

Initial Study Report Meeting

Study 12.7 River Recreation Flow and Access

October 23, 2014

Prepared by
ERM



Study 12.7 Objectives

- **Documenting river recreation use and experience** for the respective river recreation and transportation opportunities on three mainstem Susitna river reaches
- **Describing the potential effects of altered river flows** on existing and potential boating activity and other river recreational uses of the Susitna River
- **Understanding river ice preferences** for the respective river ice-dependent winter recreation and transportation on the Susitna River
- **Describing new boating or other flow-dependent recreational opportunities** that may be created by Project construction and operation

151°W

150°W

149°W

148°W

147°W

146°W

63°30'N

63°N

62°30'N

62°N

N 63°

N 62°30'

N 62°

-  Recreation Reach 1 Denali Highway to Fog Creek; 114 miles
-  Recreation Reach 2 Fog Creek to Portage Creek - 28 miles
-  Recreation Reach 3 Portage Creek to Parks Highway; 66 miles

CLEARWATER MTNS

TALKEETNA MOUNTAINS

Denali Hwy

Denali Highway Bridge
Project River Mile 291.6

Portage Creek
Project River Mile 152.3

Proposed Watana Dam Site
Project River Mile 187.2

DENALI NATIONAL PARK

DENALI STATE PARK

Chulitna

Gold Creek

Sherman

Curry

Devils Canyon - Project
River Mile 152.8 to 163.8

Fog Creek
Project River Mile 179.3

Susitna River

Talkeetna River

Petersville

Talkeetna

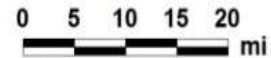
Trapper Creek

Parks Highway Bridge
Project River Mile 88.9

Skwentna



Data Sources: See Map References



Projection: Alaska Albers NAD 1983
Date Created: 8/29/2013
Map Author: ERM, Inc - Alex Kirk
File: SuWa_12-1_RecReaches3.mxd

Study 12.7 Components

- River Recreation Surveys
 - www.susitnariversurvey.com
 - Table 4.1-1 (Section 9; pgs 18-20) lists survey distribution list
- River Ice-Dependent Winter Recreation
- Focus Group Discussions

Study 12.7 Variances

- Focus Group discussions shifted from 2013 to 2015

Study 12.7 Results—Internet Survey Reach 1

Table 5.1-1 Susitna River Reach 1 Internet Survey Participant Information

| | |
|--|--|
| Age; Gender | Age: Mean (44), Median (39), Range (22-82); Gender: M(26) F (3) |
| Resident or Non-Resident | Non-Residents (7) Residents (18) |
| Type of Craft | Motorized (5), Non-Motorized (17), Airplane (3) |
| Specific Watercraft | Whitewater Kayak (10) Raft (3) Packraft (3) Closed deck canoe (1) Airboat (3) Prop Boat(3) |
| Skill Level | Novice (1), Intermediate (3), Advanced (6), Expert (12) |
| Years Using the Craft | Mean (18), Median (18), Range (2-42) |
| How many days/year using this craft | <5 (0) 6-10 (1) 11-20 (4) >20 (20) |
| How many times have you recreated on this Reach | 1 (8) 2-5 (6) 6-10 (3) >10 (8) |
| How many people were in your party | Mean (5) , Median (4), Range (1-9) |
| Use of Commercial Outfitter or Rental | 36% Yes 64% No |

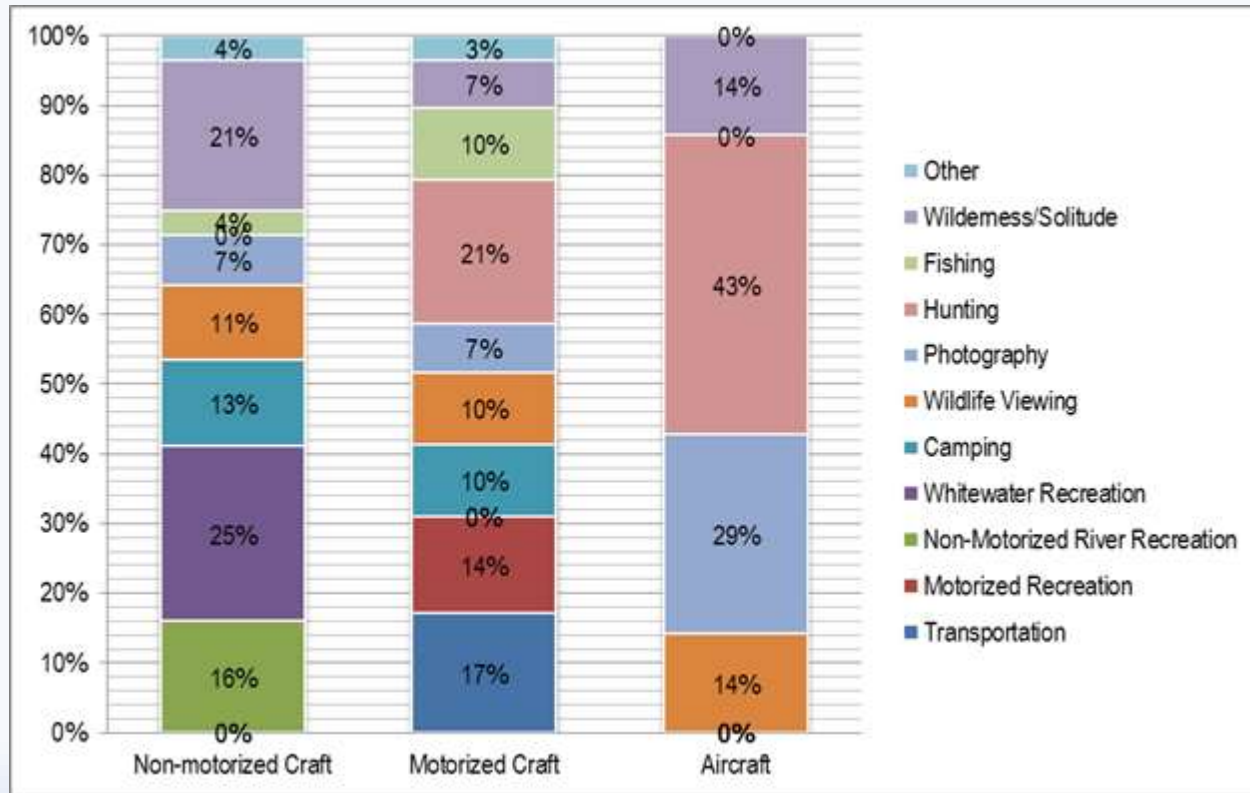
Study 12.7 Results—Internet Survey Reach 1

Table 5.1-2 Susitna River Reach 1 Put in and Take out Information

| | |
|----------------------|---|
| Put IN | Transportation Car/Truck (15) Hike (2) Float Plane (5) Wheeled Plane (3) |
| Location Name | Float in from upstream of Denali Hwy (3) Denali Highway Bridge (11) Access via tributary float (3) Reach 1 remote location (4) Maclaren River (1) Tyone River (1) Watana Creek (1) Other is (1-float plane to Fog lake) |
| Take OUT | Car/Truck (12) Motorized Boat (1) Hike (2) Float Plane (2) Wheeled Plane (4) Not Applicable (4) |
| Location Name | Denali Highway Bridge (4) Float through to Reach 2 (6) Exit Via Tributary (1) Reach 1 remote location (3) Tyone River (3) Watana Creek (1) Other (7) |

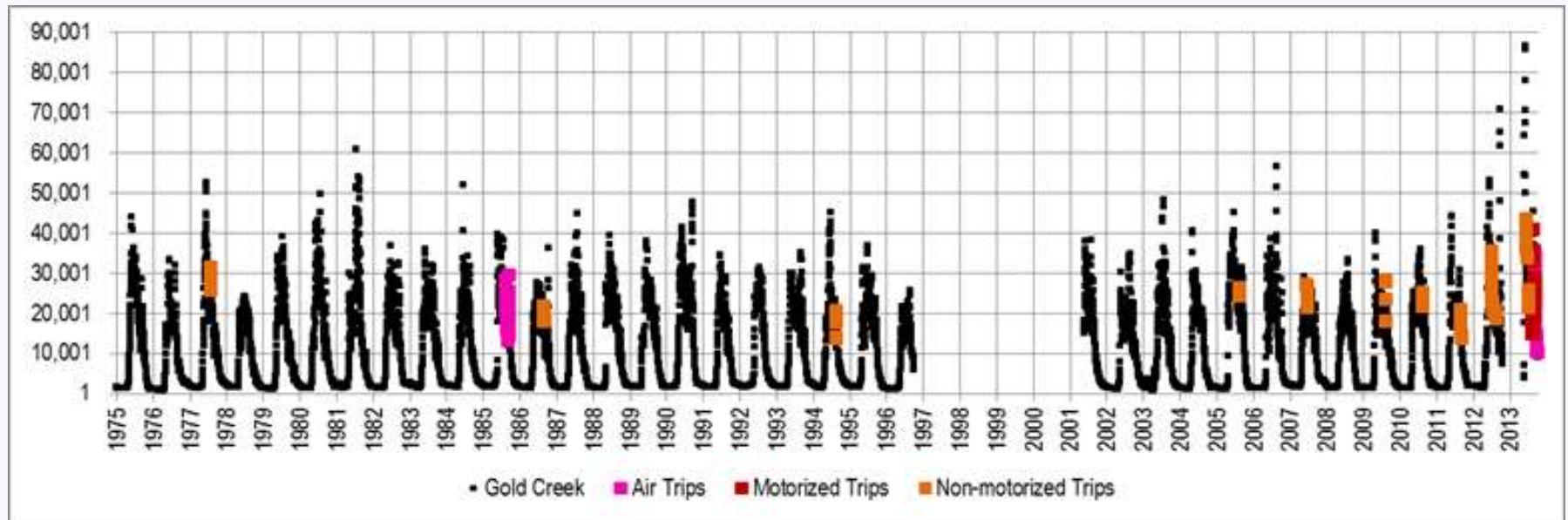
Study 12.7 Results—Internet Survey Reach 1

Figure 5.1-2. Primary Purposes of Recreation in Reach 1



Study 12.7 Results—Internet Survey Reach 1

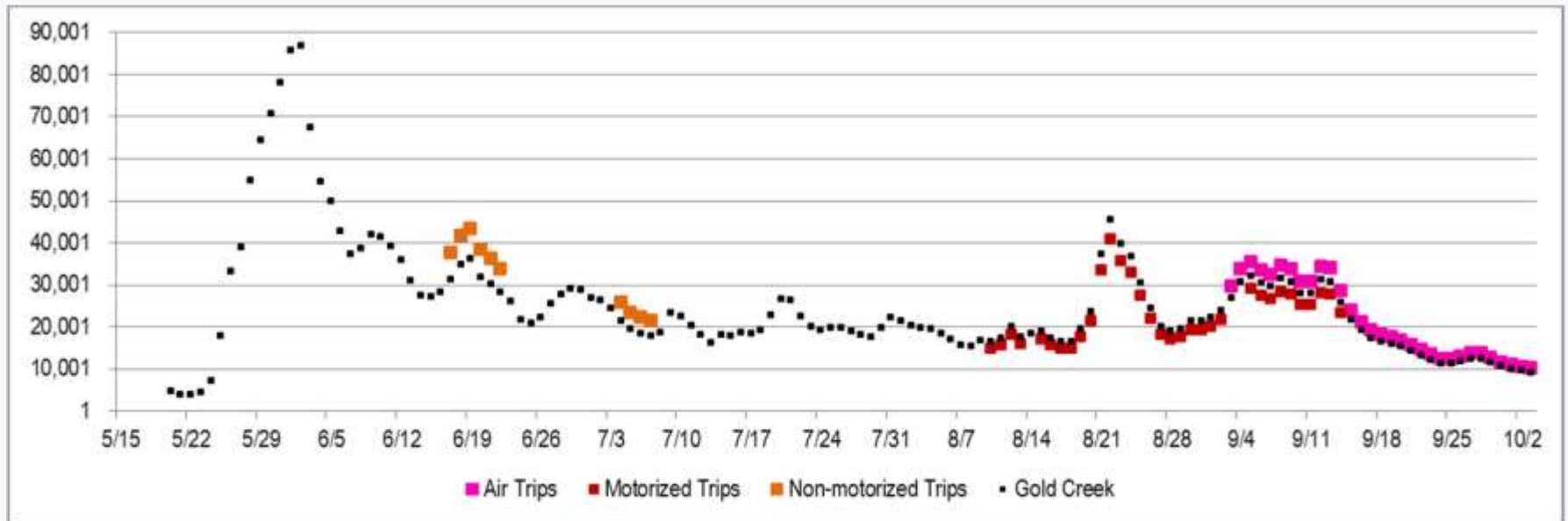
Figure 5.1-4. Timing of Air, Motorized, and Non-motorized Trips in Reach 1 (1975-2013)



Data source—internet survey participant responses identifying dates for river trips and craft. Y-axis represents discharge (cfs) at the USGS Gage at Gold Creek.

Study 12.7 Results—Internet Survey Reach 1

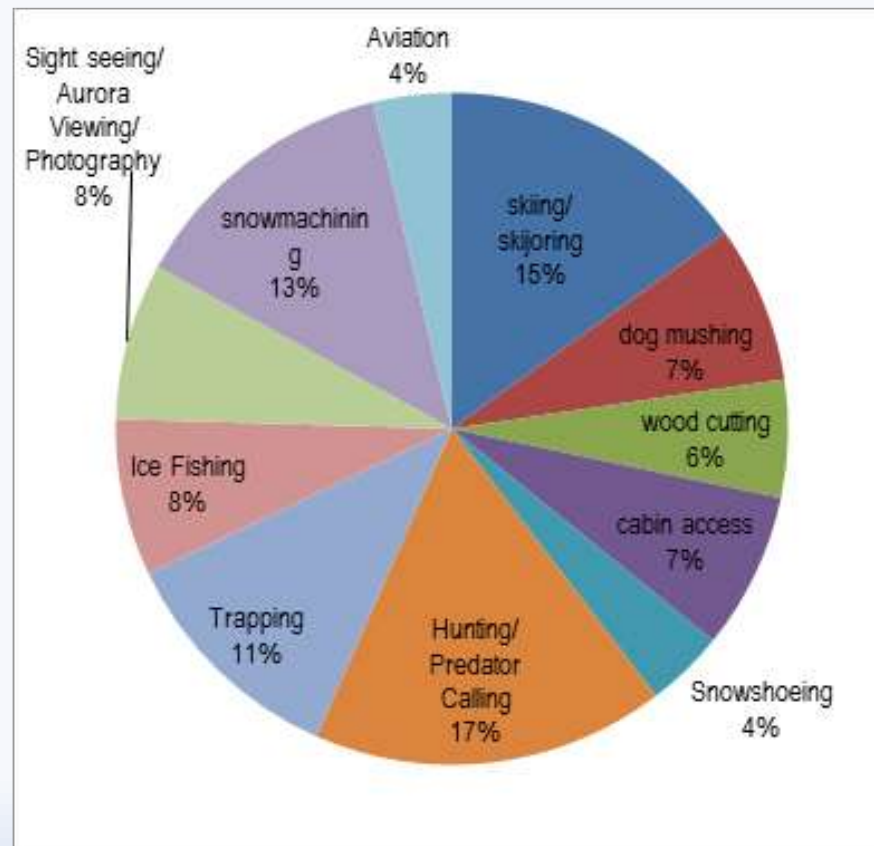
Figure 5.1-5. Timing of Air, Motorized, and Non-motorized Trips in Reach 1 (2013)



Data source—internet survey participant responses identifying timeframe for river recreation trips and craft on Reach 1 in 2013. Y-axis represents discharge (cfs) at the USGS Gage at Gold Creek.

Study 12.7 Results—River Ice Dependent Recreation Reach 1

Figure 5.1-6. Reach 1 Executive Interviews Winter Activities (n=8)



Study 12.7 Summary of Results since ISR

- **Internet survey data collection continued through August 01, 2014**
- **Data analysis will be included in the USR**

AEA Proposed Modifications to Study 12.7 in ISR

- **No modifications to the Study Plan are needed to complete the study and meet Study Plan objectives**

Study 12.7 Status – Assessment of Downriver Study Area

Methods

- The focus of the analysis was between the Sunshine Gauge at Talkeetna and the Susitna River Gauge at Susitna Station.
- Interdisciplinary Coordination – Instream Flow (Study 8.6), Ice Processes (Study 7.6) Geomorphology (Study 6.5), Recreation Resources (Study 12.5), and Aesthetic Resources (Study 12.6).
- Open Water HEC-RAS Flow Routing Model (OS-1 and OS-1b)— comparison of annual number of days in reach 3 (motorized vs non-motorized) between baseline flows and modeled flows in normal, wet and dry years.

Study 12.7 Status – Assessment of Downriver Study Area

Results

- Changes to river flow and associated stage height are within the normal range of variability during ice free periods and do not fall below the flow range observed for historical use in Reach 3.
- Sediment load and channel shape downstream of the confluence with the Chulitna will remain similar to existing conditions.
- Longitudinal extent of ice cover will remain unchanged in lower river.
- River recreation use patterns and overall experience will likely remain unchanged in lower river.
- As such, extending the River Recreation Flow and Access Study downstream of George Parks Highway is not warranted based on the assessment of potential impacts in that area.

Steps to Complete Study 12.7

To complete the River Recreation Flow and Access Study AEA will implement the methods in the Study Plan, with no modifications. These activities include:

- *River Recreation Survey*: Analyze data collected through August 2014
- *River Recreation Executive Interviews*: Supplement existing interviews
- *River Ice Dependent Winter Recreation*: Supplement existing interviews
- *Focus Group Discussions*: Two focus group discussions will be held: (1) whitewater boating, and (2) winter ice and snow travel in the river corridor for motorized and non-motorized users

Licensing Participants Proposed Modifications to Study 12.7?

- Agencies
- CIRWG members and Ahtna
- Public