing
03 ☐ Hunting
04 ☐ Boat/float tour
05 ☐ Other_____

42. Do you or your family own a recreation cabin in Alaska?

1 ☐ Yes → **Q42a. Approximately where is your cabin located?** _____
2 ☐ No

Cabin location

43. As part of this recreation study we may be conducting additional research. Would you be willing to participate in a follow-up survey? Your contact information will not be used or shared for any other purpose.

1 ☐ Yes 2 ☐ No

43a. To follow up with you, may we have your email address or phone number?

Email address or phone number_____

Thank you for participating in this survey!



Please enclose your completed survey in the postage-paid envelope provided and mail to:

McDowell Group, Inc.
9360 Glacier Hwy., Suite 201
Juneau, Alaska 99801-9947

PASSWORD

APPENDIX E: NONRESPONSE BIAS TELEPHONE SURVEY RESULTS SUMMARY

Susitna-Watana Hydroelectric Project
(FERC No. 14241)

Recreation Resources Study
Study Plan Section 12.5

Technical Memorandum - 2014 Year-End Report
Recreation Use Demand Assessment

Appendix E - Non Response Bias Telephone Survey Results

Prepared for

Alaska Energy Authority

SUSITNA-WATANA HYDRO

Clean, reliable energy for the next 100 years.

Prepared by

AECOM and McDowell Group

September 2015

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1. METHODOLOGY

Mail surveys have the potential for self-selection bias (that is, individuals opt to participate in the survey rather than being randomly selected). To address the potential for self-selection bias within the Susitna-Watana Recreation Regional Resident Household Mail Survey (Appendix D), a nonresponse test utilizing a random sample telephone survey of households within the mail survey's sample area was conducted. The purpose of the nonresponse bias telephone survey was to evaluate what level (if any) of bias in the Regional Resident Household Mail Survey response was identifiable, and if that bias warranted adjustment of the mail survey results through weighting. A discussion of the weighting decision process is found under Section 5.1.2.1, *Mail Survey Data Weighting Analysis*, of the 2014 Study Implementation Report.

The content of the nonresponse bias telephone survey included gathering demographic information, such as residency, household size, educational attainment, income, marital status, voter registration, ethnicity, gender, or age; and information on participation in four popular recreation activities, including snowmachining, hunting, sportfishing, and recreational boating (without fishing). A copy of the nonresponse bias telephone survey instrument is attached to this appendix (Attachment E-1).

The first nonresponse bias telephone survey (Survey #1) began after the June 2013 mailing of the Regional Resident Household Mail Survey and was fielded August 26 to September 3, 2013. The second nonresponse bias telephone survey (Survey #2) began after the October 2013 mailing of the Regional Resident Household Mail Survey and was fielded January 22 to January 28, 2014.

Both land lines and cell phones were included in the nonresponse bias telephone survey sample. The survey sample of randomized cell and landline numbers for the Municipality of Anchorage, Matanuska-Susitna Borough, Fairbanks North Star Borough, and Denali Borough was obtained from Survey Sampling International. The sample for Glennallen and the surrounding area was drawn from the Glennallen phone directory.

The refusal rate for call attempts was 28.2 percent for Survey #1, 26.2 percent for Survey #2, and 27.3 percent for the combined sample. The survey completion rate was 19.7 percent for Survey #1, 23.4 percent for Survey #2, and 21.3 percent for the combined sample. In total, 6,780 calls were made to 4,722 individual landline and cell phone numbers. A combined total of 819 surveys were completed: 418 surveys for Survey #1 and 401 for Survey #2 (Table E1.0-1).

Table: E1.0-1. Call Results

	Survey #1	Survey #2	Combined Results
Total telephone numbers called	2,690	2,032	4,722
Total call attempts	3,756	3,024	6,780
Out of service numbers	316	214	530
Fax numbers	111	27	138
Total numbers with no contact	427	241	668
Working numbers	2,263	1,791	4,054
Business numbers	81	36	117
Not qualified	24	19	43
Portability (no longer in Alaska)	23	14	37
Kids/teenager phone line	9	6	15
Total removed from sample	137	75	212
Eligible sample	2,126	1,716	3,842
Refused	599	449	1,048
Refusal rate	28.2%	26.2%	27.3%
Completed surveys	418	401	819
Completion rate	19.7%	23.4%	21.3%

Source: Nonresponse Bias Telephone Survey.

2. SURVEY RESULTS

The section below presents the combined results for the two nonresponse bias telephone survey efforts, which were comparable in terms of sample and results. Data were weighted using U.S. Census data by community (to reflect population size) and by age.

Just over half (53 percent) of the respondents were surveyed via their cell phone, while the remainder (47 percent) were surveyed via their landline (Table E2.0-1).

Table E2.0-1. Cell versus Landline Response

	Combined Telephone Sample (n=818)
Cell	53%
Landline	47%

Source: Nonresponse Bias Telephone Survey.

After being informed of the purpose of the survey (see Attachment E-1), 3 percent of respondents voluntarily told the surveyor that they did not recreate outdoors. These respondents were asked only the demographic questions and were assumed to be "no" responses for the non-demographic questions.

Respondents who recreate were asked whether they participated in four specific recreational activities (i.e., sportfishing, recreational boating without fishing, snowmachining, and hunting) in Alaska. Of these four activities, the most popular activity was sportfishing at 68 percent, followed by recreational boating without fishing at 44 percent, snowmachining at 43 percent, and hunting at 39 percent (Table E2.0-2).

Table E2.0-2. Do you ever participate in the following recreational activities in Alaska? (Percent responding "yes")

Activity	Combined Telephone Sample (n=818)
Sportfishing	68%
Recreational boating without fishing	44%
Snowmachining	43%
Hunting	39%

Note: Multiple responses accepted.

Source: Nonresponse Bias Telephone Survey.

Respondents were asked whether they had participated in each activity in Alaska within the last 12 months. Those who had indicated no participation in the activities listed in the previous

question were assumed to be "no" responses. Over half of respondents (52 percent) said they had participated in sportfishing within the last 12 months; 35 percent had participated in recreational boating without fishing; 27 percent had participated in snowmachining; and 25 percent had participated in hunting (Table E2.0-3).

Table E2.0-3. Have you Participated in [Activity] in Alaska within the last 12 months? (Percent Responding "Yes")

Activity	Combined Telephone Sample (n=818)
Sportfishing	52%
Recreational boating without fishing	35%
Snowmachining	27%
Hunting	25%

Note: Multiple responses accepted.

Source: Nonresponse Bias Telephone Survey

Respondents were asked whether they had participated in any outdoor recreation activity in the last 12 months in various Recreation Use Study Area locations. The most common location cited was the Talkeetna area at 28 percent, followed by the Denali Highway at 27 percent, Denali State Park/Byers Lake at 23 percent, Susitna River north of Talkeetna at 17 percent, Cantwell area at 17 percent, Talkeetna River at 14 percent, and the Lake Louise area at 13 percent (Table E2.0-4).

Table E2.0-4. Please Tell me if you Participated in any Outdoor Recreation Activity in the last 12 months in Each of the Following Areas (Percent responding "Yes")

	Combined Telephone Sample (n=818)
Talkeetna area	28%
Anywhere on Denali Highway	27%
Denali State Park/Byers Lake area	23%
Susitna River north of Talkeetna	17%
Cantwell area	17%
Talkeetna River	14%
Lake Louise area	13%

Note: Multiple responses accepted.

Source: Nonresponse Bias Telephone Survey.

The most common community of self-reported primary residence among respondents was Anchorage, representing 52 percent of the sample, followed by Fairbanks at 14 percent. All other communities were cited by fewer than 10 percent of respondents. A total of 25 communities were represented in the survey sample (Table E2.0-5).

Table E2.0-5. What Community do you Consider your Primary Home?

	Combined Telephone Sample (n=818)
Anchorage	52%
Fairbanks	14%
Wasilla	9%
Eagle River/Chugiak	7%
North Pole	5%
Palmer	4%
Big Lake	1%
Glennallen	1%
Talkeetna	1%
Healy	1%
Girdwood	1%
Knik-Fairview	<1%
Meadow Lakes	<1%
Anderson	<1%
Two Rivers	<1%
Fox	<1%
Sutton-Alpine	<1%
Trapper Creek	<1%
Houston	<1%
Butte	<1%
Chickaloon	<1%
Petersville	<1%
College	<1%
Ester	<1%
Salcha	<1%

Note: Due to rounding, column does not add to 100 percent.
Source: Nonresponse Bias Telephone Survey/

The average age among respondents was 47. The most common age groups were 55–59 (13 percent), 40–44 (12 percent), 50–54 (11 percent), and 60–64 (11 percent) (Table E2.0-6).

Table E2.0-6. Respondent Age

Age Ranges	Combined Telephone Sample (n=818)
15–19	3%
20–24	4%
25–29	9%
30–34	9%
35–39	9%
40–44	12%
45–49	7%
50–54	11%
55–59	13%
60–64	11%
65–69	4%
70–74	4%
75–79	2%
80–84	1%
85–89	<1%
90+	<1%
Average age (years)	47.0

Note: Due to rounding, column does not add to 100 percent.
Source: Nonresponse Bias Telephone Survey.

The sample was evenly split between men (50 percent) and women (50 percent) (Table E2.0-7).

Table E2.0-7. Respondent Gender

Gender	Combined Telephone Sample (n=818)
Male	50%
Female	50%
Unknown	<1%

Note: Due to rounding, column does not add to 100 percent.

Source: Nonresponse Bias Telephone Survey

ATTACHMENT E-1: NONRESPONSE BIAS TELEPHONE SURVEY INSTRUMENT

Hi, this is _____ with the McDowell Group. We're conducting a study for the State of Alaska concerning outdoor recreation. I would like to ask you a few questions about your outdoor recreation activity in Alaska.

(Don't ask) S1. 1❒ **Indicated they do not recreate outdoors SKIP TO Q4**

1. Do you <u>ever</u> participate in the following recreational activities in Alaska?

2. IF YES: Have you participated in [activity] in Alaska within the last 12 months?

	1. Ever participate?			2. Within last 12 months?		
	1 ***Yes***	**2** ***No***	**3** ***DK/Ref***	**1** ***Yes***	**2** ***No***	**3** ***DK/Ref***
a. Snow machining	1	2	3	1	2	3
b. Hunting	1	2	3	1	2	3
c. Sportfishing	1	2	3	1	2	3
d. Recreational boating without fishing	1	2	3	1	2	3

READ: Next, I am going to ask you about some specific recreation <u>areas</u>. For the purpose of this study outdoor recreation includes activities like, wildlife viewing, bicycling, camping, hunting, berry picking, fishing, boating, ATV's, hiking, walking, running, riding the Alaska Railroad, flightseeing, dog sledding, snow machining, snowshoeing, and skiing.

3. Please tell me if you participated in any outdoor recreation activity in the last 12 months in each of the following areas:

	1 ***Yes***	**2** ***No***	**3** ***DK/Ref***
a. Talkeetna area	1	2	3
b. Denali State Park/Byers Lake area	1	2	3
c. Cantwell area	1	2	3
d. Anywhere on the Denali Highway	1	2	3
e. Lake Louise area	1	2	3
f. Susitna River north of Talkeetna	1	2	3
g. Talkeetna River	1	2	3

READ: Next, I am going to ask you some questions for demographic purposes.

4. What community do you consider your primary home?

01❒ Anchorage
02❒ Anderson
03❒ Badger
04❒ Big Lake
05❒ Butte
06❒ Cantwell
07❒ Chena Ridge
08❒ Chickaloon
09❒ Chistochina
10❒ College
11❒ Eagle River/Chugiak
12❒ Eielson AFB
13❒ Ester
14❒ Eureka Roadhouse
15❒ Fairbanks
16❒ Ferry
17❒ Fox
18❒ Gakona
19❒ Glennallen
20❒ Gulkana
21❒ Girdwood
22❒ Healy
23❒ Houston
24❒ Indian/Bird
25❒ Knik-Fairview
26❒ Lake Louise
27❒ McKinley Park
28❒ Meadow Lakes
43❒ Other_____
29❒ North Pole
30❒ Palmer
31❒ Paxson
32❒ Petersville
33❒ Point MacKenzie
34❒ Salcha
35❒ Skwentna
36❒ Susitna
37❒ Sutton-Alpine
38❒ Talkeetna
39❒ Trapper Creek
40❒ Two Rivers
41❒ Wasilla
42❒ Willow
44❒ Refused

5. In what year were you born? 19_____ 1❒ Refused

6. Including yourself, how many people live in your household for at least six months of the year?
#_____ 1❒ Refused

7. Do children under the age of 18 live in your household? 1❒ Yes 2❒ No 3❒ Refused

8. What is the highest degree or level of school you have completed?
01❒ Less than 9th grade
02❒ 9th to 12th grade, no diploma
03❒ High school graduate, GED, or alternative
04❒ Some college, no degree
05❒ Associate's degree
06❒ Bachelor's degree
07❒ Graduate or professional degree
08❒ Refused

9. Do you or your family own a cabin in Alaska? 1❒ Yes 2❒ No 3❒ Refused

10. Are you married? 1❒ Yes 2❒ No 3❒ Refused

11. Are you a registered voter? 1❒ Yes 2❒ No 3❒ Refused

12. Please stop me at the category that best describes your total combined household income before taxes for 2012.
01❒ Less than $20,000
02❒ $20,001 to $35,000
03❒ $35,001 to $50,000
04❒ $50,001 to $75,000
05❒ $75,001 to $100,000
06❒ $100,001 to $150,000
07❒ More than $150,000
08❒ Refused

13. Which racial or ethnic group do you most closely identify yourself with?
(Do not read, check all that apply)

01❒ White
02❒ Black or African American
03❒ Hispanic
04❒ American Indian or Alaska Native
05❒ Asian
06❒ Native Hawaiian or Other Pacific Islander
07❒ Some other race
08❒ Refused

Thank you for participating in this survey!

14. (Don't Ask) 1❒ Male 2❒ Female 3❒ Unknown

APPENDIX F: ADF&G FISH HARVEST DATA

Susitna-Watana Hydroelectric Project
(FERC No. 14241)

Recreation Resources Study
Study Plan Section 12.5

Technical Memorandum - 2014 Year-End Report
Recreation Use Demand Assessment

Appendix F - ADF&G Fish Harvest Data

Prepared for

Alaska Energy Authority

SUSITNA-WATANA HYDRO

Clean, reliable energy for the next 100 years.

Prepared by

AECOM and McDowell Group

October 2015

Table F-1. ADF&G SWHS Estimates, Standard Errors, and 95% Confidence Intervals for the Average Annual Fish Catch (Kept and Released) on the Six Most Actively Fished Stream Segments in the Recreation Use Study Area (2004–2013)

	TYPE	ADFG Survey Responses	Number of anglers (not additive)	Angler days fished	Chinook	Coho	Sockeye	Pink	Chum	Rainbow	Dolly Varden/ Arctic Char	Laketrout	Grayling	Pike	Whitefish	Burbot	Other fish
Chunilna Creek (Clear Creek)	Average Estimate	108	2,977	6,050	3,068	3,455	924	3,094	4,464	3,744	2,297	—	861	—	117	—	3
	Average Std. Error (+/-)			1,109	822	1,085	395	1,051	1,337	1,394	1,037	—	423	—	79	—	3
Fish Creek (Denali Highway near Cantwell)	Average Estimate	14	386	870	—	—	—	—	—	—	121	—	2,167	—	7	—	—
	Average Std. Error (+/-)			460	—	—	—	—	—	—	92	—	818	—	7	—	—
Lake Louise (off Glenn Highway)	Average Estimate	40	1,336	4,034	—	—	—	—	—	—	—	2,804	1,220	9	299	736	179
	Average Std. Error (+/-)			1,134	—	—	—	—	—	—	—	1,015	704	9	170	378	186
Sunshine Creek	Average Estimate	41	1,296	2,544	203	2,564	64	424	170	186	15	—	—	—	109	118	—
	Average Std. Error (+/-)			554	141	713	47	206	93	125	12	—	—	—	97	84	—
Talkeetna River	Average Estimate	135	3,986	7,806	2,423	4,297	2,738	2,884	3,566	2,566	2,728	—	1,013	—	77	60	93
	Average Std. Error (+/-)			1,377	619	1,187	937	1,410	1,203	890	1,111	—	513	—	56	51	94
Tangle Lakes and Tangle River	Average Estimate	68	2,320	4,324	—	—	—	—	—	—	—	1,306	20,756	—	127	14	28
	Average Std. Error (+/-)			788	—	—	—	—	—	—	—	504	5,603	—	104	11	24

Note: Some locations may be on private lands; this study report is not intended to suggest that the recreating public is authorized to access these lands for recreation purposes.

Use of Estimates: The following guidelines (Mills and Howe 1992*) provide a basis for evaluating the utility of statewide survey estimates: Estimates based on 30 or more responses were used due to their confidence.

Zero values for landlocked coho, kokanee, steelhead, brook trout, smelt, cutthroat, and sheefish are not shown.

*Mills, M.J., and A. Howe. 1992. An Evaluation of Estimates of Sport Fish Harvest from the Alaska Statewide Mail Survey. Alaska Department of Fish and Game, Special Publication No. 92-2, Anchorage.

Table F-2. ADF&G SWHS Estimates, Standard Errors, and 95% Confidence Intervals for the Average Annual Fish Catch (Kept and Released) in the Recreation Use Study Area (2004–2013)

year	Area	TYPE	Total Responses	Number of anglers (not additive)	Angler days fished	Estimate for the Average Annual Fish Catch (Kept and Released)														
						Chinook	Coho	Sockeye	Pink	Chum	Landlocked coho, kings	Rainbow	Smelt	Dolly Varden/ Arctic Char	Laketrout	Grayling	Pike	Whitefish	Burbot	Other fish
2004	Study Area	Estimate	1,218	26,587	68,872	15,410	26,768	6,336	41,475	21,519	—	26,650	7,760	8,632	6,937	29,716	1,432	924	1,045	1,808
2004	Study Area	Std. Error (+/-)			4,416	1,591	2,574	1,100	7,216	2,342	—	2,713	4,519	1,624	1,479	4,918	1,270	268	296	1,699
2005	Study Area	Estimate	1,065	24,023	57,475	13,134	20,296	3,538	20,814	20,598	306	17,730	1,089	6,481	7,261	33,637	1,291	2,317	1,225	3,765
2005	Study Area	Std. Error (+/-)			3,302	1,340	2,460	776	3,219	3,188	231	2,492	1,057	1,326	1,483	4,947	553	752	415	3,284
2006	Study Area	Estimate	1,012	23,276	57,100	15,637	26,351	2,713	25,840	19,472	33	21,876	790	9,817	3,547	23,614	219	903	1,271	845
2006	Study Area	Std. Error (+/-)			3,778	1,850	2,505	636	4,043	2,739	26	3,342	744	3,191	660	3,541	230	329	317	687
2007	Study Area	Estimate	1,017	25,346	65,029	17,329	16,963	3,440	11,166	13,198	100	35,852	620	6,638	5,146	34,775	150	435	1,127	65
2007	Study Area	Std. Error (+/-)			4,463	3,562	1,848	651	1,502	2,106	100	7,038	622	1,286	919	8,492	104	118	353	48
2008	Study Area	Estimate	985	24,136	60,929	11,571	30,064	5,594	12,283	14,832	—	24,131	737	6,925	5,722	41,798	—	1,629	1,839	116
2008	Study Area	Std. Error (+/-)			3,124	1,629	3,075	1,393	2,054	2,045	—	3,174	746	1,555	1,327	7,442	—	621	479	68
2009	Study Area	Estimate	990	23,320	62,025	8,611	16,502	13,663	32,497	16,627	3,168	18,734	3,520	5,575	8,010	49,015	169	1,131	1,267	59
2009	Study Area	Std. Error (+/-)			3,987	1,749	1,757	2,303	4,391	2,529	3,217	2,989	3,396	1,511	1,832	8,801	123	487	358	59
2010	Study Area	Estimate	875	22,169	56,764	5,714	20,344	6,579	18,643	18,846	784	19,834	4,446	5,101	10,713	51,756	51	1,758	4,235	189
2010	Study Area	Std. Error (+/-)			4,082	861	4,244	1,570	4,856	3,842	699	3,385	2,810	975	2,643	8,417	49	564	2,086	96
2011	Study Area	Estimate	753	20,667	48,132	6,414	12,461	5,232	10,757	18,264	469	25,791	6,763	5,254	4,162	37,060	41	274	1,010	—
2011	Study Area	Std. Error (+/-)			3,646	1,073	2,059	1,127	1,821	2,619	326	4,419	5,273	1,865	978	5,605	41	106	316	—
2012	Study Area	Estimate	652	18,399	49,235	1,591	10,867	7,541	14,677	27,175	105	16,303	—	4,091	4,049	39,046	—	327	995	537
2012	Study Area	Std. Error (+/-)			3,674	486	1,894	2,486	2,369	3,251	104	2,700	—	1,328	1,063	5,658	—	120	383	391
2013	Study Area	Estimate	667	20,675	52,240	4,106	15,993	7,474	21,882	14,486	172	31,277	1,704	9,873	7,384	54,699	96	714	1,409	36
2013	Study Area	Std. Error (+/-)			3,300	1,195	2,473	1,616	3,695	1,945	170	6,576	1,753	2,661	2,987	8,219	89	233	378	26
Average	Study Area	Estimate	923	22,860	57,780	9,952	19,661	6,211	21,003	18,502	514	23,818	2,743	6,839	6,293	39,512	345	1,041	1,542	742

Use of Estimates: The following guidelines (Mills and Howe 1992) provide a basis for evaluating the utility of statewide survey estimates: Estimates based on 30 or more responses were used due to their confidence.
Zero values for kokanee, steelhead, brook trout, smelt, cutthroat, and sheefish are not shown.