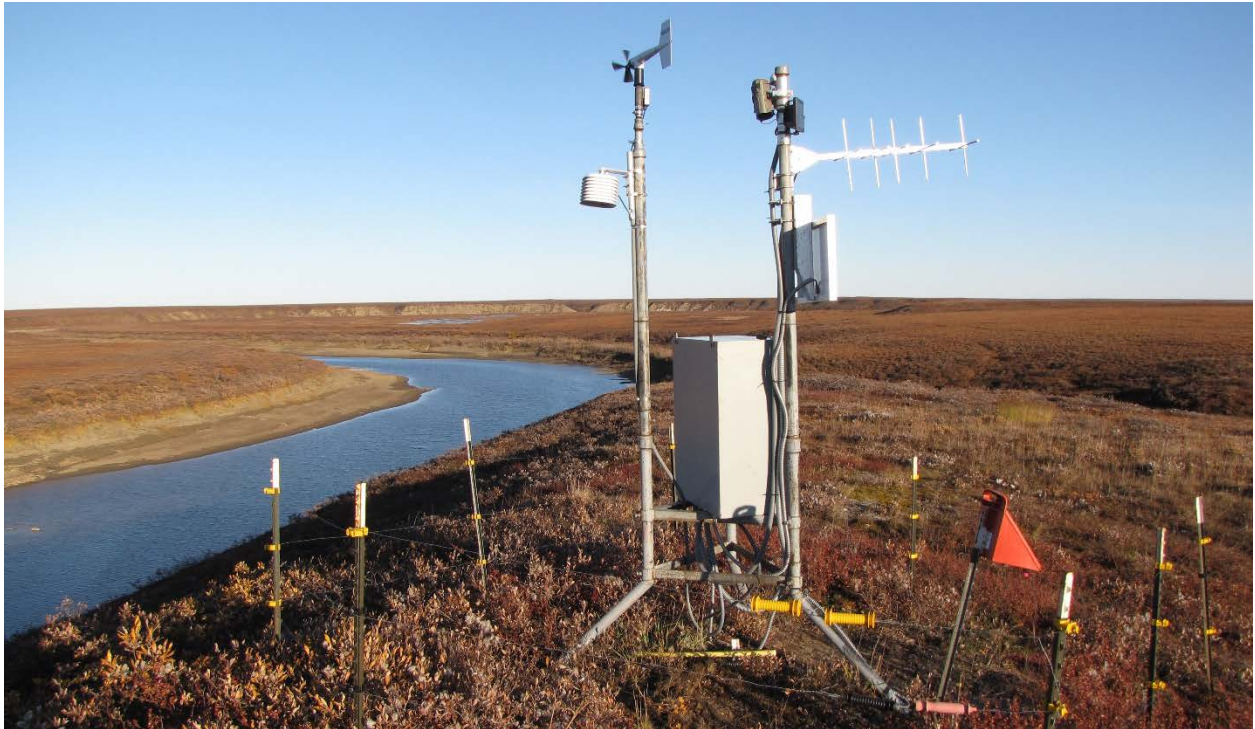


**HYDROLOGICAL AND METEOROLOGICAL OBSERVATIONS
ON SEVEN STREAMS IN THE
NATIONAL PETROLEUM RESERVE–ALASKA (NPR–A)**

Final Project Report



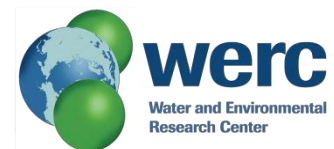
D. Vas, H. Toniolo, E. LaMesjerant, and J. Bailey

**Water and Environmental Research Center
Institute of Northern Engineering
University of Alaska Fairbanks
Fairbanks, AK 99775**

**prepared for
U.S. Department of the Interior, Bureau of Land Management**

Report INE/WERC 18.15

September 2018



Hydrological and Meteorological Observations on Seven Streams in the National Petroleum Reserve–Alaska (NPR–A)

Final Project Report

D. Vas, H. Toniolo, E. LaMesjerant, and J. Bailey
Water and Environmental Research Center
Institute of Northern Engineering
University of Alaska Fairbanks
Fairbanks, AK 99775

Prepared for the U.S. Department of the Interior, Bureau of Land Management

Report INE/WERC 18.15

September 2018

Front cover photo credit:

Hydrology station at the Ikpikpuk River, Alaska (photograph by Dragos Vas).

Recommended citation:

Vas, D., H. Toniolo, E. LaMesjerant, and J. Bailey 2018. *Hydrological and Meteorological Observations on Seven Streams in the National Petroleum Reserve–Alaska (NPR–A). Final Project Report*. Water and Environmental Research Center, Institute of Northern Engineering, University of Alaska Fairbanks, Fairbanks, AK. INE/WERC 18.15, 51 pp.

For additional information, write to:

Publications
Water and Environmental Research Center
Institute of Northern Engineering
University of Alaska Fairbanks
Fairbanks, AK 99775
<http://ine.uaf.edu/werc/>

The University of Alaska Fairbanks is accredited by the Northwest Commission on Colleges and Universities. UAF is an AA/EO employer and educational institution and prohibits illegal discrimination against any individual: www.alaska.edu/nondiscrimination/.

Table of Contents

List of Figures	iii
List of Tables	iv
Acknowledgments and Disclaimer	v
Abstract	vi
CHAPTER 1 Introduction	1
CHAPTER 2 Study Area.....	2
CHAPTER 3 Discharge Measurements	3
3.1 Fieldwork	3
3.2 Data Processing	9
CHAPTER 4 Meteorological Data.....	11
4.1 Methodology	12
4.2 Results	12
4.2.1 Rainfall.....	12
4.2.2 Air Temperature.....	18
4.2.3 Wind.....	24
CHAPTER 5 Data Analysis	37
CHAPTER 6 Conclusions and Recommendations.....	42
References.....	43
Appendices.....	44

List of Figures

Figure 1. Geographic distribution of stations inside the NPR–A.	2
Figure 2. Rating curve generated in Aquarius and maintained by the NPR–A hydrology project.	10
Figure 3. Cumulative annual rainfall – Fish Creek station.	14
Figure 4. Cumulative annual rainfall – Ikpikpuk River station.	15
Figure 5. Cumulative annual rainfall – Otuk Creek station.	16
Figure 6. Cumulative monthly rainfall – Fish Creek station.	17
Figure 7. Cumulative monthly rainfall – Ikpikpuk River station.	17
Figure 8. Cumulative monthly rainfall – Otuk Creek station.	18
Figure 9. Annual cumulative freezing degree-days – Fish Creek station.	21
Figure 10. Annual cumulative freezing degree-days – Ikpikpuk River.	21
Figure 11. Annual cumulative freezing degree-days – Judy Creek station.	22
Figure 12. Annual cumulative freezing degree-days – Ublutuoch River station.	22
Figure 13. Annual cumulative freezing degree-days – Otuk Creek station.	23
Figure 14. Annual cumulative freezing degree-days – Prince Creek station.	24
Figure 15. Wind speed percentages for the Fish Creek station: cold season, September 15 to May 14 (A) and warm season, May 15 to September 14 (B).	29
Figure 16. Wind speed percentages for the Ikpikpuk River station: cold season, September 15 to May 14 (A) and warm season, May 15 to September 14 (B).	30
Figure 17. Wind speed percentages for the Otuk Creek station: cold season, September 15 to May 14 (A) and warm season, May 15 to September 14 (B).	31
Figure 18. Wind direction percentages for the Fish Creek station: cold season, September 15 to May 14 (A) and warm season, May 15 to September 14 (B).	33
Figure 19. Wind direction percentages for the Ikpikpuk River station: cold season, September 15 to May 14 (A) and warm season, May 15 to September 14 (B).	34
Figure 20. Wind direction percentages for the Otuk Creek station: cold season, September 15 to May 14 (A) and warm season, May 15 to September 14 (B).	35
Figure 21. Cumulative annual rainfall vs. summer mean temperature at the Fish Creek station.	37
Figure 22. Cumulative annual rainfall vs. summer mean temperature at the Ikpikpuk River station.	38
Figure 23. Cumulative annual rainfall vs. summer mean temperature at the Otuk Creek station.	38
Figure 24. Cumulative annual rainfall vs. annual runoff volume at the Fish Creek station.	39

Figure 25. Cumulative annual rainfall vs. annual runoff volume at the Ikpikpuk River station.....39

Figure 26. Cumulative annual rainfall vs. annual runoff volume at the Otuk Creek station.40

List of Tables

Table 1. Summary of discharge measurements taken during the project.3

Table 2. BLM stations and meteorological data collected.....11

Table 3. Mean annual temperatures.19

Table 4. Maximum annual temperatures.19

Table 5. Minimum annual temperatures.20

Table 6. Monthly mean wind speed at the Fish Creek station.25

Table 7. Monthly mean wind speed at the Ikpikpuk River station.25

Table 8. Monthly mean wind speed at the Otuk Creek station.26

Table 9. Maximum wind speed recorded each month of the period of record at the Fish Creek station.27

Table 10. Maximum wind speed recorded each month of the period of record at the Ikpikpuk River station.....27

Table 11. Maximum wind speed recorded each month of the period of record at the Otuk Creek station.28

Table 12. Percentage of time over the study period for wind speed during the cold and warm seasons.32

Table 13. Percentage of time over the study period that winds occurred in each direction during the cold and warm seasons.36

Table 14. Day of first flow at the study sites.41

Acknowledgments and Disclaimer

This research was funded by the U.S. Department of the Interior, Bureau of Land Management (BLM). The authors appreciate all of the individuals who helped collect this extensive set of data over the life of the project.

The contents of this report reflect the views of the authors, who are responsible for the accuracy of the data presented herein. The contents of this report do not necessarily reflect the views or policies of BLM. This work does not constitute a standard, specification, or regulation. The use of trade and firm names in this document is for the purpose of identification only and does not imply endorsement by the University of Alaska Fairbanks or BLM.

Abstract

This report summarizes the hydrological and meteorological data collected from 2003 to 2017 at 7 stations in the National Petroleum Reserve–Alaska. During an 8-year period, from May 2010 to December 2017, a research team from the University of Alaska Fairbanks, Water and Environmental Research Center, and personnel from the Bureau of Land Management performed 351 discharge measurements and collected and analyzed data on air temperature, rainfall, wind speed, and wind direction at stations distributed on a southwest–northeast transect from the foothills of the Brooks Range to the Arctic Ocean. In general, the air temperature data indicate an evident warming trend for the entire region. Rainfall data suggest a trend in increasing precipitation during the summer months from the coastal plain to the foothills, though there are some exceptions. The overall highest mean monthly wind speed was recorded in February; the overall lowest mean monthly wind speed varied from station to station. Wind roses indicate two main wind directions—approximately from the northeast and southwest—with winds from the northeast predominant at the northern stations and winds from the southwest predominant at the southern stations.

CHAPTER 1 INTRODUCTION

The University of Alaska Fairbanks Water and Environmental Research Center (UAF/WERC) has conducted extensive studies on the Alaska North Slope. The foci of these ongoing studies are climate, hydrology, and water quality. Research work has included (a) the continuous collection of climatologic data from meteorological stations, (b) studies on snow distribution, (c) stream gaging in several rivers, and (d) modeling.

Federal and state agencies, including the National Science Foundation, U.S. Department of Energy, U.S. Department of the Interior, Bureau of Land Management (BLM), Alaska Department of Transportation and Public Facilities, Alaska Department of Natural Resources, and Alaska Department of Fish and Game, funded these research efforts, as did project partners Alyeska Pipeline, BP, ConocoPhillips, and Geo-Watersheds Scientific.

One of the projects, the National Petroleum Reserve–Alaska (NPR–A) Watershed Hydrology study, is funded by BLM under agreements L09AC15923 and L14AC00298. This project began in 2009 and ended in September 2018. As part of the project, BLM and UAF personnel performed hydrologic measurements (river discharge, water level) at stations on several streams located in the NPR–A. In addition, they collected data on basic meteorological variables: air temperature, rainfall, wind speed, and wind direction.

This report, which constitutes the final project report for the current agreement (L14AC00298), includes data collected during the initial agreement (L09AC15923). The report is organized as follows: Chapter 1 introduces the study. Chapter 2 describes the study area. Chapter 3 provides information related to discharge measurements, specifically fieldwork and data processing activities. Chapter 4 presents meteorological data collected before and during the project. Chapter 5 is a short analysis of the data collected. Chapter 6 reports our conclusions and recommendations. The appendices contain discharge measurement summary forms, water temperature and conductivity data, and basic weather variables.

CHAPTER 2 STUDY AREA

This project's 7 study sites are located in the National Petroleum Reserve–Alaska (NPR–A): Fish Creek (70°16.23' N; 151°52.155' W), Ikpikpuk River (69°46.008' N; 154°39.826' W), Judy Creek (70°13.241' N; 151°50.13' W), Otuk Creek (68°29.128' N; 155°43.032' W), Prince Creek (69°19.30' N; 152°30.84' W), Seabee Creek (69°22.29' N; 152°09.47' W), and Ublutuoch River (70°14.591' N; 151°17.823' W). The NPR–A is an area of approximately 23 million acres that extends from the north side of the Brooks Range to the Arctic Ocean. The location of each station, as well as the contributing areas upstream of each station, is shown in Figure 1. Four stations are located on the coastal plain (Ikpikpuk River, Fish Creek, Judy Creek, Ublutuoch River), two stations are located near the foothills of the Brooks Range (Prince Creek, Seabee Creek), and one station is located in the foothills of the Brooks Range (Otuk Creek). The drainage areas of the study sites are as follows: 1697 mi² for the Ikpikpuk River, 787 mi² for Fish Creek, 639 mi² for Judy Creek, 248 mi² for the Ublutuoch River, 226 mi² for Prince Creek, 28.9 mi² for Seabee Creek, and 54.1 mi² for Otuk Creek (Richard Kemnitz, pers. comm., 2018).

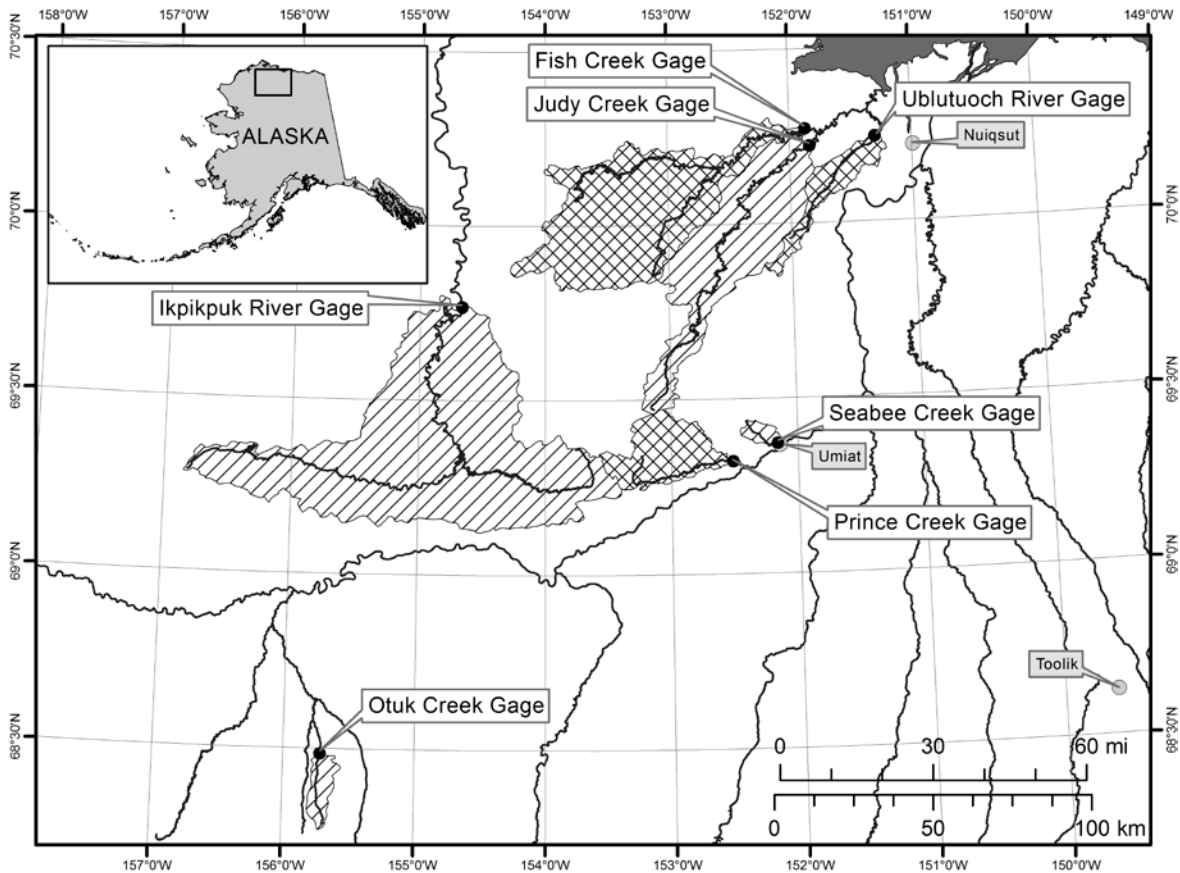


Figure 1. Geographic distribution of stations inside the NPR–A.

CHAPTER 3 DISCHARGE MEASUREMENTS

The UAF/WERC research team, in conjunction with personnel from BLM, operates the 7 gaging stations located in the NPR–A. Field tasks and data analysis carried out by the UAF research team are described in this chapter.

3.1 Fieldwork

Fieldwork spanned from May 2010 to December 2017. The UAF research team was in the field 6 to 7 weeks per year. Pre-field and post-field activities each year required a substantial amount of time. For instance, before the beginning of each trip to Umiat, in preparation for field deployment, the field gear was cleaned and repaired, and the scientific equipment firmware and software were updated. After returning from the field, all the equipment was placed in storage rooms at UAF or BLM, and data collected in the field were copied to several computers.

During the 8-year period, the UAF research team and Richard Kemnitz, who works with BLM, performed 351 discharge measurements (Table 1) at 7 gaging stations (Figure 1), using an acoustic Doppler current profiler (ADCP) or a U.S. Geological Survey (USGS)-type AA current meter. Individual summary forms for discharge measurements taken with the ADCP are included in Appendix A. Most of the measurements were conducted during spring breakup, which is the main hydrological event of the year (Toniolo et al. 2013). During each visit, we surveyed water levels and existing reference points at the gaging stations. The discharge measurements together with the water level surveys were used to develop rating curves at each station. At selected sites, water temperature and conductivity were also measured (Appendix B).

Table 1. Summary of discharge measurements taken during the project.

Date	Fish Creek	Ikpikuk River	Judy Creek	Otuk Creek	Prince Creek	Seabee Creek	Ublutuoch River
	ft ³ /s						
5/30/10						159	
5/31/10					328	311	
6/2/10					739		
6/3/10						232	
6/4/10		12,221					
6/5/10			1417				
6/6/10				264*	4800	486	
6/7/10		26,984			5641	442	
6/8/10	3390		9115				3117

Date	Fish Creek	Ikpikpuk River	Judy Creek	Otuk Creek	Prince Creek	Seabee Creek	Ublutuoch River
	ft ³ /s						
6/9/10						167*	
6/10/10	2990		4582				1798
6/11/10		7423				104*	
6/12/10					838		
6/14/10	2820		1777				
6/15/10							569
6/17/10		1074					
6/18/10				253*			
6/19/10						12*	
7/3/10		214					
7/5/10			170				
7/6/10	648						65
7/8/10				10	14		
7/12/10						1*	
8/26/10				33*			
8/27/10						11*	
8/28/10							35*
8/30/10	233		162				
8/31/10					89		
9/10/10		97					
10/10/10						1*	
5/26/11						293	
5/27/11					405		
5/29/11		27,201				676	
5/30/11					6545	356 & 594	
5/31/11		30,269					
6/1/11						242	
6/2/11	2059		4414				1692
6/3/11		8074			827		
6/4/11				75*			
6/5/11	2000		2666				1642
6/6/11					867		
6/7/11	2443	275	2595				1161
6/8/11						66*	
7/7/11							
7/8/11	527		187				42
7/9/11				19			
7/10/11					27*		
7/12/11						2	
8/26/11		79					

Date	Fish Creek	Ikpikpuk River	Judy Creek	Otuk Creek	Prince Creek	Seabee Creek	Ublutuoch River
	ft ³ /s						
8/27/11	159						
8/28/11			66				8
8/29/11				23*	9*		
8/31/11						8*	
9/11/11						65*	
5/23/12						6*	
5/24/12						46 & 52*	
5/25/12		8682			22	95	
5/27/12	101		549		54		
5/28/12				64			
5/31/12		8055					
6/1/12				500		467	
6/3/12	406		3094			307*	148
6/4/12		10,567					
6/5/12	1838		6556		3542		2119
6/7/12	2546		4605				1603
6/8/12					609	90*	
6/9/12	2977		3260				1078
6/11/12						64*	
7/5/12		204					
7/6/12				63*			
7/7/12	581		181				57
8/31/12		1190					
9/1/12	213		85				10
9/2/12					972		
9/3/12						81*	
9/4/12				74*			
9/8/12						30*	
5/25/13						1*	
5/26/13						1*	
5/27/13						7*	
5/28/13		1232			73	122	
5/30/13						245	
5/31/13		17,428			1001		
6/1/13						295	
6/2/13	442		3381			665	
6/3/13					6638	751	
6/5/13		17,972					
6/6/13	2148		3049				1318
6/7/13					1270	102*	

Date	Fish Creek	Ikpikpuk River	Judy Creek	Otuk Creek	Prince Creek	Seabee Creek	Ublutuoch River
	ft ³ /s						
6/8/13				847	3160		
6/9/13	3420		5639				2434
6/11/13	4965		5712		2829		2036
6/12/13						157	
6/13/13	5002		3691				1533
6/15/13					575		
6/16/13						64	
6/17/13	3598		2105				738
6/18/13		4166					
6/20/13				129*	180		
6/21/13	2473		1145				382
6/22/13						17*	
7/4/13					58*		
7/5/13				38*			
7/6/13	1182		376				120
7/7/13		1383					
7/8/13						4*	
7/13/13				18*			
7/14/13							60*
7/15/13					19*		
8/22/13		2717			102		
8/23/13	440		144				19
8/25/13						5	
9/13/13						7*	
10/23/13	199						
5/17/14						309	
5/18/14						397	
5/19/14						199	
5/20/14						132	
5/23/14						61	
5/25/14					360		
5/26/14		1207				30*	
5/27/14	1166		1273				580
6/2/14	1340		1633				397
6/3/14		10,500					
6/4/14				140			
6/5/14						313	
6/6/14	2609		3707				1076
6/7/14					2469		
6/8/14		8114			2131		

Date	Fish Creek	Ikpikpuk River	Judy Creek	Otuk Creek	Prince Creek	Seabee Creek	Ublutuoch River
	ft ³ /s						
6/9/14	3122		2096				739
6/10/14				192*			
7/9/14						13*	
7/11/14		362			58		
7/12/14	912		280				75
7/13/14				88*			
8/26/14						2*	
9/12/14						6.21*	
5/18/15						334	
5/19/15						571	
5/21/15						897, 795, & 728	
5/22/15						627 & 421	
5/23/15						262	
5/24/15						170*	
5/25/15	4000		3340				1900
5/26/15		8940			1180	112	
5/28/15				109*			
5/29/15		4410					
5/30/15	4020		1990				740
6/2/15	2760		1270				442
6/4/15		1370					
6/6/15				35.7*	127		
6/7/15	2120		801				314
6/11/15	1890		792				257
6/12/15						15.1	
7/2/15	700		202				43.9
7/3/15		111					
7/4/15				9.2*			
7/20/15				416*			
8/26/15					210		
8/27/15	184		88				14.7
9/2/15						30.3*	
9/22/15						8.75*	
5/15/16						38.6*	
5/20/16						94.6	
5/21/16						345	
5/22/16					2320		
5/23/16				336*		478	
5/24/16	338		3010				811

Date	Fish Creek	Ikpikpuk River	Judy Creek	Otuk Creek	Prince Creek	Seabee Creek	Ublutuoch River
	ft ³ /s						
5/25/16		22,300				212	
5/26/16						171	
5/27/16						126	
5/28/16	1200		1860				673
5/29/16		5410			1070	79.1	
5/31/16				139*	397		
6/1/16						27.1*	
6/2/16	1860		936				314
6/4/16		871			106	13.8 & 10.1*	
6/6/16							286
6/9/16	1210		576				217
6/11/16		682			1080		
6/13/16	989						198
6/14/16				148*			
7/16/16	347	90.7*	77				20.5*
7/19/16					205*		
7/23/16						0.55*	
8/11/16	136		37.9				4.46*
8/12/16		18.2					
8/12/16		18.4*					
8/13/16						0.47*	
8/14/16					88.4*		
9/10/16						26.3*	
5/28/17	386		260			245	76
5/29/17		13,900					
5/30/17			1210				1310
5/31/17						243	
6/1/17	1200		3280				1320
6/2/17					3360		
6/3/17	1280	8610	4040				973
6/4/17						146	
6/5/17	1980		3270		1950		848
6/25/17						17*	
6/26/17					31.4*		
8/20/17							125
8/21/17			715				
8/22/17	800						
8/31/17						53.5*	

* Measurements made with USGS-type AA current meter. The remaining measurements were made using an ADCP.

The number of measurements and the maximum/minimum measured discharge for each site from 2010 to 2017 are provided below.

Fish Creek: Discharge was measured 52 times. The highest discharge was 5002 ft³/s measured on June 13, 2013; the lowest discharge was 101 ft³/s measured on May 27, 2012.

Ikpikpuk River: Discharge was measured 39 times. The highest discharge was 30,269 ft³/s measured on May 11, 2011; the lowest discharge was 18.2 ft³/s measured on August 12, 2016.

Judy Creek: Discharge was measured 51 times. The highest discharge was 9115 ft³/s measured on June 8, 2010; the lowest discharge was 37.9 ft³/s measured on August 11, 2016.

Otuk Creek: Discharge was measured 25 times. The highest discharge was 847 ft³/s measured on June 8, 2013; the lowest discharge was 9.2 ft³/s measured on July 4, 2015.

Prince Creek: Discharge was measured 46 times. The highest discharge was 6638 ft³/s measured on June 3, 2013; the lowest discharge was 9 ft³/s measured on August 29, 2011.

Seabee Creek: Discharge was measured 87 times. The highest discharge was 897 ft³/s measured on May 21, 2015; the lowest discharge was 0.47 ft³/s measured on August 12, 2016.

Ublutuoch River: Discharge was measured 51 times. The highest discharge was 3117 ft³/s measured on June 8, 2010; the lowest discharge was 4.46 ft³/s measured on August 11, 2016.

3.2 Data Processing

At the end of each field season, field notes and photographs from the game cameras installed at some of the stations were organized, and quality assurance and quality control were performed on the discharge data collected. In particular, a summary form for each ADCP measurement was generated by WinRiverII, hydrologic software (see Appendix A). Each form includes the final discharge values, location, and quality of the measurements. Basic geometric (cross-sectional area, channel width and depth) and hydraulic (flow velocity) parameters are also included in each form. The UAF research team along with BLM's Richard Kemnitz finalized the rating curves (Figure 2) for each station (Appendix C), which together with the 15-minute water level data collected were used to calculate daily mean flows during the open-water season, using Aquarius Hydrological software (Appendix D).

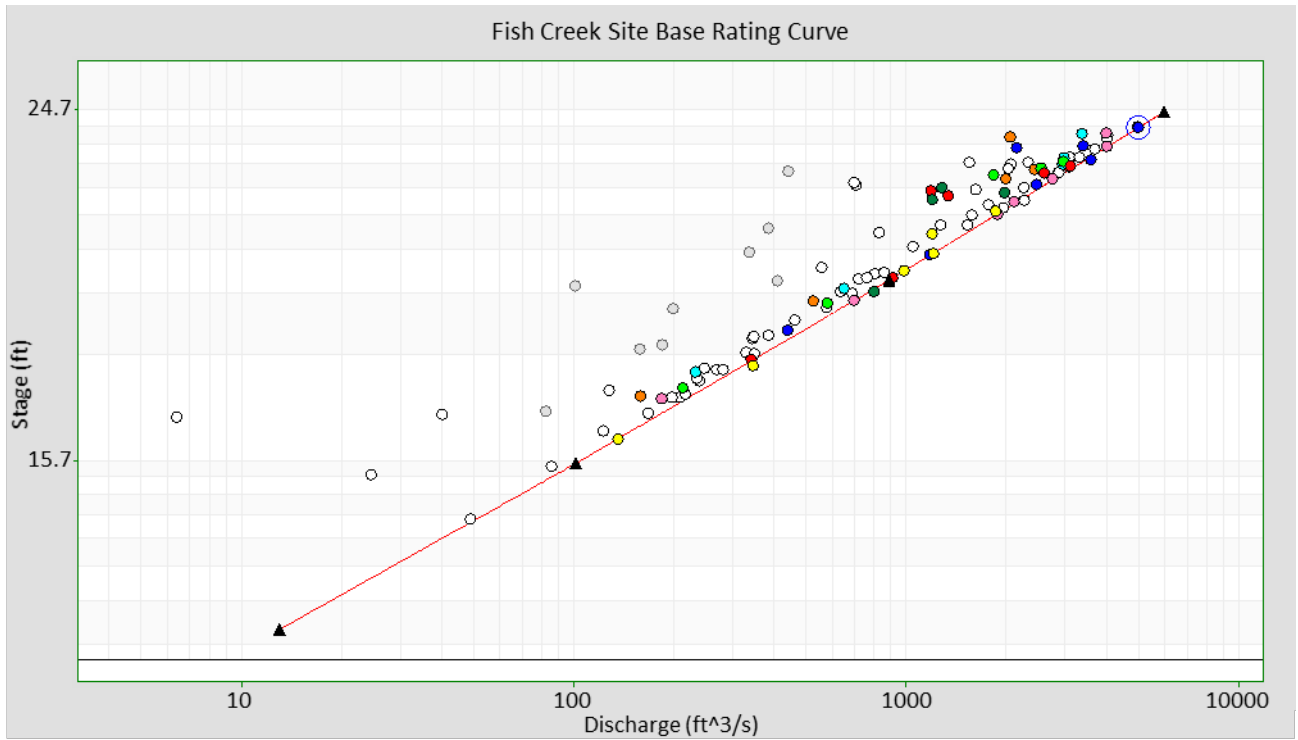


Figure 2. Rating curve generated in Aquarius and maintained by the NPR–A hydrology project. This example is for Fish Creek. The colored dots represent measurements from different years: white for 2001 to 2009, cyan for 2010, orange for 2011, light green for 2012, dark blue for 2013, red for 2014, pink for 2015, yellow for 2016, and dark green for 2017.

CHAPTER 4 METEOROLOGICAL DATA

Six basic weather stations had been installed by BLM before the UAF project began. All six stations recorded air temperature, and three stations (Fish Creek, Ikpikpuk River, and Otuk Creek) also recorded rainfall, wind speed, and wind direction. Table 2 shows the temporal record of each BLM station, as well as the meteorological variables measured. All existing meteorological data were processed and reviewed for quality assurance and quality control by the UAF research team.

Table 2. BLM stations and meteorological data collected.

Station	Record	Weather Data			
		Rainfall	Air Temperature	Wind Direction	Wind Speed
Fish Creek	2003–2017	Yes	Yes	Yes	Yes
Ikpikpuk River	2003–2017	Yes	Yes	Yes	Yes
Judy Creek	2005–2017		Yes		
Otuk Creek	2008–2017	Yes	Yes	Yes	Yes
Prince Creek	2010–2017		Yes		
Ublutuoch River	2005–2017		Yes		

Air Temperature: The six stations covered the area from the foothills (Otuk Creek) to the coastal plain (Ublutuoch River) and collected air temperature at a distance of 2 m above the ground surface.

Rainfall: A southwest–northeast path defined by three stations was studied to detect pattern changes (if any) during the summer months. The stations include Otuk Creek (furthest southwest station), the Ikpikpuk River (central station along this path), and Fish Creek (furthest northeast station).

Wind: Wind direction and wind speed were recorded at the Otuk Creek, Ikpikpuk River, and Fish Creek stations. We studied wind data recorded on the southwest–northeast path, defined by these three stations, during the warm season (May 15 to September 14) and cold season (September 15 to May 14) each year of the period of record.

In recent years, weather data were collected by the following instruments: air temperature – Thermex air temperature probe; wind – RM Young 05103 (wind velocity and wind direction);

and rainfall – Texas Electronics TR525USW. We used a datalogger Waterlog H-522 with a GOES SatLink transmitter or a Sutron 8210, also with a GOES SatLink transmitter, to record individual meteorological variables and transmit them by GOES-based telemetry.

The air temperature sensor was situated inside a standard shield, which was located at the end of a crossbar mounted on a metallic tripod. The wind sensors (speed and direction) were located on the opposite end of the same crossbar. Summer rainfall at the stations was collected by tipping bucket gages located 40 to 70 cm above the ground surface. Precipitation, after falling in an orifice, activates a bucket mechanism that tips when filled to a calibrated level. Tips were counted and recorded by a datalogger every hour. All precipitation gages are surrounded by an Alter wind shield, positioned slightly above the gage to avoid precipitation undercatch due to wind (Derry et al. 2007). All weather data are collected at the top of the hour as an instant measurement; no hourly average is calculated or stored.

4.1 Methodology

We used the water year, which is defined as 1 October Year (X) to 30 September Year (X+1) (U.S. Geological Survey 2016), in analyzing air temperature and wind data (direction and speed) on an annual basis. Monthly air temperature and wind direction were also calculated. We analyzed liquid precipitation (rainfall) during the warm season (May/June to September/October in a given year).

The annual cumulative freezing degree-days (ACFDD) in degrees Fahrenheit (or Celsius) were calculated to investigate the variation in air temperature that occurs during the long winter months that are characteristic of this area. Freezing degree-days (FDD) can be calculated as follows:

$$FDD = (32 - T_{aF}) \quad \text{or} \quad FDD = (0 - T_{aC}) \quad (1a, b)$$

where T_{aF} is the average daily air temperature in degrees Fahrenheit (or in degrees Celsius, T_{aC}).

4.2 Results

4.2.1 Rainfall

Figure 3 to Figure 5 show the cumulative rainfall calculated for each year at the Fish Creek, Ikpikuk River, and Otuk Creek stations during the available record (2003 to 2017 for Fish

Creek and Ikpikpuk River, and 2008 to 2016 for Otuk Creek). The line graphs (A) in each of the figures show the monthly rainfall in a given year, and the column graph (B) shows cumulative rainfall over the years. The plots indicate that the cumulative values range from approximately 20 mm to 140 mm (Fish Creek station), 45 mm to 160 mm (Ikpikpuk River station), and 115 mm to 210 mm (Otuk Creek station). Additionally, the plots suggest a trend in increasing precipitation during the summer months from the coastal plain (Fish Creek station) to the foothills area (Otuk Creek station). A similar trend in increasing precipitation was reported by Homan (2015) in a different area on the Alaska North Slope. In calculating the average cumulative rainfall using the entire dataset, we observed a significant increase in cumulative rainfall, above the average, in the last 2 years at the Fish Creek station: 40.4% in 2016 and 42.7% in 2017. Another year with high rainfall was 2003, at 19.9% above the average.

We observed no trend at the Ikpikpuk River station, but we did observe significant variability in cumulative rainfall from year to year. The lowest rainfall recorded was 44.7 mm in 2007; the highest rainfall recorded was 152.9 mm in 2013 (rainfall data for 2011 are missing due to sensor failure).

The Otuk Creek station had its highest cumulative rainfall in 2015—207 mm—the largest value of cumulative rainfall recorded at all stations during this study. A slightly increasing trend in rainfall is observed from 2008 to 2016 (rainfall data for 2017 are missing due to sensor failure).

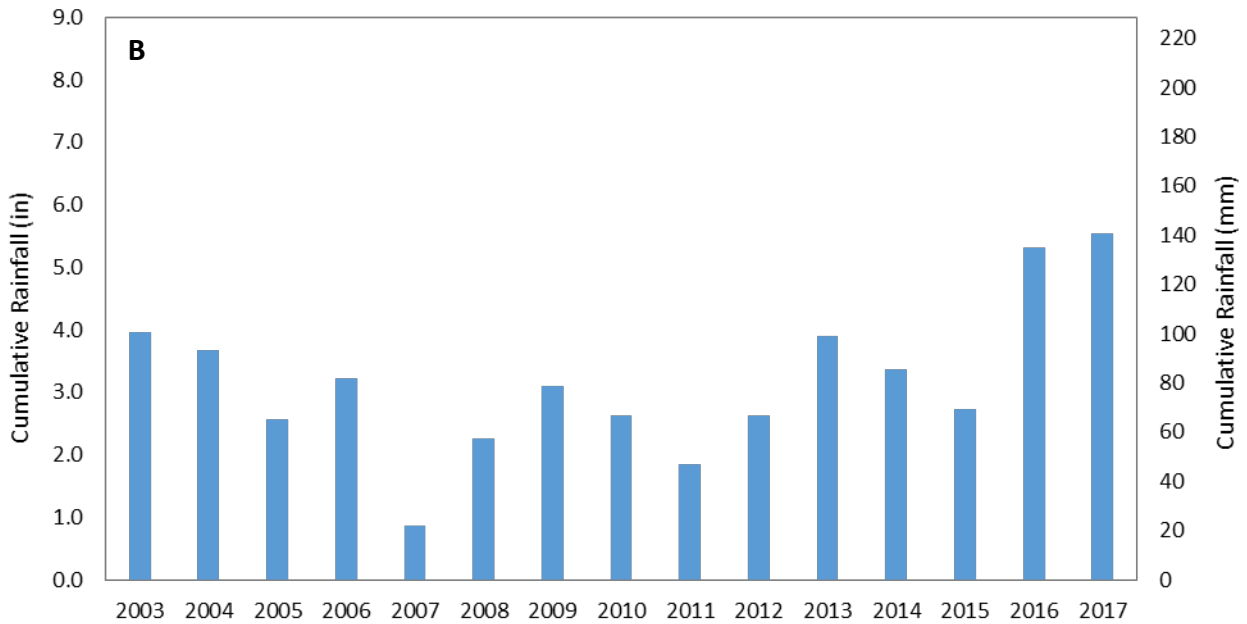
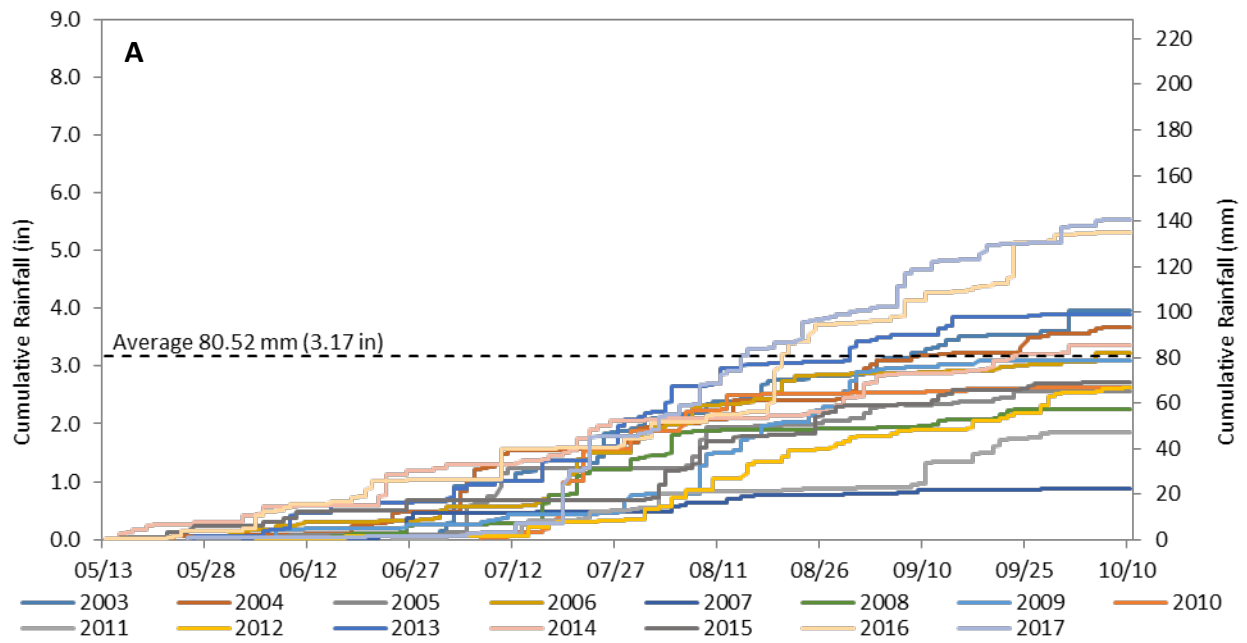


Figure 3. Cumulative annual rainfall – Fish Creek station.

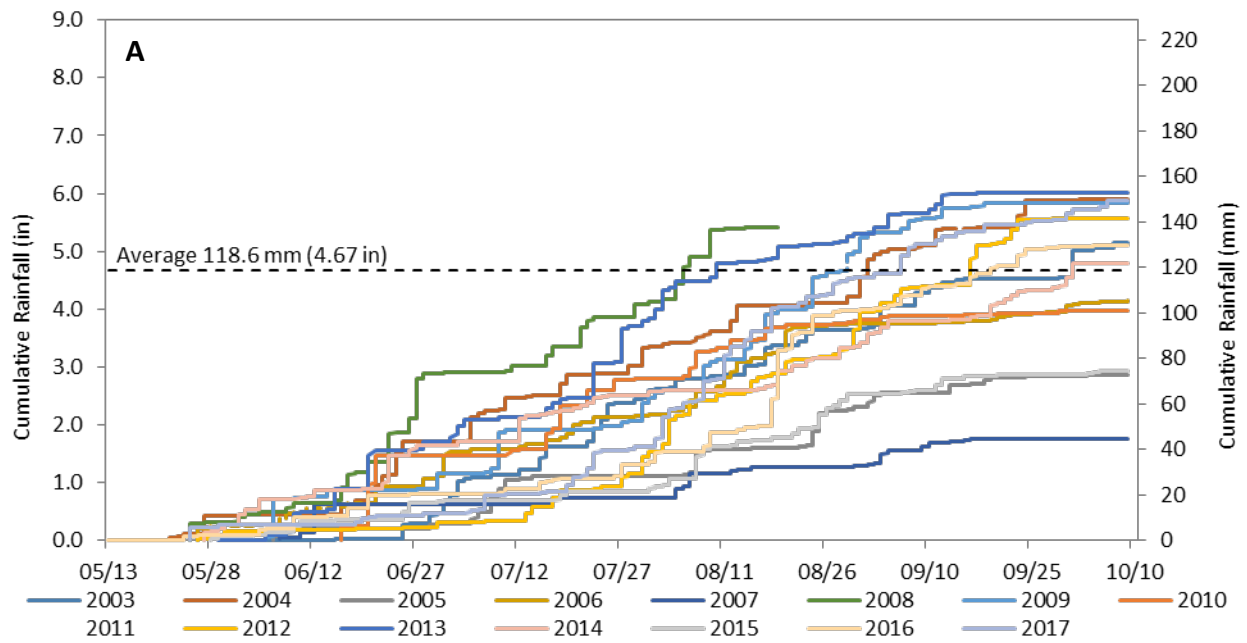


Figure 4. Cumulative annual rainfall – Ikpikuk River station.

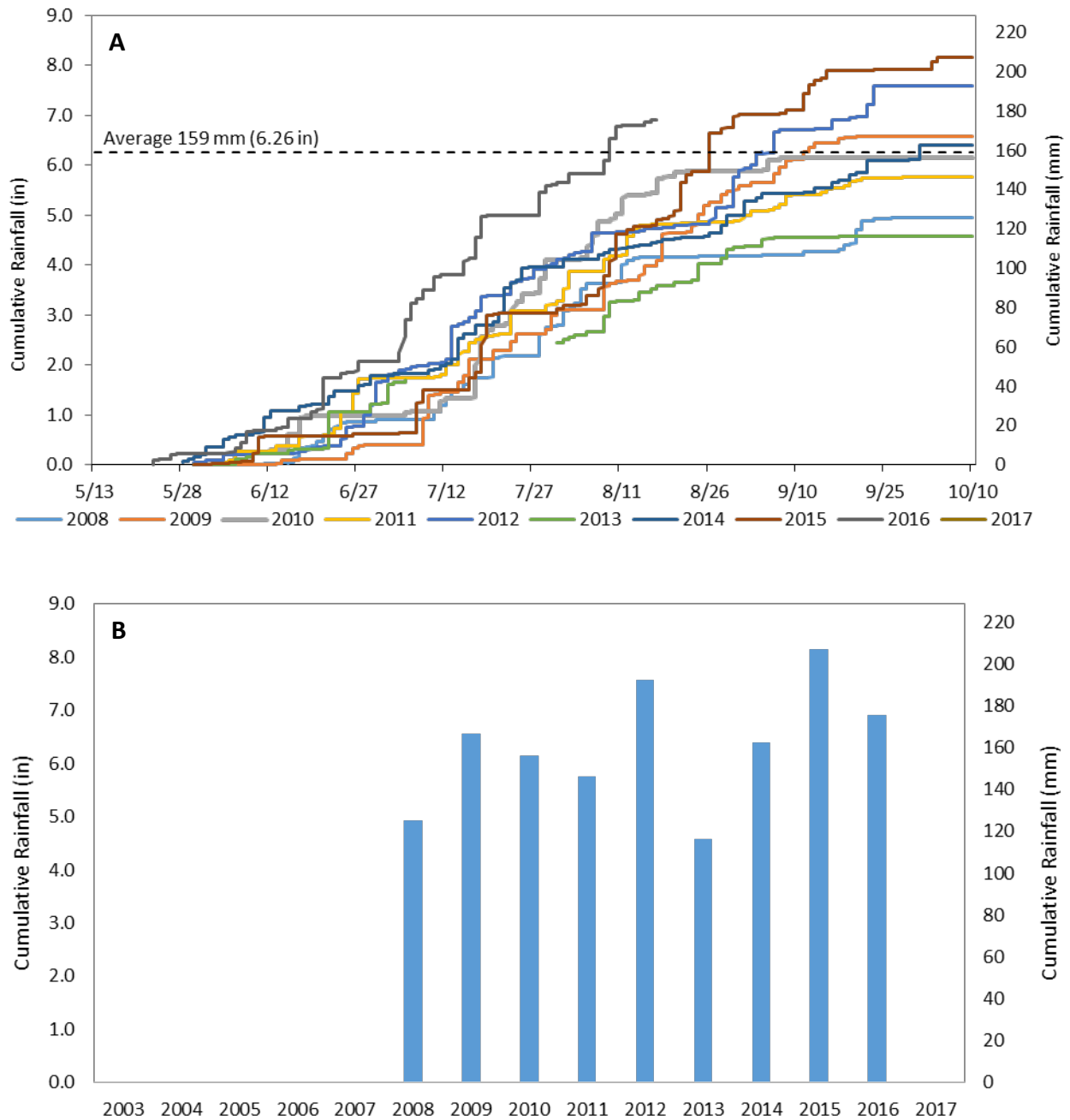


Figure 5. Cumulative annual rainfall – Otuk Creek station.

Plots depicting the cumulative monthly rainfall values for the stations are shown in Figure 6 to Figure 8. The available data indicate that at the coastal plain (Fish Creek station), July was the wettest month in 7 out of 15 years of record, followed by August with 4 out of 15 years. The data also show a shift from July to August as the wettest month in the last 3 years, as well as an increase in precipitation in September. Data from the Ikipikuk River station show that August

was the wettest month in 8 out of 15 years, followed by June (4 out of 10 years). In the foothills area (Otuk Creek station), July was the wettest month (6 out of 9 years), followed by August (2 out of 9 years). The graphs in Figure 6 through Figure 8 illustrate the unusually dry conditions recorded over the entire area in 2007 and in 2011.

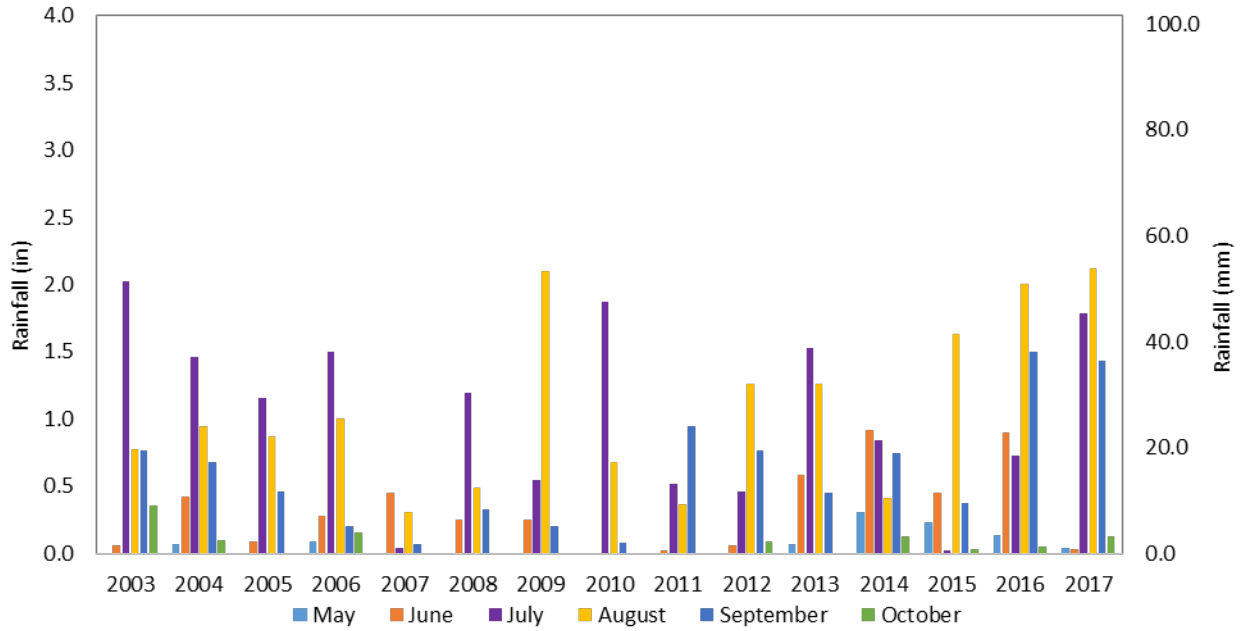


Figure 6. Cumulative monthly rainfall – Fish Creek station.

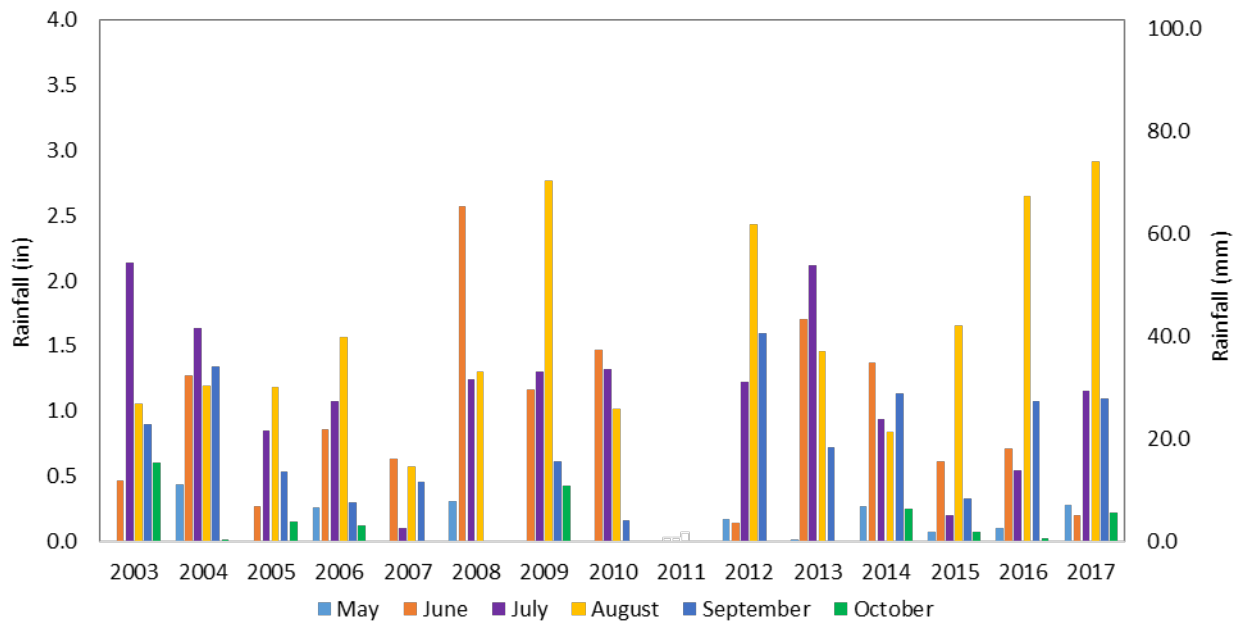


Figure 7. Cumulative monthly rainfall – Ikpikpuk River station.

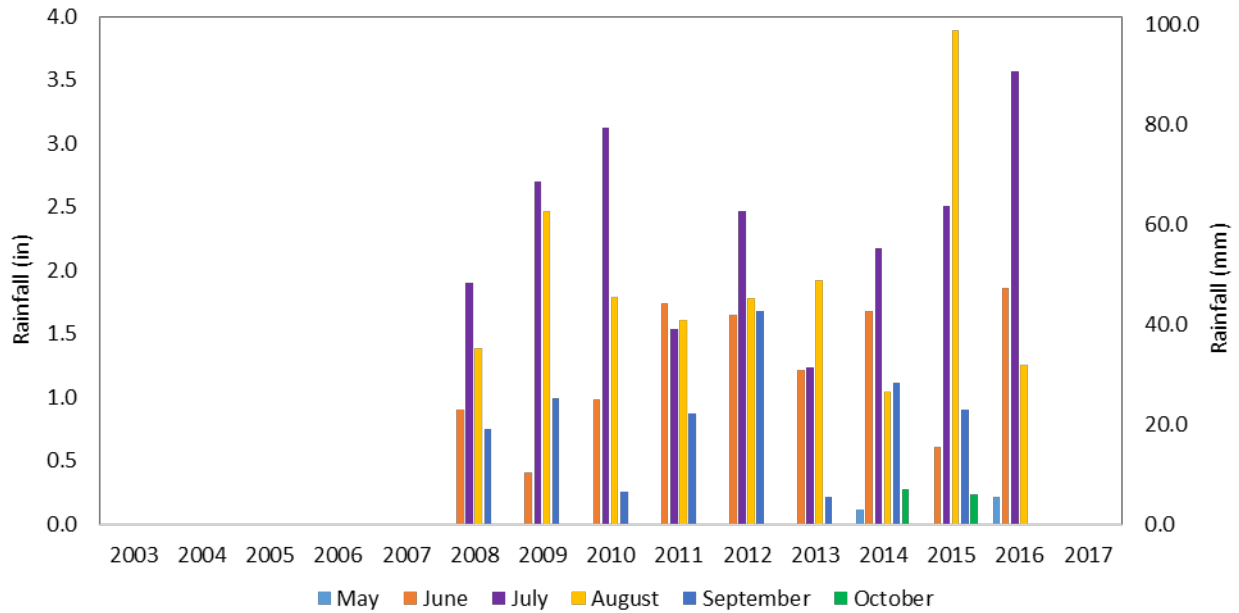


Figure 8. Cumulative monthly rainfall – Otuk Creek station.

4.2.2 Air Temperature

Mean, maximum, and minimum annual air temperatures, based on the calendar year, for the stations equipped with an air temperature sensor (all but the Seabee Creek station) are shown in Table 3 to Table 5. All the stations show an increase in the mean annual temperature after 2013, with the warmest mean annual temperatures recorded in 2016 and 2017 (more than 2°C above the overall average). The coldest year for all stations was the calendar year 2012 (Table 3).

Table 3. Mean annual temperatures.

Year	Fish Creek	Ikpikpuk River	Judy Creek	Otuk Creek	Prince Creek	Ublutuoch River
	(°C)					
2004	-10.8	-10.4				
2005	-10.9	-10.4				
2006	-10.1	-9.7	-10.1			-9.8
2007	-9.0	-9.7	-10.2			-10.2
2008	-10.7	-10.8	-10.7			-10.9
2009	-10.6	-10.1	-10.7	-9.0		-10.9
2010	-9.8	-9.5	-9.8	-9.3		-9.9
2011	-10.8	-9.8	-10.8	-8.7	-10.5	-10.9
2012	-11.0	-10.8	-11.2	-10.9	-14.6	-11.5
2013	-10.5	-10.0	-10.5	-9.9	-10.7	-10.6
2014	-9.3	-8.8	-9.4	-8.1	-9.3	-9.5
2015	-9.3	-9.2	-9.6	-9.1	-9.5	-9.7
2016	-7.3	-7.7	-7.6	-9.2	-8.3	-9.7
2017	-7.6	-7.4	-7.8	-7.1	-7.6	-8.2
Average	-9.9	-9.6	-9.9	-9.0	-10.1	-10.1

The warmest temperatures recorded were in the calendar year 2016 at most stations; however, data from the Ublutuoch River station are missing for July 2016 due to sensor failure. Prince Creek had the highest temperature of all the stations: 31.5°C in 2016 (Table 4).

Table 4. Maximum annual temperatures.

Year	Fish Creek	Ikpikpuk River	Judy Creek	Otuk Creek	Prince Creek	Ublutuoch River
	(°C)					
2004	24.6	28.9				
2005	24.5	25.2				
2006	22.1	25.0	23.2			24.1
2007	23.6	27.2	24.5			25.9
2008	24.9	28.1	25.5			26.2
2009	27.9	29.1	28.1	27.3		28.1
2010	23.3	25.1	23.1	25.2		23.9
2011	21.7	24.0	22.2	23.2	29.1	21.3
2012	26.4	24.8	26.5	21.9	28.0	27.0
2013	24.0	30.0	25.2	26.9	30.8	27.2
2014	20.7	22.4	20.3	21.2	25.4	21.2
2015	26.7	27.2	26.3	26.5	29.8	27.4
2016	28.5	30.2	28.6	25.0	31.5	23.1
2017	25.5	28.6	26.1	25.6	31.4	27.3

The coldest temperatures were recorded in the 2012 calendar year at all stations. The Prince Creek station recorded the coldest temperature at -52.2°C (Table 5).

Table 5. Minimum annual temperatures.

Year	Fish Creek	Ikpikpuk River	Judy Creek	Otuk Creek	Prince Creek	Ublutuoch River
	($^{\circ}\text{C}$)					
2004	-46.3	-46.9				
2005	-42.9	-43.1				
2006	-46.5	-46.5	-46.3			-46.0
2007	-43.8	-47.0	-45.9			-47.0
2008	-46.6	-46.9	-47.7			-48.0
2009	-44.8	-43.9	-45.3	-44.0		-45.2
2010	-45.7	-47.0	-46.6	-45.0		-46.9
2011	-45.0	-47.2	-46.7	-44.7	-49.1	-47.3
2012	-49.5	-50.6	-50.8	-49.0	-52.2	-50.0
2013	-42.4	-44.8	-44.1	-45.0	-48.6	-45.9
2014	-44.7	-44.9	-45.6	-44.5	-46.6	-46.3
2015	-41.2	-42.3	-43.1	-41.7	-44.9	-43.3
2016	-38.5	-39.7	-40.6	-39.2	-44.3	-41.1
2017	-42.9	-42.0	-43.3	-41.2	-45.4	-43.5

Plots describing the annual cumulative freezing degree-days (ACFDD) for the Fish Creek, Ikpikpuk River, Judy Creek, and Ublutuoch River stations (Figure 9 to Figure 12) show a distinct decreasing trend (i.e., overall warmer temperatures), with a sudden increase in ACFDD in winters 2012/13 and 2013/14 (i.e., colder temperatures), and then a return to the decreasing trend.

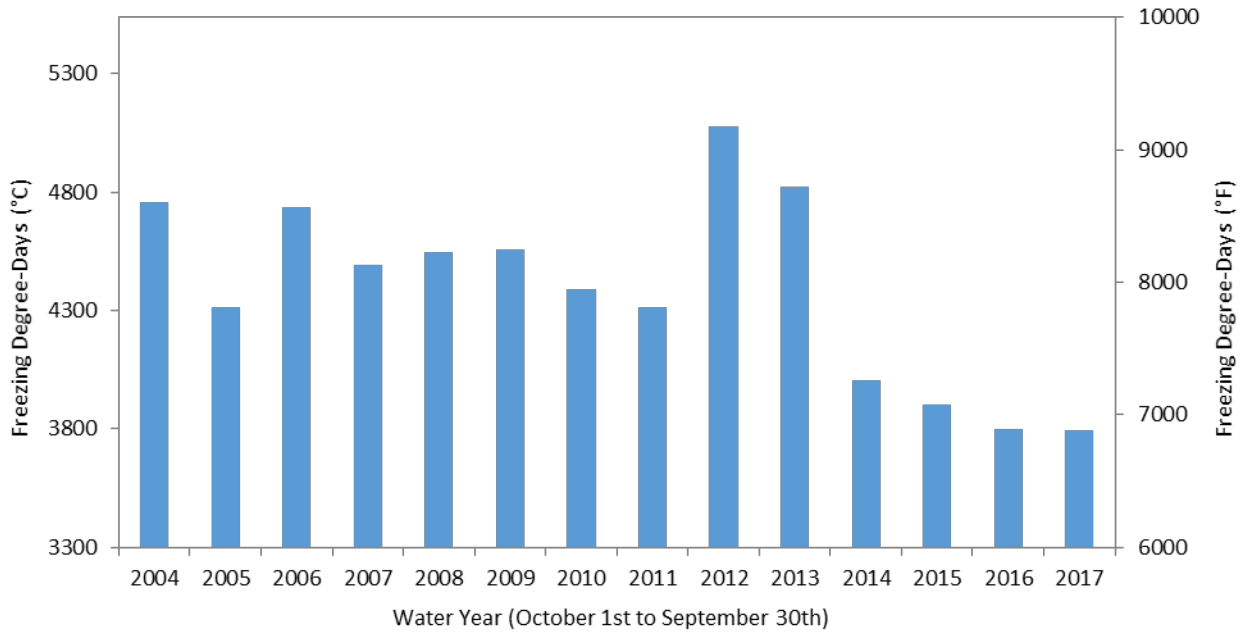


Figure 9. Annual cumulative freezing degree-days – Fish Creek station.

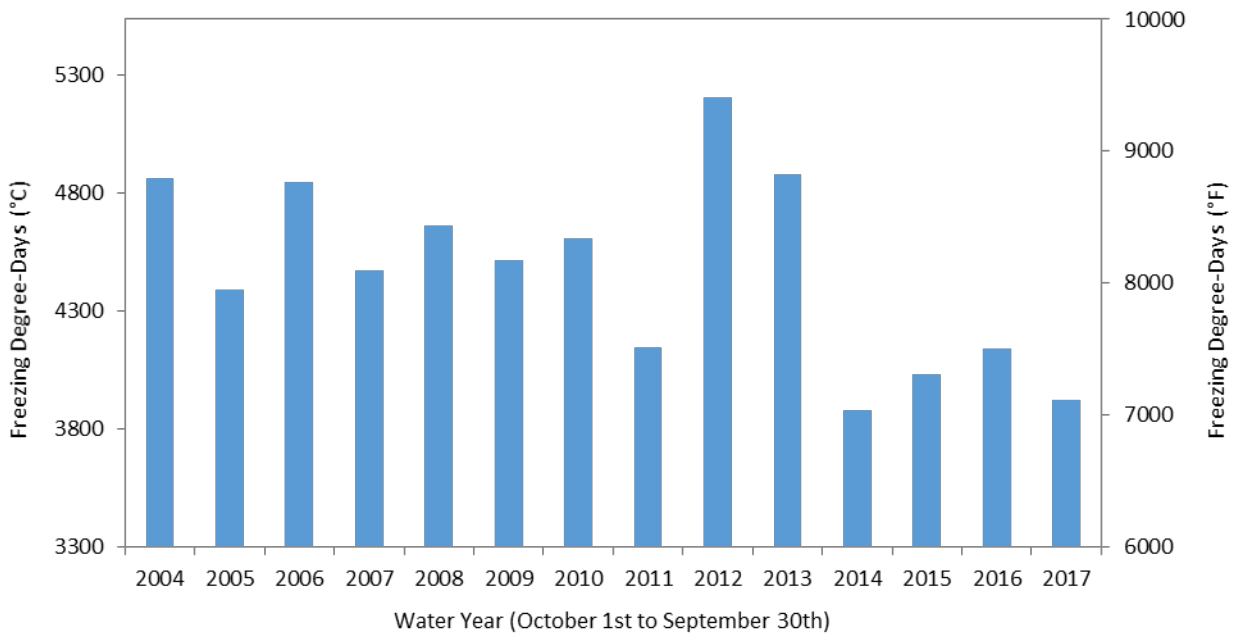


Figure 10. Annual cumulative freezing degree-days – Ikpikuk River.

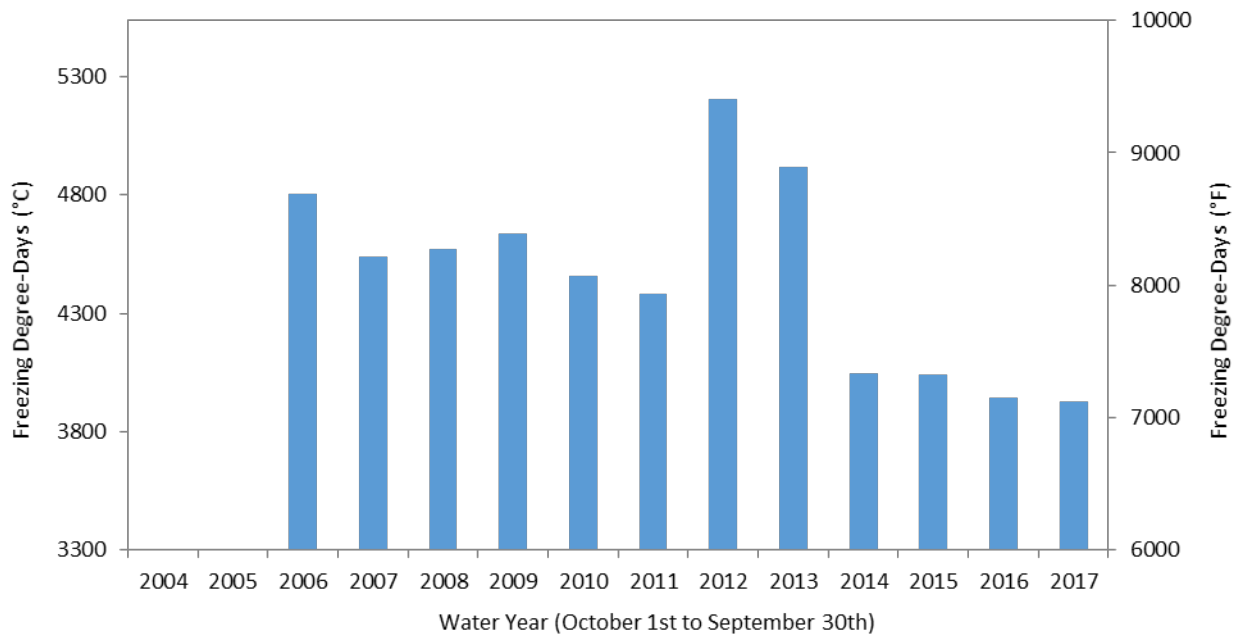


Figure 11. Annual cumulative freezing degree-days – Judy Creek station.

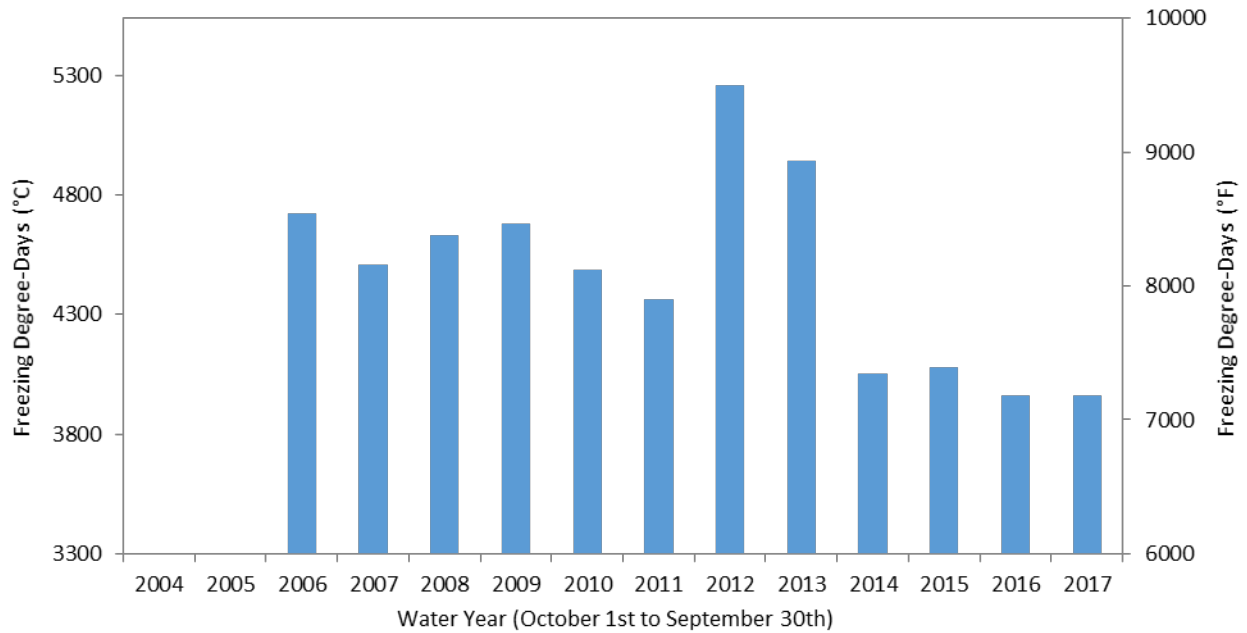


Figure 12. Annual cumulative freezing degree-days – Ublutuoch River station.

The plots in Figure 13 and Figure 14 show the ACFDD for Otuk Creek and Prince Creek (which have a shorter period of record than the other stations). Again, the plots indicate a significant

increase in ACFDD corresponding to winters 2012/13 and 2013/14, with a decrease in ACFDD in the years following (i.e., increasing winter temperatures).

We plotted the air temperature on a monthly basis and calculated mean-maximum, mean, and mean-minimum monthly air temperatures for all stations. In Appendix E, only mean monthly air temperatures are included. The tables in Appendix E indicate relatively high variability in a given month from year to year.

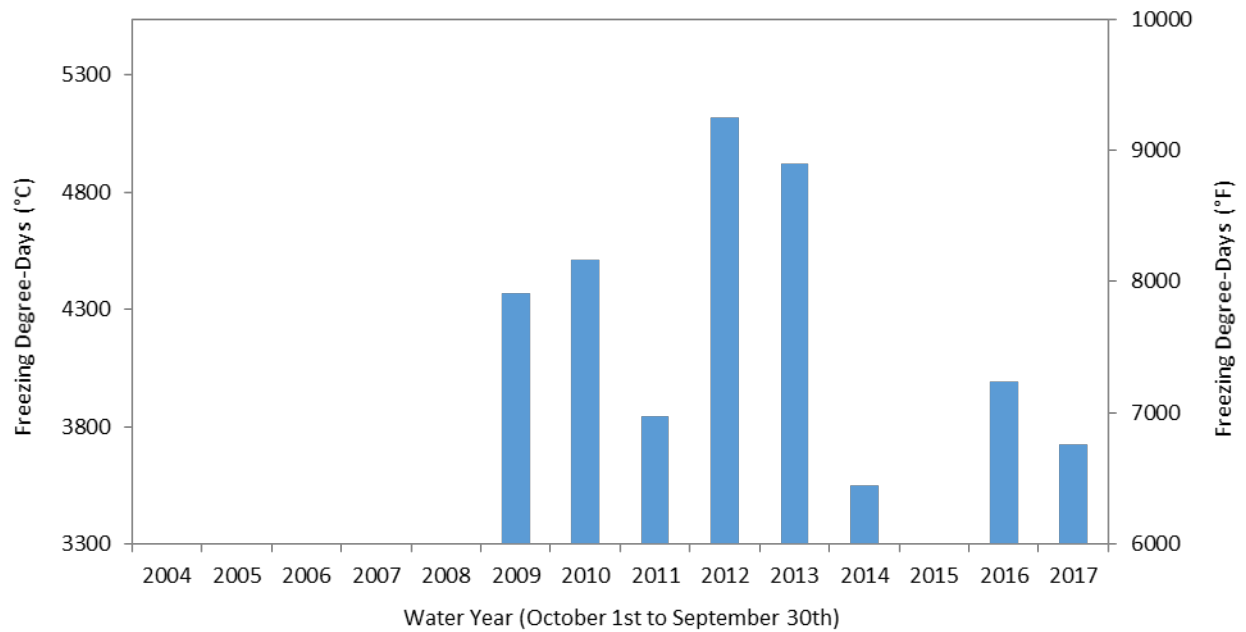


Figure 13. Annual cumulative freezing degree-days – Otuk Creek station.

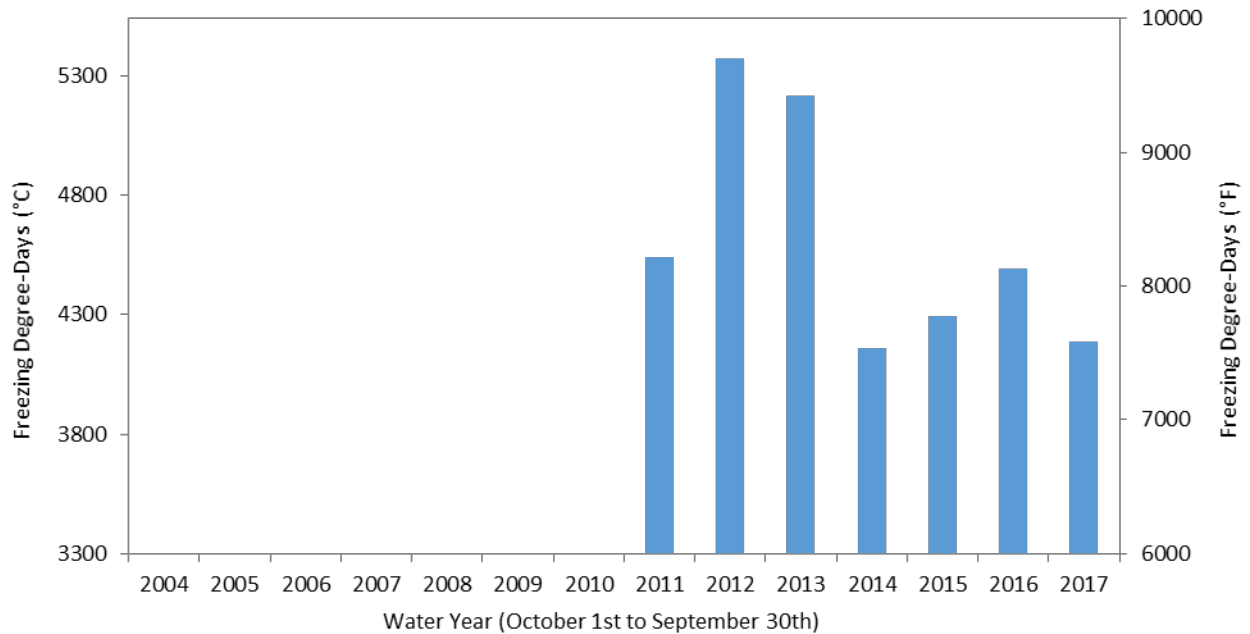


Figure 14. Annual cumulative freezing degree-days – Prince Creek station.

4.2.3 Wind

As mentioned earlier, wind speed and wind direction were recorded at three stations: Fish Creek, the Ikpikuk River, and Otuk Creek. The overall monthly mean wind speed at the Fish Creek station (Table 6) varied between 5.4 and 16.5 miles per hour (mph), with February having the overall highest mean wind speed and December having the lowest. This finding is consistent with findings of previous studies, which have shown that while coastal stations typically have the highest mean wind speeds during the cold season, interior stations typically have the highest mean wind speeds during the warm season (Baule and Shulski 2013; Homan, 2015).

Considering the 15-year averages for each month at the Ikpikuk River station (Table 7), February also had the highest average wind speed, while March had the lowest. As with the Fish Creek and Ikpikuk River stations, the Otuk Creek station recorded its highest overall mean monthly wind speed in February and its lowest overall mean monthly wind speed in October (Table 8). The monthly mean wind speeds did not show a trend over the study period at any of the three stations, remaining relatively steady. This finding is in contrast to a decrease in monthly mean wind speeds reported in a previous study of interior Alaska sites (Baule and Shulski 2013).

Table 6. Monthly mean wind speed at the Fish Creek station. Months left blank indicate insufficient data (only months with 80% or more of data available were used to compute monthly mean and maximum values).

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	(mph)											
2004						8.2	7.9	7.1	7.7	8.9	11.4	
2005	8.5	9.4	11.7	8.4	10.1	10.3	9.2	6.7	11.9	7.8	5.4	6.9
2006			9.9	8.1	7.3		8.8	7.2	6.7	9.8	6.4	7.3
2007	8.0	8.3	7.2	9.4	8.9	10.7	9.0					
2008	8.9	7.3	7.4	8.9	11.8	8.2	8.3	6.8	6.8	8.0	8.2	
2009	7.4	8.9		7.4	8.4	10.9	9.5	7.7	8.6	8.4	7.6	
2010	7.3	12.0	8.2	8.5	12.1	12.2	8.9	9.1	7.9	11.6	11.8	
2011				9.6	7.6	12.1	8.9	8.6	9.9	9.5	7.5	6.9
2012	8.7			8.7	9.3	10.2	8.2	8.8	8.7	8.3	7.7	6.9
2013	13.2	11.1	12.0	9.1	8.3	8.5	9.9	7.5	8.4	6.6	9.1	9.7
2014	13.4	9.2	6.3	6.8	8.7	9.0	9.2	10.3	9.9	10.5	8.8	
2015	9.3	10.9	9.3	9.1	9.0	8.5	8.7	9.2	8.5	10.7	8.0	7.4
2016	7.5	14.3	12.0	16.5	9.1	9.3	9.4	8.8	8.9	7.6		
2017	8.7	9.5	9.3	12.4	9.8	11.8	9.1	9.1	8.2	7.6	10.3	
Overall	9.2	10.1	9.3	9.5	9.3	10.0	8.9	8.2	8.6	8.9	8.5	7.5

Table 7. Monthly mean wind speed at the Ikpikpuk River station. Months left blank indicate insufficient data (only months with 80% or more of data available were used to compute monthly mean and maximum values).

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	(mph)											
2004						7.8	7.7	7.4	9.3	11.1	9.8	
2005	10.2	8.9	8.2	7.5	10.4	11.3	9.7	7.2	10.4	7.8		6.9
2006		9.9	7.1	8.2	7.5	9.4	8.9	7.9	6.5	8.2		
2007						10.4	9.0	7.2	7.4	8.6	7.9	6.5
2008	9.5	7.8	7.0	8.3	12.5	8.1	8.9	8.0		10.1	8.4	9.5
2009	9.7	9.9	8.8	7.7	9.1	11.0	9.1	8.2	9.7			
2010	9.8	11.2	7.7	7.6	11.3	11.7	8.5	9.2	7.3	9.8	11.1	8.2
2011	6.1	15.2	6.1	8.7	6.7	12.5	8.4	8.1	11.0	9.9	8.5	9.7
2012	10.8	7.2	6.8	7.0	9.0	9.7	7.3	8.5	8.3	9.5	7.4	7.1
2013	11.3	9.4	8.8	9.4	9.5	9.0	9.3	7.9	9.0	5.7	12.4	8.6
2014		10.5	6.8	7.9	10.3	9.2	8.5	9.9	9.8	11.4	5.8	8.5
2015	10.0	11.5	8.5	7.8	8.4	8.7	9.5	8.9	9.9	11.8	8.2	7.2
2016	4.3		9.2	11.1	9.1	9.2	9.1	9.1	8.8	7.0	6.6	5.9
2017	10.6	11.4	11.2	6.8	9.3	12.8	8.7	9.2	8.8	7.2	10.7	13.1
Overall	9.2	10.3	8.0	8.2	9.4	10.0	8.8	8.3	8.9	9.1	8.8	8.3

Table 8. Monthly mean wind speed at the Otuk Creek station. Months left blank indicate insufficient data (only months with 80% or more of data available were used to compute monthly mean and maximum values).

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	(mph)											
2008										7.9	4.9	9.8
2009	7.4	9.4	7.2	8.8	8.6	7.5	6.3	6.8	7.0		6.5	
2010	6.9	5.9	6.8	7.0	6.5	6.6	7.0	7.3	6.4	5.8		8.6
2011	7.4	13.7	9.1	6.5	6.8	8.0	6.2	5.5	7.2	5.9	7.9	7.3
2012	6.6	7.3	6.5	6.0	7.8	7.6	6.4	8.6	6.7	9.4	9.0	7.4
2013	6.9	6.4	8.6	8.3	9.8	7.6	7.2	5.9	5.6	5.5	10.3	7.8
2014	6.5	8.1	6.5	7.0	9.4	7.6	7.6	6.5	7.3	7.3	6.5	4.1
2015	7.5	8.9	6.5			8.2	7.4	7.5	7.6	7.0	6.2	
2016	6.0	5.9	5.4	5.6	7.1	7.5	6.9	7.4	8.4	6.1	5.4	8.3
2017	11.1	9.6	10.2	7.0	6.4	8.8	7.0		6.8	5.4	10.4	7.0
Overall	7.4	8.4	7.4	7.0	7.8	7.7	6.9	7.0	7.0	6.7	7.4	7.5

Similar to the monthly mean wind speed being highest during the cold-weather months at all three stations, the maximum wind speed recorded each year always occurred during cold-weather months. At all three stations, the highest recorded wind speed as well as the highest mean monthly wind speed occurred between September 16 and May 14, the cold season (see Table 9, Table 10, and Table 11).

The likely explanation for high wind speeds during the cold season is the increased frequency and intensity of cyclones during the cold season (Zhang et al. 2004).

Table 9. Maximum wind speed recorded each month of the period of record at the Fish Creek station. The maximum wind speed for each year is in bold font. Months left blank indicate insufficient data (only months with 80% or more of data available were used to compute monthly mean and maximum values).

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	(mph)											
2004						20.82	24.11	22.8	26.45	26.45	39.1	
2005	35.51	29.81	41.21	26.3	23.89	32.22	21.7	19.51	29.81	32	21.48	28.28
2006			35.73	26.74	29.37		27.18	21.04	21.48	46.25	24.77	31.35
2007	39.24	31.13	33.32	35.29	24.55	30.69	21.48					
2008	50.64	28.28	26.08	27.18	32	23.24	34.85	27.18	20.82	28.28	28.28	
2009	38.14	33.54		21.48	25.65	24.33	24.77	27.4	31.2	38	32.5	
2010	32.2	36.7	31.8	28	32.5	33.4	26	29.1	22.5	38.2	64.5	
2011				28.2	23.4	29	24.4	22.3	27.1	36.2	27	64.8
2012	25.4			23.9	25.3	29	24.6	31.4	27.4	25	27.3	50.1
2013	66.2	29.2	42.2	31.1	31.1	21.2	29	21	30.3	29.7	65.2	32.2
2014	34.1	57.5	23.5	29.7	24.7	22.6	28.3	27	28.2	38.1	47.5	
2015	33.7	66	35.1	34.5	34.2	22.5	25.2	31.1	24.6	33.3	31	25.3
2016	26.3	58.6	33.3	62.9	30.8	27.2	27.9	29.1	30.7	25.2		
2017	53.1	33.9	34.5	35.7	28.9	30.2	29.4	35.5	26.8	33.5	35.2	

Table 10. Maximum wind speed recorded each month of the period of record at the Ikpikuk River station. The maximum wind speed for each year is in bold font. Months left blank indicate insufficient data (only months with 80% or more of data available were used to compute monthly mean and maximum values).

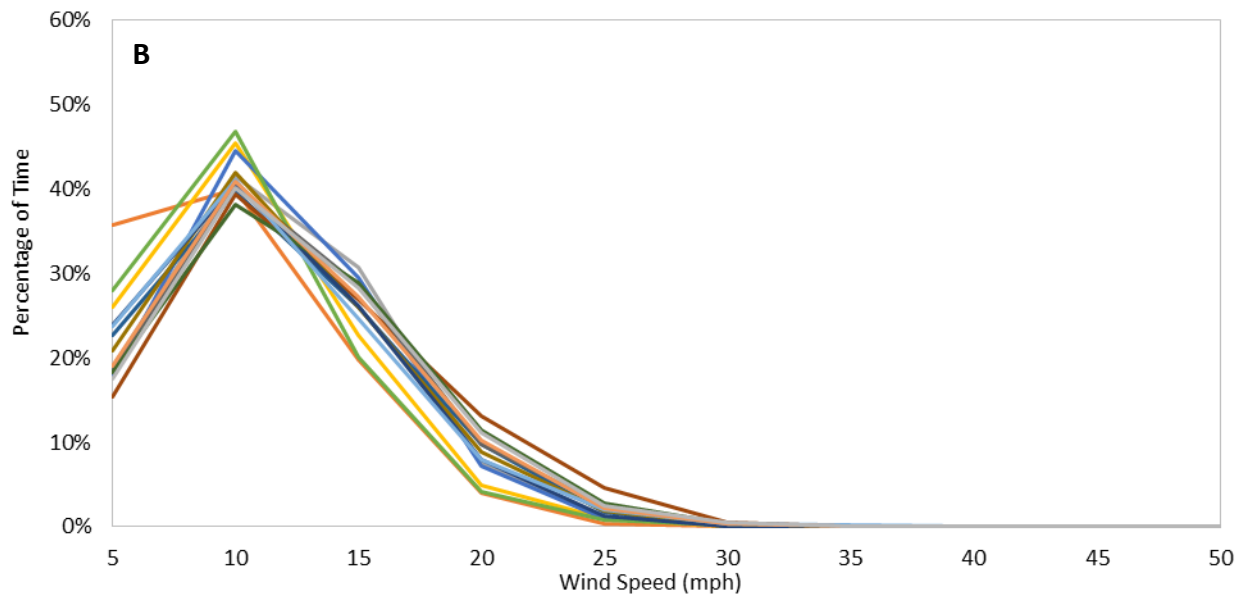
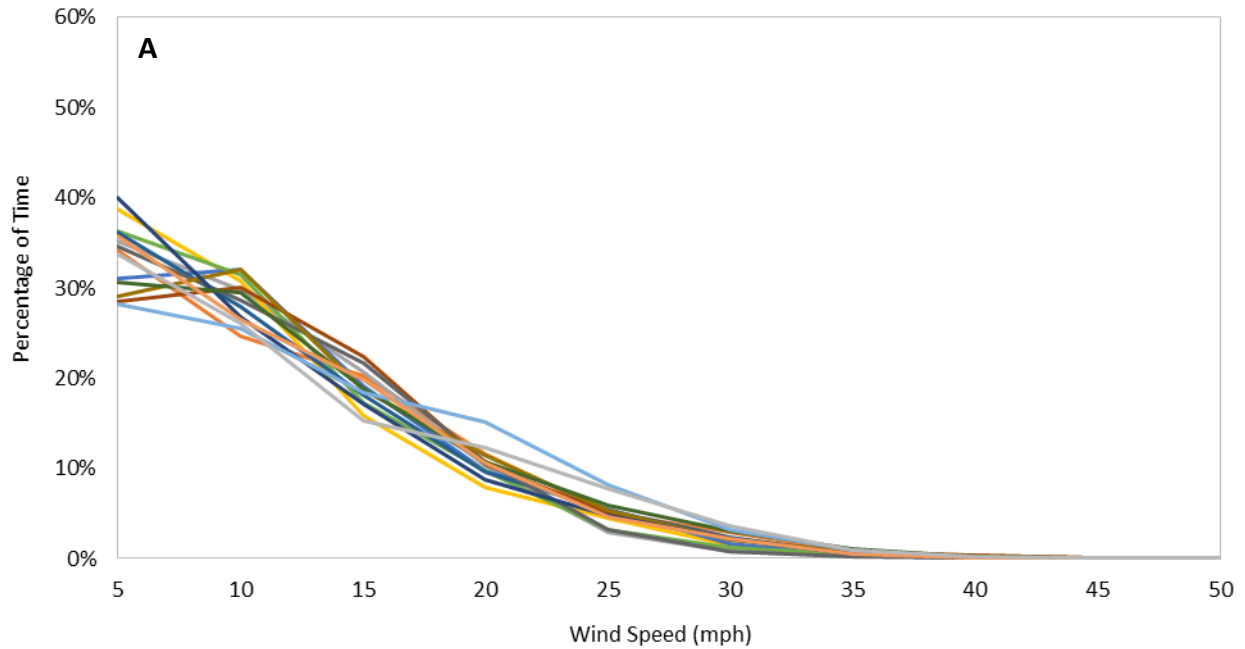
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	(mph)											
2004						26.52	22.36	25.43	41.4	31.05	35.65	
2005	42.52	31.78	39.24	34.63	25.21	36.39	24.99	27.62	30.91	27.4		33.76
2006		57.21	28.28	24.33	24.11	26.74	27.619	21.26	24.11	39.02		
2007						28.06	24.77	28.06	26.3	37.7	43.18	45.16
2008	54.8	27.62	24.55	31.13	33.54	22.8	27.18	23.24		31.13	27.62	50.2
2009	52.61	42.74	47.13	25.43	25.65	28.06	27.84	31	33			
2010	32.6	47.1	32.3	28.3	28.5	27.1	24.6	31.4	19.2	35.5	48.4	30
2011	34.9	59.4	27.4	31.7	23.1	28.8	22.7	22.7	31.6	39.8	29.1	43.9
2012	31.1	21.9	25.2	19.7	23.3	26.3	27.6	26.4	29.1	27.1	27.4	30.3
2013	45.2	28.2	35.4	30.3	39.8	23.5	27.5	23.3	25.5	23.2	48.8	38.1
2014		34.5	25.2	24.8	33	26.6	26.8	27	30.1	44.5	25.7	38
2015	38.9	59.5	30.6	34	30.1	22.5	29.9	27	33.2	36.6	29.3	23.7
2016	22.9		27.1	29.4	26.2	28.3	28.9	24.1	31.8	21.1	31.3	32
2017	58.1	32.6	35.7	28.8	25.6	30.3	29.9	29.4	25.4	25.7	38.5	34

Table 11. Maximum wind speed recorded each month of the period of record at the Otuk Creek station. The maximum wind speed for each year is in bold font. Months left blank indicate insufficient data (only months with 80% or more of data available were used to compute monthly mean and maximum values).

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	(mph)											
2008										29.5	21.4	38.4
2009	41.1	41.7	33.9	33.6	26.2	20.5	21.2	23.7	19.1		22.0	
2010	20.0	15.3	21.3	30.2	19.5	22.1	29.2	28.9	23.6	21.6		28.9
2011	37.3	59.8	28.6	17.5	24.2	20.1	19.1	17.1	26.2	23.6	35.3	42.4
2012	27.7	47.2	26.5	21.0	45.2	21.9	19.1	29.6	26.5	26.9	25.5	32.8
2013	32.9	39.2	45.3	46.5	29.5	26.5	27.7	22.9	20.4	23.7	43.6	35.8
2014	21.3	29.4	25.9	28.5	30.2	24.6	33.4	26.9	24.4	24.8	38.8	27.0
2015	36.0	46.3	19.1			23.5	23.3	26.0	23.6	29.8	35.9	
2016	44.9	23.4	18.3	19.9	28.4	28.3	24.8	34.9	34.7	26.5	21.9	46.3
2017	42.2	37.0	37.0	21.6	22.6	29.9	36.8		28.2	25.2	34.5	27.6

When wind speeds are further examined by occurrence in cold and warm seasons (Figure 15, Figure 16, and Figure 17), a distinct pattern is observed at all three stations. The cold season is windier than the warm season. Winds below 20 mph are frequent in the warm season. This pattern is especially clear at the coastal plain stations (Fish Creek, Ikpikpuk River) and less so at the foothills station (Otuk Creek).

The wind speed percentages data in Table 12 show that at the Fish Creek and Ikpikpuk River stations, 65% to 67% of the wind speed year-round is below 10 mph, and at the Otuk Creek station, 75% to 77% of the wind speed year-round is below 10 mph. There is a noticeable difference in percentage of time for wind speeds between 10 and 20 mph from the cold season to the warm season at the coastal plain stations of Fish Creek and the Ikpikpuk River: 27.22% and 32.62% at the Fish Creek station and 26.93% and 32.30% at the Ikpikpuk River station. At the foothills station of Otuk Creek, the percentage of time for wind speeds between 10 and 20 mph is consistent: 21.84% in the cold season and 21.48% in the warm season. The cold season has a higher frequency of wind speeds greater than 20 mph: at the Fish Creek station, 7.42% versus 2.01% in the warm season; at the Ikpikpuk River station, 6.5% versus 2.66% in the warm season; and at the Otuk Creek station, 2.86% versus 1.33% in the warm season. The wind speed data suggest that further inland from the coast, less change in wind speed occurs between cold and warm seasons.



2004 2005 2006 2007 2008 2009 2010
 2011 2012 2013 2014 2015 2016 2017

Figure 15. Wind speed percentages for the Fish Creek station: cold season, September 15 to May 14 (A) and warm season, May 15 to September 14 (B).

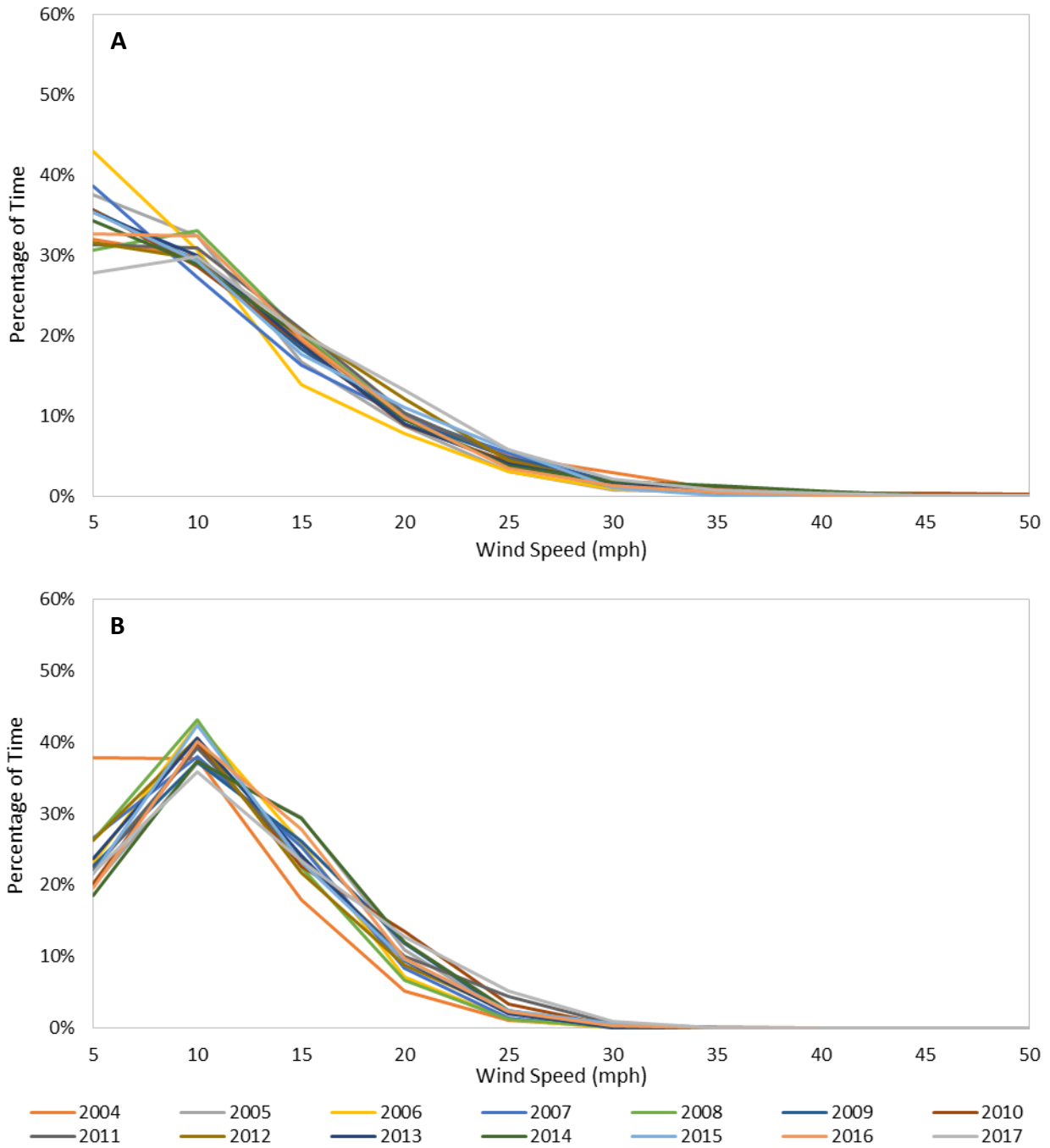


Figure 16. Wind speed percentages for the Ikpikpuk River station: cold season, September 15 to May 14 (A) and warm season, May 15 to September 14 (B).

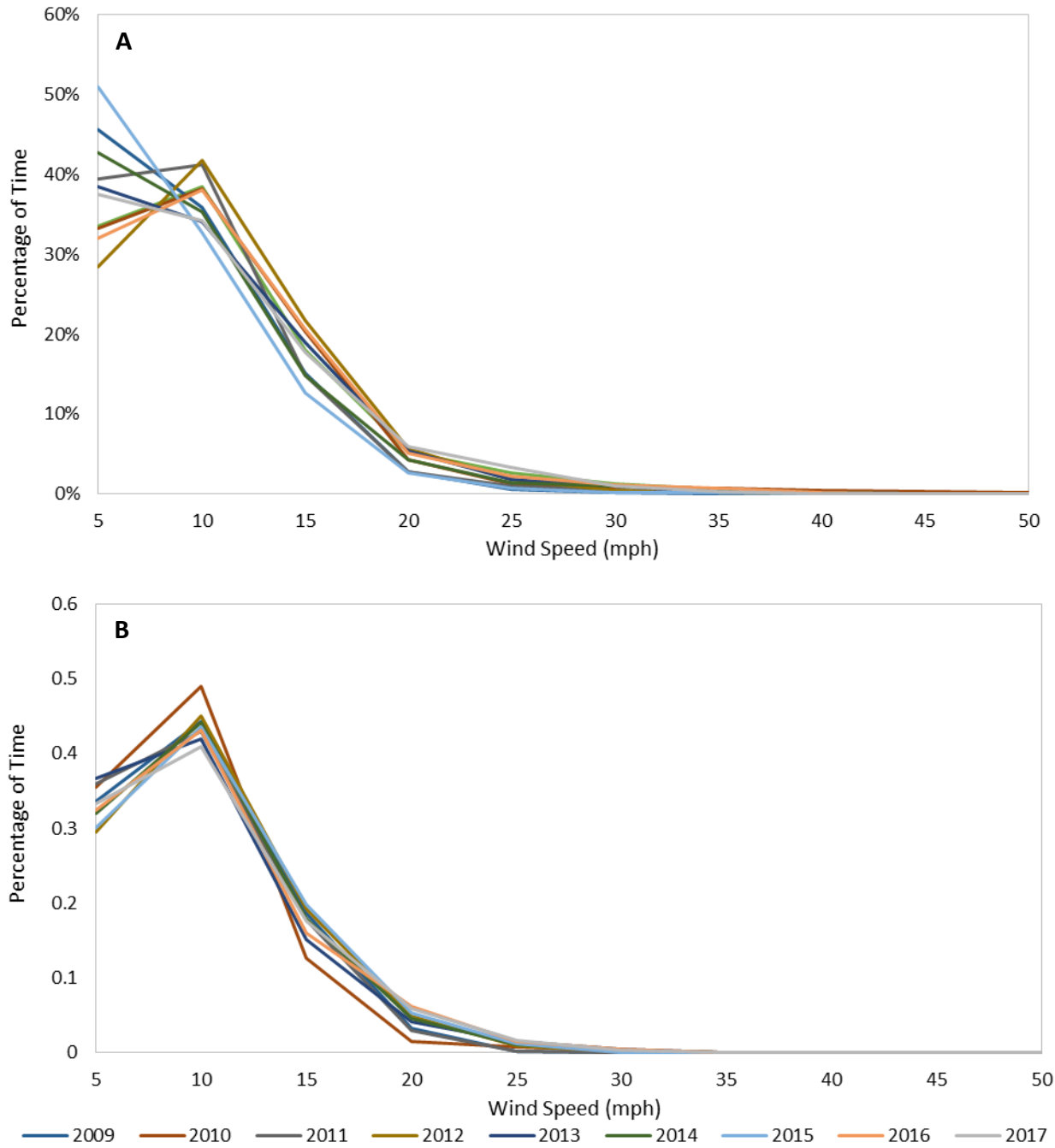


Figure 17. Wind speed percentages for the Otuk Creek station: cold season, September 15 to May 14 (A) and warm season, May 15 to September 14 (B).

Table 12. Percentage of time over the study period for wind speed during the cold and warm seasons.

Wind Speed (mph)	Fish Creek		Ikpikpuk River		Otuk Creek	
	Winter Season	Summer Season	Winter Season	Summer Season	Winter Season	Summer Season
0–5	37.54%	25.65%	37.69%	27.67%	38.17%	33.28%
5–10	27.82%	39.71%	28.88%	37.37%	37.14%	43.91%
10–15	17.38%	24.66%	17.58%	23.10%	17.53%	17.18%
15–20	9.84%	7.97%	9.35%	9.21%	4.31%	4.30%
20–25	4.68%	1.74%	4.09%	2.29%	1.58%	1.02%
25–30	1.93%	0.24%	1.46%	0.33%	0.71%	0.27%
30–35	0.55%	0.03%	0.55%	0.03%	0.33%	0.02%
35–40	0.15%	0.00%	0.22%	0.01%	0.14%	0.00%
40–45	0.04%	0.00%	0.11%	0.00%	0.06%	0.00%
45–50	0.02%	0.00%	0.04%	0.00%	0.03%	0.00%
50–55	0.02%	0.00%	0.02%	0.00%	0.01%	0.00%
55–60	0.01%	0.00%	0.01%	0.00%	0.01%	0.00%
60–65	0.02%	0.00%	0.00%	0.00%	0.00%	0.00%
65–70	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%
70–75	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
75–80	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Wind roses for the warm and cold seasons are presented in Appendix F. The wind roses show two main wind directions at the Fish Creek, Ikpikpuk River, and Otuk Creek stations: approximately northeast and southwest, with winds from the northeast being predominant at the Fish Creek and Ikpikpuk River stations and winds from the southwest being predominant at the Otuk Creek station. In the cold season, the predominant wind direction at the Fish Creek and the Ikpikpuk River stations is north-northeast to east-northeast, but clearly, a large number of wind events occur from the west-southwest to south-southwest during the cold season (Figure 18 and Figure 19). In contrast, at the Otuk Creek station, the main wind direction during the cold season is west-southwest to south-southwest, with few wind events from north-northeast to east-northeast, while the wind direction during the warm season, is mostly evenly split between north-northeast to east-northeast and west-southwest to south-southwest (Figure 20). During the warm season, very few wind events occur from the west-southwest direction, indicating that these wind events are brought on by winter storms (Evans et al. 1989).

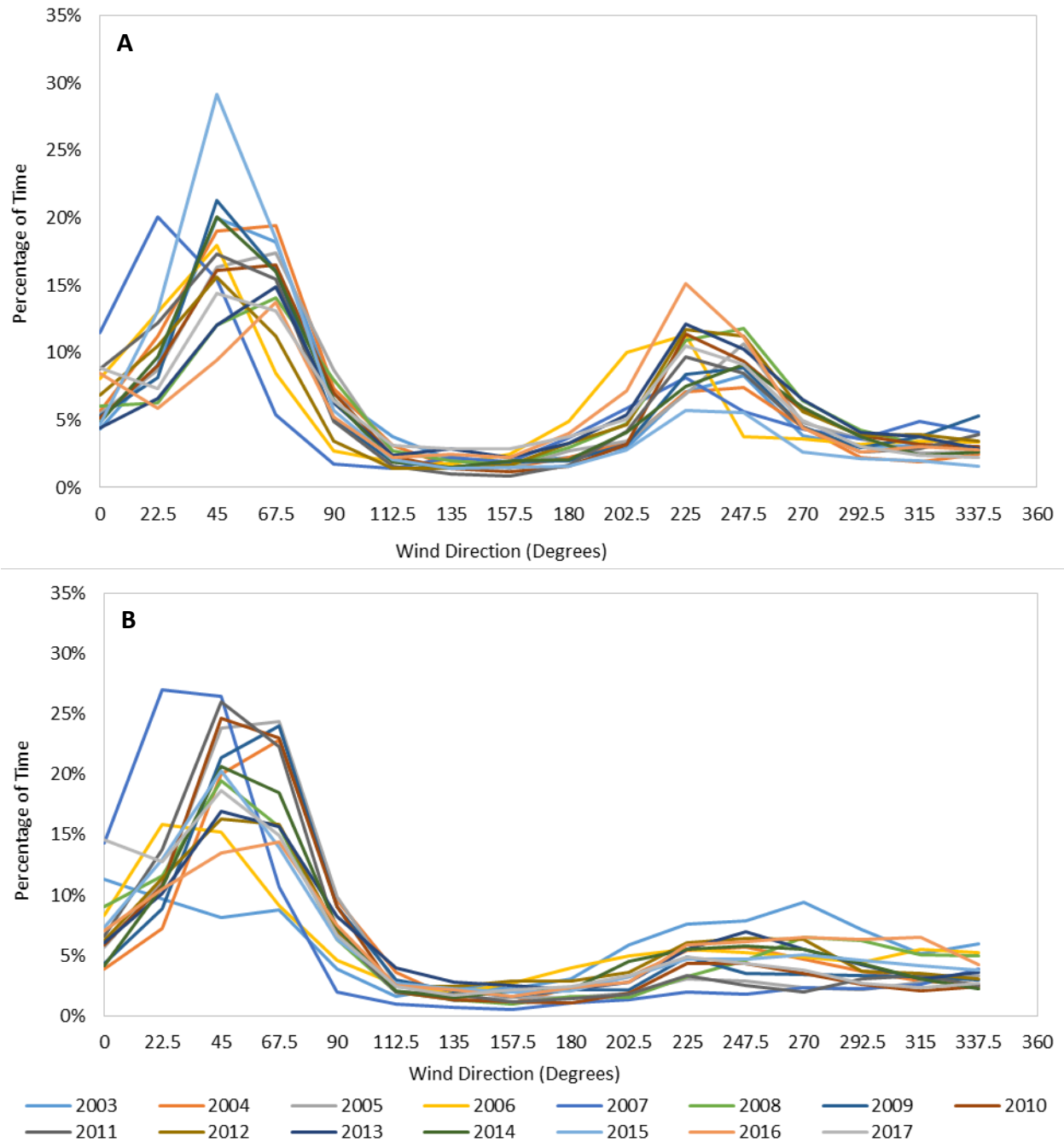


Figure 18. Wind direction percentages for the Fish Creek station: cold season, September 15 to May 14 (A) and warm season, May 15 to September 14 (B).

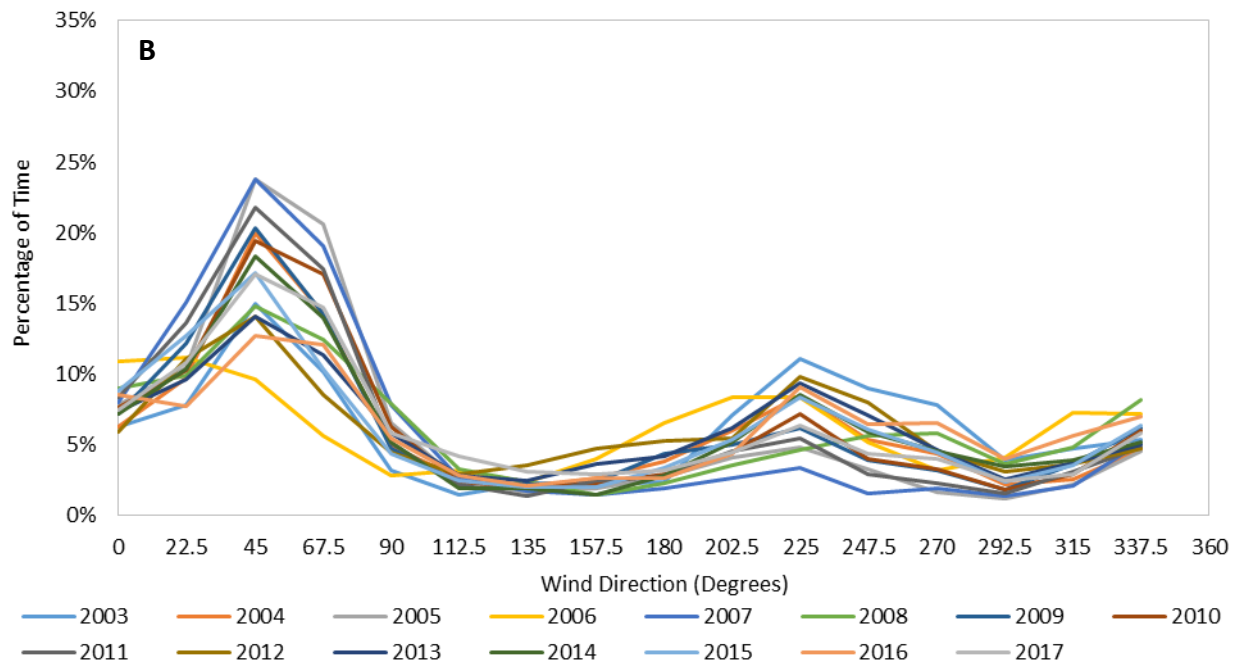
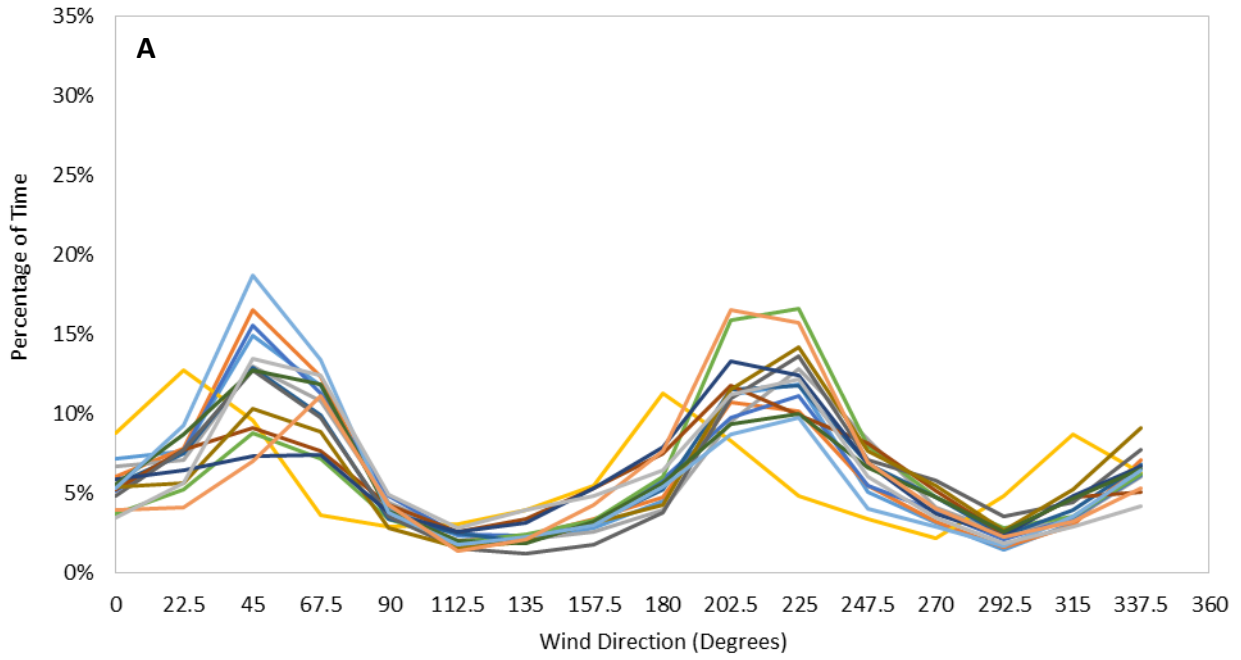


Figure 19. Wind direction percentages for the Ikpikpuk River station: cold season, September 15 to May 14 (A) and warm season, May 15 to September 14 (B).

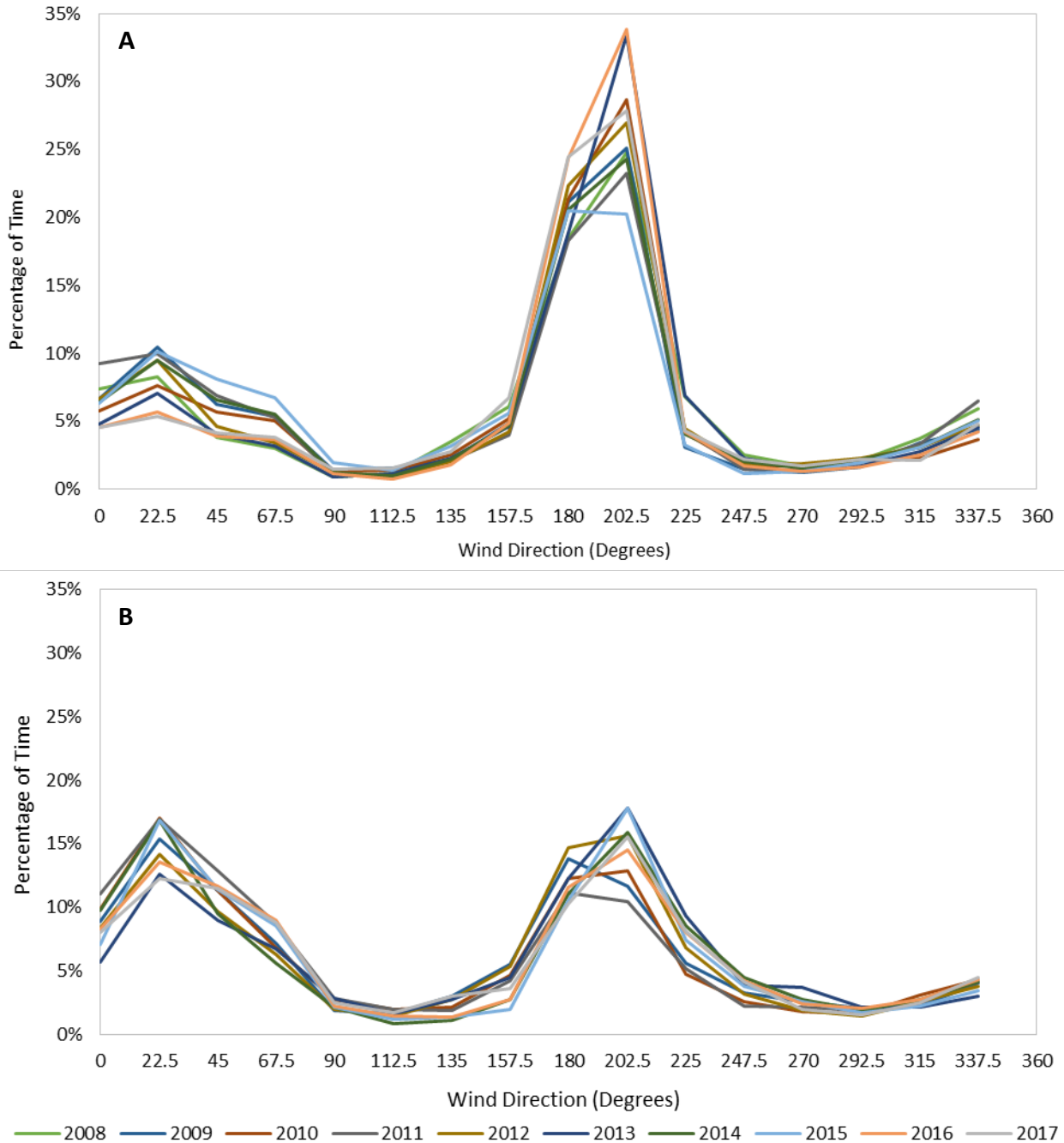


Figure 20. Wind direction percentages for the Otuk Creek station: cold season, September 15 to May 14 (A) and warm season, May 15 to September 14 (B).

The data in Table 13 indicate that winds at the Fish Creek station occur from the north-northeast to east-northeast 41.9% of the cold season and 48.8% of the warm season. Winds also occur from the west-southwest to south-southwest 23% of the cold season, but only 12.5% of the warm season. At the Ikpikpuk River station, the wind recordings indicate two prevailing directions

during the cold season, with winds coming from the south-southwest to west-southwest 30.1% of the time and from the north-northeast to east-northeast 29.6% of the time (see Table 13). During the warm season, winds are from the north-northeast to east-northeast 41.7% of the time, and from the west-southwest to south-southwest 17.8% of the time. At the Otuk Creek station, the cold season winds are from west-southwest to south-southwest 33.45% of the time and from the north-northeast to east-northeast 18.34% of the time; during the warm season, the north-northeast to east-northeast winds occur 33.5% of the time and the west-southwest to south-southwest winds occur 25.2% of the time. There is a clear switch in the main wind direction during the cold season, from northeast on the coastal plain to southwest further inland and to the foothills region. While the northeast winds remain predominant in the warm season at all three stations, they are less predominant farther from the coastal plain, from 48.8% at the Fish Creek station to 33.46% at the Otuk Creek station.

Table 13. Percentage of time over the study period that winds occurred in each direction during the cold and warm seasons.

Degree	Direction	Fish Creek		Ikpiuk River		Otuk Creek	
		Winter Season	Summer Season	Winter Season	Summer Season	Winter Season	Summer Season
0	N	6.35%	7.51%	5.38%	7.79%	6.16%	8.58%
22.5	NNE	9.89%	12.14%	7.17%	10.84%	8.30%	15.09%
45	NE	17.30%	19.54%	12.25%	17.44%	5.44%	10.89%
67.5	ENE	14.79%	17.16%	10.21%	13.44%	4.60%	7.48%
90	E	5.76%	7.04%	3.91%	5.36%	1.27%	2.36%
112.5	ESE	2.27%	2.45%	2.17%	2.67%	1.15%	1.55%
135	SE	1.87%	1.80%	2.40%	2.23%	2.38%	2.15%
157.5	SSE	1.81%	1.72%	3.58%	2.58%	5.00%	3.95%
180	S	2.78%	2.13%	5.82%	3.47%	21.34%	12.00%
202.5	SSW	4.68%	2.95%	11.50%	5.16%	27.34%	14.63%
225	SW	9.58%	4.78%	12.09%	7.43%	4.38%	7.06%
247.5	WSW	8.73%	4.83%	6.52%	5.25%	1.73%	3.53%
270	W	4.81%	4.75%	4.18%	4.13%	1.49%	2.42%
292.5	WNW	3.25%	4.01%	2.36%	2.66%	1.91%	1.82%
315	NW	3.07%	3.66%	4.02%	3.79%	2.82%	2.53%
337.5	NNW	3.08%	3.51%	6.44%	5.74%	4.69%	3.97%

CHAPTER 5 DATA ANALYSIS

An increase in rainfall during the warm months, May 15 to September 14, was observed at the Fish Creek station in 2016 and 2017. When we plotted the summer mean temperature against cumulative annual rainfall, we observed a positive relationship at the Fish Creek, Ikpikpuk River, and Otuk Creek stations (Figure 21 to Figure 23). The overall positive trend indicates an increase in precipitation during years with warmer mean summer temperatures (R^2 values range from 0.18 to 0.29).

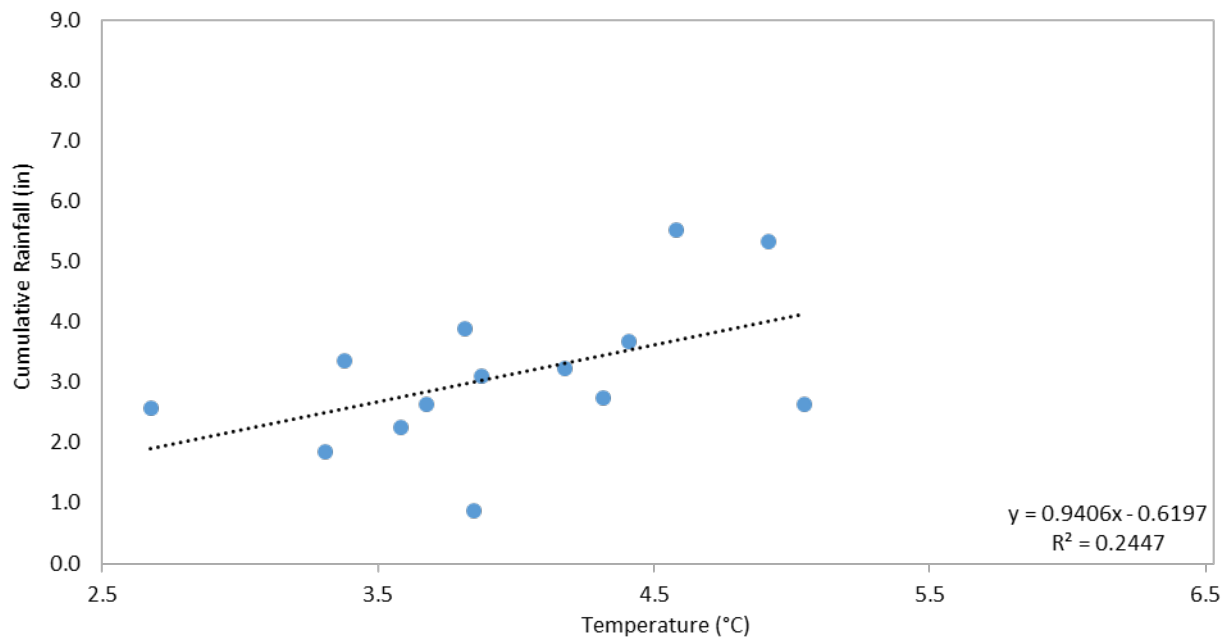


Figure 21. Cumulative annual rainfall vs. summer mean temperature at the Fish Creek station.

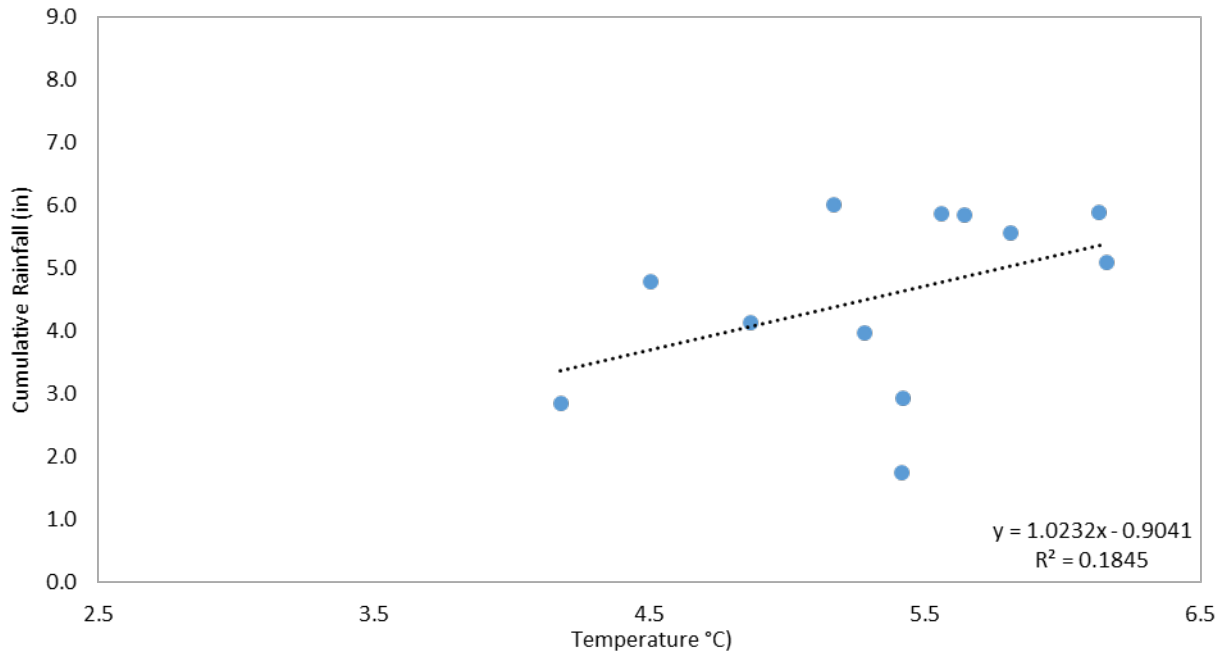


Figure 22. Cumulative annual rainfall vs. summer mean temperature at the Ikpikpuk River station.

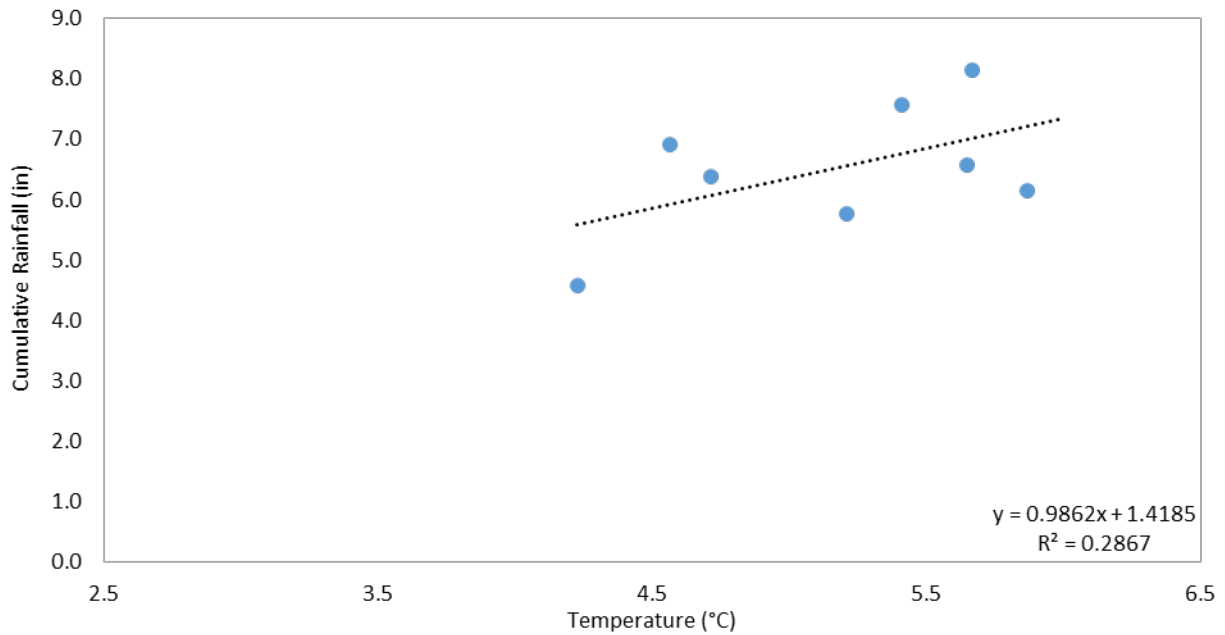


Figure 23. Cumulative annual rainfall vs. summer mean temperature at the Otuk Creek station.

A strong relationship between annual runoff volume and cumulative annual rainfall was observed at the coastal plain sites, Fish Creek and the Ikpikpuk River (Figure 24 and Figure 25),

with R^2 values of 0.46 and 0.47, respectively. At the foothills site, Otuk Creek, the relationship between annual runoff volume and cumulative annual rainfall was weak: R^2 of 0.02 (Figure 26).

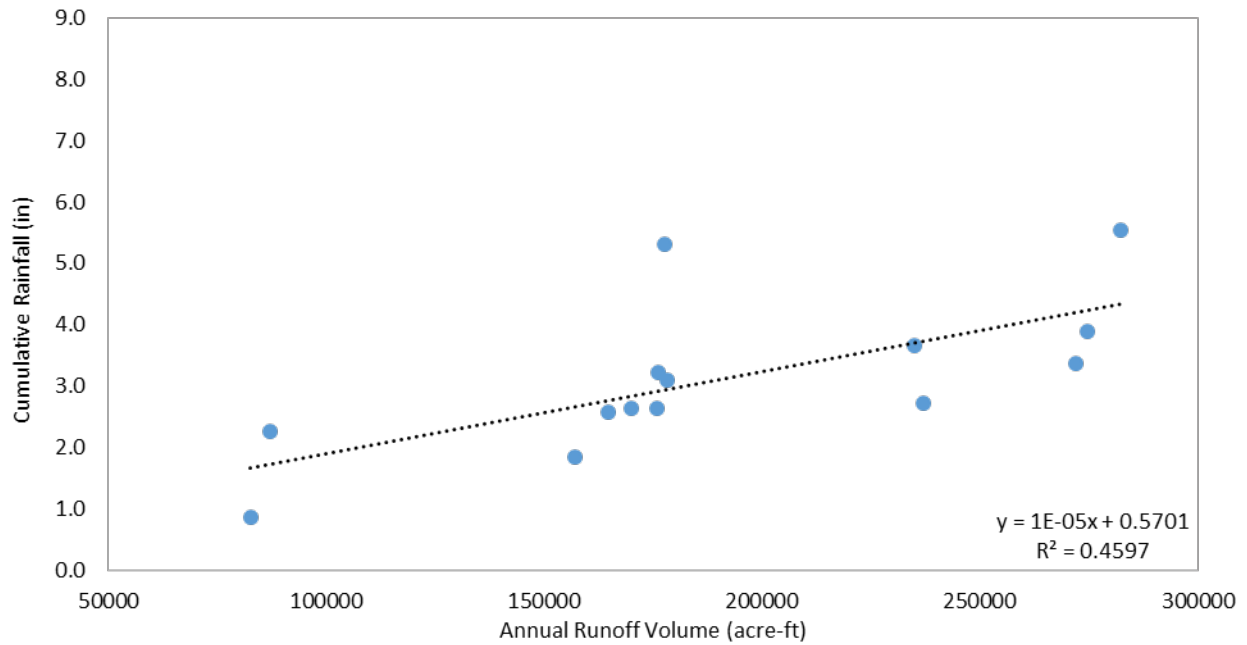


Figure 24. Cumulative annual rainfall vs. annual runoff volume at the Fish Creek station.

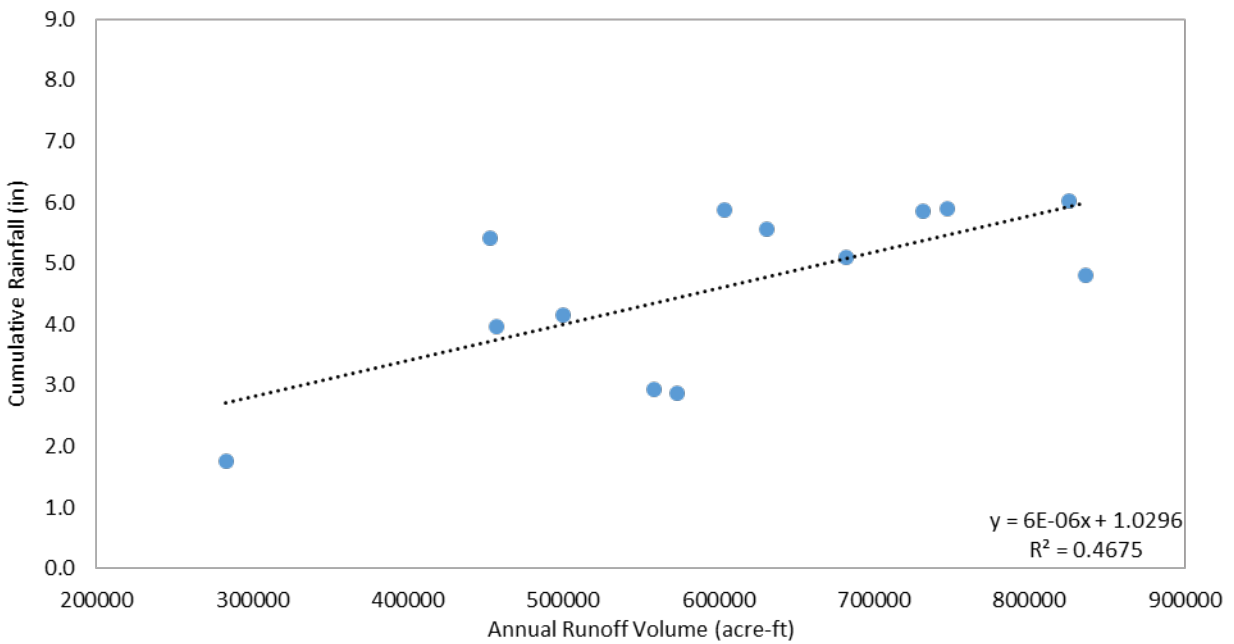


Figure 25. Cumulative annual rainfall vs. annual runoff volume at the Ikpikuk River station.

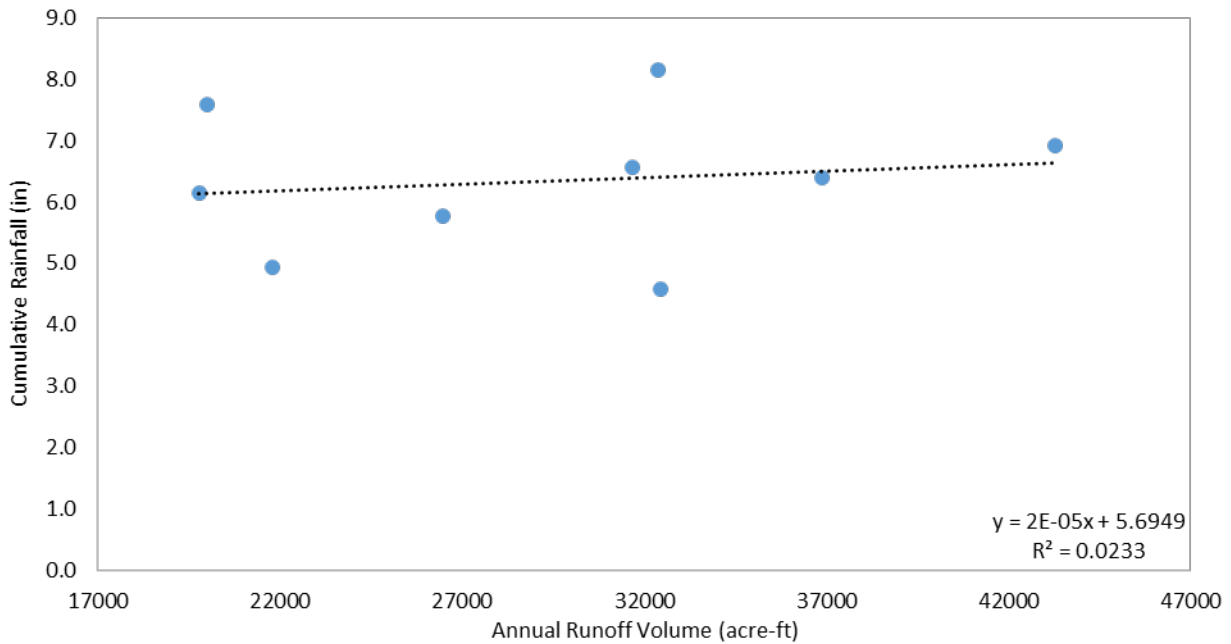


Figure 26. Cumulative annual rainfall vs. annual runoff volume at the Otuk Creek station.

The day of first flow and the average for each year at all the study sites are presented in Table 14. We observed the earliest first day of flow at all stations but Fish Creek in 2014; at the Fish Creek station, we observed the earliest first day of flow in 2016. In determining whether there is a relationship between the first day of flow and the annual freezing degree-days, we noticed a decreasing trend; that is, the first day of flow occurred earlier when there were fewer annual freezing degree-days (however the R^2 was low, from 0.03 at the Ikpikpuk River station to 0.48 at the Prince Creek station). We observed similar results when the first day of flow was plotted against fall/spring (September of previous year to May 1) freezing degree-days. As expected, the average breakup date was earliest at the southern (Otuk Creek) and central (Prince Creek) sites, and latest at the northern sites (Fish Creek, Judy Creek, Ublutuoch River).

Table 14. Day of first flow at the study sites.

Year	Fish Creek	Ikpikpuk River	Judy Creek	Ublutuoch River	Prince Creek	Otuk Creek
2003	6/1	5/26	5/31	6/5		
2004	6/2	5/18	5/18	6/1		5/15
2005	6/5	5/27	6/2	6/5		5/24
2006	5/27	5/20	5/26	6/1		5/24
2007	5/31	5/21	5/26	6/3		5/22
2008	5/23	5/19	5/22	5/27		5/17
2009	5/21	5/16	5/18	5/25	5/17	5/18
2010	6/1	5/28	6/2	6/5	5/24	5/15
2011	5/28	5/25	5/30	5/30	5/21	5/20
2012	5/25	5/18	5/26	5/30	5/21	5/19
2013	5/31	5/25	5/31	6/2	5/22	5/26
2014	5/15	5/11	5/14	5/17	5/10	5/10
2015	5/17	5/16	5/18	5/20	5/11	5/10
2016	5/12	5/11	5/11	5/22	5/11	5/10
2017	5/27	5/24	5/26	5/28	5/18	5/15
Average	5/26	5/20	5/24	5/29	5/17	5/17

CHAPTER 6 CONCLUSIONS AND RECOMMENDATIONS

During the 4-year period that represents the current project span, the research team performed 125 discharge measurements at 7 gaging stations distributed on the NPR–A. The total number of discharge measurements, including those taken during the initial CESU agreement, is 351. The discharge measurements were used to develop rating curves and compute daily mean flows and annual runoff volume at the 7 stations. There was a strong relationship between annual runoff volume and cumulative annual rainfall at the coastal plain stations, but not at the foothills station. The air temperature data collected over the duration of the project indicate, in general, a warming trend. However, this trend was interrupted during the 2012/13 and 2013/14 winters, which were the coldest winters registered in the study area. Rainfall data suggest a trend in increasing precipitation during the summer months, with a marked increment during the 2016 and 2017 summers.

The hydrometeorological dataset developed thorough the BLM-UAF collaboration is the only one available in that pristine and remote zone of Alaska. With the oil industry developments that are expected in the area, the need for designing and constructing infrastructure that supports the oil activities is clear. The value of this dataset is obvious, therefore, and the authors strongly recommend the continuation of field efforts to maintain the existing stations and perform additional discharge measurements to expand the existing dataset.

References

- Baule, W.J., and M.D. Shulski (2013). Climatology and trends of wind speed in the Beaufort/Chukchi Sea coastal region from 1979 to 2009. *International Journal of Climatology*.
- Derry, J.E., R.T. Kemnitz, D. Yang, and M.R. Lilly (2007). *Summer precipitation data from selected BLM and USGS gaging stations in the National Petroleum Reserve–Alaska, 2003–07*. University of Alaska Fairbanks, Water and Environmental Research Center, Report INE/WERC 07.20, Fairbanks, Alaska, 15 pp.
- Evans, B.M., D.A. Walker, C.S. Benson, E.A. Nordstrand, and G.W. Petersen (1989). Spatial interrelationships between terrain, snow distribution and vegetation patterns at an arctic foothills site in Alaska. *Ecography* 12(3): 270–278.
- Homan, J. (2015). *Precipitation in the Alaska Central Arctic*. University of Alaska Fairbanks Dissertation.
- Toniolo, H., D. Vas, P. Prokein, R. Kennitz, E. Lamb, and D. Brailey (2013). Hydraulic characteristics and suspended sediment loads during spring break-up in several streams located on the National Petroleum Reserve in Alaska, USA. *Natural Resources* 4(2).
- U.S. Geological Survey (2016). *Explanations for the National Water Conditions*. http://water.usgs.gov/nwc/explain_data.html, Retrieved 18 September 2018.
- Zhang, X., J.E. Walsh, J. Zhang, U.S. Bhatt, and M. Ikeda (2004). Climatology and interannual variability of Arctic cyclone activity: 1948–2002. *Journal of Climate* 17(12): 2300–2317.

Appendices

Appendix A – Summary of ADCP Discharge Measurement Forms

Appendix B – Water Temperature and Conductivity Data at Selected Stations

Appendix C – Rating Curves

Appendix D – Daily Mean Flows by Year

Appendix E – Mean Monthly Air Temperatures

Appendix F – Wind Roses

Appendix A

Summary of Discharge Measurement Forms

Fish Creek

Ikpikpuk River

Judy Creek

Otuk Creek

Prince Creek

Seabee Creek

Ublutuoch River

Summary of Discharge Measurement Forms

Fish Creek, Alaska

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 59
 Date: 06/08/2010

Party: DB/BL	Width: 309 ft	Processed by: DAV
Boat/Motor: kayak	Area: 1,790 ft ²	Mean Velocity: 1.89 ft/s
Gage Height: 23.23 ft	G.H.Change: 0.000 ft	Discharge: 3,390 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.469 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.04
BT Error Vel.: 32.81 ft/s*	Bin Size: 13 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s*	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s*	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s*	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.91 ft/s	
Max. Depth: 8.85 ft	
Mean Depth: 5.81 ft	
% Meas.: 70.83	
Water Temp.: None	
ADCP Temp.: 37.4 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 100' US of gage

Project Name: fish20100608000r.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	4	4	269	585	2461	446	6.04	3.85	3502	340	1979	16:57	17:02	1.35	1.77	15	0
001	R	4	4	255	557	2440	413	6.11	3.11	3419	312	1830	17:02	17:06	1.26	1.87	11	0
002	L	4	4	273	567	2398	430	6.46	3.46	3405	305	1758	17:06	17:11	1.17	1.94	7	0
003	R	4	4	288	536	2277	386	2.33	3.14	3205	304	1770	17:11	17:16	1.09	1.81	24	0
004	L	4	4	253	552	2371	404	5.51	3.50	3336	304	1775	17:17	17:21	1.22	1.88	17	0
005	R	4	4	266	576	2437	419	4.98	3.00	3440	286	1654	17:25	17:30	1.12	2.08	19	0
Mean		4	4	267	562	2397	416	5.24	3.34	3385	309	1794	Total	00:32	1.20	1.89	16	0
SDev		0	0	13	17.7	67.2	20.7	1.52	0.318	103	17.8	107.2			0.10	0.11		
SD/M		0.00	0.00	0.05	0.03	0.03	0.05	0.29	0.10	0.03	0.06	0.06			0.08	0.06		

Remarks: Q with StreamPro 3390 cfs using BT with 3% error, no GPS data.

* - value not consistent for all transects

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 60
 Date: 06/10/2010

Party: DB/BL	Width: 206 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 1,370 ft ²	Mean Velocity: 2.20 ft/s
Gage Height: 21.98 ft	G.H.Change: 0.000 ft	Discharge: 2,990 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.459 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 31.04
BT Error Vel.: 0.33 ft/s	Bin Size: 13 cm Blank: 3 cm
WT Error Vel.: 0.40 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 3.71 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.71 ft/s	
Max. Depth: 8.25 ft	
Mean Depth: 6.64 ft	
% Meas.: 68.05	
Water Temp.: None	
ADCP Temp.: 48.1 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: not sure

Project Name: fish20100610000r.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	10	10	129	403	2024	478	29.8	47.2	2982	229	1554	17:09	17:11	1.76	1.92	13	11
001	R	10	10	117	430	2052	461	46.8	39.3	3029	203	1337	17:11	17:13	1.66	2.27	3	8
002	L	10	10	119	422	2063	447	41.7	33.6	3006	195	1288	17:13	17:15	1.57	2.33	8	11
003	R	10	10	116	414	1991	451	41.9	32.4	2929	197	1290	17:17	17:19	1.67	2.27	3	7
Mean		10	10	120	417	2032	459	40.0	38.1	2987	206	1367	Total	00:10	1.67	2.20	7	9
SDev		0	0	6	11.6	32.3	13.8	7.22	6.75	43.0	15.7	126.8			0.08	0.19		
SD/M		0.00	0.00	0.05	0.03	0.02	0.03	0.18	0.18	0.01	0.08	0.09			0.05	0.09		

Remarks: Q with StreamPro 2990 cfs using BT with 1% error, no GPS data.

Station Number:
Station Name: Fish Creek

Meas. No: 61
Date: 06/14/2010

Party: DB/BL	Width: 249 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 1,360 ft ²	Mean Velocity: 2.18 ft/s
Gage Height: 21.67 ft	G.H.Change: 0.000 ft	Discharge: 2,970 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.459 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.04
BT Error Vel.: 32.81 ft/s	Bin Size: 11 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 7.24 ft/s	
Max. Depth: 7.80 ft	
Mean Depth: 5.46 ft	
% Meas.: 71.67	
Water Temp.: None	
ADCP Temp.: 45.0 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: no sure

Project Name: prince20100612000r.mmt
Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	R	10	10	142	487	2194	363	37.2	14.8	3096	258	1393	14:49	14:52	1.92	2.22	4	0
<i>003</i>	<i>R</i>	<i>10</i>	<i>10</i>	<i>100</i>	<i>425</i>	<i>1902</i>	<i>318</i>	<i>60.1</i>	<i>28.1</i>	<i>2734</i>	<i>239</i>	<i>1288</i>	<i>14:54</i>	<i>14:56</i>	<i>2.41</i>	<i>2.12</i>	<i>9</i>	<i>0</i>
006	R	5	5	112	462	2085	331	14.4	-2.51	2890	254	1382	15:00	15:01	2.40	2.09	11	0
007	L	5	5	104	472	2119	320	-15.5	-6.82	2888	239	1305	15:02	15:03	2.42	2.21	13	0
008	R	5	5	114	490	2250	352	12.6	7.42	3112	256	1422	15:04	15:06	2.31	2.19	10	0
010	R	5	5	107	491	2211	366	11.4	3.92	3083	250	1375	15:08	15:10	2.41	2.24	6	0
Mean		7	7	113	471	2127	342	20.0	7.49	2967	249	1361	Total	00:20	2.31	2.18	9	0
SDev		3	3	15	25.1	126	21.4	25.8	12.6	153	8.6	52.7			0.20	0.06		
SD/M		0.39	0.39	0.13	0.05	0.06	0.06	1.29	1.68	0.05	0.03	0.04			0.08	0.03		

Remarks: Q with StreamPro 2970 cfs using BT with 5% error, no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 62
 Date: 07/06/2010

Party: RTK/DAV	Width: 177 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 445 ft ²	Mean Velocity: 1.45 ft/s
Gage Height: 17.79 ft	G.H.Change: 0.000 ft	Discharge: 648 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: F
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: 4-Clear	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.04
BT Error Vel.: 0.33 ft/s	Bin Size: 11 cm* Blank: 3 cm
WT Error Vel.: 0.50 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 3.50 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.39 ft/s	
Max. Depth: 4.74 ft	
Mean Depth: 2.51 ft	
% Meas.: 47.29	
Water Temp.: None	
ADCP Temp.: 53.1 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: fish20100706000rvas.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	2	6	161	220	301	122	1.20	-5.62	639	180	457	16:30	16:32	1.13	1.40	2	22
001	R	2	6	154	219	304	109	1.73	-6.04	627	173	428	16:33	16:36	1.17	1.46	1	25
002	L	3	3	145	213	302	121	2.30	2.93	642	177	448	16:42	16:44	1.23	1.43	1	20
003	R	3	3	134	221	308	122	2.37	2.72	656	177	441	16:45	16:47	1.36	1.49	2	20
004	L	3	3	120	215	309	136	2.68	2.65	665	175	447	16:48	16:50	1.46	1.49	2	18
005	R	3	3	137	221	314	117	1.91	3.35	657	180	451	16:51	16:53	1.35	1.46	2	16
Mean		3	4	141	218	306	121	2.03	0.000	648	177	445	Total	00:23	1.28	1.45	2	20
SDev		1	2	15	3.18	4.80	8.79	0.530	4.52	14.2	2.6	10.0			0.13	0.04		
SD/M		0.19	0.39	0.10	0.01	0.02	0.07	0.26	5536387	100.02/7640	0.01	0.02			0.10	0.02		

Remarks: Q with StreamPro 650 cfs using BT with 2% error, no GPS data.

* - value not consistent for all transects

Station Number: 15860000

Meas. No: 63

Station Name: Fish Creek

Date: 08/30/2010

Party: RTK/DAV	Width: 80.9 ft	Processed by: DAV
Boat/Motor: Tethered boat	Area: 176 ft ²	Mean Velocity: 1.32 ft/s
Gage Height: 16.48 ft	G.H.Change: 0.000 ft	Discharge: 233 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: 4-Clear	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 31.04
BT Error Vel.: 0.33 ft/s	Bin Size: 11 cm Blank: 3 cm
WT Error Vel.: 1.10 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 3.00 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 2.98 ft/s	
Max. Depth: 3.22 ft	
Mean Depth: 2.18 ft	
% Meas.: 60.68	
Water Temp.: None	
ADCP Temp.: 48.0 °F	

Performed Diag. Test: NO

Project Name: fish20100830dv.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: at gage

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	L	3	10	94	52.8	143	34.4	2.86	4.84	238	79	173	18:17	18:19	0.73	1.37	2	1
002	R	3	10	90	49.9	139	32.3	1.66	5.65	229	81	180	18:19	18:21	0.78	1.27	0	1
003	L	3	10	90	50.1	139	31.0	2.54	4.48	227	81	175	18:21	18:23	0.79	1.30	2	0
004	R	3	10	86	53.2	143	34.1	1.20	4.59	236	82	177	18:23	18:25	0.83	1.33	2	1
Mean		3	10	90	51.5	141	33.0	2.07	4.89	233	81	176	Total	00:07	0.78	1.32	2	1
SDev		0	0	3	1.74	2.25	1.58	0.769	0.527	5.32	1.3	2.8			0.04	0.04		
SD/M		0.00	0.00	0.04	0.03	0.02	0.05	0.37	0.11	0.02	0.02	0.02			0.05	0.03		

Remarks: Q with StreamPro 233 cfs using BT with 2% error, no GPS data.

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 64
 Date: 06/02/2011

Party: DB/DAV	Width: 200 ft	Processed by: DAV
Boat/Motor: kayak	Area: 1,230 ft ²	Mean Velocity: 2.22 ft/s
Gage Height: 23.03 ft	G.H.Change: 0.000 ft	Discharge: 2,060 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.04
BT Error Vel.: 0.33 ft/s	Bin Size: 11 cm Blank: 3 cm
WT Error Vel.: 0.50 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 4.90 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.83 ft/s	
Max. Depth: 14.0 ft	
Mean Depth: 6.31 ft	
% Meas.: 75.32	
Water Temp.: None	
ADCP Temp.: 32.9 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 300' US of gage

Project Name: fish20110602000 q2059cfs
 Software: 2.17

Tr.#		Edge Distance		#Ens.	Discharge					Width	Area	Time		Mean Vel.		% Bad		
		L	R		Top	Middle	Bottom	Left	Right			Total	Start	End	Boat	Water	Ens.	Bins
001	R	3	10	196	274	1506	230	1.09	2.22	2013	265	1624	18:27	18:31	1.08	1.24	20	4
002	L	3	10	204	296	1673	238	0.459	-3.46	2204	203	1246	18:37	18:41	1.07	1.77	17	3
003	R	3	10	178	270	1539	229	1.02	3.74	2043	271	1627	18:42	18:46	1.25	1.26	24	2
004	L	3	10	179	268	1486	222	1.17	-1.13	1976	61	427	18:46	18:50	1.17	4.63	18	4
Mean		3	10	189	277	1551	230	0.936	0.344	2059	200	1231	Total	00:23	1.14	2.22	20	3
SDev		0	0	13	13.0	84.4	6.37	0.323	3.25	101	97.5	565.2			0.09	1.62		
SD/M		0.00	0.00	0.07	0.05	0.05	0.03	0.35	9.45	0.05	0.49	0.46			0.08	0.73		

Remarks: Q with StreamPro 2060 cfs using BT with 5% error, no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 65
 Date: 06/05/2011

Party: DB/DAV	Width: 266 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 1,170 ft ²	Mean Velocity: 1.72 ft/s
Gage Height: 21.03 ft	G.H.Change: 0.000 ft	Discharge: 2,000 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 15 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.27 ft/s	
Max. Depth: 8.46 ft	
Mean Depth: 4.39 ft	
% Meas.: 63.95	
Water Temp.: None	
ADCP Temp.: 33.6 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: fish20110605000r.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	4	8	179	381	1235	314	5.65	13.2	1950	287	1292	17:42	17:45	1.28	1.51	16	0
<i>001</i>	<i>R</i>	<i>4</i>	<i>8</i>	<i>233</i>	<i>373</i>	<i>1148</i>	<i>303</i>	<i>3.67</i>	<i>-12.3</i>	<i>1815</i>	<i>233</i>	<i>991</i>	<i>17:46</i>	<i>17:51</i>	<i>0.92</i>	<i>1.83</i>	<i>13</i>	<i>0</i>
002	L	4	8	214	392	1315	306	2.97	10.6	2027	286	1291	17:51	17:56	1.09	1.57	15	0
003	R	4	8	203	411	1293	328	4.31	11.7	2048	269	1147	17:56	18:01	1.19	1.79	12	0
<i>004</i>	<i>L</i>	<i>4</i>	<i>8</i>	<i>182</i>	<i>413</i>	<i>1430</i>	<i>328</i>	<i>-3.00</i>	<i>11.3</i>	<i>2179</i>	<i>273</i>	<i>1234</i>	<i>18:01</i>	<i>18:05</i>	<i>1.20</i>	<i>1.77</i>	<i>16</i>	<i>0</i>
005	R	4	8	185	389	1253	326	3.99	9.08	1981	250	1079	18:06	18:10	1.25	1.84	13	0
Mean		4	8	199	393	1279	317	2.93	7.26	2000	266	1172	Total	00:28	1.16	1.72	14	0
SDev		0	0	21	16.1	93.8	11.3	3.04	9.67	120	21.1	122.1			0.13	0.14		
SD/M		0.00	0.00	0.11	0.04	0.07	0.04	1.04	1.33	0.06	0.08	0.10			0.11	0.08		

Remarks: Q with StreamPro 2000 cfs using BT with 6% error, no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 66
 Date: 06/07/2011

Party: DB / DAV	Width: 216 ft	Processed by: DAV
Boat/Motor: kayak	Area: 1,310 ft ²	Mean Velocity: 1.86 ft/s
Gage Height: 21.45 ft	G.H.Change: 0.000 ft	Discharge: 2,440 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 31.12
BT Error Vel.: 0.33 ft/s	Bin Size: 15 cm Blank: 3 cm
WT Error Vel.: 0.50 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 4.20 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.14 ft/s	
Max. Depth: 10.8 ft	
Mean Depth: 6.08 ft	
% Meas.: 71.47	
Water Temp.: None	
ADCP Temp.: 35.2 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 300' US of gage

Project Name: fish20110607000 2443cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	4	4	152	326	1692	298	7.59	5.37	2329	192	1224	15:49	15:53	1.16	1.90	14	5
001	R	4	4	169	346	1682	317	1.73	10.2	2356	211	1263	15:53	15:57	1.09	1.87	14	4
002	L	4	4	173	367	1810	352	3.00	7.88	2540	230	1388	15:57	16:01	1.16	1.83	21	2
003	R	4	4	189	377	1799	364	2.01	4.24	2547	232	1375	16:02	16:06	1.05	1.85	19	2
Mean		4	4	170	354	1746	333	3.58	6.92	2443	216	1313	Total	00:16	1.12	1.86	17	3
SDev		0	0	15	22.9	68.3	30.6	2.73	2.67	116	18.7	81.2			0.05	0.03		
SD/M		0.00	0.00	0.09	0.06	0.04	0.09	0.76	0.39	0.05	0.09	0.06			0.05	0.02		

Remarks: Q with StreamPro 2440 cfs using BT with 5% error, no GPS data.

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 67
 Date: 07/08/2011

Party: RTK / DAV	Width: 145 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 314 ft ²	Mean Velocity: 1.68 ft/s
Gage Height: 17.54 ft	G.H.Change: 0.000 ft	Discharge: 527 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 31.12
BT Error Vel.: 0.33 ft/s	Bin Size: 15 cm Blank: 3 cm
WT Error Vel.: 1.10 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 4.10 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.71 ft/s	
Max. Depth: 3.54 ft	
Mean Depth: 2.17 ft	
% Meas.: 58.35	
Water Temp.: None	
ADCP Temp.: 56.5 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 300' US of gage

Project Name: fish201107080 527cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	6	20	163	114	304	87.3	8.93	10.5	525	138	301	16:13	16:16	0.73	1.75	5	2
001	R	6	20	140	115	305	94.9	10.6	11.2	536	146	319	16:17	16:20	0.79	1.68	1	3
002	L	6	20	137	121	319	90.5	8.76	-12.3	526	144	311	16:21	16:23	0.82	1.69	1	4
003	R	6	20	131	113	303	88.3	5.30	11.2	521	150	324	16:24	16:26	0.85	1.61	1	3
Mean		6	20	142	116	308	90.3	8.40	5.15	527	145	314	Total	00:13	0.80	1.68	2	3
SDev		0	0	14	3.26	7.49	3.37	2.24	11.7	6.51	5.1	10.1			0.05	0.06		
SD/M		0.00	0.00	0.10	0.03	0.02	0.04	0.27	2.26	0.01	0.04	0.03			0.07	0.03		

Remarks: Q with StreamPro 527cfs using BT with 1% error, no GPS data.

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 68
 Date: 08/27/2011

Party: RTK/DAV	Width: 81.2 ft	Processed by: DAV
Boat/Motor: Tethered boat	Area: 154 ft ²	Mean Velocity: 1.04 ft/s
Gage Height: 16.22 ft	G.H.Change: 0.000 ft	Discharge: 159 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: 4-Clear	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 31.12
BT Error Vel.: 0.33 ft/s	Bin Size: 15 cm Blank: 3 cm
WT Error Vel.: 1.00 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 3.03 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.02 ft/s	
Max. Depth: 2.58 ft	
Mean Depth: 1.89 ft	
% Meas.: 54.21	
Water Temp.: None	
ADCP Temp.: 48.7 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 300' US of gage

Project Name: fish20110827000 q159.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
005	L	6	6	83	41.3	85.6	25.1	3.60	1.84	158	91	175	16:10	16:11	0.86	0.90	1	5
006	R	6	6	100	43.8	82.8	25.0	3.21	1.91	157	72	131	16:12	16:14	0.74	1.19	1	4
007	L	6	6	81	42.7	88.1	24.1	3.71	3.04	162	87	167	16:15	16:16	0.88	0.97	1	4
008	R	6	6	89	40.9	87.4	24.4	2.47	3.28	158	74	142	16:16	16:18	0.78	1.12	2	4
Mean		6	6	88	42.2	86.0	24.7	3.25	2.52	159	81	154	Total	00:08	0.81	1.04	1	4
SDev		0	0	9	1.33	2.38	0.500	0.560	0.752	2.16	9.5	20.7			0.06	0.14		
SD/M		0.00	0.00	0.10	0.03	0.03	0.02	0.17	0.30	0.01	0.12	0.13			0.08	0.13		

Remarks: Q with StreamPro 159 cfs using BT with 1% error, no GPS data.

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 70
 Date: 05/27/2012

Party: RTK/DAV	Width: 67.9 ft	Processed by: DAV
Boat/Motor: Tethered boat	Area: 107 ft ²	Mean Velocity: 0.949 ft/s
Gage Height: 17.87 ft	G.H.Change: 0.000 ft	Discharge: 101 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 31.12
BT Error Vel.: 0.33 ft/s	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 1.10 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 3.10 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.03 ft/s	
Max. Depth: 3.27 ft	
Mean Depth: 1.57 ft	
% Meas.: 47.07	
Water Temp.: None	
ADCP Temp.: 34.8 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 100' DS of gage

Project Name: fish 27052012 q101cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	10	10	92	27.2	47.3	15.9	2.54	4.98	97.9	74	114	13:40	13:42	0.53	0.86	2	2
001	R	10	10	82	27.1	48.8	16.8	4.84	4.70	102	67	106	13:42	13:44	0.55	0.97	2	2
002	L	10	10	67	26.4	46.2	17.8	4.98	5.37	101	67	107	13:44	13:45	0.63	0.94	4	2
003	R	10	10	72	27.3	47.4	17.4	4.94	5.12	102	64	100	13:46	13:47	0.60	1.03	4	1
Mean		10	10	78	27.0	47.4	17.0	4.33	5.04	101	68	107	Total	00:07	0.58	0.95	3	2
SDev		0	0	11	0.415	1.06	0.806	1.19	0.280	2.01	4.1	6.0			0.05	0.07		
SD/M		0.00	0.00	0.14	0.02	0.02	0.05	0.28	0.06	0.02	0.06	0.06			0.08	0.07		

Remarks: Q with StreamPro 101 cfs using BT with 2% error, no GPS data. Bottom ice in 1/2 the channel and back water.

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 71
 Date: 06/03/2012

Party: DAV/JPB	Width: 157 ft	Processed by: DAV
Boat/Motor: kayak	Area: 419 ft ²	Mean Velocity: 0.985 ft/s
Gage Height: 17.94 ft	G.H.Change: 0.000 ft	Discharge: 409 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.6°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.12
BT Error Vel.: 0.33 ft/s*	Bin Size: 10 cm Blank: 19 cm
WT Error Vel.: 0.50 ft/s*	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 1.00 ft/s*	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 4.60 ft/s*	WZ : 5
Use Weighted Mean Depth: YES	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 100' DS of gage

Project Name: fish 6032012 q405cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	6	6	151	171	181	74.7	4.56	2.58	434	139	355	12:56	12:58	2.30	1.22	44	3
002	L	6	6	129	170	155	64.2	1.73	2.90	394	154	404	13:00	13:02	2.56	0.97	12	6
003	R	6	6	114	173	162	75.0	4.87	2.90	418	169	455	13:02	13:03	2.51	0.92	4	11
004	L	6	6	121	175	161	79.1	4.87	2.40	423	149	400	13:03	13:04	2.41	1.06	10	17
005	R	6	6	105	160	167	67.7	4.38	2.19	401	164	442	13:04	13:05	2.63	0.91	17	13
007	L	6	6	137	163	156	65.5	2.97	1.17	388	159	421	13:06	13:07	2.19	0.92	20	10
008	R	6	6	105	154	165	79.6	5.44	2.05	406	166	456	13:07	13:08	2.67	0.89	20	15
Mean	6	6	123	167	164	72.2	4.12	2.31	409	157	419	Total	00:11		2.47	0.98	18	11
SDev	0	0	17	7.67	8.84	6.40	1.30	0.600	16.5	10.5	36.1				0.18	0.12		
SD/M	0.00	0.00	0.14	0.05	0.05	0.09	0.32	0.26	0.04	0.07	0.09				0.07	0.12		

Remarks: Q with RiverRay 410 cfs using BT with 4% error, poor GPS data Q 590 cfs using VTG with 30% error.

* - value not consistent for all transects

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 72
 Date: 06/05/2012

Party: DAV/JPB	Width: 219 ft	Processed by: DAV
Boat/Motor: kayak	Area: 1,060 ft ²	Mean Velocity: 1.74 ft/s
Gage Height: 21.20 ft	G.H.Change: 0.000 ft	Discharge: 1,840 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.6°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.12
BT Error Vel.: 0.33 ft/s	Bin Size: 10 cm Blank: 19 cm
WT Error Vel.: 0.50 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 1.00 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 5.30 ft/s	WZ : 5
Use Weighted Mean Depth: YES	Max. Vel.: 5.24 ft/s
	Max. Depth: 7.93 ft
	Mean Depth: 4.86 ft
	% Meas.: 57.47
	Water Temp.: None
	ADCP Temp.: 33.7 °F

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 200' DS of gage

Project Name: fish 6052012 q1837cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
004	L	6	6	244	417	1083	319	5.05	9.53	1834	214	1030	12:58	13:01	1.61	1.78	11	2
005	R	6	6	152	422	1085	327	16.5	8.37	1859	231	1135	13:01	13:03	2.30	1.64	1	2
006	L	6	6	179	416	1015	364	13.8	8.30	1816	197	947	13:04	13:06	1.99	1.92	0	7
007	R	6	6	133	427	1042	345	19.6	8.40	1843	233	1143	13:06	13:08	2.69	1.61	3	7
Mean		6	6	177	421	1056	339	13.7	8.65	1838	219	1064	Total	00:09	2.15	1.74	4	5
SDev		0	0	48	5.35	33.9	19.9	6.26	0.590	17.7	16.9	93.4			0.46	0.14		
SD/M		0.00	0.00	0.27	0.01	0.03	0.06	0.46	0.07	0.01	0.08	0.09			0.21	0.08		

Remarks: Q with RiverRay 1840 cfs using BT with 1% error and 1830 cfs using VTG with 6% error.

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 73
 Date: 06/07/2012

Party: DAV/RTK	Width: 197 ft	Processed by: DAV
Boat/Motor: kayak	Area: 1,230 ft ²	Mean Velocity: 2.07 ft/s
Gage Height: 21.51 ft	G.H.Change: 0.000 ft	Discharge: 2,550 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.4°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.12
BT Error Vel.: 0.33 ft/s	Bin Size: 10 cm Blank: 19 cm
WT Error Vel.: 0.50 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 14.70 ft/s*	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s*	WZ : 5
Use Weighted Mean Depth: YES	Max. Vel.: 4.53 ft/s
	Max. Depth: 10.0 ft
	Mean Depth: 6.25 ft
	% Meas.: 60.65
	Water Temp.: None
	ADCP Temp.: 35.9 °F

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: fish 20120607 q2540.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	10	6	154	452	1505	501	44.3	23.4	2525	190	1204	13:42	13:44	1.83	2.10	0	6
001	R	10	6	161	460	1546	457	42.5	24.5	2530	198	1231	13:44	13:46	1.72	2.06	1	3
002	L	10	3	150	465	1539	483	43.9	1.62	2532	196	1229	13:46	13:48	1.95	2.06	0	7
003	R	10	3	179	475	1587	492	41.0	2.26	2597	204	1260	13:48	13:50	1.63	2.06	1	5
Mean		10	4	161	463	1544	483	42.9	12.9	2546	197	1231	Total	00:07	1.78	2.07	0	5
SDev		0	2	13	9.88	34.0	19.0	1.51	12.7	34.3	5.6	23.0			0.13	0.02		
SD/M		0.00	0.39	0.08	0.02	0.02	0.04	0.04	0.98	0.01	0.03	0.02			0.08	0.01		

Remarks: Q with RiverRay 2550 cfs using BT with 1% error, poor GPS data Q 2690 cfs using VTG with 26% error.

* - value not consistent for all transects

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 74
 Date: 06/09/2012

Party: RTK/DAV	Width: 240 ft	Processed by: DAV
Boat/Motor: kayak	Area: 1,340 ft ²	Mean Velocity: 2.22 ft/s
Gage Height: 21.78 ft	G.H.Change: 0.000 ft	Discharge: 2,980 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.12
BT Error Vel.: 0.33 ft/s	Bin Size: 10 cm Blank: 19 cm
WT Error Vel.: 0.50 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 1.00 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 5.30 ft/s	WZ : 5
Use Weighted Mean Depth: YES	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: fish 20120609 q2974cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	5	10	262	583	1753	517	4.20	16.6	2874	235	1290	12:35	12:37	1.63	2.23	6	6
001	R	5	10	122	591	1730	569	28.6	26.2	2945	244	1370	12:38	12:39	2.86	2.15	3	5
002	L	5	10	217	606	1835	537	11.5	23.7	3013	233	1299	12:39	12:42	1.76	2.32	6	6
003	R	5	10	141	624	1809	595	17.3	27.9	3074	250	1397	12:42	12:43	2.63	2.20	1	4
Mean		5	10	185	601	1782	555	15.4	23.6	2977	240	1339	Total	00:08	2.22	2.22	4	5
SDev		0	0	65	17.8	48.5	34.6	10.3	4.98	86.1	7.9	52.7			0.62	0.07		
SD/M		0.00	0.00	0.35	0.03	0.03	0.06	0.67	0.21	0.03	0.03	0.04			0.28	0.03		

Remarks: Q with RiverRay 2980 cfs using BT with 3% error and Q 3274 cfs using VTG with 12% error

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 75
 Date: 07/07/2012

Party: RTK/DAV	Width: 111 ft	Processed by: DAV
Boat/Motor: kayak	Area: 326 ft ²	Mean Velocity: 1.79 ft/s
Gage Height: 17.51 ft	G.H.Change: 0.000 ft	Discharge: 581 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.12
BT Error Vel.: 0.33 ft/s	Bin Size: 10 cm Blank: 19 cm
WT Error Vel.: 1.10 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 1.00 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 3.40 ft/s	WZ : 0
Use Weighted Mean Depth: NO	
Max. Vel.: 3.35 ft/s	
Max. Depth: 4.62 ft	
Mean Depth: 2.96 ft	
% Meas.: 64.59	
Water Temp.: None	
ADCP Temp.: 56.6 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 300' DS of gage

Project Name: fish 7072012 q581cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	L	5	15	177	95.7	379	82.8	1.87	8.26	568	106	339	15:32	15:36	0.95	1.67	21	0
002	R	5	15	161	106	358	97.1	17.0	5.47	584	124	345	15:38	15:41	0.84	1.69	4	0
003	L	5	15	97	96.0	380	77.5	17.3	8.76	580	91	290	15:41	15:43	1.42	2.00	13	1
004	R	5	15	114	108	383	88.2	9.68	10.0	599	112	321	15:44	15:46	0.90	1.86	2	0
005	L	5	15	136	97.3	376	80.2	8.26	10.5	572	121	326	15:47	15:50	1.04	1.76	3	0
006	R	5	15	121	102	374	87.7	6.92	10.6	582	111	335	15:50	15:52	0.84	1.74	1	0
Mean		5	15	134	101	375	85.6	10.2	8.93	581	111	326	Total	00:19	1.00	1.79	7	0
SDev		0	0	30	5.33	9.12	7.02	6.01	1.94	10.8	11.7	19.7			0.22	0.12		
SD/M		0.00	0.00	0.22	0.05	0.02	0.08	0.59	0.22	0.02	0.11	0.06			0.22	0.07		

Remarks: Q with StreamPro 580 cfs using BT with 2% error, no GPS data.

Station Number: 15860000

Meas. No: 76

Station Name: Fish Creek

Date: 09/01/2012

Party: RTK/DAV	Width: 111 ft	Processed by: DAV
Boat/Motor: Tethered boat	Area: 186 ft ²	Mean Velocity: 1.14 ft/s
Gage Height: 16.31 ft	G.H.Change: 0.000 ft	Discharge: 213 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.12
BT Error Vel.: 0.33 ft/s	Bin Size: 10 cm Blank: 19 cm
WT Error Vel.: 1.10 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 1.00 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 3.20 ft/s	WZ : 0
Use Weighted Mean Depth: NO	
Max. Vel.: 3.10 ft/s	
Max. Depth: 2.45 ft	
Mean Depth: 1.69 ft	
% Meas.: 52.04	
Water Temp.: None	
ADCP Temp.: 43.7 °F	

Performed Diag. Test: NO

Project Name: fish 09012012 q213cfs.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: 300' US of gage

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	4	10	153	64.0	111	39.1	1.48	3.50	219	119	196	17:46	17:49	0.65	1.12	3	1
001	R	4	10	125	61.4	110	35.9	1.52	4.31	213	108	182	17:49	17:52	0.71	1.17	1	2
002	L	4	10	120	60.2	114	35.2	1.59	4.84	216	108	185	17:52	17:54	0.71	1.17	1	0
003	R	4	10	136	57.3	109	32.9	1.38	3.64	204	107	183	17:55	17:57	0.68	1.12	1	1
Mean		4	10	133	60.7	111	35.8	1.49	4.07	213	111	186	Total	00:11	0.69	1.14	1	1
SDev		0	0	15	2.76	2.23	2.56	0.088	0.623	6.43	5.5	6.6			0.03	0.03		
SD/M		0.00	0.00	0.11	0.05	0.02	0.07	0.06	0.15	0.03	0.05	0.04			0.04	0.03		

Remarks: Q with StreamPro 213 cfs using BT with 3% error, no GPS data.

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 78
 Date: 06/02/2013

Party: RTK/DAV	Width: 172 ft	Processed by: DAV
Boat/Motor: kayak	Area: 775 ft ²	Mean Velocity: 0.575 ft/s
Gage Height: 21.39 ft	G.H.Change: 0.000 ft	Discharge: 442 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (1.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.12
BT Error Vel.: 0.33 ft/s	Bin Size: 10 cm Blank: 19 cm
WT Error Vel.: 0.60 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 1.00 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 1.61 ft/s	WZ : 0
Use Weighted Mean Depth: NO	
Max. Vel.: 1.61 ft/s	
Max. Depth: 6.66 ft	
Mean Depth: 4.52 ft	
% Meas.: 69.75	
Water Temp.: None	
ADCP Temp.: 37.4 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 700' DS of gage

Project Name: fish20130602dav442cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	10	10	141	74.8	309	56.0	1.06	0.989	441	199	885	10:52	10:55	1.18	0.50	3	1
001	R	10	10	143	70.9	305	54.7	1.98	1.06	434	152	713	10:56	10:58	1.33	0.61	15	1
004	L	10	10	129	73.2	303	55.4	2.22	1.73	436	185	809	11:01	11:04	1.23	0.54	2	2
005	R	10	10	157	77.0	315	58.1	2.08	2.93	455	152	696	11:04	11:07	1.15	0.66	4	2
Mean		10	10	142	74.0	308	56.1	1.84	1.68	442	172	775	Total	00:14	1.22	0.57	6	2
SDev		0	0	11	2.56	5.40	1.47	0.528	0.900	9.86	23.7	88.2			0.08	0.07		
SD/M		0.00	0.00	0.08	0.03	0.02	0.03	0.29	0.54	0.02	0.14	0.11			0.06	0.12		

Remarks: Q with RiverRay 442 cfs using BT with 2% error, no GPS data.

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 79
 Date: 06/06/2013

Party: DAV/JPB	Width: 264 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 1,390 ft ²	Mean Velocity: 1.55 ft/s
Gage Height: 22.50 ft	G.H.Change: 0.000 ft	Discharge: 2,150 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.12
BT Error Vel.: 3.28 ft/s*	Bin Size: 10 cm Blank: 19 cm
WT Error Vel.: 32.81 ft/s*	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s*	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s*	WZ : 5
Use Weighted Mean Depth: YES	Max. Vel.: 3.93 ft/s
	Max. Depth: 7.35 ft
	Mean Depth: 5.24 ft
	% Meas.: 57.95
	Water Temp.: None
	ADCP Temp.: 34.2 °F

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: fish20130606dav2085cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	4	4	306	551	1238	336	1.55	4.17	2131	264	1385	18:33	18:36	1.60	1.54	31	0
001	R	4	4	281	587	1273	351	1.31	1.52	2214	267	1383	18:36	18:39	1.56	1.60	6	0
002	L	4	4	223	539	1217	329	1.20	5.47	2092	264	1393	18:40	18:42	1.85	1.50	13	0
003	R	4	4	194	562	1250	339	1.70	2.19	2155	262	1378	18:42	18:44	2.09	1.56	3	0
Mean		4	4	251	560	1245	339	1.44	3.34	2148	264	1385	Total	00:11	1.77	1.55	13	0
SDev		0	0	52	20.7	23.2	8.82	0.226	1.81	50.9	2.2	6.2			0.24	0.04		
SD/M		0.00	0.00	0.21	0.04	0.02	0.03	0.16	0.54	0.02	0.01	0.00			0.14	0.03		

Remarks: Q 2150 cfs using BT with 2% error and 2085 cfs using VTG with 6% error.

* - value not consistent for all transects

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 80
 Date: 06/09/2013

Party: DAV/JPB	Width: 200 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 1,420 ft ²	Mean Velocity: 2.41 ft/s
Gage Height: 22.53 ft	G.H.Change: 0.000 ft	Discharge: 3,420 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.12
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 19 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 7.66 ft/s	
Max. Depth: 9.24 ft	
Mean Depth: 7.10 ft	
% Meas.: 63.88	
Water Temp.: None	
ADCP Temp.: 35.4 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 100' DS of gage

Project Name: fish20130609dav3472cfs.
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
005	R	4	4	187	659	2176	538	12.0	4.80	3391	200	1418	17:16	17:18	1.64	2.39	3	0
006	L	4	4	164	668	2209	547	9.25	17.8	3451	200	1426	17:20	17:22	1.75	2.42	4	0
007	R	4	4	132	665	2169	540	20.6	12.1	3407	201	1423	17:22	17:24	2.17	2.40	5	0
008	L	4	4	174	665	2188	562	1.73	20.7	3437	199	1411	17:24	17:26	1.74	2.43	7	0
Mean		4	4	164	664	2186	547	10.9	13.9	3422	200	1420	Total	00:10	1.82	2.41	5	0
SDev		0	0	23	3.66	17.3	10.8	7.80	7.00	27.6	1.0	6.5			0.23	0.02		
SD/M		0.00	0.00	0.14	0.01	0.01	0.02	0.72	0.51	0.01	0.00	0.00			0.13	0.01		

Remarks: Q with RiverRay 3420 cfs using BT with 1% error and 3470 cfs using VTG with 6% error.

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 81
 Date: 06/11/2013

Party: DAV/JPB	Width: 258 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 1,930 ft ²	Mean Velocity: 2.57 ft/s
Gage Height: 23.62 ft	G.H.Change: 0.000 ft	Discharge: 4,970 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.15
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: fish201300611dav4898cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	4	4	177	955	3327	809	18.8	6.57	5116	276	2027	14:38	14:41	2.04	2.53	11	0
001	R	4	4	213	896	3238	759	12.9	5.23	4911	251	1896	14:41	14:43	1.66	2.59	19	0
002	L	4	4	205	893	3231	721	5.54	10.7	4862	256	1916	14:44	14:46	1.69	2.54	6	0
003	R	4	4	136	913	3248	784	22.5	2.05	4969	249	1886	14:47	14:48	2.71	2.63	6	0
Mean		4	4	182	914	3261	768	14.9	6.13	4965	258	1931	Total	00:09	2.03	2.57	11	0
SDev		0	0	35	28.8	44.6	37.4	7.40	3.57	110	12.3	64.8			0.49	0.05		
SD/M		0.00	0.00	0.19	0.03	0.01	0.05	0.50	0.58	0.02	0.05	0.03			0.24	0.02		

Remarks: Q with RiverRay 4970 cfs using BT with 2% error and 4900 cfs using VTG with 5% error.

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 82
 Date: 06/13/2013

Party: DAV/JPB	Width: 315 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 2,200 ft ²	Mean Velocity: 2.27 ft/s
Gage Height: 23.57 ft	G.H.Change: 0.000 ft	Discharge: 5,000 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.15
BT Error Vel.: 3.28 ft/s*	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s*	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s*	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s*	WZ : 5
Use Weighted Mean Depth: YES	Max. Vel.: 4.40 ft/s
	Max. Depth: 10.0 ft
	Mean Depth: 7.00 ft
	% Meas.: 63.52
	Water Temp.: None
	ADCP Temp.: 46.6 °F

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: fish20130613dav4805cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	L	4	4	209	987	3176	777	3.11	5.01	4948	327	2217	13:15	13:17	2.26	2.23	18	0
002	R	4	4	157	995	3151	889	10.4	2.47	5048	316	2228	13:18	13:19	3.05	2.27	4	0
004	L	4	4	183	967	3191	764	2.44	16.4	4941	309	2195	13:21	13:22	2.67	2.25	19	0
005	R	4	4	139	996	3192	862	20.2	2.51	5072	307	2171	13:23	13:24	3.36	2.34	0	0
Mean		4	4	172	986	3178	823	9.05	6.59	5002	315	2203	Total	00:09	2.83	2.27	10	0
SDev		0	0	31	13.4	19.0	61.5	8.29	6.62	67.5	9.2	25.2			0.48	0.05		
SD/M		0.00	0.00	0.18	0.01	0.01	0.07	0.92	1.00	0.01	0.03	0.01			0.17	0.02		

Remarks: Q with RiverRay 5000 cfs using BT with 1% error and 4800 cfs using VTG with 7% error.

* - value not consistent for all transects

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 83
 Date: 06/17/2013

Party: RTK/KAP	Width: 354 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 1,690 ft ²	Mean Velocity: 2.13 ft/s
Gage Height: 21.88 ft	G.H.Change: 0.000 ft	Discharge: 3,600 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.500 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.15
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 4.54 ft/s	
Max. Depth: 8.30 ft	
Mean Depth: 4.77 ft	
% Meas.: 58.17	
Water Temp.: None	
ADCP Temp.: 53.5 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: YES Evaluation: YES
 Meas. Location: at gaga

Project Name: fish20130617dav3598cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	L	8	6	375	914	2135	567	11.4	3.78	3632	354	1673	13:15	13:19	1.49	2.17	5	0
002	R	6	10	329	896	2051	603	10.3	4.56	3565	354	1700	13:20	13:23	1.67	2.10	1	0
Mean		7	8	352	905	2093	585	10.9	4.17	3598	354	1687	Total	00:08	1.58	2.13	3	0
SDev		1	3	33	12.7	59.9	25.5	0.774	0.549	47.3	0.2	19.2			0.13	0.05		
SD/M		0.20	0.35	0.09	0.01	0.03	0.04	0.07	0.13	0.01	0.00	0.01			0.08	0.03		

Remarks: Q with RiverRay 3600 cfs using BT with 1% error and 3800 cfs using VTG with 15% error.

Station Number: 15860000

Meas. No: 84

Station Name: Fish Creek

Date: 06/21/2013

Party: RTK	Width: 275 ft	Processed by: DAV
Boat/Motor: kayak	Area: 1,120 ft ²	Mean Velocity: 2.22 ft/s
Gage Height: 20.80 ft	G.H.Change: 0.000 ft	Discharge: 2,470 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 8 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 5.28 ft/s	
Max. Depth: 7.76 ft	
Mean Depth: 4.07 ft	
% Meas.: 68.39	
Water Temp.: None	
ADCP Temp.: 62.1 °F	

Performed Diag. Test: NO

Project Name: fish20130621vas2473cfs.

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: 200' US of gage

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	3	0	143	447	1619	297	3.39	0.000	2367	288	1152	13:37	13:40	1.89	2.05	15	0
001	R	3	5	161	484	1651	336	4.73	8.97	2484	283	1085	13:40	13:44	1.50	2.29	7	0
002	L	3	5	118	464	1785	319	2.90	2.40	2574	271	1135	13:44	13:46	1.93	2.27	14	0
003	R	3	5	132	436	1711	315	2.01	4.17	2468	256	1093	13:47	13:50	1.65	2.26	13	0
Mean		3	4	138	458	1692	317	3.26	3.88	2473	275	1116	Total	00:12	1.74	2.22	13	0
SDev		0	2	18	21.1	73.4	15.7	1.14	3.80	84.8	14.2	32.3			0.20	0.11		
SD/M		0.00	0.67	0.13	0.05	0.04	0.05	0.35	0.98	0.03	0.05	0.03			0.12	0.05		

Remarks: Q with StreamPro 2470 cfs using BT with 3% error, no GPS data.

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 85
 Date: 07/06/2013

Party: RTK/DAV	Width: 240 ft	Processed by: DAV
Boat/Motor: kayak	Area: 590 ft ²	Mean Velocity: 2.01 ft/s
Gage Height: 18.55 ft	G.H.Change: 0.000 ft	Discharge: 1,180 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 31.12
BT Error Vel.: 0.33 ft/s	Bin Size: 8 cm Blank: 3 cm
WT Error Vel.: 1.00 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 3.72 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.72 ft/s	
Max. Depth: 4.76 ft	
Mean Depth: 2.46 ft	
% Meas.: 54.47	
Water Temp.: None	
ADCP Temp.: 62.8 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 100' US of gage

Project Name: fish20130706dav1182cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	3	10	127	353	643	176	2.79	10.5	1186	235	572	12:38	12:41	1.64	2.07	2	0
001	L	3	10	143	350	639	176	2.93	9.61	1177	237	576	12:41	12:44	1.42	2.04	1	0
002	R	3	10	135	344	656	178	1.84	10.2	1190	245	621	12:45	12:47	1.66	1.92	1	1
003	L	3	10	151	352	638	176	1.77	8.55	1176	243	590	12:48	12:50	1.38	1.99	1	0
Mean		3	10	139	350	644	177	2.33	9.71	1182	240	590	Total	00:12	1.53	2.01	1	0
SDev		0	0	10	4.09	8.51	0.692	0.615	0.860	6.61	4.8	22.0			0.15	0.07		
SD/M		0.00	0.00	0.07	0.01	0.01	0.00	0.26	0.09	0.01	0.02	0.04			0.10	0.03		

Remarks: Q with StreamPro 1180 cfs using BT with 1% error, no GPS data.

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 86
 Date: 08/23/2013

Party: RTK/DAV	Width: 105 ft	Processed by: DAV
Boat/Motor: Tethered boat	Area: 258 ft ²	Mean Velocity: 1.71 ft/s
Gage Height: 17.05 ft	G.H.Change: 0.000 ft	Discharge: 440 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:6	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 0.33 ft/s	Bin Size: 8 cm Blank: 3 cm
WT Error Vel.: 1.10 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 3.51 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.51 ft/s	
Max. Depth: 3.57 ft	
Mean Depth: 2.45 ft	
% Meas.: 63.39	
Water Temp.: None	
ADCP Temp.: 44.7 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 300' DS of gage

Project Name: fish20130823dav440cfs.
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	R	3	6	106	95.6	278	63.2	1.34	2.44	440	106	258	17:53	17:55	0.82	1.71	1	1
002	L	3	6	110	94.4	278	61.0	1.20	3.21	438	104	257	17:56	17:58	0.83	1.71	2	1
003	R	3	6	107	94.4	284	62.0	1.17	3.11	444	106	259	17:58	18:00	0.82	1.72	1	0
004	L	3	6	113	91.9	271	61.9	1.38	2.83	429	105	257	18:00	18:03	0.80	1.67	1	0
005	R	3	6	105	95.8	284	63.4	2.01	2.97	448	105	258	18:03	18:05	0.84	1.74	2	1
Mean		3	6	108	94.4	279	62.3	1.42	2.91	440	105	258	Total	00:12	0.82	1.71	1	1
SDev		0	0	3	1.57	5.19	0.991	0.344	0.302	7.13	0.7	0.9			0.02	0.02		
SD/M		0.00	0.00	0.03	0.02	0.02	0.02	0.24	0.10	0.02	0.01	0.00			0.02	0.01		

Remarks: Q with StreamPro 440 cfs using BT with 2% error, no GPS data.

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 88
 Date: 05/27/2014

Party: RTK/DAV	Width: 217 ft	Processed by: DAV
Boat/Motor: kayak	Area: 823 ft ²	Mean Velocity: 1.45 ft/s
Gage Height: 20.56 ft	G.H.Change: 0.000 ft	Discharge: 1,190 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 31.12
BT Error Vel.: 3.28 ft/s*	Bin Size: 8 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s*	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s*	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s*	WV : 170 WO : 1, 4
Use Weighted Mean Depth: YES	
Max. Vel.: 6.40 ft/s	
Max. Depth: 7.10 ft	
Mean Depth: 3.86 ft	
% Meas.: 48.15	
Water Temp.: None	
ADCP Temp.: 32.9 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage and 200' DS

Project Name: fish20140527.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	4	4	147	488	508	210	3.64	4.34	1214	244	805	15:00	15:02	2.42	1.51	4	0
002	L	4	4	221	428	482	183	2.44	3.18	1098	243	824	15:08	15:10	2.00	1.33	32	0
004	L	4	4	84	381	677	203	9.29	6.00	1276	196	873	15:15	15:17	2.02	1.46	2	2
005	R	4	4	106	343	631	197	11.1	2.19	1185	184	790	15:17	15:18	2.71	1.50	2	0
Mean		4	4	139	410	575	198	6.60	3.93	1193	217	823	Total	00:17	2.29	1.45	10	1
SDev		0	0	60	62.6	94.5	11.6	4.21	1.64	74.0	31.5	35.8			0.34	0.08		
SD/M		0.00	0.00	0.43	0.15	0.16	0.06	0.64	0.42	0.06	0.15	0.04			0.15	0.06		

Remarks: Q with RiverRay1190 cfs using BT with 6% error and 1070 cfs using VTG with 3% error.

* - value not consistent for all transects
 Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 89
 Date: 06/02/2014

Party: DAV/JPB	Width: 199 ft	Processed by: DAV
Boat/Motor: kayak	Area: 898 ft ²	Mean Velocity: 1.49 ft/s
Gage Height: 20.36 ft	G.H.Change: 0.000 ft	Discharge: 1,340 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 31.12
BT Error Vel.: 3.28 ft/s	Bin Size: 8 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 170 WO : 1, 4
Use Weighted Mean Depth: YES	
Max. Vel.: 4.60 ft/s	
Max. Depth: 8.45 ft	
Mean Depth: 4.50 ft	
% Meas.: 53.24	
Water Temp.: None	
ADCP Temp.: -9796.8 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 100' DS of gage

Project Name: fish06022014_0.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	4	4	152	408	682	222	1.27	4.45	1317	200	868	14:13	14:15	2.08	1.52	5	0
001	R	4	4	135	419	713	238	10.8	2.37	1383	201	866	14:15	14:16	2.24	1.60	11	0
002	L	4	4	132	395	741	244	1.77	5.30	1387	197	927	14:17	14:19	2.22	1.50	16	0
003	R	4	4	123	366	689	199	5.16	2.33	1261	205	914	14:19	14:20	2.33	1.38	20	0
004	L	4	4	114	401	735	237	3.53	7.27	1384	194	908	14:22	14:23	2.48	1.53	14	100
005	R	4	4	95	386	722	187	6.14	7.70	1309	199	904	14:24	14:25	2.75	1.45	4	0
Mean		4	4	125	396	714	221	4.78	4.90	1340	199	898	Total	00:11	2.35	1.49	12	17
SDev		0	0	20	18.3	24.1	23.3	3.50	2.32	52.4	3.7	25.3			0.23	0.07		
SD/M		0.00	0.00	0.16	0.05	0.03	0.11	0.73	0.47	0.04	0.02	0.03			0.10	0.05		

Remarks: Q with RiverRay1340 cfs using BT with 4% error and 1340 cfs using VTG with 7% error.
 Floting and bottom ice in the channel

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 90
 Date: 06/06/2014

Party: DAV/JPB	Width: 239 ft	Processed by: DAV
Boat/Motor: kayak	Area: 1,110 ft ²	Mean Velocity: 2.36 ft/s
Gage Height: 21.27 ft	G.H.Change: 0.000 ft	Discharge: 2,610 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 5.29 ft/s	
Max. Depth: 7.87 ft	
Mean Depth: 4.64 ft	
% Meas.: 53.20	
Water Temp.: None	
ADCP Temp.: 36.0 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: YES
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 50' DS of gage

Project Name: judy06062014_0.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	3	3	139	748	1433	441	3.74	5.26	2631	237	1091	12:45	12:47	2.84	2.41	16	0
001	R	3	3	128	754	1368	486	8.65	4.70	2622	241	1127	12:47	12:48	3.00	2.33	28	0
003	R	3	3	132	739	1365	463	6.29	4.20	2577	237	1100	12:50	12:52	2.99	2.34	20	0
Mean		3	3	133	747	1388	463	6.23	4.72	2610	239	1106	Total	00:06	2.94	2.36	21	0
SDev		0	0	6	7.87	38.2	22.5	2.45	0.530	28.7	2.5	19.1			0.09	0.05		
SD/M		0.00	0.00	0.04	0.01	0.03	0.05	0.39	0.11	0.01	0.01	0.02			0.03	0.02		

Remarks: Q with RiverRay 2610 cfs using BT with 1% error and 2530 cfs using VTG with 3% error.

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 91
 Date: 06/09/2014

Party: DAV/JPB	Width: 210 ft	Processed by: DAV
Boat/Motor: kayak	Area: 1,300 ft ²	Mean Velocity: 2.41 ft/s
Gage Height: 21.58 ft	G.H.Change: 0.000 ft	Discharge: 3,120 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 4.76 ft/s	
Max. Depth: 10.2 ft	
Mean Depth: 6.19 ft	
% Meas.: 58.30	
Water Temp.: None	
ADCP Temp.: 38.2 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 50' DS of gage

Project Name: Fish06092014_0.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	4	4	120	689	1871	577	0.953	6.67	3144	215	1362	13:33	13:35	2.72	2.31	13	1
001	R	4	4	126	695	1826	587	13.2	5.23	3126	208	1286	13:35	13:37	2.37	2.43	0	0
002	L	4	4	89	678	1749	559	14.9	15.6	3016	206	1262	13:37	13:38	3.24	2.39	20	1
003	R	4	4	133	713	1834	613	17.9	22.9	3201	210	1285	13:38	13:40	2.40	2.49	11	0
Mean		4	4	117	694	1820	584	11.7	12.6	3122	210	1299	Total	00:06	2.68	2.41	11	0
SDev		0	0	19	15.0	51.1	22.5	7.44	8.26	77.5	3.7	43.7			0.40	0.08		
SD/M		0.00	0.00	0.17	0.02	0.03	0.04	0.63	0.65	0.02	0.02	0.03			0.15	0.03		

Remarks: Q with RiverRay 3120 cfs using BT with 2% error and 3060 cfs using VTG with 1% error.

Station Number: 15860000

Meas. No: 92

Station Name: Fish Creek

Date: 07/12/2014

Party: RTK/DAV	Width: 219 ft	Processed by: DAV
Boat/Motor: Tethered Boat	Area: 594 ft ²	Mean Velocity: 1.53 ft/s
Gage Height: 18.02 ft	G.H.Change: 0.000 ft	Discharge: 912 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:5	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.16
BT Error Vel.: 32.81 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 0
Use Weighted Mean Depth: NO	Max. Vel.: 3.42 ft/s
	Max. Depth: 3.72 ft
	Mean Depth: 2.72 ft
	% Meas.: 66.43
	Water Temp.: None
	ADCP Temp.: 60.0 °F

Performed Diag. Test: NO

Project Name: fish20140712 q912cfs

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: 1000' DS of gage

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	2	10	174	184	614	121	1.09	5.05	925	222	598	16:11	16:14	1.07	1.55	1	0
001	R	2	10	160	182	592	122	0.883	5.51	902	222	589	16:15	16:18	1.19	1.53	1	0
002	L	2	10	182	172	599	120	1.13	5.30	899	214	595	16:18	16:22	1.04	1.51	2	0
003	R	2	10	156	178	617	118	1.66	5.09	920	216	595	16:22	16:25	1.18	1.55	1	0
Mean		2	10	168	179	606	121	1.19	5.24	912	219	594	Total	00:13	1.12	1.53	1	0
SDev		0	0	12	5.10	12.1	1.72	0.330	0.213	13.1	4.0	3.9			0.08	0.02		
SD/M		0.00	0.00	0.07	0.03	0.02	0.01	0.28	0.04	0.01	0.02	0.01			0.07	0.01		

Remarks: Q with StreamPro 912 cfs using BT with 1% error, no GPS data.

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 93
 Date: 08/17/2014

Party: RTK	Width: 73.1 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 285 ft ²	Mean Velocity: 1.20 ft/s
Gage Height: 16.64 ft	G.H.Change: 0.000 ft	Discharge: 342 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.469 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: Rio Grande / 600 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 0.00
BT Error Vel.: 32.81 ft/s	Bin Size: 8 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 0 BT Pings: 0
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 2.78 ft/s	
Max. Depth: 4.52 ft	
Mean Depth: 3.89 ft	
% Meas.: 65.86	
Water Temp.: None	
ADCP Temp.: 59.3 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: not sure

Project Name: fish08172014002r.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
003	L	-3	-3	56	85.2	230	45.7	0.212	-4.59	357	74	288	14:15	14:16	1.41	1.24	7	0
005	L	-3	-3	50	74.5	221	36.8	0.212	-4.17	328	72	282	14:20	14:21	1.63	1.17	12	0
Mean		-3	-3	53	79.8	226	41.3	0.212	-4.38	342	73	285	Total	00:06	1.52	1.20	10	0
SDev		0	0	4	7.57	6.27	6.32	0.000	0.300	19.9	1.7	4.2			0.16	0.05		
SD/M		0.00	0.00	0.08	0.09	0.03	0.15	0.00	0.07	0.06	0.02	0.01			0.10	0.04		

Remarks: Q with StreamPro 342 cfs using BT with 6% error, no GPS data.

- transect has been subsectioned

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 94
 Date: 05/25/2015

Party: RTK	Width: 316 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 1,830 ft ²	Mean Velocity: 2.19 ft/s
Gage Height: 23.24 ft	G.H.Change: 0.000 ft	Discharge: 4,000 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (20.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 4.17 ft/s	
Max. Depth: 9.39 ft	
Mean Depth: 5.78 ft	
% Meas.: 60.80	
Water Temp.: None	
ADCP Temp.: 33.6 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: no sure

Project Name: Fish20150525 q4001cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	5	5	283	900	2369	579	3.00	3.60	3854	305	1803	16:04	16:08	1.72	2.14	25	0
002	R	5	5	190	951	2447	627	9.92	3.25	4038	323	1869	16:09	16:11	2.51	2.16	1	0
003	L	5	5	171	971	2487	599	4.63	7.24	4070	316	1817	16:11	16:13	2.75	2.24	1	0
004	R	5	5	201	940	2404	618	11.1	10.5	3984	316	1831	16:14	16:16	2.40	2.18	2	0
005	L	5	5	174	970	2462	596	5.01	7.03	4041	320	1826	16:16	16:19	2.63	2.21	1	0
006	R	5	5	166	959	2426	618	7.31	9.92	4020	318	1821	16:19	16:21	2.73	2.21	1	0
Mean	L	5	5	197	948	2433	606	6.83	6.93	4001	316	1828	Total	00:16	2.46	2.19	5	0
SDev		0	0	44	26.6	42.4	17.9	3.19	3.05	77.4	6.2	22.1			0.39	0.04		
SD/M		0.00	0.00	0.22	0.03	0.02	0.03	0.47	0.44	0.02	0.02	0.01			0.16	0.02		

Remarks: Q with RiverRay 4000 cfs 2% error using BT, no GPS data.

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 95
 Date: 05/30/2015

Party: RTK/DAV	Width: 213 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 1,580 ft ²	Mean Velocity: 2.55 ft/s
Gage Height: 22.56 ft	G.H.Change: 0.000 ft	Discharge: 4,020 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	Max. Vel.: 4.31 ft/s
	Max. Depth: 11.3 ft
	Mean Depth: 7.41 ft
	% Meas.: 62.01
	Water Temp.: None
	ADCP Temp.: 39.4 °F

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 300' DS of gage

Project Name: fish20150530 q4024cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
002	L	4	4	252	738	2527	691	3.92	9.08	3969	228	1629	13:57	13:59	1.51	2.44	40	0
003	R	4	4	159	745	2491	776	18.7	5.05	4035	201	1510	14:00	14:01	1.82	2.67	0	0
004	L	4	4	165	732	2530	749	0.953	14.4	4025	212	1602	14:02	14:04	1.87	2.51	7	0
005	R	4	4	179	754	2432	860	8.44	9.96	4065	213	1581	14:04	14:06	1.69	2.57	1	0
Mean		4	4	188	742	2495	769	8.00	9.62	4024	213	1581	Total	00:09	1.72	2.55	12	0
SDev		0	0	43	9.84	45.4	70.3	7.76	3.84	40.3	11.0	51.0			0.16	0.10		
SD/M		0.00	0.00	0.23	0.01	0.02	0.09	0.97	0.40	0.01	0.05	0.03			0.09	0.04		

Remarks: Q with RiverRay, 4020 cfs with 1% error using BT, 3950 cfs with 11% (strong directional bias) error using VTG

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 96
 Date: 06/02/2015

Party: DAV/JPB	Width: 203 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 1,220 ft ²	Mean Velocity: 2.26 ft/s
Gage Height: 21.04 ft	G.H.Change: 0.000 ft	Discharge: 2,760 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.300 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 100 DS of gage

Project Name: fish20150602 q2755cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	6	4	121	466	1766	473	14.1	14.5	2733	205	1248	16:05	16:06	2.19	2.19	0	0
001	R	6	4	164	487	1765	520	15.2	3.25	2790	205	1209	16:06	16:08	1.81	2.31	1	0
002	L	6	4	133	479	1782	505	10.1	12.3	2789	204	1231	16:09	16:10	2.11	2.27	0	0
003	R	6	4	146	469	1712	504	19.5	2.79	2707	200	1186	16:10	16:12	2.05	2.28	1	0
Mean		6	4	141	475	1756	501	14.7	8.20	2755	203	1218	Total	00:07	2.04	2.26	0	0
SDev		0	0	18	9.73	30.3	19.6	3.85	6.05	41.5	2.5	27.0			0.16	0.05		
SD/M		0.00	0.00	0.13	0.02	0.02	0.04	0.26	0.74	0.02	0.01	0.02			0.08	0.02		

Remarks: Q with RiverRay 2760 cfs using BT with 2% error, 2680 cfs using VTG with 2% error

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 97
 Date: 06/07/2015

Party: DAV/JPB	Width: 208 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 1,080 ft ²	Mean Velocity: 1.97 ft/s
Gage Height: 20.15 ft	G.H.Change: 0.000 ft	Discharge: 2,120 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 4.89 ft/s	
Max. Depth: 8.50 ft	
Mean Depth: 5.19 ft	
% Meas.: 58.05	
Water Temp.: None	
ADCP Temp.: 43.1 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 50' DS of gage

Project Name: fish 20150607 q2121cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	4	4	147	544	1254	338	3.18	5.83	2146	212	1091	13:50	13:52	2.01	1.97	3	0
001	R	4	4	149	534	1219	335	6.99	3.64	2098	207	1062	13:52	13:54	2.02	1.98	8	0
002	L	4	4	136	527	1223	339	4.17	9.04	2102	206	1083	13:54	13:55	2.17	1.94	4	0
003	R	4	4	154	536	1229	362	7.73	3.00	2138	205	1075	13:55	13:57	1.84	1.99	3	0
Mean		4	4	146	535	1231	344	5.52	5.38	2121	208	1078	Total	00:07	2.01	1.97	4	0
SDev		0	0	8	7.06	15.7	12.7	2.19	2.73	24.3	3.2	12.5			0.14	0.02		
SD/M		0.00	0.00	0.05	0.01	0.01	0.04	0.40	0.51	0.01	0.02	0.01			0.07	0.01		

Remarks: Q with RiverRay, 2120 cfs using BT with 1% error, 2065cfs using VTG with 7% error (directional bias)

Station Number: 15860000

Meas. No: 98

Station Name: Fish Creek

Date: 06/11/2015

Party: RTK/DAV	Width: 203 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 975 ft ²	Mean Velocity: 1.94 ft/s
Gage Height: 19.72 ft	G.H.Change: 0.000 ft	Discharge: 1,890 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	Max. Vel.: 4.47 ft/s
	Max. Depth: 8.15 ft
	Mean Depth: 4.80 ft
	% Meas.: 55.45
	Water Temp.: None
	ADCP Temp.: 47.7 °F

Performed Diag. Test: NO

Project Name: fish20150611 q1888cfs.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: 100' DS of gage

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	4	4	141	505	1041	303	3.60	3.81	1857	209	997	11:06	11:07	2.08	1.86	0	0
001	R	4	4	166	505	1058	323	11.8	4.17	1903	199	967	11:07	11:09	1.68	1.97	0	0
002	L	4	4	133	523	1047	318	10.9	10.8	1909	205	967	11:10	11:11	2.20	1.98	0	0
003	R	4	4	174	502	1041	324	13.6	2.37	1883	200	967	11:11	11:13	1.61	1.95	0	0
Mean		4	4	153	509	1047	317	9.97	5.29	1888	203	975	Total	00:07	1.89	1.94	0	0
SDev		0	0	20	9.33	7.99	9.79	4.38	3.76	23.4	4.6	15.0			0.29	0.05		
SD/M		0.00	0.00	0.13	0.02	0.01	0.03	0.44	0.71	0.01	0.02	0.02			0.15	0.03		

Remarks: Q with RiverRay 1890cfs using BT with 1% error, 1870cfs using VTG with 2% error

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 99
 Date: 07/02/2015

Party: RTK/KAP	Width: 192 ft	Processed by: DAV
Boat/Motor:	Area: 479 ft ²	Mean Velocity: 1.47 ft/s
Gage Height: 17.55 ft	G.H.Change: 0.000 ft	Discharge: 702 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (21.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 44.16
BT Error Vel.: 32.81 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 0
Use Weighted Mean Depth: NO	
Max. Vel.: 6.86 ft/s	
Max. Depth: 3.77 ft	
Mean Depth: 2.49 ft	
% Meas.: 66.51	
Water Temp.: None	
ADCP Temp.: 63.9 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 300' DS of gage

Project Name: fish20150702 q702cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	3	3	252	142	474	94.9	0.883	0.777	712	195	485	14:11	14:16	0.69	1.47	2	1
001	R	3	3	253	134	470	88.5	1.20	0.177	694	194	484	14:16	14:21	0.69	1.43	1	0
002	L	3	3	222	137	463	94.7	0.918	0.706	696	187	471	14:22	14:26	0.78	1.48	11	1
003	R	3	3	229	145	462	98.0	1.06	1.34	708	192	475	14:27	14:31	0.76	1.49	3	0
Mean		3	3	239	139	467	94.0	1.02	0.750	702	192	479	Total	00:19	0.73	1.47	4	0
SDev		0	0	16	4.88	5.38	3.97	0.145	0.477	8.98	3.3	6.9			0.05	0.02		
SD/M		0.00	0.00	0.07	0.04	0.01	0.04	0.14	0.64	0.01	0.02	0.01			0.07	0.02		

Remarks: Q with StramPro 700 cfs using BT with 1% error, no GPS data.

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 100
 Date: 08/27/2015

Party: RTK/DAV	Width: 73.3 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 161 ft ²	Mean Velocity: 1.15 ft/s
Gage Height: 16.20 ft	G.H.Change: 0.000 ft	Discharge: 184 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.16
BT Error Vel.: 32.81 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 0
Use Weighted Mean Depth: NO	
Max. Vel.: 3.42 ft/s	
Max. Depth: 3.23 ft	
Mean Depth: 2.19 ft	
% Meas.: 62.53	
Water Temp.: None	
ADCP Temp.: 42.9 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: fish20150827 q184cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	4	15	93	37.1	118	26.6	1.73	4.10	188	76	168	14:09	14:10	0.64	1.12	6	0
001	R	4	15	91	36.6	112	25.9	2.51	2.75	180	73	156	14:11	14:12	0.67	1.15	18	0
002	L	4	15	88	36.1	115	24.7	2.44	5.19	183	74	164	14:13	14:14	0.63	1.12	6	0
003	R	4	15	96	37.5	115	26.5	2.15	4.38	186	72	155	14:15	14:16	0.58	1.20	8	0
Mean		4	15	92	36.8	115	25.9	2.21	4.11	184	73	161	Total	00:07	0.63	1.15	10	0
SDev		0	0	3	0.603	2.54	0.875	0.353	1.01	3.43	1.7	6.3			0.04	0.04		
SD/M		0.00	0.00	0.04	0.02	0.02	0.03	0.16	0.25	0.02	0.02	0.04			0.06	0.03		

Remarks: Q with StreamPro 184 cfs with 2% error using BT, no GPS data.

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 101
 Date: 05/24/2016

Party: RTK/DAV	Width: 159 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 514 ft ²	Mean Velocity: 0.658 ft/s
Gage Height: 18.61 ft	G.H.Change: 0.000 ft	Discharge: 338 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (1.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s*	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s*	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s*	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s*	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 3.44 ft/s	
Max. Depth: 4.80 ft	
Mean Depth: 3.24 ft	
% Meas.: 47.46	
Water Temp.: None	
ADCP Temp.: 34.1 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: fish20160524q338cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	R	0	4	243	118	161	59.4	0.000	2.08	340	159	520	14:19	14:22	1.10	0.66	1	1
004	L	0	4	233	117	161	58.9	0.000	3.32	341	154	504	14:25	14:28	1.14	0.68	1	1
005	R	0	4	260	117	159	54.1	0.000	2.90	334	163	518	14:28	14:31	1.05	0.64	1	0
Mean		0	4	245	118	161	57.5	0.000	2.77	338	159	514	Total	00:11	1.10	0.66	1	1
SDev		0	0	14	0.554	1.02	2.89	0.000	0.628	3.91	4.1	8.8			0.04	0.02		
SD/M		0.00	0.00	0.06	0.00	0.01	0.05	0.00	0.23	0.01	0.03	0.02			0.04	0.03		

Remarks: Q with RiverRay 338 cfs using VTG with 1% error. 335 cfs using BT with 2% error.

* - value not consistent for all transects

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 102
 Date: 05/28/2016

Party: DAV/JPB	Width: 181 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 725 ft ²	Mean Velocity: 1.66 ft/s
Gage Height: 19.14 ft	G.H.Change: 0.000 ft	Discharge: 1,200 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.5°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	Max. Vel.: 4.42 ft/s
	Max. Depth: 5.06 ft
	Mean Depth: 3.99 ft
	% Meas.: 52.12
	Water Temp.: None
	ADCP Temp.: 36.2 °F

Performed Diag. Test: NO
 Performed Moving Bed Test: YES
 Performed Compass Calibration: YES Evaluation: YES
 Meas. Location: 200' ds of gage

Project Name: fish20160528q1200cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	2	4	286	353	624	211	2.61	6.39	1197	193	771	15:05	15:08	1.11	1.55	0	0
001	R	2	4	206	352	623	224	3.14	4.63	1206	173	690	15:08	15:10	1.38	1.75	0	0
002	L	2	4	186	354	629	211	2.08	5.65	1201	187	745	15:12	15:14	1.57	1.61	0	0
003	R	2	4	143	354	629	212	3.60	3.57	1202	173	692	15:14	15:16	1.97	1.74	0	0
Mean		2	4	205	353	626	214	2.86	5.06	1201	181	725	Total	00:11	1.51	1.66	0	0
SDev		0	0	60	0.745	3.39	6.31	0.657	1.23	4.00	10.3	40.4			0.36	0.10		
SD/M		0.00	0.00	0.29	0.00	0.01	0.03	0.23	0.24	0.00	0.06	0.06			0.24	0.06		

Remarks: Q with RiverRay 1200 cfs using BT with 0% error, 980 cfs using VTG with 20% error (strong directional bias).

Station Number:
 Station Name: Fish Creek

Meas. No: 103
 Date: 06/02/2016

Party: RTK/DAV	Width: 189 ft	Processed by: DAV
Boat/Motor: kayak	Area: 877 ft ²	Mean Velocity: 2.13 ft/s
Gage Height: 19.83 ft	G.H.Change: 0.000 ft	Discharge: 1,860 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 44.16
BT Error Vel.: 32.81 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 0
Use Weighted Mean Depth: NO	
Max. Vel.: 4.08 ft/s	
Max. Depth: 5.50 ft	
Mean Depth: 4.64 ft	
% Meas.: 70.03	
Water Temp.: None	
ADCP Temp.: 36.7 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 200' DS of gage

Project Name: fish20160602q1865cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	R	4	4	107	333	1273	209	10.4	3.57	1830	200	910	14:25	14:27	1.62	2.01	4	0
002	L	4	4	100	333	1308	212	9.25	4.87	1866	184	859	14:28	14:30	1.70	2.17	5	0
003	R	4	4	106	325	1293	199	9.46	4.31	1830	188	877	14:30	14:32	1.62	2.09	4	0
004	L	4	4	104	336	1316	215	8.26	4.06	1879	185	863	14:32	14:34	1.69	2.18	4	0
005	R	4	4	102	344	1338	221	10.1	3.14	1917	189	878	14:35	14:37	1.68	2.18	5	0
Mean		4	4	103	334	1306	211	9.50	3.99	1864	189	877	Total	00:11	1.66	2.13	4	0
SDev		0	0	3	6.92	24.5	8.32	0.836	0.668	36.6	6.5	20.2			0.04	0.08		
SD/M		0.00	0.00	0.03	0.02	0.02	0.04	0.09	0.17	0.02	0.03	0.02			0.02	0.04		

Remarks: Q with RiverRay 1860 cfs using BT with 2% error, no GPS data.

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 104
 Date: 06/09/2016

Party: RTK/DAV	Width: 180 ft	Processed by: DAV
Boat/Motor: kayak	Area: 632 ft ²	Mean Velocity: 1.94 ft/s
Gage Height: 18.58 ft	G.H.Change: 0.000 ft	Discharge: 1,210 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.16
BT Error Vel.: 32.81 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 0
Use Weighted Mean Depth: NO	
Max. Vel.: 4.19 ft/s	
Max. Depth: 4.49 ft	
Mean Depth: 3.51 ft	
% Meas.: 62.43	
Water Temp.: None	
ADCP Temp.: 37.2 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 200' DS of gage

Project Name: fish20160609q1210cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	5	5	125	270	745	161	2.83	6.39	1187	206	738	12:06	12:08	1.73	1.61	5	0
001	R	5	5	98	292	751	164	4.91	2.68	1215	169	578	12:09	12:10	1.85	2.10	7	0
002	L	5	5	101	283	742	162	4.27	6.32	1197	166	580	12:13	12:15	1.79	2.07	9	0
003	R	5	5	101	287	787	165	5.05	4.03	1248	179	632	12:16	12:18	1.76	1.98	6	0
Mean		5	5	106	283	756	163	4.26	4.86	1212	180	632	Total	00:12	1.78	1.94	7	0
SDev		0	0	13	9.29	21.0	1.78	1.02	1.82	27.1	18.3	75.1			0.05	0.23		
SD/M		0.00	0.00	0.12	0.03	0.03	0.01	0.24	0.37	0.02	0.10	0.12			0.03	0.12		

Remarks: Q with RiverRay 1210 cfs using BT with 2% error, no GPS data.

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 105
 Date: 06/13/2016

Party: RTK/DAV	Width: 186 ft	Processed by: DAV
Boat/Motor: kayak	Area: 559 ft ²	Mean Velocity: 1.77 ft/s
Gage Height: 18.17 ft	G.H.Change: 0.000 ft	Discharge: 989 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.16
BT Error Vel.: 32.81 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 0
Use Weighted Mean Depth: NO	
Max. Vel.: 3.91 ft/s	
Max. Depth: 4.62 ft	
Mean Depth: 3.00 ft	
% Meas.: 61.02	
Water Temp.: None	
ADCP Temp.: 52.3 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 400' DS of gage

Project Name: fish20160613q990cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	4	4	109	207	643	126	1.55	3.39	980	189	594	14:09	14:11	1.72	1.65	7	0
001	R	4	4	110	258	586	140	2.75	3.71	990	195	557	14:12	14:14	1.62	1.78	7	0
002	L	4	4	108	252	600	142	3.67	3.85	1001	178	538	14:14	14:16	1.57	1.86	5	0
003	R	4	4	103	248	586	146	2.61	2.12	985	184	549	14:17	14:19	1.61	1.79	2	0
Mean		4	4	107	241	604	138	2.65	3.27	989	186	559	Total	00:10	1.63	1.77	5	0
SDev		0	0	3	23.3	26.8	8.85	0.868	0.789	8.98	7.2	24.3			0.06	0.09		
SD/M		0.00	0.00	0.03	0.10	0.04	0.06	0.33	0.24	0.01	0.04	0.04			0.04	0.05		

Remarks: Q with RiverRay 990 cfs using BT with 1% error, no GPS data.

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 106
 Date: 07/16/2016

Party: RTK/KAP	Width: 182 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 289 ft ²	Mean Velocity: 1.20 ft/s
Gage Height: 16.56 ft	G.H.Change: 0.000 ft	Discharge: 347 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (20.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.16
BT Error Vel.: 32.81 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 0
Use Weighted Mean Depth: NO	Max. Vel.: 4.29 ft/s
	Max. Depth: 2.60 ft
	Mean Depth: 1.59 ft
	% Meas.: 49.48
	Water Temp.: None
	ADCP Temp.: 58.3 °F

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 500' DS of gage

Project Name: fish20160716q347cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
002	R	15	20	220	107	180	57.6	5.19	10.2	360	186	294	14:56	15:00	0.68	1.22	4	0
003	L	10	20	190	103	173	58.1	4.80	8.86	348	181	290	15:01	15:04	0.78	1.20	7	0
004	R	10	20	194	104	167	55.9	4.20	10.2	341	181	285	15:05	15:08	0.75	1.20	3	0
005	L	10	20	168	103	175	57.3	4.24	10.5	350	181	292	15:09	15:12	0.85	1.20	4	0
006	R	10	20	184	105	167	56.5	5.09	10.5	343	179	279	15:13	15:16	0.74	1.23	2	0
007	L	10	20	161	106	175	58.5	4.91	8.72	353	185	293	15:17	15:20	0.93	1.20	4	0
008	R	10	20	157	102	166	55.3	3.64	8.55	336	183	288	15:20	15:23	0.91	1.17	2	0
Mean		11	20	182	104	172	57.0	4.58	9.64	347	182	289	Total	00:27	0.81	1.20	4	0
SDev		2	0	22	1.58	5.25	1.16	0.568	0.881	7.87	2.5	5.1			0.09	0.02		
SD/M		0.18	0.00	0.12	0.02	0.03	0.02	0.12	0.09	0.02	0.01	0.02			0.12	0.02		

Remarks: Q with StreamPro 347 cfs using BT with 2% error, no GPS data.

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 107
 Date: 08/11/2016

Party: RTK/DAV	Width: 77.1 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 184 ft ²	Mean Velocity: 0.741 ft/s
Gage Height: 15.85 ft	G.H.Change: 0.000 ft	Discharge: 136 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 44.16
BT Error Vel.: 32.81 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 0
Use Weighted Mean Depth: NO	
Max. Vel.: 3.61 ft/s	
Max. Depth: 3.07 ft	
Mean Depth: 2.39 ft	
% Meas.: 61.97	
Water Temp.: None	
ADCP Temp.: 46.2 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 50' DS of gage

Project Name: fish20160811q137cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	R	2	6	106	29.3	84.3	20.7	0.706	0.600	136	77	184	15:18	15:20	0.60	0.74	1	0
003	R	2	6	84	30.0	85.9	20.7	0.812	0.777	138	79	187	15:23	15:25	0.77	0.74	1	0
<i>004</i>	<i>L</i>	<i>2</i>	<i>6</i>	<i>86</i>	<i>26.5</i>	<i>76.9</i>	<i>19.0</i>	<i>1.24</i>	<i>1.06</i>	<i>125</i>	<i>78</i>	<i>186</i>	<i>15:25</i>	<i>15:27</i>	<i>0.79</i>	<i>0.67</i>	<i>2</i>	<i>0</i>
005	R	2	6	78	30.9	88.4	21.9	1.45	0.459	143	79	185	15:27	15:29	0.85	0.77	3	0
006	L	2	6	80	29.7	87.1	21.1	1.17	1.09	140	74	179	15:29	15:31	0.77	0.78	4	0
Mean		2	6	86	29.3	84.5	20.7	1.07	0.798	136	77	184	Total	00:12	0.76	0.74	2	0
SDev		0	0	11	1.66	4.52	1.06	0.307	0.279	7.08	2.0	3.1			0.10	0.05		
SD/M		0.00	0.00	0.13	0.06	0.05	0.05	0.29	0.35	0.05	0.03	0.02			0.13	0.06		

Remarks: Q with StramPro 136cfs using BT with 5% error, no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 108
 Date: 05/28/2017

Party: DAV/CDA	Width: 226 ft	Processed by: DAV
Boat/Motor: kayak	Area: 600 ft ²	Mean Velocity: 0.664 ft/s
Gage Height: 19.28 ft	G.H.Change: 0.000 ft	Discharge: 386 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.656 ft*	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.5°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 0 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s*	Bin Size: 50 cm Blank: 50 cm
WT Error Vel.: 32.81 ft/s*	BT Mode: 0 BT Pings: 1
BT Up Vel.: 32.81 ft/s*	WT Mode: 1 WT Pings: 1
WT Up Vel.: 32.81 ft/s*	WV : 170
Use Weighted Mean Depth: YES	
Max. Vel.: 7.02 ft/s	
Max. Depth: 197 ft	
Mean Depth: 2.70 ft	
% Meas.: 26.50	
Water Temp.: None	
ADCP Temp.: 33.4 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: YES Evaluation: YES
 Meas. Location: 150' DS of gage

Project Name: fish20170528q386cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
002	R	7	7	212	188	110	67.2	2.97	4.06	373	179	514	12:23	12:25	1.45	0.73	39	6
003	L	7	7	249	221	85.4	76.6	3.21	8.19	395	335	809	12:26	12:29	1.21	0.49	55	11
005	L	7	7	160	231	98.0	69.9	2.86	5.19	407	209	550	12:31	12:33	2.14	0.74	18	13
006	R	7	7	129	186	116	61.1	3.88	4.13	371	182	527	12:33	12:34	2.67	0.70	16	4
Mean		7	7	187	207	102	68.7	3.23	5.39	386	226	600	Total	00:11	1.87	0.66	32	9
SDev		0	0	53	22.9	13.6	6.41	0.460	1.94	17.4	73.5	140.1			0.66	0.12		
SD/M		0.00	0.00	0.29	0.11	0.13	0.09	0.14	0.36	0.05	0.32	0.23			0.35	0.18		

Remarks: Q with RiverRay 385 cfs using VTG with 5% error, 350 cfs using BT with 8% error.

* - value not consistent for all transects

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 109
 Date: 06/01/2017

Party: DAV/CDA	Width: 203 ft	Processed by: DAV
Boat/Motor: kayak	Area: 964 ft ²	Mean Velocity: 1.25 ft/s
Gage Height: 20.22 ft	G.H.Change: 0.000 ft	Discharge: 1,200 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.5°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 3.90 ft/s	
Max. Depth: 7.14 ft	
Mean Depth: 4.74 ft	
% Meas.: 53.33	
Water Temp.: None	
ADCP Temp.: 33.8 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 100 DS of gage

Project Name: fish 20170601_q1200cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	3	3	152	370	677	209	3.57	3.25	1263	208	994	12:42	12:44	1.91	1.27	5	0
001	R	3	3	134	341	613	191	3.99	3.04	1152	199	935	12:44	12:46	2.17	1.23	1	0
002	L	3	3	135	362	648	207	2.30	3.21	1223	202	950	12:46	12:47	2.32	1.29	7	0
003	R	3	3	115	347	627	191	3.28	4.66	1172	203	975	12:48	12:49	2.55	1.20	2	0
Mean		3	3	134	355	641	199	3.28	3.54	1202	203	964	Total	00:06	2.24	1.25	4	0
SDev		0	0	15	13.4	27.8	9.78	0.720	0.753	49.9	3.7	26.2			0.27	0.04		
SD/M		0.00	0.00	0.11	0.04	0.04	0.05	0.22	0.21	0.04	0.02	0.03			0.12	0.03		

Remarks: Q with RiverRay 1200 cfs with 4% error, 1145 cfs using BT with 2% error.

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 110
 Date: 06/03/2017

Party: DAV/MW	Width: 169 ft	Processed by: DAV
Boat/Motor: kayak	Area: 928 ft ²	Mean Velocity: 1.43 ft/s
Gage Height: 20.67 ft	G.H.Change: 0.000 ft	Discharge: 1,280 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.5°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 8.73 ft/s	
Max. Depth: 7.94 ft	
Mean Depth: 5.54 ft	
% Meas.: 57.92	
Water Temp.: None	
ADCP Temp.: 33.2 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 100 DS of gage

Project Name: fish 20170603_q1280cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	<i>R</i>	6	6	163	330	785	211	17.2	4.34	1347	220	1180	14:37	14:39	2.39	1.14	2	2
002	<i>L</i>	6	6	55	288	772	230	5.16	23.0	1318	127	759	14:40	14:40	3.02	1.74	2	6
003	<i>R</i>	6	6	96	293	672	208	21.1	15.3	1209	200	1028	14:41	14:42	2.88	1.17	2	2
004	<i>L</i>	6	6	87	269	726	206	10.7	15.0	1227	130	743	14:46	14:47	2.84	1.65	7	1
Mean		6	6	100	295	739	214	13.6	14.4	1275	169	928	Total	00:09	2.78	1.43	3	3
SDev		0	0	45	25.5	51.2	11.1	7.05	7.66	67.6	47.8	213.0			0.27	0.31		
SD/M		0.00	0.00	0.45	0.09	0.07	0.05	0.52	0.53	0.05	0.28	0.23			0.10	0.22		

Remarks: Q with RiverRay 1280 cfs using VTG with 5% error, 1450 cfs using BT with 16% error.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 111
 Date: 06/05/2017

Party: DAV/CDA	Width: 201 ft	Processed by: DAV
Boat/Motor: kayak	Area: 1,050 ft ²	Mean Velocity: 1.88 ft/s
Gage Height: 20.49 ft	G.H.Change: 0.000 ft	Discharge: 1,980 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.656 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.5°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 100' DS of gage

Project Name: fish 20170605_q1980cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	3	3	122	506	1132	301	2.51	7.49	1950	200	1036	13:00	13:01	2.34	1.88	0	0
001	R	3	3	113	520	1124	320	11.0	9.96	1985	199	1048	13:02	13:03	2.55	1.89	2	0
002	L	3	3	95	509	1168	314	18.2	7.17	2016	206	1108	13:03	13:04	3.10	1.82	9	0
003	R	3	3	107	504	1118	312	11.6	9.85	1956	197	1027	13:04	13:06	2.70	1.91	2	0
Mean		3	3	109	510	1136	312	10.8	8.62	1977	201	1054	Total	00:05	2.67	1.88	3	0
SDev		0	0	11	7.01	22.2	7.80	6.44	1.49	30.5	3.8	36.4			0.32	0.04		
SD/M		0.00	0.00	0.10	0.01	0.02	0.02	0.60	0.17	0.02	0.02	0.03			0.12	0.02		

Remarks: Q withe RiverRay 1980 cfs using BT with 2% error, 2035 cfs using VTG with 8% error.

Station Number: 15860000
 Station Name: Fish Creek

Meas. No: 112
 Date: 08/22/2017

Party: DAV/AB	Width: 189 ft	Processed by: DAV
Boat/Motor: kayak	Area: 477 ft ²	Mean Velocity: 1.68 ft/s
Gage Height: 17.72 ft	G.H.Change: 0.000 ft	Discharge: 800 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.16
BT Error Vel.: 32.81 ft/s	Bin Size: 10 cm* Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 0
Use Weighted Mean Depth: NO	Max. Vel.: 3.96 ft/s
	Max. Depth: 4.07 ft
	Mean Depth: 2.52 ft
	% Meas.: 54.81
	Water Temp.: None
	ADCP Temp.: 46.4 °F

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 300' DS of gauge

Project Name: fish20170822q800cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	4	10	211	213	458	125	2.22	1.55	800	190	517	10:07	10:11	0.81	1.55	0	0
001	R	5	10	288	234	414	138	5.01	2.01	794	194	498	10:12	10:17	0.75	1.59	6	0
002	L	5	15	150	228	428	115	5.97	3.81	781	186	457	10:18	10:21	1.04	1.71	1	0
003	R	3	15	191	251	448	118	2.15	5.12	823	186	446	10:21	10:25	0.83	1.85	1	0
004	L	3	15	132	240	432	114	2.44	7.13	797	187	455	10:26	10:28	1.15	1.75	2	0
005	R	3	15	175	231	450	114	2.75	6.04	804	193	488	10:29	10:32	0.95	1.65	1	0
Mean		4	13	191	233	438	121	3.43	4.28	800	189	477	Total	00:24	0.93	1.68	2	0
SDev		1	3	55	12.5	16.2	9.43	1.64	2.22	13.9	3.7	28.4			0.15	0.11		
SD/M		0.26	0.19	0.29	0.05	0.04	0.08	0.48	0.52	0.02	0.02	0.06			0.17	0.07		

Remarks: Q with StreamPro 800 cfs using BT with 2% error, no GPS data.

* - value not consistent for all transects

Summary of Discharge Measurement Forms

Ikpikpuk River, Alaska

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 49
 Date: 06/04/2010

Party: DB/RTK	Width: 377 ft	Processed by: DAV
Boat/Motor: kayak	Area: 5,680 ft ²	Mean Velocity: 2.15 ft/s
Gage Height: 39.22 ft	G.H.Change: 0.000 ft	Discharge: 12,200 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.430 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: Model (19.4°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: Rio Grande / 1200 kHz
WT 3-Beam Solution: NO	Serial #: 3600 Firmware: 10.17
BT Error Vel.: 0.33 ft/s	Bin Size: 25 cm Blank: 25 cm
WT Error Vel.: 3.50 ft/s	BT Mode: 5 BT Pings: 1
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 1
WT Up Vel.: 5.00 ft/s	WV : 175 WO : 1, 4
Use Weighted Mean Depth: YES	
Max. Vel.: 4.89 ft/s	
Max. Depth: 24.6 ft	
Mean Depth: 15.1 ft	
% Meas.: 73.94	
Water Temp.: None	
ADCP Temp.: 33.0 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: @ gage

Project Name: ikpikpuk20100604 11800cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	L	5	40	641	1564	8934	1479	10.9	26.8	12015	380	5740	19:18	19:23	1.37	2.09	19	1
002	R	5	40	563	1576	8933	1573	9.15	61.9	12154	396	5751	19:23	19:27	1.48	2.11	23	0
004	R	5	40	572	1586	8989	1609	5.33	32.9	12223	375	5639	19:31	19:35	1.53	2.17	14	1
005	L	5	40	600	1737	9148	1498	5.09	21.2	12409	366	5631	19:35	19:39	1.51	2.20	17	1
007	L	5	40	476	1582	9176	1477	5.05	65.7	12306	368	5629	19:43	19:46	1.86	2.19	14	0
Mean		5	40	570	1609	9036	1527	7.10	41.7	12221	377	5678	Total	00:27	1.55	2.15	17	0
SDev		0	0	61	71.8	118	60.2	2.73	20.7	149	11.8	61.5			0.19	0.05		
SD/M		0.00	0.00	0.11	0.04	0.01	0.04	0.38	0.50	0.01	0.03	0.01			0.12	0.02		

Remarks: Q with RioGrande 12200 cfs using BT with 1% error and 10100 cfs using VTG with 33% error.

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 50
 Date: 06/07/2010

Party: DB/BL	Width: 552 ft	Processed by: DAV
Boat/Motor: kayak	Area: 6,500 ft ²	Mean Velocity: 4.17 ft/s
Gage Height: 36.30 ft	G.H.Change: 0.000 ft	Discharge: 27,000 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.430 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: Model (19.4°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: Rio Grande / 1200 kHz
WT 3-Beam Solution: NO	Serial #: 3600 Firmware: 10.17
BT Error Vel.: 0.33 ft/s*	Bin Size: 25 cm Blank: 25 cm
WT Error Vel.: 3.50 ft/s	BT Mode: 5 BT Pings: 1
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 1
WT Up Vel.: 10.00 ft/s	WV : 196 WO : 1, 4
Use Weighted Mean Depth: YES	

Performed Diag. Test: YES
 Performed Moving Bed Test: NO
 Performed Compass Calibration: YES Evaluation: YES
 Meas. Location: started aprox 2 miles US

Project Name: ikpikpuk20100607 q26984cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
002	R	10	5	482	4023	21151	3491	23.6	-9.68	28680	502	7072	16:45	16:48	2.63	4.06	15	0
007	L	10	10	375	4104	17639	3488	64.4	70.7	25366	492	6399	17:01	17:03	3.31	3.96	2	1
008	R	10	10	504	5358	18618	4040	46.4	83.4	28146	555	6026	17:03	17:07	2.88	4.67	2	0
010	R	10	10	568	5403	17519	3984	68.2	42.8	27017	630	6584	17:12	17:16	2.90	4.10	5	0
011	L	10	10	488	4831	17294	3482	97.1	137	25842	595	6839	17:16	17:19	3.11	3.78	1	0
012	R	10	10	463	4989	17890	3733	98.1	144	26854	537	6048	17:20	17:23	2.99	4.44	0	0
Mean		10	9	480	4785	18352	3703	66.3	78.0	26984	552	6495	Total	00:37	2.97	4.17	4	0
SDev		0	2	63	599	1445	258	28.9	58.1	1278	53.4	421.4			0.23	0.33		
SD/M		0.00	0.22	0.13	0.13	0.08	0.07	0.44	0.74	0.05	0.10	0.06			0.08	0.08		

Remarks: Q with RioGrande 26000 cfs using BT with 3% error and 27000 cfs using VTG with 5% error
 Due to swift current the zig zag metod was used for aprox 1 mile stretch.

* - value not consistent for all transects

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 51
 Date: 06/11/2010

Party: DB/BL	Width: 329 ft	Processed by: DAV
Boat/Motor: kayak	Area: 2,820 ft ²	Mean Velocity: 2.64 ft/s
Gage Height: 29.57 ft	G.H.Change: 0.000 ft	Discharge: 7,420 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.459 ft*	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.04
BT Error Vel.: 32.81 ft/s*	Bin Size: 17 cm* Blank: 3 cm
WT Error Vel.: 32.81 ft/s*	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s*	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s*	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 5.49 ft/s	
Max. Depth: 14.4 ft	
Mean Depth: 8.59 ft	
% Meas.: 72.96	
Water Temp.: None	
ADCP Temp.: 51.6 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: not sure

Project Name: ikpikpuk20100611 q7423cfs.
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	10	10	214	805	5745	866	6.60	18.3	7441	326	2812	15:17	15:21	1.51	2.64	8	0
001	L	10	10	236	869	5626	1159	12.1	19.4	7685	360	3090	15:21	15:25	1.55	2.49	11	15
002	R	10	10	193	879	5360	1428	14.2	21.4	7703	317	2845	15:28	15:31	1.63	2.71	11	16
003	L	10	10	211	875	5426	1193	17.5	11.8	7523	332	2956	15:31	15:35	1.56	2.55	10	17
004	R	10	10	191	801	5137	1015	24.9	17.7	6995	305	2797	15:36	15:40	1.61	2.50	20	14
005	L	10	10	178	908	5218	1326	20.7	10.3	7482	322	2670	15:42	15:45	1.85	2.80	7	14
006	R	10	10	174	785	5278	905	-3.53	22.0	6986	343	2862	15:46	15:49	1.95	2.44	21	0
007	L	10	10	187	982	5539	1023	5.09	19.0	7568	325	2530	15:50	15:53	1.95	2.99	9	0
Mean		10	10	198	863	5416	1114	12.2	17.5	7423	329	2820	Total	00:35	1.70	2.64	12	9
SDev		0	0	21	65.4	209	198	9.23	4.26	282	16.7	169.4			0.18	0.19		
SD/M		0.00	0.00	0.11	0.08	0.04	0.18	0.76	0.24	0.04	0.05	0.06			0.11	0.07		

Remarks: Q with RioGrande 7420 cfs using BT with 4% error, no GPS data.

* - value not consistent for all transects

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 52
 Date: 06/17/2010

Party: RH/JB	Width: 196 ft	Processed by: DAV
Boat/Motor: kayak	Area: 1,100 ft ²	Mean Velocity: 0.978 ft/s
Gage Height: 24.23 ft	G.H.Change: 0.000 ft	Discharge: 1,070 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.459 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.04
BT Error Vel.: 32.81 ft/s	Bin Size: 17 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 1.95 ft/s	
Max. Depth: 11.2 ft	
Mean Depth: 5.61 ft	
% Meas.: 67.85	
Water Temp.: None	
ADCP Temp.: 51.1 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 40' DS of gage

Project Name: ikpikpuk 20100617 q1074cfs.mr
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	10	35	174	156	726	140	13.5	38.8	1074	179	1046	19:34	19:37	1.21	1.03	9	0
001	L	10	35	129	159	738	135	12.0	42.2	1087	201	1135	19:37	19:40	1.31	0.96	2	0
002	R	10	35	138	155	709	143	11.9	40.4	1059	196	1061	19:40	19:42	1.27	1.00	4	0
003	L	10	35	147	159	740	137	9.11	29.3	1075	209	1156	19:43	19:45	1.18	0.93	1	0
Mean		10	35	147	157	729	139	11.6	37.7	1074	196	1099	Total	00:11	1.24	0.98	4	0
SDev		0	0	19	2.13	14.3	3.42	1.82	5.76	11.1	12.9	54.4			0.06	0.04		
SD/M		0.00	0.00	0.13	0.01	0.02	0.02	0.16	0.15	0.01	0.07	0.05			0.05	0.04		

Remarks: Q with StreamPro 1070 cfs using BT with 1% error, no GPS data.

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 53
 Date: 07/03/2010

Party: RTK/DAV	Width: 185 ft	Processed by: DAV
Boat/Motor: kayak	Area: 723 ft ²	Mean Velocity: 0.297 ft/s
Gage Height: 22.64 ft	G.H.Change: 0.000 ft	Discharge: 214 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 1.801 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.04
BT Error Vel.: 32.81 ft/s	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 10.5 ft/s	
Max. Depth: 5.14 ft	
Mean Depth: 3.90 ft	
% Meas.: 30.92	
Water Temp.: None	
ADCP Temp.: 60.1 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: not sure

Project Name: ikpikpuk20100703 q214cfs.
 Software: 2.17

Tr.#		Edge Distance		#Ens.	Discharge					Width	Area	Time		Mean Vel.		% Bad		
		L	R		Top	Middle	Bottom	Left	Right			Total	Start	End	Boat	Water	Ens.	Bins
001	R	6	10	153	122	65.3	22.0	0.706	9.89	219	181	684	16:00	16:03	1.13	0.32	2	6
002	L	6	10	162	113	68.1	19.6	1.34	8.16	210	187	750	16:04	16:07	1.09	0.28	1	6
003	R	6	10	156	117	65.4	21.2	-0.883	10.7	213	188	734	16:07	16:10	1.15	0.29	2	6
Mean		6	10	157	117	66.3	20.9	0.388	9.58	214	185	723	Total	00:09	1.12	0.30	2	6
SDev		0	0	5	4.36	1.57	1.24	1.15	1.30	4.79	3.5	34.3			0.03	0.02		
SD/M		0.00	0.00	0.03	0.04	0.02	0.06	2.95	0.14	0.02	0.02	0.05			0.03	0.07		

Remarks: Q with StreamPro 214 cfs using BT with 2% error, no GPS data.

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 54
 Date: 09/10/2010

Party: RTK/DAV	Width: 102 ft	Processed by: DAV
Boat/Motor: tethered	Area: 117 ft ²	Mean Velocity: 0.846 ft/s
Gage Height: 22.46 ft	G.H.Change: 0.000 ft	Discharge: 97.1 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.164 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 31.04
BT Error Vel.: 0.33 ft/s	Bin Size: 3 cm* Blank: 3 cm
WT Error Vel.: 1.10 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 5.70 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.35 ft/s	
Max. Depth: 1.78 ft	
Mean Depth: 1.14 ft	
% Meas.: 35.49	
Water Temp.: None	
ADCP Temp.: 52.6 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 300' DS of gage

Project Name: Ikpikpuk 20100910 q97cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	10	6	218	38.7	32.5	24.6	3.04	0.600	99.4	109	122	15:45	15:48	0.58	0.81	9	8
001	R	10	6	201	40.4	30.3	25.4	2.40	0.424	98.9	114	131	15:49	15:52	0.58	0.75	2	7
002	L	10	6	190	38.4	37.4	23.5	0.812	-0.636	99.5	87	99	15:53	15:56	0.58	1.00	2	17
003	R	10	6	173	37.3	34.1	21.3	1.66	-0.141	94.2	119	140	15:57	16:00	0.71	0.67	0	17
004	L	10	6	159	37.2	36.9	23.0	3.07	-0.283	99.9	118	134	16:00	16:03	0.76	0.74	2	18
005	R	12	6	158	34.0	35.0	21.6	6.11	-0.989	95.7	89	104	16:03	16:05	0.52	0.92	1	19
006	L	12	6	105	34.1	34.3	20.5	4.91	0.494	94.4	91	102	16:06	16:08	0.74	0.92	2	16
007	R	12	6	125	34.2	35.1	20.5	5.26	-0.671	94.5	89	101	16:08	16:10	0.65	0.94	2	14
Mean		11	6	166	36.8	34.4	22.5	3.41	-0.150	97.1	102	117	Total	00:25	0.64	0.85	2	15
SDev		1	0	38	2.41	2.28	1.86	1.85	0.602	2.58	14.4	17.0			0.09	0.12		
SD/M		0.10	0.00	0.23	0.07	0.07	0.08	0.54	4.01	0.03	0.14	0.15			0.14	0.14		

Remarks: Q with StreamPro 97 cfs using BT with 3% error, no GPS data.

* - value not consistent for all transects

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 56
 Date: 05/29/2011

Party: DB/CB	Width: 576 ft	Processed by: DAV
Boat/Motor:	Area: 7,610 ft ²	Mean Velocity: 3.73 ft/s
Gage Height: 36.77 ft	G.H.Change: 0.000 ft	Discharge: 28,000 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.300 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.4°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: Rio Grande / 1200 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 10.17
BT Error Vel.: 0.33 ft/s*	Bin Size: 50 cm Blank: 25 cm
WT Error Vel.: 3.50 ft/s*	BT Mode: 5 BT Pings: 1
BT Up Vel.: 1.00 ft/s*	WT Mode: 1 WT Pings: 1
WT Up Vel.: 9.00 ft/s*	WV : 250
Use Weighted Mean Depth: NO	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location:

Project Name: ikpikpuk20110529 q27201cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	25	0	356	4091	19630	4595	-5.62	0.000	28310	435	6168	15:39	15:41	3.12	4.59	35	0
001	R	0	0	846	4180	20830	4285	0.000	0.000	29294	568	8146	15:41	15:47	2.07	3.60	7	0
002	L	5	4	478	4552	17852	4305	4.38	28.5	26741	497	6584	15:47	15:51	3.45	4.06	19	0
003	R	5	5	399	4053	18769	4165	88.3	24.9	27100	468	7714	15:51	15:53	3.21	3.51	16	1
004	L	0	4	389	5030	19420	5331	0.000	35.4	29817	664	9439	15:53	15:56	4.87	3.16	34	1
005	R	5	5	494	5565	17072	5446	34.5	31.6	28150	646	7283	15:58	16:01	3.59	3.86	31	1
006	L	5	5	467	5396	16215	4908	78.2	51.0	26647	721	8214	16:03	16:06	4.22	3.24	22	0
007	R	0	5	453	5183	17739	4908	0.000	56.9	27887	607	7293	16:07	16:10	3.51	3.82	23	0
Mean		6	3	485	4756	18441	4743	25.0	28.5	27993	576	7605	Total	00:30	3.50	3.73	23	0
SDev		8	2	154	613	1505	486	38.1	20.7	1154	101.9	1024.3			0.82	0.46		
SD/M		1.46	0.63	0.32	0.13	0.08	0.10	1.53	0.73	0.04	0.18	0.13			0.23	0.12		

Remarks: Q with RioGrande 28000 cfs using BT with 4% error and 27500 cfs using VTC with 4% error.

* - value not consistent for all transects

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 57
 Date: 05/31/2011

Party: DB/KM	Width: 377 ft	Processed by: DAV
Boat/Motor: 12' cataraft with 10 hp prop	Area: 4,550 ft ²	Mean Velocity: 6.54 ft/s
Gage Height: 37.10 ft	G.H.Change: 0.000 ft	Discharge: 29,700 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.350 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (20.4°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: Rio Grande / 1200 kHz
WT 3-Beam Solution: NO	Serial #: 12812 Firmware: 10.16
BT Error Vel.: 0.33 ft/s	Bin Size: 15 cm Blank: 25 cm
WT Error Vel.: 3.50 ft/s	BT Mode: 5 BT Pings: 1
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 1
WT Up Vel.: 8.00 ft/s	WV : 177 WO : 13, 4
Use Weighted Mean Depth: YES	
Max. Vel.: 10.8 ft/s	
Max. Depth: 16.7 ft	
Mean Depth: 12.1 ft	
% Meas.: 73.08	
Water Temp.: None	
ADCP Temp.: 34.6 °F	

Performed Diag. Test: YES
 Performed Moving Bed Test: NO
 Performed Compass Calibration: YES Evaluation: YES
 Meas. Location:

Project Name: ikpikpuk20110531 q 30269
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	4	6	400	<i>4784</i>	<i>22551</i>	<i>3558</i>	35.0	39.3	30966	395	4756	15:07	15:13	1.29	6.51	1	0
005	L	5	5	184	<i>4809</i>	<i>22556</i>	<i>3349</i>	33.5	19.9	30767	403	4776	15:32	15:35	2.47	6.44	0	0
006	R	5	5	256	<i>4827</i>	<i>22071</i>	<i>3569</i>	42.7	12.3	30521	398	4644	15:35	15:39	1.87	6.57	0	0
007	L	5	6	132	<i>3813</i>	<i>19749</i>	<i>2781</i>	37.1	130	26510	299	3910	15:39	15:41	2.50	6.78	0	0
009	L	7	9	165	<i>4811</i>	<i>22380</i>	<i>3490</i>	64.7	69.1	30815	407	4846	15:46	15:48	2.76	6.36	2	0
010	R	5	8	204	<i>4535</i>	<i>20898</i>	<i>3279</i>	159	31.3	28902	370	4361	15:49	15:52	2.15	6.63	1	0
011	L	5	7	150	<i>4454</i>	<i>21889</i>	<i>3168</i>	33.1	99.1	29643	369	4584	15:52	15:55	2.79	6.47	0	0
Mean		5	7	213	<i>4576</i>	<i>21728</i>	<i>3313</i>	57.9	57.3	29732	377	4554	Total	00:47	2.26	6.54	1	0
SDev		1	2	92	<i>368</i>	<i>1044</i>	<i>278</i>	46.0	43.9	1606	37.6	325.7			0.54	0.14		
SD/M		0.18	0.23	0.43	<i>0.08</i>	<i>0.05</i>	<i>0.08</i>	0.79	0.77	0.05	0.10	0.07			0.24	0.02		

Remarks: Q with RioGrande 28100 cfs using BT with 4% error and 29700 cfs using VTG with 5% error.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 58
 Date: 06/03/2011

Party: DB/KM	Width: 299 ft	Processed by: DAV
Boat/Motor: 12' cataraft with 10 hp prop	Area: 1,820 ft ²	Mean Velocity: 4.45 ft/s
Gage Height: 29.49 ft	G.H.Change: 0.000 ft	Discharge: 8,070 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.300 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.5°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: Rio Grande / 1200 kHz
WT 3-Beam Solution: NO	Serial #: 12812 Firmware: 10.16
BT Error Vel.: 0.33 ft/s	Bin Size: 12 cm Blank: 25 cm
WT Error Vel.: 3.50 ft/s	BT Mode: 5 BT Pings: 1
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 1
WT Up Vel.: 7.00 ft/s	WV : 175 WO : 15, 4
Use Weighted Mean Depth: YES	
Max. Vel.: 8.22 ft/s	
Max. Depth: 10.7 ft	
Mean Depth: 6.09 ft	
% Meas.: 60.15	
Water Temp.: None	
ADCP Temp.: 38.1 °F	

Performed Diag. Test: YES
 Performed Moving Bed Test: NO
 Performed Compass Calibration: YES Evaluation: YES
 Meas. Location: not sure

Project Name: Ikpikpuk_0.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	6	60	143	2071	4916	1201	34.2	167	8389	317	1882	18:41	18:43	2.03	4.46	28	0
001	R	12	60	181	1878	5008	1095	6.50	274	8262	332	1976	18:43	18:46	1.67	4.18	19	0
002	L	12	50	159	1888	4888	1110	6.64	137	8030	281	1807	18:47	18:49	1.84	4.44	10	0
003	R	12	50	214	1978	4777	1131	5.76	207	8098	311	1817	18:49	18:53	1.54	4.46	31	0
004	L	12	50	163	1807	4651	1040	5.79	140	7643	277	1763	18:53	18:55	1.74	4.33	7	0
005	R	12	50	177	1914	5034	1083	7.95	124	8164	313	1866	18:55	18:58	1.66	4.37	15	0
006	L	12	50	133	1917	4821	1090	8.62	182	8019	272	1682	18:58	19:00	2.05	4.77	15	0
007	R	12	50	169	1916	4762	1107	12.4	191	7988	288	1742	19:01	19:03	1.60	4.59	11	0
Mean		11	53	167	1921	4857	1107	11.0	178	8074	299	1817	Total	00:22	1.77	4.45	17	0
SDev		2	5	25	77.3	130	46.0	9.63	48.4	221	22.0	91.5			0.19	0.17		
SD/M		0.19	0.09	0.15	0.04	0.03	0.04	0.88	0.27	0.03	0.07	0.05			0.11	0.04		

Remarks: Q with RioGrande 7900 cfs using BT with 3% error, 8070 cfs using VTG with 3% error.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 59
 Date: 07/07/2011

Party: RTK/DAV	Width: 180 ft	Processed by: DAV
Boat/Motor: tethered	Area: 501 ft ²	Mean Velocity: 0.554 ft/s
Gage Height: 23.04 ft	G.H.Change: 0.000 ft	Discharge: 275 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 31.12
BT Error Vel.: 0.33 ft/s	Bin Size: 6 cm Blank: 3 cm
WT Error Vel.: 1.10 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 4.60 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.20 ft/s	
Max. Depth: 5.96 ft	
Mean Depth: 2.78 ft	
% Meas.: 62.07	
Water Temp.: None	
ADCP Temp.: 65.8 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 50' DS of gage

Project Name: ikpikpuk 20110707000 275cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	R	10	10	218	52.7	173	48.7	2.05	9.18	285	195	537	16:06	16:11	0.79	0.53	1	6
002	L	10	10	217	53.2	179	53.8	2.01	-5.93	282	172	486	16:11	16:15	0.72	0.58	4	7
003	R	10	10	233	47.7	166	45.4	-0.318	5.76	264	186	522	16:18	16:22	0.72	0.51	1	4
004	L	10	10	219	60.1	162	51.5	0.636	-4.73	270	161	434	16:23	16:27	0.79	0.62	1	8
005	R	10	10	202	50.0	175	44.4	1.48	4.84	276	185	525	16:28	16:32	0.80	0.52	2	3
Mean		10	10	217	52.7	171	48.7	1.17	1.82	275	180	501	Total	00:25	0.77	0.55	2	6
SDev		0	0	11	4.67	6.78	4.00	1.01	6.74	8.56	13.5	41.9			0.04	0.05		
SD/M		0.00	0.00	0.05	0.09	0.04	0.08	0.86	3.70	0.03	0.07	0.08			0.06	0.09		

Remarks: Q with StreamPro 275 cfs using BT with 3% error, no GPS data.

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 60
 Date: 08/26/2011

Party: RTK/DAV	Width: 89.0 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 149 ft ²	Mean Velocity: 0.533 ft/s
Gage Height: 22.44 ft	G.H.Change: 0.000 ft	Discharge: 78.9 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: 4-Clear	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 31.12
BT Error Vel.: 0.33 ft/s	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 1.00 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 12.90 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.14 ft/s	
Max. Depth: 2.66 ft	
Mean Depth: 1.68 ft	
% Meas.: 48.09	
Water Temp.: None	
ADCP Temp.: 53.6 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location:

Project Name: ikpikpuk 2011082600 q79cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
019	L	20	10	85	20.3	34.1	12.6	6.36	2.30	75.5	90	138	19:23	19:25	0.67	0.55	2	8
020	R	20	10	86	20.0	38.9	13.3	6.07	3.78	82.1	89	145	19:25	19:27	0.62	0.57	2	9
021	L	20	10	73	21.8	41.6	14.0	5.62	2.75	85.8	87	141	19:27	19:29	0.71	0.61	3	8
022	R	20	10	74	20.0	40.0	12.6	3.81	3.21	79.6	88	147	19:29	19:30	0.71	0.54	1	11
023	L	20	10	75	17.8	36.6	11.5	8.40	2.75	77.0	87	153	19:31	19:32	0.75	0.50	3	9
024	R	20	10	85	16.1	36.6	11.5	6.64	2.79	73.6	93	171	19:33	19:34	0.68	0.43	2	11
Mean		20	10	79	19.3	38.0	12.6	6.15	2.93	78.9	89	149	Total	00:11	0.69	0.53	2	9
SDev		0	0	6	2.02	2.72	1.00	1.49	0.507	4.50	2.2	11.9			0.04	0.06		
SD/M		0.00	0.00	0.08	0.10	0.07	0.08	0.24	0.17	0.06	0.03	0.08			0.06	0.11		

Remarks: Q with StreamPro79 cfs using BT with 6% error, no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15820000
 Station Name: ikpikpuk River

Meas. No: 62
 Date: 05/25/2012

Party: RTK/DAV	Width: 317 ft	Processed by: DAV
Boat/Motor: kayak	Area: 3,650 ft ²	Mean Velocity: 2.40 ft/s
Gage Height: 33.31 ft	G.H.Change: 0.000 ft	Discharge: 8,680 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: 3600 Firmware: 44.12
BT Error Vel.: 0.33 ft/s	Bin Size: 20 cm Blank: 19 cm
WT Error Vel.: 3.50 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 1.00 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 5.00 ft/s	WZ : 5
Use Weighted Mean Depth: YES	Max. Vel.: 5.40 ft/s
	Max. Depth: 20.6 ft
	Mean Depth: 11.5 ft
	% Meas.: 64.22
	Water Temp.: None
	ADCP Temp.: 33.4 °F

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: ikpikpuk5252012q8680cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	5	4	714	1631	5703	1411	17.7	7.52	8771	332	3827	06:45	06:49	1.44	2.29	13	0
001	L	5	5	489	1803	5498	1477	7.24	13.5	8798	302	3246	06:50	06:53	2.22	2.71	2	0
002	R	5	5	467	1535	5524	1393	14.5	10.1	8477	318	3883	06:55	06:58	1.95	2.18	2	0
Mean		5	5	556	1656	5575	1427	13.1	10.4	8682	317	3652	Total	00:12	1.87	2.40	6	0
SDev		0	1	137	135	111	44.1	5.36	3.01	178	14.9	352.4			0.39	0.28		
SD/M		0.00	0.12	0.25	0.08	0.02	0.03	0.41	0.29	0.02	0.05	0.10			0.21	0.12		

Remarks: Q with RiverRay 8680 using BT with 2% error, no GPS data.

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 63
 Date: 05/31/2012

Party: DAV/RTK	Width: 277 ft	Processed by: DAV
Boat/Motor: kayak	Area: 2,500 ft ²	Mean Velocity: 3.22 ft/s
Gage Height: 29.34 ft	G.H.Change: 0.000 ft	Discharge: 8,060 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.500 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.12
BT Error Vel.: 3.28 ft/s*	Bin Size: 20 cm Blank: 19 cm
WT Error Vel.: 32.81 ft/s*	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s*	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s*	WZ : 5
Use Weighted Mean Depth: YES	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: YES Evaluation: YES
 Meas. Location: 100 DS gage

Project Name: ikpikpuk 20120531 q8055cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	15	6	338	1105	5311	1623	111	12.8	8163	277	2518	14:37	14:41	1.47	3.24	0	0
001	L	15	15	171	996	5141	1507	121	51.4	7816	255	2449	14:41	14:43	2.46	3.19	0	0
002	R	15	10	183	1180	5125	1767	56.4	24.7	8153	293	2458	14:45	14:46	2.42	3.32	0	0
003	L	15	10	164	1118	5272	1684	54.8	35.6	8165	285	2536	14:47	14:49	2.50	3.22	0	0
004	R	15	10	154	1076	4959	1752	93.1	25.4	7906	282	2547	14:50	14:51	2.77	3.10	0	0
005	L	15	10	144	1073	5366	1568	89.2	28.7	8125	272	2508	14:52	14:53	2.89	3.24	0	0
Mean		15	10	192	1091	5196	1650	87.5	29.8	8055	277	2503	Total	00:15	2.42	3.22	0	0
SDev		0	3	73	60.8	150	103	27.3	12.9	153	12.9	40.9			0.50	0.07		
SD/M		0.00	0.28	0.38	0.06	0.03	0.06	0.31	0.43	0.02	0.05	0.02			0.21	0.02		

Remarks: Q with RiverRay 8060 cfs using BT with 2% error, 8840 cfs using VTG with 24% error (strong directional bias).

* - value not consistent for all transects

Station Number: 15820000
 Station Name: ikpikpuk River

Meas. No: 64
 Date: 06/04/2012

Party: DAV/RTK	Width: 300 ft	Processed by: DAV
Boat/Motor: kayak	Area: 2,820 ft ²	Mean Velocity: 3.77 ft/s
Gage Height: 31.00 ft	G.H.Change: 0.000 ft	Discharge: 10,600 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.12
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 19 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 7.06 ft/s	
Max. Depth: 14.5 ft	
Mean Depth: 9.42 ft	
% Meas.: 65.95	
Water Temp.: None	
ADCP Temp.: 41.9 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 100' DS of gage

Project Name: ikpikpuk20120604q10567cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	10	10	165	1270	6814	2367	4.73	16.9	10472	329	3094	14:04	14:05	3.24	3.39	0	0
001	R	10	10	162	1280	7094	2250	15.6	23.9	10664	285	2707	14:07	14:08	3.12	3.94	0	0
002	L	10	10	136	1274	6882	2278	-8.12	68.2	10493	318	2986	14:10	14:11	3.91	3.51	0	0
003	R	10	10	150	1272	7087	2230	10.1	37.8	10637	267	2501	14:12	14:14	3.45	4.26	0	0
Mean		10	10	153	1274	6969	2281	5.58	36.7	10566	300	2822	Total	00:10	3.43	3.77	0	0
SDev		0	0	13	4.60	143	60.3	10.2	22.7	97.7	28.7	269.1			0.35	0.40		
SD/M		0.00	0.00	0.09	0.00	0.02	0.03	1.82	0.62	0.01	0.10	0.10			0.10	0.11		

Remarks: Q with RiverRay 10600 cfs using BT with 1% error, 6200 cfs using VTG with 37% error (strong directional bias).

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 65
 Date: 07/05/2012

Party: DAV/RTK	Width: 122 ft	Processed by: DAV
Boat/Motor: kayak	Area: 230 ft ²	Mean Velocity: 0.886 ft/s
Gage Height: 22.87 ft	G.H.Change: 0.000 ft	Discharge: 204 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.12
BT Error Vel.: 0.33 ft/s	Bin Size: 10 cm Blank: 19 cm
WT Error Vel.: 1.10 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 1.00 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 5.00 ft/s	WZ : 0
Use Weighted Mean Depth: NO	
Max. Vel.: 3.23 ft/s	
Max. Depth: 2.91 ft	
Mean Depth: 1.89 ft	
% Meas.: 53.64	
Water Temp.: None	
ADCP Temp.: 59.1 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 1/2 mile US of gage

Project Name: ikpikpuk 7052012 q204cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
010	L	15	10	107	48.4	107	36.4	5.76	3.50	201	121	224	15:01	15:03	0.80	0.90	1	4
011	R	15	10	114	50.8	108	36.2	6.50	3.00	205	124	230	15:03	15:06	0.78	0.89	1	3
012	L	15	10	106	47.6	111	36.5	6.57	4.24	206	119	232	15:07	15:09	0.84	0.89	1	3
013	R	15	10	109	48.5	111	35.0	5.12	3.96	204	124	236	15:09	15:11	0.84	0.87	2	3
Mean		15	10	109	48.8	109	36.0	5.99	3.67	204	122	230	Total	00:10	0.82	0.89	1	3
SDev		0	0	4	1.38	2.03	0.678	0.684	0.542	1.99	2.4	4.9			0.03	0.01		
SD/M		0.00	0.00	0.03	0.03	0.02	0.02	0.11	0.15	0.01	0.02	0.02			0.04	0.02		

Remarks: Q with StreamPro 204 cfs using BT with 1% error, no GPS data.

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 66
 Date: 08/31/2012

Party: DAV/RTK	Width: 248 ft	Processed by: DAV
Boat/Motor: kayak	Area: 1,030 ft ²	Mean Velocity: 1.16 ft/s
Gage Height: 24.23 ft	G.H.Change: 0.000 ft	Discharge: 1,190 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.12
BT Error Vel.: 0.33 ft/s	Bin Size: 10 cm Blank: 19 cm
WT Error Vel.: 0.50 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 1.00 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 4.00 ft/s	WZ : 0
Use Weighted Mean Depth: NO	Max. Vel.: 2.85 ft/s
	Max. Depth: 8.36 ft
	Mean Depth: 4.14 ft
	% Meas.: 58.78
	Water Temp.: None
	ADCP Temp.: 42.6 °F

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 1/2 mile US of gage

Project Name: ikpikpuk 08312012 q1190cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	6	6	98	312	681	181	1.20	3.35	1178	246	984	16:08	16:10	1.89	1.20	2	9
001	L	6	6	106	289	711	184	1.17	2.51	1187	250	1030	16:11	16:13	1.79	1.15	3	10
002	R	6	6	106	308	696	189	1.13	2.12	1197	244	1062	16:13	16:16	1.84	1.13	2	9
003	L	6	6	116	308	709	175	0.565	3.07	1195	253	1036	16:16	16:19	1.74	1.15	4	12
Mean		6	6	106	304	699	182	1.02	2.76	1189	248	1028	Total	00:10	1.82	1.16	3	10
SDev		0	0	7	10.5	14.0	5.84	0.302	0.556	8.52	4.0	32.4			0.06	0.03		
SD/M		0.00	0.00	0.07	0.03	0.02	0.03	0.30	0.20	0.01	0.02	0.03			0.03	0.02		

Remarks: Q with StreamPro 1190 cfs using BT with 1% error, no GPS data.

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 68
 Date: 05/28/2013

Party: RTK/DAV	Width: 261 ft	Processed by: DAV
Boat/Motor: kayak	Area: 1,050 ft ²	Mean Velocity: 1.17 ft/s
Gage Height: 27.08 ft	G.H.Change: 0.000 ft	Discharge: 1,230 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.5°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.12
BT Error Vel.: 0.33 ft/s	Bin Size: 10 cm Blank: 19 cm
WT Error Vel.: 1.00 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 1.00 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 4.47 ft/s	WZ : 0
Use Weighted Mean Depth: NO	
Max. Vel.: 4.47 ft/s	
Max. Depth: 5.31 ft	
Mean Depth: 4.04 ft	
% Meas.: 76.91	
Water Temp.: None	
ADCP Temp.: 36.4 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 200' DS gage

Project Name: ikpiok20130528dav1232cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	L	10	10	152	151	962	127	-0.318	10.3	1251	273	1100	15:22	15:25	1.60	1.14	11	1
002	R	10	10	135	150	932	119	-1.02	12.6	1213	249	1005	15:25	15:28	2.05	1.21	13	1
Mean		10	10	143	151	947	123	-0.671	11.4	1232	261	1053	Total	00:06	1.83	1.17	12	1
SDev		0	0	12	0.499	21.2	6.02	0.499	1.65	26.6	17.4	67.0			0.32	0.05		
SD/M		0.00	0.00	0.08	0.00	0.02	0.05	0.74	0.14	0.02	0.07	0.06			0.17	0.04		

Remarks: Q with RiverRay 1230 cfs using BT with 2% error, no GPS data.

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 69
 Date: 05/31/2013

Party: RTK/DAV	Width: 307 ft	Processed by: DAV
Boat/Motor: kayak	Area: 3,670 ft ²	Mean Velocity: 4.88 ft/s
Gage Height: 34.98 ft	G.H.Change: 0.000 ft	Discharge: 17,900 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.5°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.15
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 300' DS gage

Project Name: ikpikpuk20130531q17428cfs.
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	6	6	226	2053	12502	3473	36.4	49.9	18115	297	3605	16:51	16:53	2.23	5.03	0	0
001	R	6	6	200	1972	12020	3450	8.30	15.4	17466	312	3758	16:55	16:57	2.76	4.65	0	0
002	L	6	6	182	2145	12647	3620	9.71	41.5	18463	310	3687	16:59	17:01	2.99	5.01	0	0
003	R	6	6	189	2069	11927	3562	49.8	30.5	17639	308	3636	17:03	17:05	2.62	4.85	0	0
Mean		6	6	199	2060	12274	3526	26.1	34.3	17920	307	3671	Total	00:14	2.65	4.88	0	0
SDev		0	0	19	71.0	354	78.9	20.4	14.9	454	6.7	66.8			0.32	0.17		
SD/M		0.00	0.00	0.10	0.03	0.03	0.02	0.78	0.44	0.03	0.02	0.02			0.12	0.04		

Remarks: Q with RiverRay 17900 cfs using BT with 3% error, 17400 cfs using VTG with 3% error.

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 70
 Date: 06/05/2013

Party: DAV/RTK	Width: 296 ft	Processed by: DAV
Boat/Motor: kayak	Area: 3,850 ft ²	Mean Velocity: 5.08 ft/s
Gage Height: 33.88 ft	G.H.Change: 0.000 ft	Discharge: 19,500 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.5°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.15
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 9.16 ft/s	
Max. Depth: 20.9 ft	
Mean Depth: 13.0 ft	
% Meas.: 67.78	
Water Temp.: None	
ADCP Temp.: 34.3 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 200' DS of gage

Project Name: ikpikpuk20130605q17972cfs.
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	4	4	198	1995	13572	4307	3.18	10.5	19888	287	3909	16:15	16:17	2.53	5.09	1	0
001	R	4	4	236	2269	13135	3841	-1.20	9.96	19254	294	3452	16:18	16:20	2.37	5.58	0	0
002	L	4	4	198	1974	13130	4508	6.92	9.39	19629	293	4004	16:30	16:32	2.68	4.90	0	0
003	R	4	4	207	2019	12916	4088	27.3	5.37	19056	312	4023	16:35	16:38	2.67	4.74	8	0
Mean		4	4	209	2064	13188	4186	9.04	8.81	19457	296	3847	Total	00:22	2.56	5.08	2	0
SDev		0	0	18	138	275	287	12.6	2.34	373	10.6	268.1			0.15	0.36		
SD/M		0.00	0.00	0.09	0.07	0.02	0.07	1.39	0.27	0.02	0.04	0.07			0.06	0.07		

Remarks: Q with RiverRay 19500 cfs using BT with 2% error, 18000 cfs using VTG with 7% error.

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 71
 Date: 06/18/2013

Party: RTK/KAP	Width: 279 ft	Processed by: DAV
Boat/Motor: kayak	Area: 2,060 ft ²	Mean Velocity: 2.04 ft/s
Gage Height: 27.25 ft	G.H.Change: 0.000 ft	Discharge: 4,210 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.000 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.5°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: _____ Firmware: 44.15
BT Error Vel.: 0.33 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: NO	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: not sure

Project Name: ikpikpuk20130618q4166cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	L	10	5	366	432	3050	801	-2.75	3.85	4284	279	2078	12:47	12:51	1.15	2.06	1	1
002	R	10	5	345	427	2871	814	16.0	1.80	4129	279	2049	12:51	12:55	1.26	2.01	0	0
003	L	10	5	290	423	2995	778	7.84	7.10	4211	279	2081	12:55	12:58	1.39	2.02	1	1
004	R	10	5	371	437	2955	831	2.65	3.18	4229	278	2038	12:58	13:03	1.14	2.08	0	0
Mean		10	5	343	430	2968	806	5.94	3.98	4213	279	2062	Total	00:15	1.24	2.04	0	1
SDev		0	0	37	6.22	75.3	22.1	8.00	2.25	64.1	0.4	21.5			0.12	0.03		
SD/M		0.00	0.00	0.11	0.01	0.03	0.03	1.35	0.56	0.02	0.00	0.01			0.10	0.01		

Remarks: Q with RiverRay 4210 cfs using BT with 2% error, 4170 cfs using VTG with 3% error.

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 72
 Date: 07/07/2013

Party: RTK/DAV	Width: 243 ft	Processed by: DAV
Boat/Motor: kayak	Area: 1,120 ft ²	Mean Velocity: 1.23 ft/s
Gage Height: 24.74 ft	G.H.Change: 0.000 ft	Discharge: 1,380 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 44.15
BT Error Vel.: 0.33 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 0.60 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 1.00 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 2.70 ft/s	WZ : 0
Use Weighted Mean Depth: NO	
Max. Vel.: 2.70 ft/s	
Max. Depth: 9.16 ft	
Mean Depth: 4.62 ft	
% Meas.: 66.81	
Water Temp.: None	
ADCP Temp.: 58.8 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 150' US of gage

Project Name: ikpikpuk20130707q1383cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	R	4	6	96	232	924	187	1.84	4.27	1350	246	1222	10:59	11:01	2.00	1.11	4	4
002	L	4	6	141	263	979	225	1.91	3.28	1473	246	1133	11:02	11:05	1.36	1.30	2	4
003	R	4	6	108	253	948	208	1.20	3.18	1414	241	1114	11:07	11:09	1.84	1.27	8	4
004	L	4	6	159	252	929	198	1.41	3.57	1384	239	1063	11:10	11:14	1.29	1.30	2	4
005	R	4	6	121	233	903	197	1.31	3.92	1339	243	1179	11:14	11:17	1.62	1.14	5	6
006	L	4	6	134	248	902	210	0.600	2.97	1363	244	1102	11:19	11:22	1.40	1.24	1	3
007	R	4	6	111	258	884	214	1.09	4.38	1362	243	1052	11:22	11:25	1.75	1.29	4	5
Mean		4	6	124	249	924	206	1.34	3.65	1383	243	1124	Total	00:25	1.61	1.23	4	4
SDev		0	0	22	11.7	32.1	12.7	0.447	0.551	46.4	2.5	60.9			0.27	0.08		
SD/M		0.00	0.00	0.18	0.05	0.03	0.06	0.33	0.15	0.03	0.01	0.05			0.17	0.07		

Remarks: Q with StreamPro 1380 cfs using BT with 3% error, no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 73
 Date: 08/22/2013

Party: RTK/DAV	Width: 248 ft	Processed by: DAV
Boat/Motor: kayak	Area: 1,470 ft ²	Mean Velocity: 1.85 ft/s
Gage Height: 25.93 ft	G.H.Change: 0.000 ft	Discharge: 2,720 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:5	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 44.15
BT Error Vel.: 0.33 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 0.60 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 1.00 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 3.39 ft/s	WZ : 0
Use Weighted Mean Depth: NO	
Max. Vel.: 3.39 ft/s	
Max. Depth: 13.2 ft	
Mean Depth: 5.97 ft	
% Meas.: 72.45	
Water Temp.: None	
ADCP Temp.: 46.9 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 300' US of gage

Project Name: ikpikpuk20130822q2717cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	R	6	6	101	324	1984	407	5.30	3.53	2723	229	1676	13:36	13:38	1.72	1.62	2	6
002	L	6	6	109	393	1978	334	4.63	4.77	2713	255	1449	13:41	13:43	1.75	1.87	2	3
003	R	6	6	90	408	1950	343	5.19	4.98	2711	257	1390	13:44	13:46	2.06	1.95	2	1
004	L	6	6	124	394	1968	316	1.91	7.35	2688	252	1419	13:46	13:49	1.56	1.89	2	1
005	R	6	6	93	394	1963	375	6.25	9.64	2749	248	1435	13:49	13:51	1.96	1.92	2	3
Mean		6	6	103	383	1969	355	4.65	6.05	2717	248	1474	Total	00:15	1.81	1.85	2	3
SDev		0	0	14	33.3	13.0	36.0	1.64	2.43	22.2	11.2	114.8			0.20	0.13		
SD/M		0.00	0.00	0.13	0.09	0.01	0.10	0.35	0.40	0.01	0.05	0.08			0.11	0.07		

Remarks: Q with StreamPro 2720 cfs using BT with 1% error, no GPS data.

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 75
 Date: 05/26/2014

Party: RTK/DAV	Width: 229 ft	Processed by: DAV
Boat/Motor: kayak	Area: 1,110 ft ²	Mean Velocity: 1.11 ft/s
Gage Height: 24.58 ft	G.H.Change: 0.000 ft	Discharge: 1,230 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 8.82 ft/s	
Max. Depth: 9.03 ft	
Mean Depth: 4.85 ft	
% Meas.: 57.96	
Water Temp.: None	
ADCP Temp.: 38.0 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: YES
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: @ gage

Project Name: ikpikpuk20140526 q1207cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	L	6	10	230	276	743	209	-0.353	2.93	1230	223	1128	13:01	13:04	1.74	1.09	37	0
002	R	6	10	132	234	759	209	-0.777	-5.65	1196	224	1214	13:04	13:05	2.49	0.98	20	1
003	L	6	10	160	329	786	224	-1.84	3.28	1341	220	1087	13:06	13:08	2.22	1.23	23	0
004	R	6	10	127	262	749	218	-1.87	3.07	1230	229	1212	13:08	13:09	2.88	1.01	28	1
005	L	6	10	149	367	610	212	0.671	6.82	1196	246	1029	13:12	13:14	2.60	1.16	9	2
006	R	6	10	117	328	628	219	2.54	6.00	1183	233	988	13:14	13:15	3.05	1.20	9	2
Mean		6	10	152	299	713	215	-0.271	2.74	1230	229	1110	Total	00:14	2.50	1.11	21	1
SDev		0	0	41	49.8	74.4	6.18	1.68	4.43	58.1	9.3	93.4			0.47	0.10		
SD/M		0.00	0.00	0.27	0.17	0.10	0.03	6.20	1.61	0.05	0.04	0.08			0.19	0.09		

Remarks: Q with RiverRay 1230 cfs using BT with 2% error, no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15820000
 Station Name: Ikpikuk River

Meas. No: 76
 Date: 06/03/2014

Party: JSO/MFS	Width: 310 ft	Processed by: JSO/DAV
Boat/Motor: kayak	Area: 3,030 ft ²	Mean Velocity: 3.46 ft/s
Gage Height: 30.92 ft	G.H.Change: 0.000 ft	Discharge: 10,500 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.500 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: P
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: 4-Clear	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: Firmware: 44.16
BT Error Vel.: 0.33 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: NO	
Max. Vel.: 6.93 ft/s	
Max. Depth: 16.7 ft	
Mean Depth: 9.79 ft	
% Meas.: 67.39	
Water Temp.: 39.6 °F	
ADCP Temp.: 39.5 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: @ gage

Project Name: ikpikuk_20140603.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	10	10	243	1330	7006	2213	1.13	14.4	10565	315	3015	18:14	18:17	2.24	3.50	7	0
003	L	10	5	142	1298	7145	1985	-7.52	13.9	10434	304	3050	18:36	18:37	3.33	3.42	7	1
Mean		10	8	192	1314	7075	2099	-3.20	14.1	10500	310	3032	Total	00:23	2.79	3.46	7	1
SDev		0	4	71	22.3	98.3	162	6.12	0.325	92.1	7.7	25.3			0.77	0.06		
SD/M		0.00	0.47	0.37	0.02	0.01	0.08	1.91	0.02	0.01	0.02	0.01			0.28	0.02		

Remarks: Q with RiverRay 10,500 cfs using BT with 1% error, no GPS data.
 COMPUTER ISSUES IN RIVER FOLLOWING Tr000.
 ADCP CLOCK SET, TEST CONDUCTED AND LCT from ikpikuk_Tr000_20140603.mmt
 COMPASS CALIBRATION STORED FROM 15803000_89 MMT USED HERE
 TWO MMTs MADE:
 ikpikuk_Tr000_20140603.mmt AND ikpikuk_Tr001_20140603.mmt
 PD0 FILES COMBINED (IKPIKPUK_0_000_14-06-03.PD0, RR_2014-06-03_0_000.PD0) TO CREATE ikpikuk_20140603
 NO MB FROM LCT (LBT= first Tr001 here) PROCESSED IN LC v4.04.
 EXTRAP DEFAULT USED. RECOMMENDATION -1.1% DIFF OF DEFAULT AND DOES NOT ACCOUNT FOR
 NRCESSARY SUBSECTION EDITS AT EDGES.
 BOTH Tr000 AND Tr003 SUBSECTIONED. LBT SUBSECTIONED.
 second TR001 HERE = INVALID.
 MMT DOWNGRADED TO POOR DUE TO SHORT TIME IN WATER AND EXTENSIVE POST-PROCESSING.

- transect has been subsectioned

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 77
 Date: 06/08/2014

Party: DAV/JPB	Width: 295 ft	Processed by: DAV
Boat/Motor: kayak	Area: 2,640 ft ²	Mean Velocity: 3.08 ft/s
Gage Height: 29.52 ft	G.H.Change: 0.000 ft	Discharge: 8,110 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.4°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: Distributed		Control2: Unspecified	
% Correction: 5.99		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.16
BT Error Vel.: 3.28 ft/s*	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s*	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s*	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s*	WZ : 5
Use Weighted Mean Depth: YES	Max. Vel.: 8.64 ft/s
	Max. Depth: 16.3 ft
	Mean Depth: 8.94 ft
	% Meas.: 62.75
	Water Temp.: None
	ADCP Temp.: 41.3 °F

Performed Diag. Test: NO
 Performed Moving Bed Test: YES
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: Ikpikpuk06082014_0.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	MBT Corrected Discharge							Width	Area	Time		Mean Vel.		% Bad	
	L	R		Top	Middle	Bottom	Left	Right	Total	Start			End	Boat	Water	Ens.	Bins	
000	R	4	4	179	1258	4992	1795	1.66	6.53	8054	296	2599	15:39	15:41	2.90	3.10	31	1
001	L	4	4	163	1253	5133	1614	0.494	7.13	8008	286	2619	15:41	15:43	2.70	3.06	3	0
002	R	4	4	124	1346	5185	1883	6.96	18.8	8439	314	2731	15:44	15:46	3.63	3.09	10	0
003	L	4	4	131	1222	5056	1667	-0.035	7.24	7953	285	2598	15:46	15:47	3.42	3.06	2	0
Mean		4	4	149	1270	5091	1740	2.27	9.91	8113	295	2637	Total	00:08	3.16	3.08	12	0
SDev		0	0	26	53.0	84.9	122	3.20	5.90	221	13.2	63.7			0.44	0.02		
SD/M		0.00	0.00	0.18	0.04	0.02	0.07	1.41	0.60	0.03	0.04	0.02			0.14	0.01		

Remarks: Q with RiverRay 8110 cfs using BT with 3% error, 8220 cfs using BT with 7% error.

* - value not consistent for all transects

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 78
 Date: 07/11/2014

Party: RTK/DAV	Width: 149 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 281 ft ²	Mean Velocity: 1.33 ft/s
Gage Height: 23.16 ft	G.H.Change: 0.000 ft	Discharge: 362 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:5	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 6 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.56 ft/s	
Max. Depth: 4.24 ft	
Mean Depth: 1.87 ft	
% Meas.: 50.88	
Water Temp.: None	
ADCP Temp.: 63.7 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 1 mile U.S of gage

Project Name: ikpikpuk20140711 q362cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	L	20	0	144	78.7	209	58.2	6.25	0.000	352	157	370	10:55	10:57	1.01	0.95	1	1
002	R	20	6	128	107	175	74.7	12.1	3.14	372	148	247	10:58	11:00	0.88	1.51	1	0
003	L	20	6	106	91.5	177	67.7	14.1	3.35	354	144	256	11:01	11:03	1.02	1.38	1	0
004	R	20	6	115	102	174	73.2	14.2	3.74	367	148	249	11:03	11:05	0.98	1.48	2	0
Mean		20	5	123	94.9	184	68.4	11.7	2.56	362	149	281	Total	00:10	0.97	1.33	1	0
SDev		0	3	17	12.6	17.0	7.47	3.73	1.72	9.96	5.8	60.0			0.06	0.26		
SD/M		0.00	0.67	0.13	0.13	0.09	0.11	0.32	0.67	0.03	0.04	0.21			0.07	0.19		

Remarks: Q with StreamPro 362 cfs using BT with 3% error, no GPS data.

Station Number: 15820000
 Station Name: Ikpikuk River

Meas. No: 79
 Date: 08/09/2014

Party: RTK	Width: 82.3 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 132 ft ²	Mean Velocity: 0.986 ft/s,
Gage Height: 22.73 ft	G.H.Change: 0.000 ft	Discharge: 130 ft ³ /s, 163cfs total

Area Method: Avg. Course	ADCP Depth: 0.164 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 4 cm* Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 6.91 ft/s	
Max. Depth: 2.87 ft	
Mean Depth: 1.60 ft	
% Meas.: 47.82	
Water Temp.: None	
ADCP Temp.: 45.7 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 1 mile US of gage

Project Name: ik000r.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	0	10	113	38.6	69.3	27.0	0.000	-0.424	134	87	135	14:23	14:25	0.62	1.00	2	2
001	L	0	10	83	41.0	56.7	26.5	0.000	2.75	127	80	125	14:29	14:31	0.84	1.02	11	1
002	R	0	10	77	39.0	60.7	27.2	0.000	3.21	130	82	135	14:31	14:32	0.89	0.96	6	0
003	L	0	10	72	37.3	57.4	26.2	0.000	2.72	124	81	132	14:33	14:34	0.92	0.94	4	2
004	R	0	10	81	39.1	65.8	24.7	0.000	3.50	133	81	131	14:35	14:36	0.82	1.01	10	2
Mean	0	10	85	39.0	62.0	26.3	0.000	2.35	130	82	132	Total	00:13		0.82	0.99	7	1
SDev	0	0	16	1.35	5.44	0.968	0.000	1.59	4.44	2.6	4.1				0.12	0.04		
SD/M	0.00	0.00	0.19	0.03	0.09	0.04	0.00	0.67	0.03	0.03	0.03				0.14	0.04		

Q with StreamPro 130 cfs using BT with 3% error, no GPS data. Total Q 130 + 33 = 163 cfs (33 cfs measured with AA from side channel).

* - value not consistent for all transects

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 80
 Date: 05/26/2015

Party: RTK	Width: 238 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 1,980 ft ²	Mean Velocity: 4.52 ft/s
Gage Height: 30.16 ft	G.H.Change: 0.000 ft	Discharge: 8,940 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.700 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (20.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	Max. Vel.: 8.60 ft/s
	Max. Depth: 13.3 ft
	Mean Depth: 8.33 ft
	% Meas.: 61.13
	Water Temp.: None
	ADCP Temp.: 41.2 °F

Performed Diag. Test: YES
 Performed Moving Bed Test: NO
 Performed Compass Calibration: YES Evaluation: YES
 Meas. Location: 1 mile DS Fry Creek

Project Name: ikpikpuk20150526 q8937cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	15	5	146	1436	5477	1943	19.3	7.31	8882	233	1950	15:03	15:04	2.34	4.55	3	0
001	R	15	5	169	1464	5501	2017	45.9	7.35	9035	236	1970	15:05	15:07	2.00	4.59	14	0
002	L	15	5	158	1403	5565	1999	18.9	4.27	8991	238	2057	15:07	15:09	2.19	4.37	4	1
003	R	15	5	166	1451	5309	2035	37.2	6.53	8839	243	1942	15:09	15:11	2.17	4.55	14	0
Mean		15	5	159	1438	5463	1999	30.3	6.37	8937	238	1980	Total	00:08	2.18	4.52	9	0
SDev		0	0	10	26.0	109	39.9	13.5	1.44	91.5	4.2	52.6			0.14	0.10		
SD/M		0.00	0.00	0.06	0.02	0.02	0.02	0.44	0.23	0.01	0.02	0.03			0.06	0.02		

Remarks: Q with SteeamPro 8940 cfs using BTwith 1% error, no GPS data.

Station Number: 15820000
 Station Name: ikpikuk River

Meas. No: 81
 Date: 05/29/2015

Party: mfs/dwf	Width: 203 ft	Processed by: dwf
Boat/Motor: kayak	Area: 1,550 ft ²	Mean Velocity: 2.84 ft/s
Gage Height: 27.33 ft	G.H.Change: 0.000 ft	Discharge: 4,410 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.2839)*	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.2839)*	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 60537 Firmware: 44.15
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	Max. Vel.: 6.46 ft/s
	Max. Depth: 12.0 ft
	Mean Depth: 7.64 ft
	% Meas.: 67.22
	Water Temp.: 45.9 °F
	ADCP Temp.: 45.8 °F

Performed Diag. Test: YES
 Performed Moving Bed Test: YES
 Performed Compass Calibration: YES Evaluation: YES
 Meas. Location: 3/4 mi us

Project Name: 15820000_052915_0.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	10	10	213	662	2934	699	1.48	7.31	4304	205	1561	17:23	17:25	1.34	2.76	0	0
001	R	10	8	261	750	2951	713	-2.33	5.26	4417	202	1526	17:25	17:28	1.10	2.89	0	1
002	L	10	8	225	740	2950	734	-2.44	4.63	4426	204	1553	17:28	17:31	1.33	2.85	0	0
003	R	10	6	270	754	3020	722	-8.33	2.22	4490	203	1572	17:31	17:34	1.08	2.85	0	1
Mean		10	8	242	727	2964	717	-2.90	4.86	4409	203	1553	Total	00:11	1.21	2.84	0	1
SDev		0	2	28	43.3	38.0	14.8	4.05	2.09	77.1	1.5	19.5			0.14	0.06		
SD/M		0.00	0.20	0.11	0.06	0.01	0.02	1.40	0.43	0.02	0.01	0.01			0.12	0.02		

Remarks: ran extrap, recommended a cont/no slip 0.2839 which changed the Q by -3.21%. Changed the edge estimates for the RB all transects as someslack water in an eddie was counted toward the measurable q. Performed moving bed test but ended in upstream direction even though the kayak ended in the same start positon, did not use mbt as it was not valid.

* - value not consistent for all transects

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 82
 Date: 06/04/2015

Party: DAV/JPB	Width: 165 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 882 ft ²	Mean Velocity: 1.56 ft/s
Gage Height: 24.80 ft	G.H.Change: 0.000 ft	Discharge: 1,370 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (16.7°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	Max. Vel.: 3.76 ft/s
	Max. Depth: 9.09 ft
	Mean Depth: 5.33 ft
	% Meas.: 59.76
	Water Temp.: None
	ADCP Temp.: 37.7 °F

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 1 mile US of gage

Project Name: ikpikpuk20150604 q1371cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	20	10	120	277	826	263	5.62	28.9	1401	161	891	11:29	11:30	1.71	1.57	1	0
001	R	20	10	91	274	823	232	6.46	14.7	1350	163	849	11:31	11:32	2.23	1.59	5	0
002	L	20	10	139	271	835	280	3.92	18.3	1408	175	917	11:32	11:33	1.56	1.54	9	0
003	R	20	10	92	259	792	257	1.84	13.7	1324	163	870	11:33	11:34	2.29	1.52	5	1
Mean		20	10	110	270	819	258	4.46	18.9	1371	165	882	Total	00:05	1.94	1.56	5	1
SDev		0	0	23	7.88	18.5	19.7	2.04	6.94	40.5	6.5	29.1			0.37	0.03		
SD/M		0.00	0.00	0.21	0.03	0.02	0.08	0.46	0.37	0.03	0.04	0.03			0.19	0.02		

Remarks: Q with RiverRay 1370 cfs using BT with 3% error, 1400 cfs using VTG with 9% error (directional bias).

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 84
 Date: 05/25/2016

Party: RTK	Width: 304 ft	Processed by: DAV
Boat/Motor: kayak	Area: 4,200 ft ²	Mean Velocity: 5.32 ft/s
Gage Height: 34.87 ft	G.H.Change: 0.000 ft	Discharge: 22,300 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: Distributed		Control2: Unspecified	
% Correction: 5.07		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: _____ Firmware: 44.15
BT Error Vel.: 3.28 ft/s*	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s*	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s*	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s*	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 9.91 ft/s	
Max. Depth: 21.9 ft	
Mean Depth: 13.8 ft	
% Meas.: 68.50	
Water Temp.: None	
ADCP Temp.: 38.5 °F	

Performed Diag. Test: YES
 Performed Moving Bed Test: YES
 Performed Compass Calibration: YES Evaluation: YES
 Meas. Location: not sure

Project Name: ikpikpuk20160525q22300cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	MBT Corrected Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	8	5	303	2179	15172	4897	36.0	6.36	22290	302	4134	15:51	15:54	1.70	5.39	0	0
002	R	8	5	286	2214	15371	4808	26.5	19.7	22440	302	4093	16:12	16:15	1.77	5.48	0	0
003	L	8	5	230	2104	15348	4774	26.9	11.4	22265	308	4378	16:17	16:19	2.23	5.09	1	0
Mean		8	5	273	2165	15297	4827	29.8	12.5	22332	304	4202	Total	00:28	1.90	5.32	0	0
SDev		0	0	38	56.0	109	63.4	5.34	6.76	94.5	3.2	154.2			0.29	0.21		
SD/M		0.00	0.00	0.14	0.03	0.01	0.01	0.18	0.54	0.00	0.01	0.04			0.15	0.04		

Remarks: Q with RiverRay 22300 cfs using BT with 0% error, no GPS data.

* - value not consistent for all transects

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 85
 Date: 05/29/2016

Party: DAV/JPB	Width: 279 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 2,180 ft ²	Mean Velocity: 2.48 ft/s
Gage Height: 28.11 ft	G.H.Change: 0.000 ft	Discharge: 5,410 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (16.2°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s*	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s*	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s*	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s*	WZ : 5
Use Weighted Mean Depth: YES	

Performed Diag. Test: NO
 Performed Moving Bed Test: YES
 Performed Compass Calibration: YES Evaluation: YES
 Meas. Location: at gauge

Project Name: ikpikpuk20160529q5410cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	4	6	160	797	3406	1194	1.98	7.03	5406	279	2173	11:30	11:32	2.59	2.49	1	0
001	L	6	6	137	790	3476	1145	1.38	9.50	5421	282	2234	11:32	11:33	2.94	2.43	1	0
002	R	4	6	157	782	3334	1187	2.08	6.75	5312	279	2097	11:35	11:37	2.78	2.53	6	0
003	L	4	6	141	798	3522	1159	2.83	14.9	5497	275	2227	11:37	11:39	2.99	2.47	3	0
Mean		4	6	148	792	3434	1171	2.07	9.55	5409	279	2183	Total	00:08	2.82	2.48	3	0
SDev		1	0	11	7.37	82.0	23.2	0.594	3.80	75.7	2.9	63.2			0.18	0.04		
SD/M		0.22	0.00	0.08	0.01	0.02	0.02	0.29	0.40	0.01	0.01	0.03			0.06	0.02		

Remarks: Q with RiverRay 5410 cfs using BT with 1% error, 5380 cfs using VTG with 14% error (strong directional bias).

* - value not consistent for all transects

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 86
 Date: 06/04/2016

Party: RTK/DAV	Width: 194 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 672 ft ²	Mean Velocity: 1.38 ft/s
Gage Height: 24.09 ft	G.H.Change: 0.000 ft	Discharge: 871 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 12 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.54 ft/s	
Max. Depth: 6.25 ft	
Mean Depth: 3.46 ft	
% Meas.: 62.43	
Water Temp.: None	
ADCP Temp.: 46.0 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 2000' US of gage

Project Name: ikpikpuk20160604q870cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
004	L	20	6	128	211	499	147	21.5	2.37	881	169	476	10:34	10:37	1.41	1.85	9	1
005	R	20	6	125	227	466	157	26.6	3.07	880	197	443	10:37	10:39	2.01	1.98	18	0
006	L	10	6	119	173	574	117	-1.52	0.636	863	224	860	10:42	10:44	1.87	1.00	2	0
007	R	10	6	84	162	560	119	0.883	-2.05	840	182	743	10:45	10:46	2.10	1.13	2	0
008	L	10	6	110	178	571	121	-1.98	-2.19	866	197	767	10:47	10:49	1.78	1.13	2	0
009	R	10	6	98	177	592	128	-1.48	-0.530	895	192	745	10:50	10:51	2.02	1.20	2	0
Mean		13	6	110	188	544	132	7.32	0.218	871	194	672	Total	00:17	1.87	1.38	6	0
SDev		5	0	17	25.2	49.6	16.7	13.1	2.21	19.2	18.3	170.5			0.25	0.42		
SD/M		0.39	0.00	0.15	0.13	0.09	0.13	1.78	10.15	0.02	0.09	0.25			0.13	0.30		

Remarks: Q with StreamPro 870 cfs using BT with 2% error, no GPS data.

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 87
 Date: 06/11/2016

Party: RTK/DAV	Width: 185 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 367 ft ²	Mean Velocity: 1.86 ft/s
Gage Height: 23.65 ft	G.H.Change: 0.000 ft	Discharge: 682 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 6 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.68 ft/s	
Max. Depth: 4.86 ft	
Mean Depth: 1.98 ft	
% Meas.: 60.15	
Water Temp.: None	
ADCP Temp.: 48.3 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: aprox 2 miles US of gage

Project Name: ikpikpuk20160611q682cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	30	20	213	143	403	105	17.3	8.90	677	192	385	10:35	10:39	0.81	1.76	1	0
001	L	30	20	147	141	423	99.7	16.7	11.5	692	182	366	10:40	10:43	0.81	1.89	1	0
002	R	30	20	133	149	412	103	16.7	10.9	692	177	344	10:43	10:46	0.88	2.01	2	0
003	L	30	20	136	142	404	98.0	17.6	8.05	669	189	373	10:46	10:49	0.93	1.79	1	0
Mean		30	20	157	144	410	101	17.1	9.83	682	185	367	Total	00:13	0.86	1.86	1	0
SDev		0	0	38	3.81	9.05	2.93	0.427	1.62	11.2	7.1	17.3			0.06	0.11		
SD/M		0.00	0.00	0.24	0.03	0.02	0.03	0.02	0.16	0.02	0.04	0.05			0.07	0.06		

Remarks: Q with StreamPro 682 cfs using BT with 2% error, no GPS data. Mmt location N 69 45.708, W 154 39.106.

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 89
 Date: 08/12/2016

Party: RTK/DAV	Width: 34.6 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 35.1 ft ²	Mean Velocity: 0.522 ft/s
Gage Height: 22.20 ft	G.H.Change: 0.000 ft	Discharge: 18.2 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 3 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	Max. Vel.: 5.38 ft/s
	Max. Depth: 1.82 ft
	Mean Depth: 1.02 ft
	% Meas.: 30.36
	Water Temp.: None
	ADCP Temp.: 52.4 °F

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 2 miles US of gage

Project Name: ikpikpuk20160811q18.2cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
002	R	4	6	59	6.75	5.54	3.85	0.671	1.52	18.4	32	32	12:43	12:44	0.37	0.57	2	3
004	R	4	6	62	6.78	6.53	3.53	-0.141	1.24	17.9	36	38	12:47	12:48	0.42	0.47	2	2
005	L	4	6	72	7.17	5.37	3.81	0.953	1.55	18.8	37	36	12:48	12:50	0.35	0.53	1	3
006	R	4	6	56	6.11	5.37	3.25	0.918	1.52	17.2	37	38	12:50	12:51	0.46	0.45	0	2
007	L	4	6	69	7.35	4.80	3.96	1.02	1.55	18.7	32	32	12:51	12:53	0.39	0.59	1	1
Mean		4	6	63	6.83	5.52	3.68	0.685	1.48	18.2	35	35	Total	00:10	0.40	0.52	1	2
SDev		0	0	7	0.477	0.630	0.287	0.481	0.135	0.672	2.4	3.1			0.04	0.06		
SD/M		0.00	0.00	0.11	0.07	0.11	0.08	0.70	0.09	0.04	0.07	0.09			0.11	0.11		

Remarks: Q with StreamPro 18.2 cfs using BT with 4% error, no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 91
 Date: 05/29/2017

Party: DAV/CDA	Width: 275 ft	Processed by: DAV
Boat/Motor: kayak	Area: 3,040 ft ²	Mean Velocity: 4.58 ft/s
Gage Height: 32.53 ft	G.H.Change: 0.000 ft	Discharge: 13,900 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (16.5°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: @ gauge

Project Name: ikpikpuk20170529 q14000cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	0	8	354	1790	9507	3263	0.000	10.7	14571	277	2965	11:17	11:21	1.85	4.91	37	0
001	L	8	8	298	1635	8527	3049	-10.0	29.7	13230	272	3112	11:22	11:25	2.36	4.25	10	0
Mean		4	8	326	1713	9017	3156	-5.01	20.2	13901	275	3038	Total	00:07	2.10	4.58	24	0
SDev		6	0	40	109	694	152	7.09	13.4	948	3.1	103.9			0.36	0.47		
SD/M		1.41	0.00	0.12	0.06	0.08	0.05	1.41	0.66	0.07	0.01	0.03			0.17	0.10		

Remarks: Q with RiveRay 13900 cfs using BT with 7% error, 14000 cfs using VTG with 10% error.

Station Number: 15820000
 Station Name: Ikpikpuk River

Meas. No: 92
 Date: 06/03/2017

Party: DAV/MW	Width: 319 ft	Processed by: DAV
Boat/Motor: kayak	Area: 2,560 ft ²	Mean Velocity: 3.38 ft/s
Gage Height: 29.81 ft	G.H.Change: 0.000 ft	Discharge: 8,610 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 8.88 ft/s	
Max. Depth: 16.0 ft	
Mean Depth: 8.16 ft	
% Meas.: 61.67	
Water Temp.: None	
ADCP Temp.: 37.1 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: @ gauge

Project Name: ikpikpuk 20170603q8610cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	6	6	289	1570	5382	1900	47.9	7.42	8907	353	2259	09:48	09:51	2.02	3.94	62	0
001	L	6	6	141	1215	5157	1789	-0.918	18.2	8178	285	2686	09:51	09:53	3.38	3.04	0	0
002	R	6	6	176	1522	5332	1996	8.26	15.0	8873	355	2659	09:53	09:55	2.85	3.34	34	0
003	L	6	6	148	1234	5363	1858	-0.565	21.6	8476	283	2654	10:00	10:02	3.22	3.19	3	1
Mean		6	6	188	1385	5309	1886	13.7	15.6	8609	319	2564	Total	00:13	2.87	3.38	25	0
SDev		0	0	69	187	103	86.3	23.2	6.08	347	40.5	204.0			0.60	0.39		
SD/M		0.00	0.00	0.37	0.13	0.02	0.05	1.70	0.39	0.04	0.13	0.08			0.21	0.12		

Remarks: Q with RiverRay 8610 cfs using BT with 4% error, 7910 cfs using VTG with 6% error.

Summary of Discharge Measurement Forms

Judy Creek, Alaska

Station Number: 15861000

Meas. No: 61

Station Name: Judy Creek

Date: 06/05/2010

Party: DB/RTK	Width: 157 ft	Processed by: DAV
Boat/Motor: kayak	Area: 579 ft ²	Mean Velocity: 2.46 ft/s
Gage Height: 25.14 ft	G.H.Change: 0.000 ft	Discharge: 1,420 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.469 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.04
BT Error Vel.: 32.81 ft/s	Bin Size: 11 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.94 ft/s	
Max. Depth: 7.01 ft	
Mean Depth: 3.67 ft	
% Meas.: 67.15	
Water Temp.: None	
ADCP Temp.: 34.0 °F	

Performed Diag. Test: NO

Project Name: judy20100605 q1444.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: at gage

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	10	30	171	225	898	158	5.16	35.8	1322	149	561	17:20	17:23	0.94	2.36	20	0
001	R	10	30	226	305	1042	204	-4.63	26.4	1573	186	714	17:23	17:27	0.86	2.20	28	0
002	L	10	30	140	264	943	180	0.848	31.1	1419	160	558	17:27	17:30	1.17	2.54	17	0
004	L	10	30	160	255	911	178	3.35	27.8	1375	148	507	17:34	17:37	1.10	2.71	16	0
005	R	10	30	191	282	958	189	-4.66	31.0	1456	154	599	17:37	17:40	0.93	2.43	28	0
006	L	10	30	192	252	955	178	3.64	-33.1	1355	148	532	17:40	17:44	1.02	2.55	22	0
Mean		10	30	180	264	951	181	0.618	19.8	1417	157	579	Total	00:23	1.00	2.46	22	0
SDev		0	0	30	27.4	50.5	15.2	4.30	26.1	89.9	14.6	73.4			0.12	0.18		
SD/M		0.00	0.00	0.17	0.10	0.05	0.08	6.96	1.32	0.06	0.09	0.13			0.12	0.07		

Remarks: Q with StreamPro 1417 cfs using BT with 6% error, no GPS data. Invalid ensembles ranged between 16% and 28%.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15861000
 Station Name: Judy Creek

Meas. No: 62
 Date: 06/08/2010

Party: DB/BL	Width: 358 ft	Processed by: DAV
Boat/Motor: kayak	Area: 2,240 ft ²	Mean Velocity: 4.11 ft/s
Gage Height: 27.85 ft	G.H.Change: 0.000 ft	Discharge: 8,850 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.430 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: Model (20.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: Rio Grande / 1200 kHz
WT 3-Beam Solution: NO	Serial #: 3600 Firmware: 10.17
BT Error Vel.: 0.33 ft/s*	Bin Size: 25 cm Blank: 25 cm
WT Error Vel.: 3.50 ft/s	BT Mode: 5 BT Pings: 1
BT Up Vel.: 1.00 ft/s	WT Mode: 12* WT Pings: 1
WT Up Vel.: 10.00 ft/s	WV : 184 WO : 2, 4*
Use Weighted Mean Depth: YES	
Max. Vel.: 9.37 ft/s	
Max. Depth: 16.2 ft	
Mean Depth: 6.27 ft	
% Meas.: 49.72	
Water Temp.: None	
ADCP Temp.: 1.8 °C	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 1 mille DS of gauge

Project Name: judy_2010_06_08_mfs.mmt
 Software: 2.18

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	12	56	481	1972	5328	1403	29.7	191	8923	371	3124	14:37	14:39	2.49	2.86	14	0
002	L	7	72	505	2733	4610	1744	47.9	240	9375	351	2217	14:44	14:46	2.09	4.23	11	0
009	R	30	8	676	2296	5034	1596	65.6	25.5	9017	385	3038	15:11	15:14	2.28	2.97	24	0
010	L	30	55	507	3360	3772	1925	48.2	346	9450	424	2201	15:14	15:16	2.78	4.29	20	0
013	R	7	185	425	2172	3434	1421	22.6	1250	8300	404	1909	15:27	15:30	1.61	4.35	27	0
015	R	12	125	439	2255	4185	1410	217	748	8815	337	1856	15:36	15:39	1.62	4.75	41	0
016	L	8	100	313	1976	4417	1344	92.5	488	8318	304	1848	15:39	15:41	2.09	4.50	20	0
017	R	10	90	375	2109	4435	1393	157	538	8634	288	1746	15:42	15:44	1.86	4.94	25	0
Mean		15	86	465	2359	4402	1529	85.1	478	8854	358	2242	Total	01:07	2.10	4.11	23	0
SDev		10	53	108	471	619	208	68.4	384	431	47.2	544.5			0.41	0.78		
SD/M		0.67	0.61	0.23	0.20	0.14	0.14	0.80	0.80	0.05	0.13	0.24			0.19	0.19		

Remarks: Q with RioGrande 9130 cfs using VTG with 6% error, 7140 cfs using BT with 17% error.

- transect has been subsectioned

* - value not consistent for all transects

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15861000

Meas. No: 63

Station Name: Judy Creek

Date: 06/10/2010

Party: DB/BL	Width: 124 ft	Processed by: DAV
Boat/Motor: kayak	Area: 1,320 ft ²	Mean Velocity: 3.48 ft/s
Gage Height: 26.08 ft	G.H.Change: 0.000 ft	Discharge: 4,580 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.430 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (21.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: Rio Grande / 1200 kHz
WT 3-Beam Solution: NO	Serial #: 3600 Firmware: 10.17
BT Error Vel.: 0.33 ft/s	Bin Size: 25 cm Blank: 25 cm
WT Error Vel.: 3.50 ft/s	BT Mode: 5 BT Pings: 1
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 1
WT Up Vel.: 4.00 ft/s	WV : 175 WO : 8, 4
Use Weighted Mean Depth: YES	
Max. Vel.: 6.10 ft/s	
Max. Depth: 15.6 ft	
Mean Depth: 10.6 ft	
% Meas.: 64.17	
Water Temp.: None	
ADCP Temp.: 44.5 °F	

Performed Diag. Test: YES

Project Name: judy06402010 q4582cfs.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: YES Evaluation: NO

Meas. Location: not sure

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	4	8	163	875	3006	737	12.1	18.6	4649	120	1287	22:26	22:28	1.28	3.61	12	0
001	R	7	8	188	853	2875	753	14.7	20.1	4516	128	1346	22:29	22:31	1.22	3.36	10	0
Mean		6	8	175	864	2941	745	13.4	19.4	4582	124	1316	Total	00:04	1.25	3.48	11	0
SDev		2	0	18	15.1	92.6	10.9	1.80	1.05	94.0	6.1	42.0			0.05	0.18		
SD/M		0.39	0.00	0.10	0.02	0.03	0.01	0.13	0.05	0.02	0.05	0.03			0.04	0.05		

Remarks: Q with RioGrande 4580 cfs using VTG with 2% error, 3900 cfs using BT with 2% error.

Station Number: 15861000
 Station Name: Judy Creek

Meas. No: 64
 Date: 06/14/2010

Party: DB/BL	Width: 123 ft	Processed by: DAV
Boat/Motor: kayak	Area: 769 ft ²	Mean Velocity: 2.32 ft/s
Gage Height: 24.16 ft	G.H.Change: 0.000 ft	Discharge: 1,780 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.459 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.04
BT Error Vel.: 32.81 ft/s	Bin Size: 16 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.59 ft/s	
Max. Depth: 10.7 ft	
Mean Depth: 6.33 ft	
% Meas.: 71.85	
Water Temp.: None	
ADCP Temp.: 46.9 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: not sure

Project Name: judy20100614 q1777cfs.mmt
 Software: 2.17

Tr.#		Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad	
		L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins
001	R	3	5	134	242	1261	286	1.98	-5.19	1786	130	773	16:49	16:51	1.15	2.31	7	0
002	L	3	5	169	212	1294	244	4.98	4.06	1759	143	861	16:52	16:54	1.19	2.04	27	0
003	R	3	5	117	250	1260	303	-1.24	3.57	1815	123	736	16:55	16:57	1.25	2.47	4	0
004	L	3	5	101	215	1291	238	-3.35	4.87	1746	96	706	16:57	16:59	1.39	2.47	24	0
Mean		3	5	130	230	1277	268	0.592	1.83	1777	123	769	Total	00:09	1.24	2.32	15	0
SDev		0	0	29	18.9	18.7	32.0	3.66	4.71	30.7	19.8	67.0			0.11	0.20		
SD/M		0.00	0.00	0.22	0.08	0.01	0.12	6.18	2.58	0.02	0.16	0.09			0.09	0.09		

Remarks: Q with StreamPro 1780 cfs using BT with 2% error, no GPS data.

Station Number: 15861000

Meas. No: 65

Station Name: Judy Creek

Date: 07/05/2010

Party: RTK/DAV	Width: 110 ft	Processed by: DAV
Boat/Motor: kayak	Area: 522 ft ²	Mean Velocity: 0.331 ft/s
Gage Height: 20.72 ft	G.H.Change: 0.000 ft	Discharge: 170 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 31.04
BT Error Vel.: 32.81 ft/s	Bin Size: 16 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	Max. Vel.: 1.65 ft/s
	Max. Depth: 7.72 ft
	Mean Depth: 4.77 ft
	% Meas.: 69.17
	Water Temp.: None
	ADCP Temp.: 54.6 °F

Performed Diag. Test: NO

Project Name: judy201007005rb000r.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: 100' US of gage

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
013	R	2	10	109	30.5	114	21.0	-0.848	2.72	168	132	648	15:12	15:14	1.31	0.26	7	0
014	L	2	10	125	25.1	121	26.5	0.177	-3.35	170	126	495	15:16	15:18	1.09	0.34	27	0
015	R	2	10	92	28.1	119	21.9	0.388	4.70	174	110	552	15:19	15:20	1.14	0.31	2	0
016	L	2	10	84	28.5	114	25.0	0.353	-2.61	165	90	441	15:21	15:23	1.13	0.37	12	1
017	R	2	10	98	26.7	119	20.2	0.530	6.22	173	93	476	15:23	15:25	0.90	0.36	13	0
Mean		2	10	101	27.8	117	22.9	0.120	1.53	170	110	522	Total	00:12	1.11	0.33	12	0
SDev		0	0	16	2.03	3.29	2.69	0.555	4.31	3.68	18.9	80.9			0.15	0.05		
SD/M		0.00	0.00	0.16	0.07	0.03	0.12	4.63	2.81	0.02	0.17	0.15			0.13	0.14		

Remarks: Q with StreamPro 170cfs using BT with 2% error, no GPS data.

Station Number: 15861000

Meas. No: 66

Station Name: Judy Creek

Date: 08/30/2010

Party: Kemnitz/Vas	Width: 111 ft	Processed by: DAV
Boat/Motor: kayak	Area: 240 ft ²	Mean Velocity: 0.673 ft/s
Gage Height: 20.24 ft	G.H.Change: 0.000 ft	Discharge: 162 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: 4-Clear	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.04
BT Error Vel.: 0.33 ft/s	Bin Size: 16 cm Blank: 3 cm
WT Error Vel.: 1.10 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 2.30 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 2.24 ft/s	
Max. Depth: 2.79 ft	
Mean Depth: 2.17 ft	
% Meas.: 58.01	
Water Temp.: None	
ADCP Temp.: 49.1 °F	

Performed Diag. Test: NO

Project Name: iudy20100830000r.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: 100' US of gage

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	4	6	142	37.6	96.2	25.3	1.70	2.75	164	112	244	16:34	16:36	0.74	0.67	1	1
001	R	4	6	143	37.8	93.1	26.6	1.27	2.05	161	110	237	16:37	16:39	0.72	0.68	1	1
002	L	4	6	123	38.4	90.7	28.3	1.52	1.24	160	111	237	16:39	16:41	0.85	0.68	2	1
003	R	4	6	133	37.4	94.8	25.4	1.34	2.51	161	111	242	16:42	16:44	0.79	0.67	0	0
Mean		4	6	135	37.8	93.7	26.4	1.46	2.14	162	111	240	Total	00:10	0.77	0.67	1	1
SDev		0	0	9	0.393	2.38	1.39	0.190	0.668	1.56	0.6	3.4			0.06	0.00		
SD/M		0.00	0.00	0.07	0.01	0.03	0.05	0.13	0.31	0.01	0.01	0.01			0.08	0.01		

Remarks: Q with StreamPro 162 cfs using BT with 1% error, no GPS data.

Station Number: 15861000
 Station Name: Judy Creek

Meas. No: 67
 Date: 06/02/2011

Party: DB/DAV	Width: 254 ft	Processed by: DAV
Boat/Motor: kayak	Area: 1,620 ft ²	Mean Velocity: 2.74 ft/s
Gage Height: 26.97 ft	G.H.Change: 0.000 ft	Discharge: 4,410 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.300 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (20.2°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: Rio Grande / 1200 kHz
WT 3-Beam Solution: NO	Serial #: 12812 Firmware: 10.16
BT Error Vel.: 0.33 ft/s	Bin Size: 25 cm Blank: 25 cm
WT Error Vel.: 3.50 ft/s	BT Mode: 5 BT Pings: 1
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 1
WT Up Vel.: 5.00 ft/s	WV : 175 WO : 5, 4
Use Weighted Mean Depth: YES	
Max. Vel.: 7.00 ft/s	
Max. Depth: 15.7 ft	
Mean Depth: 6.39 ft	
% Meas.: 66.37	
Water Temp.: None	
ADCP Temp.: 33.4 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: YES Evaluation: NO
 Meas. Location: 300' US of gauge

Project Name: judy 622011 4414cfs.mmt
 Software: 2.17

Tr.#		Edge Distance		#Ens.	Discharge					Width	Area	Time		Mean Vel.		% Bad		
		L	R		Top	Middle	Bottom	Left	Right			Total	Start	End	Boat	Water	Ens.	Bins
001	R	6	20	205	1042	2878	604	31.2	16.2	4571	287	1658	16:01	16:05	1.37	2.76	31	1
002	L	6	50	175	853	2915	505	10.3	29.1	4311	259	1642	16:08	16:11	1.29	2.62	11	1
003	R	6	45	251	931	2896	584	7.80	32.8	4451	237	1500	16:11	16:15	1.16	2.97	11	1
004	L	6	55	184	827	3008	470	13.8	41.1	4360	250	1628	16:16	16:19	1.20	2.68	8	0
005	R	6	60	224	874	2832	567	9.01	58.5	4340	258	1611	16:19	16:23	1.06	2.69	3	1
006	L	0	0	123	899	3051	503	0.000	0.000	4452	230	1653	16:24	16:26	2.25	2.69	39	1
Mean		5	38	193	904	2930	539	12.0	29.6	4414	254	1615	Total	00:24	1.39	2.74	17	1
SDev		2	23	44	76.3	83.0	53.4	10.5	20.2	96.5	20.1	58.9			0.44	0.12		
SD/M		0.49	0.61	0.23	0.08	0.03	0.10	0.87	0.68	0.02	0.08	0.04			0.31	0.04		

Remarks: Q with RioGrande 4410 cfs using VTG with 2% error, 4000 cfs using BT with 2% error.

Station Number: 15861000

Meas. No: 68

Station Name: Judy Creek

Date: 06/05/2011

Party: DB/DAV	Width: 299 ft	Processed by: DAV
Boat/Motor: kayak	Area: 1,220 ft ²	Mean Velocity: 2.20 ft/s
Gage Height: 25.14 ft	G.H.Change: 0.000 ft	Discharge: 2,670 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:		ADCP:
BT 3-Beam Solution: NO	Max. Vel.: 4.10 ft/s	Type/Freq.: Rio Grande / 1200 kHz
WT 3-Beam Solution: NO	Max. Depth: 7.13 ft	Serial #: _____ Firmware: 10.16
BT Error Vel.: 32.81 ft/s	Mean Depth: 4.08 ft	Bin Size: 25 cm* Blank: 25 cm
WT Error Vel.: 32.81 ft/s	% Meas.: 65.63	BT Mode: 5 BT Pings: 1
BT Up Vel.: 32.81 ft/s	Water Temp.: None	WT Mode: 12 WT Pings: 1
WT Up Vel.: 32.81 ft/s	ADCP Temp.: 34.6 °F	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO		

Performed Diag. Test: NO

Project Name: judy20110605000 2690cfs.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: 100' US of gage

Tr.#		Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad	
		L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins
001	R	-3	-3	260	606	1500	459	3.50	-0.777	2568	301	1264	16:32	16:37	1.16	2.03	31	0
002	L	25	25	144	524	1842	329	29.4	12.1	2737	340	1368	16:39	16:42	1.67	2.00	12	0
003	R	25	25	214	498	1771	320	25.8	13.3	2628	247	1033	16:42	16:46	1.10	2.55	20	0
004	L	25	25	135	512	1861	338	14.6	23.7	2749	314	1280	16:47	16:50	1.64	2.15	21	0
005	R	25	25	225	504	1774	327	24.2	18.4	2647	294	1157	16:50	16:55	1.08	2.29	24	0
Mean		19	19	195	529	1750	355	19.5	13.4	2666	299	1220	Total	00:22	1.33	2.20	22	0
SDev		13	13	54	44.4	145	58.7	10.5	9.15	76.2	34.2	128.9			0.30	0.22		
SD/M		0.65	0.65	0.28	0.08	0.08	0.17	0.54	0.68	0.03	0.11	0.11			0.22	0.10		

Remarks: Q with RioGrande 2670 cfs using BT with 3% error and between 12% to 31% bad ens, no GPS

* - value not consistent for all transects

Station Number: 15861000

Meas. No: 69

Station Name: Judy Creek

Date: 06/07/2011

Party: DB/DAV	Width: 157 ft	Processed by: DAV
Boat/Motor: kayak	Area: 1,060 ft ²	Mean Velocity: 2.44 ft/s
Gage Height: 24.87 ft	G.H.Change: 0.000 ft	Discharge: 2,600 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.430 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (20.2°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:		ADCP:
BT 3-Beam Solution: YES	Max. Vel.: 6.31 ft/s	Type/Freq.: Rio Grande / 1200 kHz
WT 3-Beam Solution: NO	Max. Depth: 13.4 ft	Serial #: 12812 Firmware: 10.16
BT Error Vel.: 0.33 ft/s	Mean Depth: 6.78 ft	Bin Size: 25 cm Blank: 25 cm
WT Error Vel.: 3.50 ft/s	% Meas.: 64.45	BT Mode: 5 BT Pings: 1
BT Up Vel.: 1.00 ft/s	Water Temp.: None	WT Mode: 12 WT Pings: 1
WT Up Vel.: 5.00 ft/s	ADCP Temp.: 36.0 °F	WV : 175 WO : 9, 4
Use Weighted Mean Depth: YES		

Performed Diag. Test: NO

Project Name: judy 06072011 2595cfs.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: YES Evaluation: NO

Meas. Location: 200' US of gage

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	5	45	169	470	1645	322	8.02	52.6	2497	150	1007	13:41	13:43	0.91	2.48	19	0
001	R	5	45	169	576	1645	391	11.4	78.4	2702	176	1112	13:43	13:46	0.92	2.43	17	0
002	L	5	45	147	501	1750	364	5.97	61.7	2683	158	1121	13:47	13:49	0.95	2.40	7	0
003	R	5	45	191	469	1651	317	6.60	55.5	2499	146	1017	13:50	13:53	0.81	2.46	0	0
Mean		5	45	169	504	1673	348	8.01	62.0	2595	157	1064	Total	00:12	0.90	2.44	11	0
SDev		0	0	18	50.1	51.9	35.5	2.44	11.5	113	13.5	60.6			0.06	0.04		
SD/M		0.00	0.00	0.11	0.10	0.03	0.10	0.31	0.19	0.04	0.09	0.06			0.07	0.02		

Remarks: Q with RioGrande 2600 cfs using VTG with 4% error, 2540 cfs using BT with 3% error.

Station Number: 15861000

Meas. No: 70

Station Name: Judy Creek

Date: 07/08/2011

Party: RTK / DAV	Width: 113 ft	Processed by: DAV
Boat/Motor: Tethered boat	Area: 223 ft ²	Mean Velocity: 0.838 ft/s
Gage Height: 20.20 ft	G.H.Change: 0.000 ft	Discharge: 187 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: Rio Grande / 1200 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 10.16
BT Error Vel.: 0.33 ft/s	Bin Size: 25 cm Blank: 25 cm
WT Error Vel.: 1.10 ft/s	BT Mode: 5 BT Pings: 1
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 1
WT Up Vel.: 3.00 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	Max. Vel.: 2.81 ft/s
	Max. Depth: 3.07 ft
	Mean Depth: 1.97 ft
	% Meas.: 57.99
	Water Temp.: None
	ADCP Temp.: 56.6 °F

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 100 DS of gage

Project Name: judy201110708000 187cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
002	L	10	20	130	41.5	110	24.5	4.20	5.65	186	112	217	18:22	18:24	0.60	0.86	1	2
003	R	10	20	109	41.2	109	25.4	4.77	8.05	188	115	227	18:25	18:27	0.70	0.83	1	2
004	L	10	20	113	41.2	107	25.7	5.44	7.59	187	112	219	18:29	18:31	0.70	0.85	2	2
005	R	10	20	125	40.4	108	26.0	3.99	8.48	187	114	229	18:31	18:34	0.62	0.82	1	2
Mean		10	20	119	41.1	108	25.4	4.60	7.44	187	113	223	Total	00:11	0.65	0.84	1	2
SDev		0	0	10	0.466	1.19	0.616	0.648	1.25	0.902	1.6	5.9			0.05	0.02		
SD/M		0.00	0.00	0.08	0.01	0.01	0.02	0.14	0.17	0.00	0.01	0.03			0.08	0.02		

Remarks: Q with StreamPro 187 cfs using BT with 1% error, no GPS data.

Station Number: 15861000

Meas. No: 71

Station Name: Judy Creek

Date: 08/28/2011

Party: RTK/DAV	Width: 88.0 ft	Processed by: DAV
Boat/Motor: Tethered boat	Area: 160 ft ²	Mean Velocity: 0.414 ft/s
Gage Height: 19.49 ft	G.H.Change: 0.000 ft	Discharge: 66.1 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: 4-Clear	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: Rio Grande / 1200 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 10.16
BT Error Vel.: 0.33 ft/s	Bin Size: 25 cm Blank: 25 cm
WT Error Vel.: 1.00 ft/s	BT Mode: 5 BT Pings: 1
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 1
WT Up Vel.: 4.10 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 2.65 ft/s	
Max. Depth: 2.48 ft	
Mean Depth: 1.82 ft	
% Meas.: 55.12	
Water Temp.: None	
ADCP Temp.: 49.0 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 300' DS of gage

Project Name: judy20110828000 q 66.1cfs.mr
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	6	10	118	17.9	37.7	10.2	0.671	1.31	67.9	90	163	17:25	17:27	0.56	0.42	1	7
001	R	6	10	104	16.2	34.7	9.25	0.918	2.19	63.2	93	167	17:28	17:30	0.65	0.38	3	4
002	L	6	10	95	17.3	37.5	10.0	0.530	2.30	67.7	85	157	17:30	17:32	0.65	0.43	1	6
003	R	6	10	94	16.9	35.9	10.2	0.989	1.66	65.6	84	153	17:33	17:34	0.65	0.43	1	8
Mean		6	10	102	17.1	36.4	9.94	0.777	1.86	66.1	88	160	Total	00:09	0.63	0.41	1	7
SDev		0	0	11	0.742	1.43	0.470	0.214	0.463	2.20	4.1	6.1			0.05	0.03		
SD/M		0.00	0.00	0.11	0.04	0.04	0.05	0.28	0.25	0.03	0.05	0.04			0.07	0.06		

Remarks: Q with StreamPro 66 cfs using BT with 1% error, no GPS data.

Station Number: 15861000

Meas. No: 73

Station Name: Judy Creek

Date: 05/27/2012

Party: RTK/DAV	Width: 184 ft	Processed by: DAV
Boat/Motor: kayak	Area: 551 ft ²	Mean Velocity: 1.00 ft/s
Gage Height: 22.58 ft	G.H.Change: 0.000 ft	Discharge: 549 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.12
BT Error Vel.: 0.33 ft/s	Bin Size: 10 cm Blank: 19 cm
WT Error Vel.: 1.10 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 1.00 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 3.60 ft/s	WZ : 0
Use Weighted Mean Depth: NO	
Max. Vel.: 3.55 ft/s	
Max. Depth: 5.73 ft	
Mean Depth: 3.00 ft	
% Meas.: 68.07	
Water Temp.: None	
ADCP Temp.: 34.0 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: @ gauge

Project Name: judy 5272012 q550cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	6	10	188	90.9	357	64.5	3.11	8.86	524	165	503	15:18	15:21	0.80	1.04	31	0
002	R	6	10	215	83.8	367	63.3	3.85	14.6	533	154	493	15:26	15:30	0.82	1.08	53	1
003	L	6	10	201	102	401	66.9	2.40	16.7	589	217	653	15:31	15:34	0.93	0.90	16	0
004	R	6	10	305	99.2	370	68.3	1.48	11.6	551	201	555	15:36	15:42	0.72	0.99	16	1
Mean		6	10	227	94.0	374	65.8	2.71	12.9	549	184	551	Total	00:24	0.82	1.00	29	0
SDev		0	0	53	8.29	18.7	2.26	1.01	3.42	28.5	29.7	73.6			0.09	0.08		
SD/M		0.00	0.00	0.23	0.09	0.05	0.03	0.37	0.26	0.05	0.16	0.13			0.10	0.08		

Remarks: Q with RiverRay 550 cfs using BT with 5% error, no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15861000

Meas. No: 74

Station Name: Judy Creek

Date: 06/03/2012

Party: DAV/JB	Width: 132 ft	Processed by: DAV
Boat/Motor: kayak	Area: 879 ft ²	Mean Velocity: 3.55 ft/s
Gage Height: 24.55 ft	G.H.Change: 0.000 ft	Discharge: 3,090 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: _____ Firmware: 44.12
BT Error Vel.: 0.33 ft/s	Bin Size: 10 cm Blank: 19 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: NO	
Max. Vel.: 8.77 ft/s	
Max. Depth: 10.2 ft	
Mean Depth: 6.69 ft	
% Meas.: 60.68	
Water Temp.: None	
ADCP Temp.: 37.0 °F	

Performed Diag. Test: NO

Project Name: judy 6032012 q3090cfs.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: 100' US of gage

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	6	20	114	428	1795	672	41.8	9.15	2946	152	906	15:21	15:22	2.05	3.25	35	1
001	L	6	20	50	410	1749	645	29.4	112	2945	110	768	15:22	15:23	2.97	3.83	4	0
002	R	6	20	65	466	1911	749	37.8	14.2	3178	138	916	15:23	15:24	2.94	3.47	3	0
003	L	6	20	71	516	2122	804	24.7	29.8	3497	128	820	15:24	15:25	2.61	4.26	0	0
004	R	6	20	70	389	1810	639	43.6	22.8	2904	131	986	15:25	15:25	2.79	2.95	3	1
Mean		6	20	74	442	1877	702	35.5	37.6	3094	132	879	Total	00:04	2.67	3.55	9	0
SDev		0	0	24	50.2	149	72.1	8.14	42.3	250	15.3	85.5			0.38	0.51		
SD/M		0.00	0.00	0.32	0.11	0.08	0.10	0.23	1.13	0.08	0.12	0.10			0.14	0.14		

Remarks: Q with RiverRay 3090 cfs using VTG with 8% error, 2030 cfs using BT with 3% error.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15861000
 Station Name: Judy Creek

Meas. No: 75
 Date: 06/05/2012

Party: DAV/JB	Width: 229 ft	Processed by: DAV
Boat/Motor: kayak	Area: 1,360 ft ²	Mean Velocity: 4.86 ft/s
Gage Height: 26.67 ft	G.H.Change: 0.000 ft	Discharge: 6,560 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.6°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.12
BT Error Vel.: 0.33 ft/s	Bin Size: 10 cm Blank: 19 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 13.0 ft/s	
Max. Depth: 10.4 ft	
Mean Depth: 5.95 ft	
% Meas.: 58.25	
Water Temp.: None	
ADCP Temp.: 35.3 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 100' US of gage

Project Name: judy 6052012 q6560cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	6	0	108	1333	4158	1594	24.6	0.000	7109	207	1244	14:37	14:38	3.37	5.72	3	0
001	R	6	6	146	1033	3675	1443	49.9	5.97	6207	227	1329	14:38	14:39	3.25	4.67	18	1
002	L	6	6	117	1192	3653	1521	35.7	16.6	6418	225	1316	14:41	14:42	3.47	4.88	15	1
003	R	6	6	120	1138	3790	1473	83.7	6.29	6491	256	1559	14:42	14:43	3.82	4.16	17	0
Mean		6	5	122	1174	3819	1508	48.5	7.20	6556	229	1362	Total	00:06	3.48	4.86	13	1
SDev		0	3	16	125	234	65.9	25.6	6.88	388	20.1	136.8			0.24	0.65		
SD/M		0.00	0.67	0.13	0.11	0.06	0.04	0.53	0.95	0.06	0.09	0.10			0.07	0.13		

Remarks: Q with RiverRay 6560 cfs using VTG with 6% error, 4610 cfs using BT with 2% error.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15861000

Meas. No: 76

Station Name: Judy Creek

Date: 06/07/2012

Party: RTK/DAV	Width: 196 ft	Processed by: DAV
Boat/Motor: kayak	Area: 1,180 ft ²	Mean Velocity: 3.90 ft/s
Gage Height: 25.63 ft	G.H.Change: 0.000 ft	Discharge: 4,610 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.4°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.12
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 19 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 8.22 ft/s	
Max. Depth: 13.2 ft	
Mean Depth: 6.03 ft	
% Meas.: 61.40	
Water Temp.: None	
ADCP Temp.: 35.4 °F	

Performed Diag. Test: NO

Project Name: judy20120607_q4605cfs.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: 100' US of gage

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	L	5	20	166	880	3027	952	33.2	23.9	4916	198	1162	15:40	15:41	1.95	4.23	0	1
002	R	5	20	187	685	2697	876	16.4	24.4	4299	196	1251	15:41	15:43	1.89	3.44	1	0
003	L	5	20	134	864	2895	949	22.3	29.1	4758	197	1135	15:44	15:45	2.39	4.19	1	0
004	R	5	20	173	727	2691	979	28.4	20.2	4446	194	1189	15:46	15:47	1.96	3.74	1	0
Mean		5	20	165	789	2827	939	25.0	24.4	4605	196	1184	Total	00:07	2.05	3.90	1	0
SDev		0	0	22	97.4	163	44.0	7.32	3.67	283	1.9	49.8			0.23	0.38		
SD/M		0.00	0.00	0.14	0.12	0.06	0.05	0.29	0.15	0.06	0.01	0.04			0.11	0.10		

Remarks: Q with RiverRay 4610 cfs using VTG with 6% error, 3310 cfs using BT with 5% error.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15861000
 Station Name: Judy Creek

Meas. No: 77
 Date: 06/09/2012

Party: DAV/RTK	Width: 205 ft	Processed by: DAV
Boat/Motor: kayak	Area: 1,020 ft ²	Mean Velocity: 3.20 ft/s
Gage Height: 25.14 ft	G.H.Change: 0.000 ft	Discharge: 3,260 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.12
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 19 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 6.87 ft/s	
Max. Depth: 7.26 ft	
Mean Depth: 4.98 ft	
% Meas.: 57.66	
Water Temp.: None	
ADCP Temp.: 37.2 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 100' US of gage

Project Name: judy 20120609 q3260cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
003	L	6	20	130	771	2097	610	14.9	44.0	3537	206	1013	14:05	14:07	2.19	3.49	2	0
005	R	6	20	166	666	1841	570	34.6	19.9	3132	205	1046	14:08	14:09	1.95	3.00	19	0
006	L	6	20	158	689	1728	580	22.0	24.3	3043	198	944	14:13	14:15	1.78	3.22	1	0
007	R	6	20	173	701	1809	614	32.7	23.4	3179	208	1027	14:15	14:17	1.76	3.09	0	0
008	L	6	20	138	738	1931	658	22.6	40.3	3390	204	1002	14:18	14:19	2.06	3.39	0	0
010	R	20	6	171	673	1869	620	106	5.83	3274	208	1095	14:20	14:22	1.97	2.99	8	0
Mean		8	18	156	706	1879	609	38.9	26.3	3259	205	1021	Total	00:16	1.95	3.20	5	0
SDev		6	6	18	40.6	126	31.4	33.9	14.0	181	3.6	49.9			0.16	0.21		
SD/M		0.69	0.32	0.12	0.06	0.07	0.05	0.87	0.53	0.06	0.02	0.05			0.08	0.06		

Remarks: Q with RiverRay 3260cfs using VTG with 6% error, 2520 cfs using BT with 2% error.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15861000

Meas. No: 78

Station Name: Judy Creek

Date: 07/07/2012

Party: DAV/RTK	Width: 138 ft	Processed by: DAV
Boat/Motor: Tethered boat	Area: 194 ft ²	Mean Velocity: 0.931 ft/s
Gage Height: 20.51 ft	G.H.Change: 0.000 ft	Discharge: 181 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.12
BT Error Vel.: 0.33 ft/s	Bin Size: 10 cm Blank: 19 cm
WT Error Vel.: 1.10 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 1.00 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 3.00 ft/s	WZ : 0
Use Weighted Mean Depth: NO	
Max. Vel.: 2.99 ft/s	
Max. Depth: 2.22 ft	
Mean Depth: 1.40 ft	
% Meas.: 44.57	
Water Temp.: None	
ADCP Temp.: 60.2 °F	

Performed Diag. Test: NO

Project Name: judy 7072012 q181cfs.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: 300' DS of gage

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	20	15	142	57.6	82.9	31.7	6.85	5.40	184	140	201	17:16	17:19	0.70	0.92	1	4
001	R	20	15	140	57.4	82.3	31.3	8.83	4.56	184	137	192	17:19	17:22	0.68	0.96	1	3
002	L	20	15	154	54.2	80.7	29.1	8.72	5.44	178	136	192	17:22	17:25	0.65	0.93	1	3
003	R	20	15	146	56.9	76.1	31.3	5.51	5.79	176	140	190	17:25	17:28	0.70	0.93	1	3
Mean		20	15	145	56.5	80.5	30.8	7.48	5.30	181	138	194	Total	00:12	0.68	0.93	1	3
SDev		0	0	6	1.56	3.08	1.18	1.60	0.525	4.49	2.0	5.0			0.02	0.02		
SD/M		0.00	0.00	0.04	0.03	0.04	0.04	0.21	0.10	0.02	0.01	0.03			0.03	0.02		

Remarks: Q with StreamPro 181 cfs using BT with 2% error, no GPS data.

Station Number: 15861000

Meas. No: 79

Station Name: Judy Creek

Date: 09/01/2012

Party: RTK/DAV	Width: 92.5 ft	Processed by: DAV
Boat/Motor: Tethered boat	Area: 105 ft ²	Mean Velocity: 0.808 ft/s
Gage Height: 20.00 ft	G.H.Change: 0.000 ft	Discharge: 85.1 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.12
BT Error Vel.: 0.33 ft/s	Bin Size: 10 cm Blank: 19 cm
WT Error Vel.: 1.10 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 1.00 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 3.10 ft/s	WZ : 0
Use Weighted Mean Depth: NO	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 300' DS of gage

Project Name: judy 09012012 q85.1cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
003	L	10	10	85	34.1	24.4	17.9	3.32	3.07	82.8	91	102	16:00	16:02	0.82	0.82	1	5
004	R	10	10	103	33.8	25.4	17.7	2.37	3.07	82.4	93	104	16:02	16:04	0.69	0.79	1	4
005	L	10	10	84	33.7	29.7	16.3	4.45	3.18	87.3	92	108	16:05	16:06	0.79	0.81	1	2
006	R	10	10	91	35.2	29.0	17.7	2.37	3.46	87.7	93	108	16:07	16:09	0.77	0.81	1	3
Mean		10	10	90	34.2	27.1	17.4	3.13	3.20	85.1	92	105	Total	00:08	0.77	0.81	1	4
SDev		0	0	9	0.673	2.60	0.766	0.991	0.184	2.84	0.9	3.2			0.05	0.01		
SD/M		0.00	0.00	0.10	0.02	0.10	0.04	0.32	0.06	0.03	0.01	0.03			0.07	0.01		

Remarks: Q with StreamPro 85 cfs using BT with 3% error, no GPS data.

Station Number: 15861000
 Station Name: Judy Creek

Meas. No: 81
 Date: 06/02/2013

Party: DAV/RTK	Width: 241 ft	Processed by: DAV
Boat/Motor: kayak	Area: 1,570 ft ²	Mean Velocity: 2.16 ft/s
Gage Height: 27.10 ft	G.H.Change: 0.000 ft	Discharge: 3,380 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.15
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 8.79 ft/s	
Max. Depth: 10.1 ft	
Mean Depth: 6.54 ft	
% Meas.: 63.90	
Water Temp.: None	
ADCP Temp.: 36.1 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: YES Evaluation: YES
 Meas. Location: @ gage

Project Name: judy20130602dav3581cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
003	R	10	15	173	530	2049	615	-15.4	2.86	3181	239	1599	13:57	13:59	1.86	1.99	2	0
004	L	10	15	182	641	2328	751	-3.04	-3.60	3714	266	1660	14:01	14:03	2.22	2.24	1	1
005	R	10	15	154	532	2006	573	-11.5	-3.81	3096	255	1644	14:03	14:05	2.21	1.88	6	1
006	L	10	15	195	617	2274	659	-0.600	-1.09	3548	227	1490	14:06	14:09	1.76	2.38	4	0
007	R	10	15	154	581	2145	652	-5.86	-6.32	3367	216	1457	14:09	14:11	1.94	2.31	9	0
Mean		10	15	171	580	2160	650	-7.28	-2.39	3381	241	1570	Total	00:13	2.00	2.16	4	0
SDev		0	0	18	49.6	139	66.1	6.10	3.47	255	20.2	91.9			0.21	0.21		
SD/M		0.00	0.00	0.10	0.09	0.06	0.10	0.84	1.45	0.08	0.08	0.06			0.10	0.10		

Remarks: Q with RiverRay 3380 cfs using VTG with 8% error, 3010 cfs using BT with 8% error.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15861000

Meas. No: 82

Station Name: Judy Creek

Date: 06/06/2013

Party: DAV/JPB	Width: 172 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 1,010 ft ²	Mean Velocity: 3.02 ft/s
Gage Height: 25.86 ft	G.H.Change: 0.000 ft	Discharge: 3,050 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.15
BT Error Vel.: 3.28 ft/s*	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s*	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s*	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s*	WZ : 5
Use Weighted Mean Depth: YES	

Performed Diag. Test: NO

Project Name: judy20130606dav3049cfs.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: 100' US og gage

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	4	6	167	671	1756	583	2.79	7.70	3021	168	958	16:27	16:29	1.73	3.15	17	0
001	R	4	6	94	655	1830	622	12.1	7.77	3127	177	1054	16:29	16:30	2.86	2.97	22	0
002	L	4	6	122	662	1759	597	4.20	7.66	3030	161	956	16:31	16:32	2.10	3.17	3	0
003	R	4	6	115	656	1757	583	14.4	5.54	3016	182	1084	16:32	16:33	2.55	2.78	23	0
Mean		4	6	124	661	1775	596	8.39	7.17	3048	172	1013	Total	00:05	2.31	3.02	16	0
SDev		0	0	31	7.39	36.2	18.5	5.75	1.08	52.8	9.3	65.7			0.50	0.18		
SD/M		0.00	0.00	0.25	0.01	0.02	0.03	0.69	0.15	0.02	0.05	0.06			0.22	0.06		

Remarks: Q with RiverRay 3050 cfs using VTG with 2% error, 3080 cfs using BT with 3% error.

* - value not consistent for all transects

Station Number: 15861000
 Station Name: Judy Creek

Meas. No: 83
 Date: 06/09/2013

Party: DAV/JPB	Width: 195 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 1,530 ft ²	Mean Velocity: 3.69 ft/s
Gage Height: 26.63 ft	G.H.Change: 0.000 ft	Discharge: 5,640 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.15
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 9.09 ft/s	
Max. Depth: 16.4 ft	
Mean Depth: 7.86 ft	
% Meas.: 64.54	
Water Temp.: None	
ADCP Temp.: 37.1 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 200' US of gage

Project Name: judy20130609dav5639cfs.mmt
 Software: 2.17

Tr.#		Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad	
		L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins
001	R	4	10	122	898	3757	1047	11.2	3.57	5717	209	1586	15:09	15:10	3.16	3.60	27	0
002	L	4	10	121	896	3549	1270	4.56	5.90	5725	193	1490	15:10	15:11	2.54	3.84	1	0
003	R	4	10	112	859	3817	1061	12.8	6.04	5755	196	1574	15:11	15:13	2.84	3.66	4	0
004	L	4	10	126	821	3431	1123	8.48	5.83	5389	185	1483	15:18	15:19	2.35	3.64	14	0
005	R	4	10	111	844	3642	1100	14.5	6.85	5607	190	1505	15:20	15:21	2.69	3.72	1	0
Mean		4	10	118	864	3639	1120	10.3	5.64	5639	195	1528	Total	00:12	2.72	3.69	9	0
SDev		0	0	7	33.2	156	89.0	3.91	1.23	150	9.0	48.7			0.31	0.09		
SD/M		0.00	0.00	0.06	0.04	0.04	0.08	0.38	0.22	0.03	0.05	0.03			0.11	0.03		

Remarks: Q with RiverRay 5640 cfs using VTG with 3% error, 4035 cfs using BT with 6% error.

Station Number: 15861000
 Station Name: Judy Creek

Meas. No: 84
 Date: 06/11/2013

Party: DAV/JPB	Width: 200 ft	Processed by: DAV
Boat/Motor: kayak	Area: 1,580 ft ²	Mean Velocity: 3.62 ft/s
Gage Height: 26.61 ft	G.H.Change: 0.000 ft	Discharge: 5,710 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: _____ Firmware: 44.15
BT Error Vel.: 3.28 ft/s*	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s*	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s*	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s*	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 8.18 ft/s	
Max. Depth: 15.8 ft	
Mean Depth: 7.93 ft	
% Meas.: 63.79	
Water Temp.: None	
ADCP Temp.: 43.0 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 100' US of gage

Project Name: judy20130611dav5712cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	4	10	164	891	3709	1150	2.90	24.4	5777	185	1542	16:09	16:11	1.92	3.75	30	1
001	R	4	10	95	815	3426	1078	12.4	15.4	5346	191	1561	16:11	16:12	3.04	3.43	3	1
002	L	4	10	111	964	3724	1250	9.15	19.0	5967	202	1594	16:12	16:13	2.66	3.74	13	0
003	R	4	10	113	934	3715	1084	9.71	15.5	5758	221	1623	16:14	16:15	3.03	3.55	25	0
Mean		4	10	120	901	3644	1140	8.54	18.6	5712	200	1580	Total	00:05	2.66	3.62	18	0
SDev		0	0	30	65.0	145	80.3	4.02	4.24	261	16.0	36.0			0.53	0.16		
SD/M		0.00	0.00	0.25	0.07	0.04	0.07	0.47	0.23	0.05	0.08	0.02			0.20	0.04		

Remarks: Q 5710 cfs using VTG with 5% error, 4430 cfs using BT with 2% error.

* - value not consistent for all transects
 Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15861000

Meas. No: 85

Station Name: Judy Creek

Date: 06/13/2013

Party: DAV/JPB	Width: 129 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 1,200 ft ²	Mean Velocity: 3.06 ft/s
Gage Height: 25.69 ft	G.H.Change: 0.000 ft	Discharge: 3,670 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.15
BT Error Vel.: 3.28 ft/s*	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s*	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s*	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s*	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 6.32 ft/s	
Max. Depth: 13.0 ft	
Mean Depth: 9.26 ft	
% Meas.: 61.33	
Water Temp.: None	
ADCP Temp.: 51.0 °F	

Performed Diag. Test: NO

Project Name: judy20130613dav3672cfs.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: 150' US of gage

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	L	4	4	122	550	2379	999	-0.565	4.70	3932	128	1185	14:31	14:32	1.60	3.32	7	0
002	R	4	4	114	482	2022	823	8.02	1.94	3336	125	1140	14:32	14:33	2.09	2.93	18	1
003	L	4	4	87	514	2258	911	16.4	5.72	3704	133	1216	14:34	14:35	2.03	3.05	7	1
004	R	4	4	77	507	2289	866	3.50	5.69	3671	132	1259	14:35	14:36	2.62	2.91	1	0
007	L	4	4	139	539	2334	915	2.90	6.22	3797	128	1171	14:47	14:49	1.37	3.24	6	1
008	R	4	4	96	508	2231	840	9.01	3.85	3593	131	1223	14:49	14:50	2.13	2.94	20	1
Mean		4	4	105	517	2252	892	6.53	4.69	3672	129	1199	Total	00:19	1.97	3.06	10	1
SDev		0	0	23	24.8	125	63.8	5.96	1.59	202	2.9	42.5			0.44	0.18		
SD/M		0.00	0.00	0.22	0.05	0.06	0.07	0.91	0.34	0.05	0.02	0.04			0.22	0.06		

Remarks: Q with RiverRay 3670 cfs using VTG with 5% error, 3310 cfs using BT with 5% error.

* - value not consistent for all transects

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15861000
 Station Name: Judy Creek

Meas. No: 86
 Date: 06/17/2013

Party: RTK/KAP	Width: 122 ft	Processed by: DAV
Boat/Motor: kayak	Area: 900 ft ²	Mean Velocity: 2.34 ft/s
Gage Height: 24.29 ft	G.H.Change: 0.000 ft	Discharge: 2,110 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.500 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.15
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 4.58 ft/s	
Max. Depth: 12.2 ft	
Mean Depth: 7.36 ft	
% Meas.: 64.18	
Water Temp.: None	
ADCP Temp.: 55.1 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 250' US of gage

Project Name: judy20130617dav2105cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	R	4	5	214	338	1341	415	4.45	6.32	2105	122	921	15:03	15:05	0.92	2.28	0	0
002	L	4	5	175	381	1454	425	4.45	6.39	2271	124	893	15:05	15:07	1.03	2.54	1	0
003	R	4	5	232	324	1278	382	4.66	4.24	1992	125	926	15:08	15:10	0.84	2.15	1	1
004	L	4	5	233	372	1402	404	3.85	5.01	2187	121	867	15:12	15:14	0.84	2.52	2	0
005	R	4	5	204	321	1279	360	4.59	3.50	1968	120	894	15:16	15:18	0.95	2.20	1	0
Mean		4	5	211	347	1351	397	4.40	5.09	2105	122	900	Total	00:15	0.91	2.34	1	0
SDev		0	0	24	27.8	77.2	26.3	0.321	1.27	128	2.2	23.9			0.08	0.18		
SD/M		0.00	0.00	0.11	0.08	0.06	0.07	0.07	0.25	0.06	0.02	0.03			0.09	0.08		

Remarks: Q with RiverRay 2110 cfs using VTG with 6% error, 2100 cfs using BT with 3% error.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15861000

Meas. No: 87

Station Name: Judy Creek

Date: 06/21/2013

Party: RTK	Width: 117 ft	Processed by: DAV
Boat/Motor: kayak	Area: 649 ft ²	Mean Velocity: 1.76 ft/s
Gage Height: 23.07 ft	G.H.Change: 0.000 ft	Discharge: 1,150 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.15
BT Error Vel.: 0.33 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 0.60 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 1.00 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 3.44 ft/s	WZ : 0
Use Weighted Mean Depth: NO	

Performed Diag. Test: NO

Project Name: judy20130621dav1145cfs.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: 300' US of gage

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	3	5	113	164	817	166	3.07	5.97	1156	116	649	15:01	15:03	0.85	1.78	11	4
001	L	3	5	84	165	819	172	1.52	3.43	1161	118	655	15:04	15:06	1.10	1.77	5	5
002	R	3	5	110	164	804	167	2.44	4.77	1141	116	642	15:06	15:08	0.85	1.78	5	3
003	L	3	5	93	160	798	157	3.53	4.41	1122	117	652	15:09	15:11	0.97	1.72	6	2
Mean		3	5	100	163	809	165	2.64	4.64	1145	117	649	Total	00:09	0.94	1.76	7	4
SDev		0	0	14	2.34	10.3	6.24	0.872	1.05	17.4	0.9	5.8			0.12	0.03		
SD/M		0.00	0.00	0.14	0.01	0.01	0.04	0.33	0.23	0.02	0.01	0.01			0.13	0.02		

Remarks: Q with RiverRay 1150 cfs using BT with 2% error, no GPS data.

Station Number: 15861000

Meas. No: 88

Station Name: Judy Creek

Date: 07/06/2013

Party: RTK/DAV	Width: 171 ft	Processed by: DAV
Boat/Motor: kayak	Area: 338 ft ²	Mean Velocity: 1.11 ft/s
Gage Height: 21.25 ft	G.H.Change: 0.000 ft	Discharge: 376 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.15
BT Error Vel.: 0.33 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 1.20 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 1.00 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 2.92 ft/s	WZ : 0
Use Weighted Mean Depth: NO	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 400' DS of gage

Project Name: judy20130706dav376cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
011	L	6	6	187	97.5	214	59.3	2.54	2.19	375	172	336	14:27	14:31	0.77	1.12	1	1
012	R	6	6	212	96.7	213	58.5	1.84	2.08	372	174	341	14:31	14:35	0.69	1.09	1	1
013	L	6	6	196	96.6	221	57.8	2.19	3.46	381	167	336	14:35	14:39	0.71	1.14	1	1
014	R	6	6	202	95.8	215	59.3	2.12	2.83	375	171	339	14:40	14:44	0.71	1.10	0	1
Mean		6	6	199	96.6	216	58.7	2.17	2.64	376	171	338	Total	00:16	0.72	1.11	1	1
SDev		0	0	11	0.664	3.79	0.699	0.290	0.638	3.84	3.1	2.7			0.04	0.02		
SD/M		0.00	0.00	0.05	0.01	0.02	0.01	0.13	0.24	0.01	0.02	0.01			0.05	0.02		

Remarks: Q with StreamPro 376 cfs using BT with 1% error, no GPS data.

Station Number: 15861000

Meas. No: 89

Station Name: Judy Creek

Date: 08/23/2013

Party: RTK/DAV	Width: 129 ft	Processed by: DAV
Boat/Motor: kayak	Area: 206 ft ²	Mean Velocity: 0.696 ft/s
Gage Height: 20.26 ft	G.H.Change: 0.000 ft	Discharge: 144 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:6	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.15
BT Error Vel.: 0.33 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 1.40 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 1.00 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 2.90 ft/s	WZ : 0
Use Weighted Mean Depth: NO	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 500' DS of gage

Project Name: judy20130823dav144cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
002	R	6	15	131	45.1	65.4	26.3	1.62	3.53	142	133	201	15:51	15:54	0.77	0.71	1	0
003	L	6	10	136	42.6	71.5	23.4	2.12	3.32	143	124	205	15:54	15:57	0.71	0.70	1	1
004	R	6	10	154	43.9	69.2	24.4	1.31	3.96	143	128	207	15:57	16:00	0.71	0.69	1	1
005	L	6	15	141	43.5	71.5	24.8	2.30	4.38	147	131	212	16:01	16:03	0.72	0.69	1	0
Mean		6	13	140	43.8	69.4	24.7	1.84	3.80	144	129	206	Total	00:12	0.73	0.70	1	1
SDev		0	3	10	1.05	2.88	1.19	0.453	0.470	2.04	4.0	4.6			0.03	0.01		
SD/M		0.00	0.23	0.07	0.02	0.04	0.05	0.25	0.12	0.01	0.03	0.02			0.04	0.01		

Remarks : Q with RiverRay144 cfs using BT with 1% error, no GPS data.

Station Number: 15861000

Meas. No: 91

Station Name: Judy Creek

Date: 05/27/2014

Party: RTK/DAV	Width: 116 ft	Processed by: DAV
Boat/Motor: kayak	Area: 641 ft ²	Mean Velocity: 1.99 ft/s
Gage Height: 23.70 ft	G.H.Change: 0.000 ft	Discharge: 1,270 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.15
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 5.83 ft/s	
Max. Depth: 10.6 ft	
Mean Depth: 5.51 ft	
% Meas.: 56.37	
Water Temp.: None	
ADCP Temp.: 33.2 °F	

Performed Diag. Test: NO

Project Name: judy20140527q1270cfs.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: 700' US of gage

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
002	L	4	6	83	283	752	273	3.78	3.46	1316	116	622	13:01	13:02	2.29	2.12	7	0
003	R	4	6	92	302	697	313	10.3	1.41	1324	115	639	13:02	13:03	2.22	2.07	14	0
004	L	4	6	90	249	676	239	11.3	4.77	1180	109	610	13:03	13:04	2.11	1.93	23	0
005	R	4	6	107	272	745	242	9.22	3.07	1271	127	693	13:04	13:05	1.91	1.83	16	1
Mean		4	6	93	277	717	267	8.65	3.18	1273	116	641	Total	00:04	2.13	1.99	15	0
SDev		0	0	10	22.3	37.1	34.5	3.36	1.38	66.1	7.6	36.7			0.17	0.13		
SD/M		0.00	0.00	0.11	0.08	0.05	0.13	0.39	0.43	0.05	0.06	0.06			0.08	0.06		

Remarks: Q with RiverRay1270 cfs using VTG with 5% error, 1260 cfs using BT with 4% error.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15861000

Meas. No: 92

Station Name: Judy Creek

Date: 06/02/2014

Party: DAV/JPB	Width: 116 ft	Processed by: DAV
Boat/Motor: kayak	Area: 702 ft ²	Mean Velocity: 2.33 ft/s
Gage Height: 23.87 ft	G.H.Change: 0.000 ft	Discharge: 1,630 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.15
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 5.47 ft/s	
Max. Depth: 10.9 ft	
Mean Depth: 6.04 ft	
% Meas.: 57.41	
Water Temp.: None	
ADCP Temp.: 34.9 °F	

Performed Diag. Test: NO

Project Name: judy06022014_0.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: 300' US of gage

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	R	3	6	84	337	930	333	8.90	2.79	1612	117	700	17:09	17:10	2.27	2.30	2	0
002	L	3	6	94	322	937	298	0.671	5.05	1562	108	658	17:10	17:11	2.05	2.38	26	0
003	R	3	6	77	307	875	334	4.56	5.12	1525	116	709	17:11	17:12	2.65	2.15	32	1
004	L	3	6	75	355	1006	385	1.98	5.30	1754	115	694	17:17	17:18	2.53	2.53	7	1
005	R	3	6	88	338	950	402	6.71	4.70	1701	115	716	17:18	17:19	2.18	2.38	0	1
006	L	3	6	76	343	943	347	3.43	4.59	1641	115	694	17:19	17:20	2.33	2.37	14	1
007	R	3	6	70	334	921	368	7.17	5.19	1635	128	745	17:20	17:21	2.59	2.19	23	0
Mean		3	6	80	334	938	352	4.77	4.68	1633	116	702	Total	00:12	2.37	2.33	15	0
SDev		0	0	8	15.4	39.0	35.4	2.97	0.871	77.9	6.0	26.6			0.23	0.13		
SD/M		0.00	0.00	0.11	0.05	0.04	0.10	0.62	0.19	0.05	0.05	0.04			0.10	0.05		

Remarks: Q with RiverRay 1630 cfs using VTG with 5% error, 1590 cfs using BT with 2% error.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15861000
 Station Name: Judy Creek

Meas. No: 93
 Date: 06/06/2014

Party: DAV/JPB	Width: 142 ft	Processed by: DAV
Boat/Motor: kayak	Area: 886 ft ²	Mean Velocity: 4.20 ft/s
Gage Height: 25.10 ft	G.H.Change: 0.000 ft	Discharge: 3,710 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.15
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 12.2 ft/s	
Max. Depth: 11.3 ft	
Mean Depth: 6.25 ft	
% Meas.: 54.02	
Water Temp.: None	
ADCP Temp.: 37.0 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: YES
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 300' US of gage

Project Name: Judy06062014_0.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	R	3	3	71	851	1964	992	10.2	18.0	3835	168	1000	14:33	14:34	2.83	3.84	21	0
002	L	3	3	70	766	1905	852	25.9	8.55	3558	146	907	14:35	14:36	3.02	3.92	21	0
004	L	3	3	75	746	1989	850	1.24	8.02	3595	131	828	14:42	14:42	3.36	4.34	16	0
006	L	4	10	57	760	2050	868	3.25	44.3	3725	134	849	14:46	14:47	3.65	4.39	2	0
007	R	4	10	58	772	2092	936	24.3	44.0	3868	138	877	14:50	14:50	3.24	4.41	0	0
008	L	4	10	61	735	1974	798	6.07	45.0	3559	135	827	14:53	14:54	3.19	4.30	0	0
009	R	4	10	72	728	2042	1004	22.1	12.2	3809	143	915	14:55	14:56	3.13	4.16	8	0
Mean		4	7	66	766	2002	900	13.3	25.7	3707	142	886	Total	00:23	3.20	4.20	10	0
SDev		1	4	7	41.1	62.8	78.4	10.5	17.8	135	12.4	61.4			0.26	0.23		
SD/M		0.15	0.53	0.11	0.05	0.03	0.09	0.79	0.69	0.04	0.09	0.07			0.08	0.06		

Remarks: Q with RiverRay 3710 cfs using VTG with 4% error, 2820 cfs using BT with 6% error.

Station Number: 15861000
 Station Name: Judy Creek

Meas. No: 94
 Date: 06/09/2014

Party: DAV/JPB	Width: 139 ft	Processed by: DAV
Boat/Motor: kayak	Area: 832 ft ²	Mean Velocity: 2.52 ft/s
Gage Height: 24.37 ft	G.H.Change: 0.000 ft	Discharge: 2,100 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.15
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 6.60 ft/s	
Max. Depth: 11.0 ft	
Mean Depth: 5.99 ft	
% Meas.: 57.54	
Water Temp.: None	
ADCP Temp.: 39.0 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: YES
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 300' US of gage

Project Name: Judy06092014_0.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	4	6	103	432	1148	388	7.27	7.49	1984	139	800	12:20	12:21	2.07	2.48	9	1
001	R	4	6	82	420	1219	429	15.2	5.72	2089	136	856	12:21	12:22	2.53	2.44	4	0
002	L	4	6	80	448	1196	442	6.29	7.20	2100	140	811	12:22	12:23	2.70	2.59	3	0
003	R	4	6	79	460	1261	462	24.7	4.10	2212	140	861	12:23	12:24	2.80	2.57	1	1
Mean		4	6	86	440	1206	430	13.4	6.13	2096	139	832	Total	00:04	2.52	2.52	4	0
SDev		0	0	11	17.5	46.9	31.1	8.55	1.56	93.0	1.8	30.8			0.32	0.07		
SD/M		0.00	0.00	0.13	0.04	0.04	0.07	0.64	0.25	0.04	0.01	0.04			0.13	0.03		

Remarks: Q with RiverRay 2100 cfs using VTG with 4% error, 2160 cfs using BT with 2% error.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15861000

Meas. No: 95

Station Name: Judy Creek

Date: 07/12/2014

Party: RTK/DAV	Width: 148 ft	Processed by: DAV
Boat/Motor: Tethered boat	Area: 250 ft ²	Mean Velocity: 1.12 ft/s
Gage Height: 20.81 ft	G.H.Change: 0.000 ft	Discharge: 280 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:5	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.15
BT Error Vel.: 32.81 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 0
Use Weighted Mean Depth: NO	
Max. Vel.: 2.90 ft/s	
Max. Depth: 2.54 ft	
Mean Depth: 1.69 ft	
% Meas.: 52.79	
Water Temp.: None	
ADCP Temp.: 56.8 °F	

Performed Diag. Test: NO

Project Name: judy20140712 q280cfs.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: 200' DS of gage

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
003	L	10	20	103	76.0	147	44.6	5.72	5.90	280	148	249	13:15	13:17	1.03	1.13	1	0
004	R	10	20	106	76.1	149	43.7	3.88	7.49	280	151	256	13:18	13:20	1.09	1.10	1	0
005	L	10	20	114	74.8	145	43.6	4.10	7.95	275	150	251	13:21	13:23	1.00	1.10	1	0
006	R	10	20	104	75.9	150	46.1	5.76	7.42	285	143	245	13:23	13:25	0.99	1.16	1	0
Mean		10	20	106	75.7	148	44.5	4.86	7.19	280	148	250	Total	00:09	1.03	1.12	1	0
SDev		0	0	5	0.616	2.28	1.15	1.01	0.891	4.11	3.3	4.4			0.04	0.03		
SD/M		0.00	0.00	0.05	0.01	0.02	0.03	0.21	0.12	0.01	0.02	0.02			0.04	0.03		

Remarks: Q with StreamPro 280 cfs using BT with 1% error, no GPS data.

Station Number: 15861000
 Station Name: Judy Creek

Meas. No: 97
 Date: 05/25/2015

Party: RTK	Width: 209 ft	Processed by: DAV
Boat/Motor: kayak	Area: 1,340 ft ²	Mean Velocity: 2.49 ft/s
Gage Height: 26.11 ft	G.H.Change: 0.000 ft	Discharge: 3,340 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (20.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.15
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	Max. Vel.: 5.79 ft/s
	Max. Depth: 13.5 ft
	Mean Depth: 6.50 ft
	% Meas.: 58.15
	Water Temp.: None
	ADCP Temp.: 35.5 °F

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: not sure

Project Name: judy20150525q3340cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	5	15	425	592	1944	727	2.65	13.8	3279	188	1295	14:04	14:09	0.66	2.53	41	1
001	R	5	15	195	602	1962	782	8.09	14.2	3369	191	1307	14:11	14:13	1.52	2.58	17	0
002	R	15	15	267	583	1848	795	55.3	10.7	3291	192	1312	14:15	14:18	1.23	2.51	5	0
003	L	5	15	203	586	2002	787	4.31	18.9	3399	267	1445	14:21	14:23	1.94	2.35	42	0
Mean		8	15	272	591	1939	773	17.6	14.4	3335	209	1340	Total	00:19	1.34	2.49	27	0
SDev		5	0	107	8.26	65.6	30.8	25.2	3.38	58.5	38.5	70.3			0.54	0.10		
SD/M		0.67	0.00	0.39	0.01	0.03	0.04	1.44	0.23	0.02	0.18	0.05			0.40	0.04		

Remarks: Q with RiverRay 3340 cfs using BT with 2% error, no GPS data.

Station Number: 15861000

Meas. No: 98

Station Name: Judy Creek

Date: 05/30/2015

Party: RTK/DAV	Width: 129 ft	Processed by: DAV
Boat/Motor: kayak	Area: 800 ft ²	Mean Velocity: 2.49 ft/s
Gage Height: 24.13 ft	G.H.Change: 0.000 ft	Discharge: 1,990 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.15
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 5.21 ft/s	
Max. Depth: 11.4 ft	
Mean Depth: 6.22 ft	
% Meas.: 59.52	
Water Temp.: None	
ADCP Temp.: 42.0 °F	

Performed Diag. Test: NO

Project Name: judy20150530q1920cfs.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: 300' US of gage

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	6	10	108	391	1263	403	8.79	11.1	2077	126	796	15:24	15:25	1.63	2.61	14	0
001	R	6	10	127	363	1158	392	20.7	9.46	1944	129	812	15:25	15:27	1.32	2.40	14	0
002	L	6	10	112	379	1205	407	8.79	14.5	2014	120	774	15:27	15:28	1.41	2.60	4	0
003	R	6	10	156	377	1093	398	7.31	9.22	1884	136	796	15:28	15:30	1.14	2.37	17	0
004	L	6	15	100	386	1256	420	5.93	28.7	2096	125	802	15:31	15:32	1.56	2.61	11	0
005	R	6	15	139	371	1144	407	8.02	14.9	1945	136	817	15:32	15:34	1.34	2.38	10	0
Mean		6	12	123	378	1187	405	9.92	14.7	1994	129	800	Total	00:09	1.40	2.49	12	0
SDev		0	3	21	10.0	66.9	9.63	5.38	7.29	83.3	6.4	15.3			0.18	0.12		
SD/M		0.00	0.22	0.17	0.03	0.06	0.02	0.54	0.50	0.04	0.05	0.02			0.13	0.05		

Remarks: Q with RiverRay 1990 cfs using VTG with 4% error, 1920 cfs using BT with 2% error.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15861000

Meas. No: 99

Station Name: Judy Creek

Date: 06/02/2015

Party: DAV/JPB	Width: 122 ft	Processed by: DAV
Boat/Motor: kayak	Area: 698 ft ²	Mean Velocity: 1.82 ft/s
Gage Height: 23.20 ft	G.H.Change: 0.000 ft	Discharge: 1,270 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.15
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 3.84 ft/s	
Max. Depth: 10.3 ft	
Mean Depth: 5.73 ft	
% Meas.: 58.94	
Water Temp.: None	
ADCP Temp.: 39.6 °F	

Performed Diag. Test: NO

Project Name: judy20150602q1290cfs.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: 300' US of gage

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	4	10	102	270	768	237	11.9	9.99	1297	118	686	15:10	15:11	1.47	1.89	17	0
001	R	4	10	92	251	755	242	14.9	7.59	1271	126	719	15:11	15:13	1.68	1.77	11	0
002	L	4	10	80	254	715	231	6.46	9.68	1216	113	649	15:13	15:14	1.78	1.87	5	0
003	R	4	10	99	275	758	252	6.78	8.48	1301	131	740	15:14	15:15	1.59	1.76	2	0
Mean		4	10	93	262	749	241	9.99	8.93	1271	122	698	Total	00:05	1.63	1.82	9	0
SDev		0	0	10	11.7	23.7	9.06	4.08	1.11	39.2	8.0	39.7			0.13	0.07		
SD/M		0.00	0.00	0.11	0.04	0.03	0.04	0.41	0.12	0.03	0.07	0.06			0.08	0.04		

Remarks: Q with RiverRay 1270 cfs using VTG with 3% error, 1290 cfs using BT with 3% error.

Station Number: 15861000

Meas. No: 100

Station Name: Judy Creek

Date: 06/07/2015

Party: DAV/JPB	Width: 125 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 640 ft ²	Mean Velocity: 1.25 ft/s
Gage Height: 22.33 ft	G.H.Change: 0.000 ft	Discharge: 801 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.15
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 2.97 ft/s	
Max. Depth: 8.93 ft	
Mean Depth: 5.12 ft	
% Meas.: 59.95	
Water Temp.: None	
ADCP Temp.: 43.8 °F	

Performed Diag. Test: NO

Project Name: judy20150607q820cfs.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: 100' US of gage

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	4	20	145	170	466	123	3.53	15.3	778	120	624	12:16	12:18	1.04	1.25	1	0
001	R	4	20	127	185	493	145	4.03	10.9	837	132	675	12:18	12:19	1.40	1.24	1	0
002	L	4	20	106	172	459	111	5.01	11.5	758	124	607	12:19	12:21	1.48	1.25	1	0
003	R	4	20	124	180	503	130	5.97	11.0	830	125	655	12:21	12:22	1.35	1.27	4	0
Mean		4	20	125	177	480	127	4.64	12.2	801	125	640	Total	00:05	1.32	1.25	2	0
SDev		0	0	16	6.69	21.2	13.9	1.08	2.09	38.6	5.0	30.5			0.19	0.01		
SD/M		0.00	0.00	0.13	0.04	0.04	0.11	0.23	0.17	0.05	0.04	0.05			0.15	0.01		

Remarks: Q with RiverRay 800cfs using VTG with 5% error, 820cfs using BT with 1% error.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15861000

Meas. No: 101

Station Name: Judy Creek

Date: 06/11/2015

Party: RTK/DAV	Width: 222 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 524 ft ²	Mean Velocity: 1.51 ft/s
Gage Height: 22.08 ft	G.H.Change: 0.000 ft	Discharge: 792 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.15
BT Error Vel.: 32.81 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 0
Use Weighted Mean Depth: NO	Max. Vel.: 3.51 ft/s
	Max. Depth: 3.58 ft
	Mean Depth: 2.36 ft
	% Meas.: 64.35
	Water Temp.: None
	ADCP Temp.: 48.1 °F

Performed Diag. Test: NO

Project Name: judy20150611q790cfs.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: 800' DS of gage

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
007	L	20	6	158	162	499	106	8.26	2.19	778	226	526	12:24	12:27	1.14	1.48	1	0
008	R	20	6	170	165	523	109	11.4	3.04	811	220	527	12:27	12:31	1.01	1.54	1	0
009	L	20	6	146	161	503	105	9.15	3.04	781	219	519	12:31	12:34	1.17	1.51	1	0
010	R	20	6	160	166	512	108	8.86	2.08	797	224	525	12:35	12:38	1.09	1.52	1	0
Mean		20	6	158	163	510	107	9.42	2.59	792	222	524	Total	00:13	1.10	1.51	1	0
SDev		0	0	10	2.33	10.6	1.75	1.37	0.522	15.4	3.5	3.7			0.07	0.03		
SD/M		0.00	0.00	0.06	0.01	0.02	0.02	0.15	0.20	0.02	0.02	0.01			0.06	0.02		

Remarks: Q with StreamPro 792 cfs using BT with 2% error, no GPS data.

Station Number: 15861000
 Station Name: Judy Creek

Meas. No: 102
 Date: 07/02/2015

Party: RTK/KAP	Width: 148 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 227 ft ²	Mean Velocity: 0.891 ft/s
Gage Height: 20.41 ft	G.H.Change: 0.000 ft	Discharge: 202 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (21.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.15
BT Error Vel.: 32.81 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 0
Use Weighted Mean Depth: NO	
Max. Vel.: 3.26 ft/s	
Max. Depth: 2.45 ft	
Mean Depth: 1.53 ft	
% Meas.: 49.54	
Water Temp.: None	
ADCP Temp.: 61.1 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 800' DS of gage

Project Name: judy20150702q200cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	15	15	265	63.0	103	35.7	3.71	5.72	211	151	232	12:43	12:48	0.43	0.91	0	0
001	R	20	15	261	56.5	97.8	31.2	5.30	4.17	195	145	222	12:48	12:53	0.43	0.88	0	0
002	L	20	15	179	60.4	105	33.4	6.64	3.18	208	148	227	12:54	12:58	0.57	0.92	1	0
003	R	20	15	194	57.0	96.5	32.1	6.67	5.09	197	150	229	12:58	13:02	0.56	0.86	1	0
004	L	20	15	203	59.2	99.7	33.4	6.53	4.63	204	148	224	13:02	13:06	0.51	0.91	0	0
005	R	20	15	187	56.3	99.4	30.8	7.24	4.06	198	147	226	13:07	13:10	0.57	0.88	1	0
Mean		19	15	214	58.7	100	32.8	6.02	4.47	202	148	227	Total	00:27	0.51	0.89	0	0
SDev		2	0	38	2.65	3.05	1.80	1.30	0.883	6.43	2.1	3.3			0.07	0.02		
SD/M		0.11	0.00	0.18	0.05	0.03	0.05	0.22	0.20	0.03	0.01	0.01			0.13	0.02		

Remarks: Q with the StreamPro 202 cfs using BT with 3% error, no GPS data.

Station Number: 15861000
 Station Name: Judy Creek

Meas. No: 103
 Date: 08/27/2015

Party: RTK/DAV	Width: 111 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 178 ft ²	Mean Velocity: 0.498 ft/s
Gage Height: 19.70 ft	G.H.Change: 0.000 ft	Discharge: 88.3 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.15
BT Error Vel.: 32.81 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 0
Use Weighted Mean Depth: NO	
Max. Vel.: 2.89 ft/s	
Max. Depth: 2.72 ft	
Mean Depth: 1.61 ft	
% Meas.: 49.20	
Water Temp.: None	
ADCP Temp.: 42.6 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 300' DS of gage

Project Name: judy20150827q88cfs.mmt
 Software: 2.17

Tr.#		Edge Distance		#Ens.	Discharge					Width	Area	Time		Mean Vel.		% Bad		
		L	R		Top	Middle	Bottom	Left	Right			Total	Start	End	Boat	Water	Ens.	Bins
001	R	6	15	123	25.9	45.2	14.9	1.13	1.55	88.7	111	187	12:43	12:45	0.97	0.48	23	0
002	L	6	15	130	27.5	40.4	14.8	0.848	2.79	86.4	113	173	12:46	12:48	0.81	0.50	19	0
003	R	6	15	124	25.7	44.7	14.4	1.34	3.71	89.8	107	173	12:48	12:51	0.79	0.52	19	0
Mean		6	15	125	26.4	43.5	14.7	1.11	2.68	88.3	111	178	Total	00:07	0.86	0.50	20	0
SDev		0	0	4	1.02	2.63	0.288	0.248	1.08	1.76	2.9	7.7			0.10	0.02		
SD/M		0.00	0.00	0.03	0.04	0.06	0.02	0.22	0.40	0.02	0.03	0.04			0.12	0.04		

Remarks: Q with StreamPro 88 cfs using BT with 2% error, no GPS data. 20 to 30 mph winds with up to 2' standing waves.

Station Number: 15861000
 Station Name: Judy Creek

Meas. No: 104
 Date: 05/24/2016

Party: RTK/DAV	Width: 156 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 934 ft ²	Mean Velocity: 3.23 ft/s
Gage Height: 25.34 ft	G.H.Change: 0.000 ft	Discharge: 3,010 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.5°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.15
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 6.27 ft/s	
Max. Depth: 12.4 ft	
Mean Depth: 5.99 ft	
% Meas.: 59.86	
Water Temp.: None	
ADCP Temp.: 34.9 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 300' US og gage

Project Name: judy20160524q3010cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	4	15	128	486	1899	738	6.11	7.80	3136	162	952	15:52	15:54	1.76	3.29	2	1
001	R	4	15	113	467	1709	707	9.29	7.42	2899	157	926	15:54	15:55	1.98	3.13	12	0
002	L	4	15	116	466	1808	686	5.47	9.96	2976	152	920	15:55	15:56	1.83	3.23	0	1
003	R	4	15	120	468	1796	755	11.3	5.97	3035	153	936	15:57	15:58	1.88	3.24	1	0
Mean		4	15	119	472	1803	721	8.05	7.79	3012	156	934	Total	00:05	1.86	3.23	3	0
SDev		0	0	7	9.49	77.8	30.7	2.75	1.65	100	4.5	14.2			0.09	0.07		
SD/M		0.00	0.00	0.05	0.02	0.04	0.04	0.34	0.21	0.03	0.03	0.02			0.05	0.02		

Remarks: Q with RiverRay 3010 cfs using VTG with 3% error, 2560 cfs using BT with 2% error.

Station Number: 15861000
 Station Name: Judy Creek

Meas. No: 105
 Date: 05/28/2016

Party: DAV/JPB	Width: 145 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 720 ft ²	Mean Velocity: 2.58 ft/s
Gage Height: 24.08 ft	G.H.Change: 0.000 ft	Discharge: 1,860 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	Max. Vel.: 5.26 ft/s
	Max. Depth: 9.71 ft
	Mean Depth: 4.97 ft
	% Meas.: 54.29
	Water Temp.: None
	ADCP Temp.: 37.2 °F

Performed Diag. Test: NO
 Performed Moving Bed Test: YES
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 300' US gauge

Project Name: judy20160528q1860cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
004	R	4	15	119	391	998	464	9.68	13.5	1877	165	740	12:04	12:05	1.70	2.54	31	0
005	L	4	15	89	348	1057	465	3.96	15.1	1889	135	720	12:05	12:06	2.24	2.62	1	1
006	R	4	15	105	364	1019	479	5.62	13.9	1881	147	716	12:06	12:07	1.94	2.62	22	0
007	L	4	15	122	340	997	496	3.71	12.8	1849	138	707	12:11	12:12	1.81	2.61	34	0
008	R	4	15	102	338	977	466	6.50	13.7	1802	142	719	12:12	12:13	2.04	2.51	22	0
Mean		4	15	107	356	1010	474	5.89	13.8	1859	145	720	Total	00:09	1.94	2.58	22	0
SDev		0	0	13	21.9	30.3	13.6	2.41	0.828	35.4	12.1	12.1			0.21	0.06		
SD/M		0.00	0.00	0.13	0.06	0.03	0.03	0.41	0.06	0.02	0.08	0.02			0.11	0.02		

Remarks: Q with RiverRay 1860 cfs using BT with 2% error, 1983 cfs using VTG with 11% error (strong directional bias).

Station Number: 15861000

Meas. No: 106

Station Name: Judy Creek

Date: 06/02/2016

Party: RTK/DAV	Width: 99.0 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 548 ft ²	Mean Velocity: 1.71 ft/s
Gage Height: 22.40 ft	G.H.Change: 0.000 ft	Discharge: 936 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.16
BT Error Vel.: 32.81 ft/s	Bin Size: 10 cm* Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 0
Use Weighted Mean Depth: NO	
Max. Vel.: 3.39 ft/s	
Max. Depth: 7.92 ft	
Mean Depth: 5.54 ft	
% Meas.: 75.12	
Water Temp.: None	
ADCP Temp.: 38.8 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 300' US of gage

Project Name: judy20160602q936cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	4	6	100	123	703	110	2.47	6.22	944	102	586	13:04	13:06	1.03	1.61	7	0
001	R	4	6	80	120	712	101	1.98	3.92	938	105	562	13:08	13:09	1.07	1.67	6	0
002	L	4	6	70	108	702	88.2	7.06	4.56	910	89	540	13:10	13:12	1.33	1.68	13	0
003	R	4	6	79	125	701	103	2.05	4.38	935	104	548	13:12	13:14	1.12	1.71	3	0
004	L	4	6	78	132	708	99.1	2.51	4.41	946	98	537	13:15	13:16	1.14	1.76	12	0
005	R	4	6	86	137	693	107	2.90	4.20	944	96	514	13:17	13:19	1.14	1.84	10	0
Mean		4	6	82	124	703	101	3.16	4.61	936	99	548	Total	00:14	1.14	1.71	8	0
SDev		0	0	10	10.1	6.37	7.49	1.94	0.814	13.5	5.9	24.7			0.10	0.08		
SD/M		0.00	0.00	0.12	0.08	0.01	0.07	0.61	0.18	0.01	0.06	0.05			0.09	0.05		

Remarks: Q with StreamPro 936 cfs using BT with 1% error, no GPS data.

* - value not consistent for all transects

Station Number: 15861000

Meas. No: 107

Station Name: Judy Creek

Date: 06/09/2016

Party: RTK/DAV	Width: 169 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 393 ft ²	Mean Velocity: 1.46 ft/s
Gage Height: 21.47 ft	G.H.Change: 0.000 ft	Discharge: 576 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.16
BT Error Vel.: 32.81 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 0
Use Weighted Mean Depth: NO	Max. Vel.: 3.06 ft/s
	Max. Depth: 3.82 ft
	Mean Depth: 2.33 ft
	% Meas.: 64.62
	Water Temp.: None
	ADCP Temp.: 36.5 °F

Performed Diag. Test: NO

Project Name: judy20160609q576cfs.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: 300' DS of gage

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	20	20	126	113	365	72.5	9.53	13.0	573	174	392	12:52	12:55	1.01	1.46	6	0
001	R	15	10	120	115	366	73.0	7.31	3.46	565	171	402	12:55	12:57	1.12	1.41	3	0
002	L	15	10	144	120	386	76.1	6.92	6.22	596	166	392	12:58	13:01	0.90	1.52	1	0
003	R	15	10	137	113	370	70.1	8.09	7.03	568	163	387	13:01	13:04	1.03	1.47	7	0
Mean		16	13	131	115	372	72.9	7.96	7.43	576	169	393	Total	00:11	1.01	1.46	4	0
SDev		3	5	11	3.37	9.82	2.48	1.15	4.03	13.9	5.0	6.0			0.09	0.05		
SD/M		0.15	0.40	0.08	0.03	0.03	0.03	0.14	0.54	0.02	0.03	0.02			0.09	0.03		

Remarks: Q with StreamPro 576 cfs using BT with 2% error, no GPS data.

Station Number: 15861000
 Station Name: Judy Creek

Meas. No: 108
 Date: 07/16/2016

Party: RTK/AP	Width: 107 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 129 ft ²	Mean Velocity: 0.595 ft/s
Gage Height: 19.52 ft	G.H.Change: 0.000 ft	Discharge: 77.0 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (20.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.16
BT Error Vel.: 32.81 ft/s*	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s*	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s*	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s*	WZ : 0
Use Weighted Mean Depth: NO	
Max. Vel.: 3.61 ft/s	
Max. Depth: 1.97 ft	
Mean Depth: 1.21 ft	
% Meas.: 43.43	
Water Temp.: None	
ADCP Temp.: 56.7 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 300' DS of gage

Project Name: judy20160716q77cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	R	15	15	178	26.5	34.6	12.2	2.90	3.78	79.9	105	129	13:01	13:04	0.41	0.62	1	0
002	L	15	15	161	25.1	32.5	11.3	4.06	1.31	74.3	109	131	13:05	13:08	0.49	0.57	1	0
003	R	15	15	171	26.7	34.5	12.3	3.07	3.43	80.0	109	131	13:08	13:12	0.44	0.61	1	0
004	L	15	15	151	26.2	33.2	12.0	4.03	3.46	78.9	107	129	13:13	13:16	0.48	0.61	1	0
005	R	15	15	135	25.2	33.1	11.6	2.90	2.65	75.5	104	128	13:16	13:19	0.53	0.59	4	0
006	L	15	15	155	24.7	33.0	11.3	3.07	2.79	74.9	106	129	13:20	13:23	0.49	0.58	1	0
007	R	15	15	159	25.2	33.1	11.2	3.74	2.19	75.4	108	130	13:24	13:27	0.47	0.58	1	0
Mean		15	15	157	25.6	33.4	11.7	3.40	2.80	77.0	107	129	Total	00:25	0.47	0.59	2	0
SDev		0	0	14	0.790	0.805	0.453	0.528	0.857	2.52	1.7	1.2			0.04	0.02		
SD/M		0.00	0.00	0.09	0.03	0.02	0.04	0.16	0.31	0.03	0.02	0.01			0.08	0.03		

Remarks: Q with StreamPro 77 cfs using BT with 3% error, no GPS data.

* - value not consistent for all transects

Station Number: 15861000

Meas. No: 109

Station Name: Judy Creek

Date: 08/11/2016

Party: RTK/DAV	Width: 51.4 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 65.5 ft ²	Mean Velocity: 0.578 ft/s
Gage Height: 19.22 ft	G.H.Change: 0.000 ft	Discharge: 37.9 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.16
BT Error Vel.: 32.81 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 0
Use Weighted Mean Depth: NO	Max. Vel.: 3.34 ft/s
	Max. Depth: 2.79 ft
	Mean Depth: 1.28 ft
	% Meas.: 41.83
	Water Temp.: None
	ADCP Temp.: 45.7 °F

Performed Diag. Test: NO

Project Name: judy20160811q38cfs.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: 500' DS of gage

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
002	L	20	2	59	11.2	16.2	6.46	3.21	0.212	37.3	53	65	14:00	14:01	0.49	0.57	2	0
003	R	20	2	62	10.2	15.6	6.43	7.20	0.141	39.7	50	67	14:02	14:03	0.48	0.59	6	0
004	L	20	2	62	11.5	15.1	6.64	4.41	0.141	37.8	51	64	14:03	14:04	0.43	0.59	2	1
005	R	20	2	56	10.7	16.5	6.14	3.64	-0.141	36.9	51	66	14:05	14:06	0.52	0.55	2	1
Mean		20	2	59	10.9	15.9	6.42	4.62	0.088	37.9	51	66	Total	00:05	0.48	0.58	3	1
SDev		0	0	3	0.567	0.626	0.205	1.79	0.157	1.23	0.9	1.6			0.04	0.02		
SD/M		0.00	0.00	0.05	0.05	0.04	0.03	0.39	1.77	0.03	0.02	0.02			0.08	0.03		

Remarks: Q with StreamPro 38 cfs using BT with 3% error, no GPS data.

Station Number: 15861000

Meas. No: 110

Station Name: Judy Creek

Date: 05/28/2017

Party: DAV/CDA	Width: 90.4 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 206 ft ²	Mean Velocity: 1.27 ft/s
Gage Height: 22.81 ft	G.H.Change: 0.000 ft	Discharge: 260 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.16
BT Error Vel.: 32.81 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 0
Use Weighted Mean Depth: NO	
Max. Vel.: 3.17 ft/s	
Max. Depth: 4.73 ft	
Mean Depth: 2.27 ft	
% Meas.: 63.72	
Water Temp.: None	
ADCP Temp.: 34.9 °F	

Performed Diag. Test: NO

Project Name: judy20170528q260cfs.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: 500' DS of gauge

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	20	5	133	46.6	170	32.2	9.50	2.86	261	100	234	10:22	10:25	0.54	1.12	1	0
001	R	20	5	110	47.1	165	31.3	14.5	2.68	260	88	197	10:25	10:27	0.54	1.32	4	0
002	L	20	5	94	47.5	163	33.2	13.9	3.18	261	88	196	10:28	10:30	0.62	1.34	1	0
003	R	15	5	97	48.3	165	32.5	8.79	2.97	257	86	196	10:30	10:32	0.64	1.32	3	0
Mean		19	5	108	47.4	166	32.3	11.7	2.92	260	90	206	Total	00:10	0.59	1.27	2	0
SDev		3	0	18	0.714	2.97	0.791	2.94	0.207	1.73	6.6	18.9			0.05	0.10		
SD/M		0.13	0.00	0.16	0.02	0.02	0.02	0.25	0.07	0.01	0.07	0.09			0.09	0.08		

Remarks: Q with RiverRay 260 cfs using BT with 1% error, no GPS data.

Station Number: 15861000
 Station Name: Judy Creek

Meas. No: 111
 Date: 05/30/2017

Party: DAV/CDA	Width: 139 ft	Processed by: DAV
Boat/Motor: kayak	Area: 818 ft ²	Mean Velocity: 1.48 ft/s
Gage Height: 24.60 ft	G.H.Change: 0.000 ft	Discharge: 1,210 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.5°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 31.12
BT Error Vel.: 3.28 ft/s	Bin Size: 5 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 170 WO : 1, 4
Use Weighted Mean Depth: YES	
Max. Vel.: 5.32 ft/s	
Max. Depth: 9.54 ft	
Mean Depth: 5.89 ft	
% Meas.: 60.19	
Water Temp.: None	
ADCP Temp.: 32.9 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 300 US of gauge

Project Name: judy20170530q1210cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
002	L	3	10	131	250	735	217	5.72	5.09	1212	143	837	11:25	11:27	1.56	1.45	18	0
003	R	3	10	99	243	730	217	8.02	5.65	1203	135	810	11:27	11:28	2.12	1.49	6	0
005	R	3	10	91	251	720	231	7.63	4.34	1214	139	808	11:29	11:30	2.47	1.50	12	0
Mean		3	10	107	248	728	222	7.12	5.03	1210	139	818	Total	00:04	2.05	1.48	12	0
SDev		0	0	21	4.19	7.58	8.37	1.23	0.655	5.51	4.1	16.3			0.46	0.03		
SD/M		0.00	0.00	0.20	0.02	0.01	0.04	0.17	0.13	0.00	0.03	0.02			0.22	0.02		

Remarks: Q with RiverRay 1210 cfs using BT with 0% error, 1135 cfs using VTG with 6% error.

Station Number:
 Station Name: Judy Creek

Meas. No: 112
 Date: 06/01/2017

Party: DAV/CDA	Width: 156 ft	Processed by: DAV
Boat/Motor: kayak	Area: 843 ft ²	Mean Velocity: 3.89 ft/s
Gage Height: 25.15 ft	G.H.Change: 0.000 ft	Discharge: 3,280 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.656 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.5°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 300' US of gauge

Project Name: judy20170601q3280cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	7	7	101	795	1884	624	10.8	5.62	3319	151	826	11:26	11:27	2.48	4.02	15	0
001	R	7	7	78	805	1864	660	17.8	6.60	3353	155	850	11:27	11:28	2.81	3.94	9	0
002	L	7	7	89	774	1806	696	8.72	5.33	3290	155	840	11:28	11:29	2.78	3.91	4	0
003	R	7	7	68	752	1764	618	21.1	5.01	3161	162	854	11:29	11:30	3.40	3.70	9	0
Mean		7	7	84	781	1829	650	14.6	5.64	3281	156	843	Total	00:04	2.86	3.89	9	0
SDev		0	0	14	23.4	54.7	36.4	5.82	0.687	84.1	4.8	12.7			0.38	0.14		
SD/M		0.00	0.00	0.17	0.03	0.03	0.06	0.40	0.12	0.03	0.03	0.02			0.13	0.04		

Remarks: Q with RiverRay 3280 cfs using VTG with 3% error, 2130 cfs using BT with 11% error.

Station Number: 15861000
 Station Name: Judy Creek

Meas. No: 113
 Date: 06/03/2017

Party: DAV/MW	Width: 192 ft	Processed by: DAV
Boat/Motor: kayak	Area: 989 ft ²	Mean Velocity: 4.09 ft/s
Gage Height: 25.81 ft	G.H.Change: 0.000 ft	Discharge: 4,040 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.5°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 20 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 12.0 ft/s	
Max. Depth: 12.5 ft	
Mean Depth: 5.40 ft	
% Meas.: 54.47	
Water Temp.: None	
ADCP Temp.: 35.9 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 300' US gage

Project Name: judy 20170603q4035cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	6	6	229	708	2163	802	3.07	69.2	3746	138	878	13:09	13:12	1.23	4.27	44	0
003	R	6	6	79	984	2250	767	89.8	31.2	4122	193	1029	13:15	13:16	2.26	4.01	28	0
005	R	6	6	141	1035	2118	768	126	-2.12	4045	267	1063	13:31	13:33	2.29	3.80	62	0
006	L	6	6	121	819	2454	1036	29.5	44.6	4384	148	993	13:38	13:39	2.41	4.42	53	0
007	R	6	6	190	988	2003	761	122	3.88	3878	212	980	13:40	13:42	2.27	3.96	68	0
Mean		6	6	152	907	2198	827	74.0	29.4	4035	192	989	Total	00:33	2.09	4.09	51	0
SDev		0	0	59	138	169	118	55.4	29.4	244	52.2	69.8			0.48	0.25		
SD/M		0.00	0.00	0.39	0.15	0.08	0.14	0.75	1.00	0.06	0.27	0.07			0.23	0.06		

Remarks: Q with RiverRay 4035 cfs using VTG with 6% error, 3630 cfs using BT with 15% error.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15861000

Meas. No: 114

Station Name: Judy Creek

Date: 06/05/2017

Party: DAV/CDA	Width: 175 ft	Processed by: DAV
Boat/Motor: kayak	Area: 995 ft ²	Mean Velocity: 3.28 ft/s
Gage Height: 24.92 ft	G.H.Change: 0.000 ft	Discharge: 3,270 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.5°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 7.86 ft/s	
Max. Depth: 11.5 ft	
Mean Depth: 5.70 ft	
% Meas.: 57.40	
Water Temp.: None	
ADCP Temp.: 35.9 °F	

Performed Diag. Test: NO

Project Name: judy 20170605q3270cfs.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: 300' us of gage

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	6	6	92	735	1832	614	12.4	6.64	3201	173	971	14:25	14:26	2.62	3.29	1	0
001	R	6	6	81	750	1941	654	16.0	7.84	3369	180	1019	14:26	14:27	3.15	3.31	9	1
002	L	6	6	81	725	1819	615	31.4	6.67	3197	173	989	14:27	14:28	3.14	3.23	2	0
003	R	6	6	85	749	1904	609	24.8	6.46	3293	173	1001	14:28	14:29	3.15	3.29	1	0
Mean		6	6	84	740	1874	623	21.1	6.90	3265	175	995	Total	00:04	3.02	3.28	3	0
SDev		0	0	5	11.9	58.4	21.0	8.59	0.631	82.6	3.3	19.9			0.26	0.03		
SD/M		0.00	0.00	0.06	0.02	0.03	0.03	0.41	0.09	0.03	0.02	0.02			0.09	0.01		

Remarks: Q with RiverRay 3270 cfs with 3% error, 2815 cfs using BT with 3% error.

Station Number: 15861000

Meas. No: 115

Station Name: Judy Creek

Date: 08/21/2017

Party: DAV/AB	Width: 100 ft	Processed by: DAV
Boat/Motor: kayak	Area: 406 ft ²	Mean Velocity: 1.87 ft/s
Gage Height: 21.64 ft	G.H.Change: 0.000 ft	Discharge: 715 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.499 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 10 cm* Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.50 ft/s	
Max. Depth: 6.52 ft	
Mean Depth: 4.06 ft	
% Meas.: 62.81	
Water Temp.: None	
ADCP Temp.: 48.7 °F	

Performed Diag. Test: NO

Project Name: judy20170821q700cfs.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: @ gauge

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	2	10	266	136	483	120	-0.424	8.97	747	58	236	16:36	16:41	0.49	3.16	40	0
001	R	2	15	155	135	466	115	0.283	11.9	729	113	465	16:42	16:45	0.62	1.57	1	0
002	L	2	20	228	125	436	108	0.459	21.0	690	98	420	16:47	16:52	0.49	1.64	14	0
003	R	2	20	201	143	432	111	0.600	18.3	705	113	441	16:52	16:56	0.47	1.60	4	0
004	L	2	20	160	142	442	109	1.55	19.2	714	111	438	16:57	17:00	0.64	1.63	1	0
005	R	2	20	194	140	434	107	1.24	21.1	703	111	439	17:00	17:04	0.47	1.60	2	0
Mean		2	18	200	137	449	112	0.618	16.7	715	100	406	Total	00:28	0.53	1.87	10	0
SDev		0	4	42	6.51	20.9	4.89	0.704	5.10	20.3	21.6	84.7			0.08	0.64		
SD/M		0.00	0.24	0.21	0.05	0.05	0.04	1.14	0.30	0.03	0.22	0.21			0.15	0.34		

Remarks: Q with StreamPro 715 cfs using BT with 3% error, no GPS data.

* - value not consistent for all transects

Summary of Discharge Measurement Forms

Otuk Creek, Alaska

Station Number:
Station Name: Otuk Creek

Meas. No: 29
Date: 07/08/2010

Party: RTK/DAV	Width: 22.6 ft	Processed by: DAV
Boat/Motor: Tethered boat	Area: 40.7 ft ²	Mean Velocity: 0.251 ft/s
Gage Height: 15.60 ft	G.H.Change: 0.000 ft	Discharge: 10.2 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: F
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: 4-Clear	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.04
BT Error Vel.: 0.33 ft/s	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 1.10 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 3.80 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 2.37 ft/s	
Max. Depth: 2.62 ft	
Mean Depth: 1.80 ft	
% Meas.: 46.62	
Water Temp.: None	
ADCP Temp.: 56.1 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: 100 DS of Gage

Project Name: otak20100708000rdv.mmt
Software: 2.17

Tr.#		Edge Distance		#Ens.	Discharge					Width	Area	Time		Mean Vel.		% Bad		
		L	R		Top	Middle	Bottom	Left	Right			Total	Start	End	Boat	Water	Ens.	Bins
001	R	6	3	50	2.12	4.52	1.41	1.98	0.388	10.5	22	39	11:51	11:52	0.35	0.27	14	6
002	L	6	3	47	1.73	4.38	1.17	1.94	0.742	9.96	21	38	11:52	11:53	0.31	0.26	6	3
003	R	6	3	51	2.15	5.54	1.31	0.706	0.283	9.99	23	42	11:54	11:54	0.34	0.24	18	5
004	L	6	3	48	1.98	4.56	1.52	1.77	0.565	10.4	24	44	11:55	11:56	0.37	0.24	8	9
Mean		6	3	49	2.00	4.75	1.35	1.60	0.494	10.2	23	41	Total	00:05	0.34	0.25	12	6
SDev		0	0	2	0.192	0.535	0.151	0.602	0.202	0.266	1.2	2.6			0.03	0.02		
SD/M		0.00	0.00	0.04	0.10	0.11	0.11	0.38	0.41	0.03	0.05	0.06			0.08	0.06		

Remarks: Q with StreamPro 10.2 cfs using BT with 3% error, no GPS data.

Station Number:
Station Name: Otuk Creek

Meas. No: 33
Date: 07/09/2011

Party: RTK / DAV	Width: 26.3 ft	Processed by: DAV
Boat/Motor: Tethered boat	Area: 25.4 ft ²	Mean Velocity: 0.864 ft/s
Gage Height: 19.10 ft	G.H.Change: 0.000 ft	Discharge: 19.1 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 0.33 ft/s*	Bin Size: 5 cm Blank: 3 cm
WT Error Vel.: 1.10 ft/s*	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s*	WT Mode: 12 WT Pings: 6
WT Up Vel.: 11.80 ft/s*	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 11.8 ft/s	
Max. Depth: 1.65 ft	
Mean Depth: 0.951 ft	
% Meas.: 30.95	
Water Temp.: None	
ADCP Temp.: 56.9 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: 100' DS of gage

Project Name: otuk20110709q19.2cfs.mmt
Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	2	4	47	7.49	5.09	3.60	0.177	3.14	19.5	15	13	13:13	13:14	0.26	1.46	2	1
004	L	4	2	46	9.04	5.40	3.88	0.424	1.48	20.3	16	14	13:19	13:20	0.24	1.45	7	3
006	L	4	2	48	8.37	5.33	3.32	0.177	1.87	19.1	15	12	13:21	13:22	0.27	1.55	2	2
011	R	4	4	59	7.59	5.79	3.28	0.918	0.141	17.7	30	29	13:31	13:32	0.34	0.61	2	2
016	L	4	4	62	8.72	6.43	3.85	0.106	-0.742	18.4	31	30	13:39	13:41	0.37	0.62	6	5
019	L	4	4	61	7.88	6.75	3.32	-0.318	0.177	17.8	29	29	13:46	13:48	0.35	0.62	2	2
020	R	4	4	63	8.16	6.57	3.64	0.494	0.883	19.7	30	31	13:48	13:49	0.33	0.64	2	2
021	L	4	4	79	8.44	6.04	4.06	1.20	0.388	20.1	30	30	13:49	13:51	0.27	0.68	8	16
023	R	4	4	80	8.02	5.79	3.53	0.742	0.989	19.1	32	31	13:53	13:55	0.29	0.61	5	14
024	L	4	4	84	9.25	5.76	4.52	-0.318	0.636	19.9	31	30	13:56	13:58	0.28	0.67	8	16
027	L	4	4	63	8.30	6.04	3.71	0.247	0.212	18.5	31	30	14:03	14:04	0.35	0.61	2	19
Mean		4	4	62	8.30	5.91	3.70	0.350	0.835	19.1	26	25	Total	00:51	0.31	0.86	4	7
SDev		1	1	13	0.557	0.525	0.369	0.474	1.04	0.898	7.0	7.9			0.04	0.40		
SD/M		0.16	0.22	0.22	0.07	0.09	0.10	1.36	1.25	0.05	0.27	0.31			0.14	0.46		

Remarks: Q with StreamPro 19.1 cfs using BT with 5% error, no GPS data

* - value not consistent for all transects

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number:
Station Name: Otuk Creek

Meas. No: 35
Date: 05/28/2012

Party: RTK/DAV	Width: 22.7 ft	Processed by: DAV
Boat/Motor: Tethered boat	Area: 36.2 ft ²	Mean Velocity: 1.75 ft/s
Gage Height: 16.11 ft	G.H.Change: 0.000 ft	Discharge: 63.2 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 0.33 ft/s*	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 1.10 ft/s*	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s*	WT Mode: 12 WT Pings: 6
WT Up Vel.: 5.00 ft/s*	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.92 ft/s	
Max. Depth: 2.94 ft	
Mean Depth: 1.60 ft	
% Meas.: 47.81	
Water Temp.: None	
ADCP Temp.: 36.7 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: 100' DS of gage

Project Name: otuk 5282012 q64.2cfs.mmt
Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	3	3	55	17.0	29.9	9.64	1.48	4.59	62.7	23	36	12:40	12:41	0.39	1.75	9	0
001	R	3	3	50	15.5	29.1	8.83	1.73	4.56	59.8	24	38	12:42	12:43	0.40	1.58	6	0
003	R	3	3	46	17.2	30.9	10.4	1.98	4.66	65.1	22	35	12:45	12:45	0.49	1.84	15	2
004	L	3	3	63	16.8	32.3	9.68	1.66	5.62	66.1	22	36	12:46	12:47	0.34	1.81	25	1
005	R	3	3	52	16.8	29.5	10.4	1.87	5.37	63.8	22	35	12:47	12:48	0.34	1.85	15	2
006	L	3	3	61	16.5	29.6	10.2	1.91	3.67	61.9	23	37	12:49	12:50	0.33	1.65	13	2
Mean		3	3	54	16.6	30.2	9.85	1.77	4.74	63.2	23	36	Total	00:09	0.38	1.75	14	1
SDev		0	0	7	0.585	1.19	0.602	0.183	0.687	2.28	0.7	1.2			0.06	0.11		
SD/M		0.00	0.00	0.12	0.04	0.04	0.06	0.10	0.14	0.04	0.03	0.03			0.16	0.06		

Remarks: Q with StreamPro 63.2 cfs using BT with 4% error, no GPS data.

* - value not consistent for all transects

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number:
Station Name: Otuk Creek

Meas. No: 36
Date: 06/01/2012

Party: RTK/DAV	Width: 81.8 ft	Processed by: DAV
Boat/Motor: Tethered boat	Area: 132 ft ²	Mean Velocity: 3.80 ft/s
Gage Height: 17.30 ft	G.H.Change: 0.000 ft	Discharge: 500 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 5 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 7.85 ft/s	
Max. Depth: 2.92 ft	
Mean Depth: 1.61 ft	
% Meas.: 47.83	
Water Temp.: None	
ADCP Temp.: 39.6 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: at the bridge

Project Name: otuk6012012000r.mmt
Software: 2.17

Tr.#		Edge Distance		#Ens.	Discharge					Width	Area	Time		Mean Vel.		% Bad		
		L	R		Top	Middle	Bottom	Left	Right			Total	Start	End	Boat	Water	Ens.	Bins
001	R	10	6	129	137	239	83.1	8.51	19.4	487	82	133	17:12	17:15	0.58	3.65	42	0
003	R	10	6	75	165	239	116	13.0	22.2	555	87	134	17:19	17:20	1.19	4.13	59	0
004	L	10	6	123	141	267	88.5	8.23	19.7	524	87	146	17:23	17:25	0.68	3.58	21	0
005	R	10	6	101	128	231	77.6	7.91	21.2	465	74	120	17:26	17:27	0.71	3.88	36	0
007	R	10	6	103	132	219	87.6	8.05	20.1	467	79	124	17:32	17:34	0.65	3.76	22	0
Mean		10	6	106	141	239	90.5	9.15	20.5	500	82	132	Total	00:21	0.76	3.80	36	0
SDev		0	0	21	14.6	17.8	14.7	2.18	1.16	39.0	5.5	10.2			0.24	0.22		
SD/M		0.00	0.00	0.20	0.10	0.07	0.16	0.24	0.06	0.08	0.07	0.08			0.32	0.06		

Remarks: Q with StreamPro 500 cfs using BT with 8% error, POOR measurement lots of bad ens.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number:
Station Name: Otuk Creek

Meas. No: 41
Date: 06/08/2013

Party: RTK/DAV	Width: 115 ft	Processed by: DAV
Boat/Motor: tethered	Area: 296 ft ²	Mean Velocity: 2.86 ft/s
Gage Height: 18.93 ft	G.H.Change: 0.000 ft	Discharge: 846 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.2°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.15
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 16.1 ft/s	
Max. Depth: 4.46 ft	
Mean Depth: 2.58 ft	
% Meas.: 30.94	
Water Temp.: None	
ADCP Temp.: 36.9 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: at bridge

Project Name: otuk20130608dav847cfs.mmt
Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	15	4	241	378	215	133	29.5	12.7	769	123	298	16:00	16:02	0.95	2.58	33	3
001	R	5	4	327	387	379	136	18.7	40.2	960	110	296	16:02	16:05	0.73	3.24	28	2
002	L	5	4	211	335	276	133	18.7	36.7	799	98	265	16:08	16:09	1.00	3.02	30	3
005	R	15	4	232	401	269	159	47.9	24.8	902	124	321	16:15	16:17	0.90	2.81	32	4
006	L	15	4	128	436	239	142	66.0	16.6	900	115	293	16:18	16:20	1.36	3.07	19	4
007	R	15	4	161	393	213	160	14.3	35.1	815	121	310	16:20	16:21	1.28	2.62	21	3
010	R	15	4	228	351	240	138	37.6	6.78	774	112	286	16:26	16:28	0.95	2.70	34	7
Mean		12	4	218	383	262	143	33.2	24.7	846	115	296	Total	00:27	1.02	2.86	28	4
SDev		5	0	63	33.1	57.0	11.6	18.7	13.0	74.6	9.0	17.8			0.22	0.25		
SD/M		0.40	0.00	0.29	0.09	0.22	0.08	0.56	0.53	0.09	0.08	0.06			0.21	0.09		

Remarks: Q with RiverRay 1000 cfs using BT with 52% error, 846 cfs using VTG with 9% error (most of BT ens. missing).

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number:
Station Name: Otuk Creek

Meas. No: 47
Date: 06/04/2014

Party: DAV/JPB	Width: 39.7 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 84.5 ft ²	Mean Velocity: 1.70 ft/s
Gage Height: 16.87 ft	G.H.Change: 0.000 ft	Discharge: 140 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.300 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (16.6°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 7.72 ft/s	
Max. Depth: 3.58 ft	
Mean Depth: 2.13 ft	
% Meas.: 36.51	
Water Temp.: None	
ADCP Temp.: 37.7 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: YES
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: 200ft upstream of Pts

Project Name: otuk06042014_1.mmt
Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	3	2	97	83.1	32.0	26.2	1.55	4.03	147	37	62	12:01	12:02	0.77	2.38	22	0
006	R	4	3	90	51.2	54.8	27.6	4.38	2.47	140	33	75	12:16	12:17	0.78	1.87	17	0
<i>008</i>	<i>R</i>	<i>4</i>	<i>3</i>	<i>72</i>	<i>51.4</i>	<i>55.2</i>	<i>24.7</i>	<i>1.66</i>	<i>-1.17</i>	<i>132</i>	<i>36</i>	<i>80</i>	<i>12:18</i>	<i>12:19</i>	<i>0.89</i>	<i>1.64</i>	<i>13</i>	<i>0</i>
010	R	4	3	83	52.6	52.9	32.3	2.44	1.52	142	39	86	12:20	12:21	0.88	1.65	14	0
<i>012</i>	<i>L</i>	<i>3</i>	<i>4</i>	<i>119</i>	<i>48.2</i>	<i>53.1</i>	<i>27.9</i>	<i>-1.38</i>	<i>2.65</i>	<i>131</i>	<i>49</i>	<i>102</i>	<i>12:24</i>	<i>12:25</i>	<i>0.69</i>	<i>1.28</i>	<i>37</i>	<i>1</i>
013	R	3	4	88	56.2	56.2	30.2	2.26	0.777	146	37	86	12:25	12:26	0.82	1.70	22	0
014	L	3	4	114	56.8	53.5	27.5	2.30	2.58	143	47	100	12:26	12:27	0.73	1.42	36	0
Mean		3	3	94	57.1	51.1	28.1	1.89	1.84	140	40	85	Total	00:25	0.79	1.70	23	0
SDev		1	1	17	11.8	8.52	2.51	1.71	1.67	6.36	6.2	14.1			0.08	0.35		
SD/M		0.16	0.23	0.18	0.21	0.17	0.09	0.91	0.91	0.05	0.16	0.17			0.10	0.21		

Remarks: Q with RiverRay 136 cfs using BT with 13% error, 140 cfs using VTG with 5% error

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number:
Station Name: Otuk Creek

Meas. No: 55
Date: 05/23/2016

Party: RTK/DAV	Width: 15.0 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 14.3 ft ²	Mean Velocity: 2.52 ft/s
Gage Height: 17.63 ft	G.H.Change: 0.000 ft	Discharge: 36.1 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.351 ft*	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (16.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 7.64 ft/s	
Max. Depth: 3.54 ft	
Mean Depth: 0.957 ft	
% Meas.: 0.00	
Water Temp.: None	
ADCP Temp.: 35.0 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: at bridge

Project Name: Otuk_0.mmt
Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	5	10	142	0.000	0.000	0.000	11.0	27.3	38.3	15	16	11:12	11:13	0.00	2.45	51	1
001	R	10	5	105	0.000	0.000	0.000	25.7	10.9	36.6	15	15	11:13	11:14	0.00	2.48	12	1
002	R	5	10	113	0.000	0.000	0.000	12.6	23.9	36.6	15	14	11:15	11:16	0.00	2.64	27	1
003	R	10	5	147	0.000	0.000	0.000	21.8	11.2	32.9	15	13	11:16	11:17	0.00	2.51	31	0
Mean		7	7	126	0.000	0.000	0.000	17.8	18.3	36.1	15	14	Total	00:05	0.00	2.52	30	0
SDev		3	3	21	0.000	0.000	0.000	7.11	8.54	2.26	0.0	1.1			0.00	0.08		
SD/M		0.38	0.38	0.17	0.00	0.00	0.00	0.40	0.47	0.06	0.00	0.08			0.00	0.03		

Remarks: Q with RiverRay 61 cfs using BT with 56% error and 36 cfs using VTG with 6% error (only right transects).

* - value not consistent for all transects

Discharge for transects in *italics* have a total Q more than 5% from the mean

Summary of Discharge Measurement Forms

Prince Creek, Alaska

Station Number:
Station Name: Prince Creek

Meas. No: 16
Date: 05/31/2010

Party: DB/BL	Width: 156 ft	Processed by: DAV
Boat/Motor: Tethered Boat	Area: 254 ft ²	Mean Velocity: 1.29 ft/s
Gage Height: 15.91 ft	G.H.Change: 0.000 ft	Discharge: 328 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.469 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.04
BT Error Vel.: 32.81 ft/s	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.07 ft/s	
Max. Depth: 2.62 ft	
Mean Depth: 1.63 ft	
% Meas.: 42.17	
Water Temp.: None	
ADCP Temp.: 34.1 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: 1500' DS of gage

Project Name: prince20100531 q328cfs
Software: 2.17

Tr.#		Edge Distance		#Ens.	Discharge					Width	Area	Time		Mean Vel.		% Bad		
		L	R		Top	Middle	Bottom	Left	Right			Total	Start	End	Boat	Water	Ens.	Bins
000	R	5	30	176	135	133	43.8	2.08	5.83	320	150	242	15:53	15:56	0.77	1.32	0	0
001	L	5	30	182	139	146	44.6	1.31	-4.70	326	155	260	15:56	15:59	0.73	1.26	1	0
002	R	5	30	201	138	139	43.7	1.24	2.08	324	166	272	16:00	16:03	0.70	1.19	0	0
003	L	5	30	189	140	141	44.1	1.77	10.3	337	153	251	16:03	16:07	0.68	1.34	1	0
004	R	5	30	197	144	131	45.1	0.777	9.46	331	156	244	16:07	16:10	0.75	1.35	1	0
Mean		5	30	189	139	138	44.3	1.43	4.61	328	156	254	Total	00:17	0.73	1.29	0	0
SDev		0	0	10	3.52	6.01	0.585	0.505	6.14	6.63	6.3	12.3			0.04	0.07		
SD/M		0.00	0.00	0.05	0.03	0.04	0.01	0.35	1.33	0.02	0.04	0.05			0.05	0.05		

Remarks: Q with StreamPro 328 cfs using BT with 2% error, no GPS data.

Station Number:
Station Name: Prince Creek

Meas. No: 17
Date: 06/02/2010

Party: DB/BL	Width: 172 ft	Processed by: DAV
Boat/Motor: kayak	Area: 350 ft ²	Mean Velocity: 2.11 ft/s
Gage Height: 16.65 ft	G.H.Change: 0.000 ft	Discharge: 739 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.469 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.04
BT Error Vel.: 32.81 ft/s*	Bin Size: 5 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s*	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s*	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s*	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 5.71 ft/s	
Max. Depth: 3.57 ft	
Mean Depth: 2.03 ft	
% Meas.: 48.55	
Water Temp.: None	
ADCP Temp.: 34.0 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: 1500' DS of gage

Project Name: prince20100602 q739cfs
Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	4	25	185	260	365	101	2.01	19.2	747	173	347	18:31	18:34	0.89	2.16	1	0
001	L	4	25	197	266	367	102	-1.27	26.4	760	171	354	18:34	18:37	0.84	2.15	1	0
002	R	4	25	186	254	353	95.6	1.84	23.4	727	174	351	18:38	18:41	0.86	2.08	0	0
003	L	4	25	160	286	393	109	1.27	19.0	807	173	355	18:41	18:44	1.00	2.27	1	0
004	R	4	25	162	257	366	101	1.70	18.2	744	175	358	18:44	18:47	0.96	2.08	1	0
005	L	4	25	168	243	337	96.9	2.22	19.6	699	169	345	18:47	18:50	1.04	2.03	2	0
006	R	4	25	144	250	336	97.7	1.94	23.6	709	171	344	18:50	18:53	1.09	2.06	1	0
007	L	4	25	163	252	356	97.9	1.62	14.0	722	172	347	18:53	18:56	0.98	2.08	1	0
Mean		4	25	170	258	359	100	1.42	20.4	739	172	350	Total	00:24	0.96	2.11	1	0
SDev		0	0	17	12.9	18.3	4.08	1.12	3.88	34.0	1.9	5.2			0.09	0.08		
SD/M		0.00	0.00	0.10	0.05	0.05	0.04	0.79	0.19	0.05	0.01	0.01			0.09	0.04		

Remarks: Q with StreamPro 740 cfs using BT with 5% error, no GPS data.

* - value not consistent for all transects

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number:
Station Name: Prince Creek

Meas. No: 18
Date: 06/06/2010

Party: DB/BL	Width: 248 ft	Processed by: DAV
Boat/Motor: kayak	Area: 1,020 ft ²	Mean Velocity: 4.83 ft/s
Gage Height: 19.28 ft	G.H.Change: 0.000 ft	Discharge: 4,920 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.469 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.04
BT Error Vel.: 32.81 ft/s	Bin Size: 11 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 9.93 ft/s	
Max. Depth: 6.46 ft	
Mean Depth: 4.12 ft	
% Meas.: 66.48	
Water Temp.: None	
ADCP Temp.: 36.6 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: 1500 DS of gage

Project Name: prince20100606 q4800cfs
Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	L	7	6	192	1003	3155	651	12.5	23.7	4846	259	982	13:30	13:33	1.69	4.93	13	0
002	R	7	6	163	941	3509	616	17.9	45.8	5130	230	1027	13:34	13:36	1.54	4.99	17	0
003	L	7	6	173	955	3039	634	11.0	26.5	4665	266	1008	13:37	13:40	1.80	4.63	19	0
004	R	7	6	199	921	3372	670	15.1	46.6	5025	239	1057	13:40	13:43	1.30	4.75	32	0
Mean		7	6	181	955	3269	643	14.2	35.6	4916	248	1019	Total	00:13	1.58	4.83	20	0
SDev		0	0	17	35.0	212	23.0	3.04	12.3	205	16.7	31.5			0.22	0.17		
SD/M		0.00	0.00	0.09	0.04	0.06	0.04	0.21	0.34	0.04	0.07	0.03			0.14	0.03		

Remarks: Q 4920 cfs using BT with 4% error (lots of bad ensembles, between 12% to 32%), no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number:
Station Name: Prince Creek

Meas. No: 19
Date: 06/07/2010

Party: DB/BL	Width: 311 ft	Processed by: DAV
Boat/Motor: kayak	Area: 1,430 ft ²	Mean Velocity: 4.20 ft/s
Gage Height: 20.06 ft	G.H.Change: 0.000 ft	Discharge: 5,920 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.469 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.04
BT Error Vel.: 32.81 ft/s	Bin Size: 14 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 10.9 ft/s	
Max. Depth: 10.1 ft	
Mean Depth: 4.70 ft	
% Meas.: 63.30	
Water Temp.: None	
ADCP Temp.: 37.3 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: about .5 mile DS

Project Name: seabee20100606 q5641cfs
Software: 2.17

Tr.#		Edge Distance		#Ens.	Discharge					Width	Area	Time		Mean Vel.		% Bad		
		L	R		Top	Middle	Bottom	Left	Right			Total	Start	End	Boat	Water	Ens.	Bins
001	R	5	5	200	1361	3661	910	9.57	-2.97	5939	303	1395	11:36	11:39	2.03	4.26	6	0
<i>007</i>	<i>R</i>	<i>5</i>	<i>5</i>	<i>251</i>	<i>1550</i>	<i>4001</i>	<i>1005</i>	<i>-1.27</i>	<i>-2.08</i>	<i>6553</i>	<i>462</i>	<i>1754</i>	<i>11:54</i>	<i>11:58</i>	<i>2.32</i>	<i>3.74</i>	<i>12</i>	<i>0</i>
008	L	5	5	196	1157	3766	878	34.7	10.2	5846	296	1500	12:01	12:04	2.27	3.90	28	0
009	R	5	5	163	1129	3670	844	31.4	18.8	5693	235	1163	12:05	12:07	1.76	4.90	23	0
<i>010</i>	<i>L</i>	<i>5</i>	<i>5</i>	<i>127</i>	<i>1107</i>	<i>3628</i>	<i>780</i>	<i>31.4</i>	<i>9.29</i>	<i>5555</i>	<i>259</i>	<i>1325</i>	<i>12:08</i>	<i>12:10</i>	<i>2.55</i>	<i>4.19</i>	<i>16</i>	<i>0</i>
Mean		5	5	187	1261	3745	883	21.1	6.64	5917	311	1427	Total	00:34	2.19	4.20	17	0
SDev		0	0	46	191	152	83.4	16.0	9.16	384	88.9	220.1			0.30	0.45		
SD/M		0.00	0.00	0.25	0.15	0.04	0.09	0.76	1.38	0.06	0.29	0.15			0.14	0.11		

Remarks: Q with StreamPro 5920 cfs using BT with 6% error (bad ensambles 6% to 28%), no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number:
Station Name: Prince Creek

Meas. No: 20
Date: 06/12/2010

Party: BL/DB	Width: 85.7 ft	Processed by: DAV
Boat/Motor: kayak	Area: 392 ft ²	Mean Velocity: 2.15 ft/s
Gage Height: 16.15 ft	G.H.Change: 0.000 ft	Discharge: 838 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.459 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.04
BT Error Vel.: 32.81 ft/s	Bin Size: 11 cm* Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.09 ft/s	
Max. Depth: 8.03 ft	
Mean Depth: 4.57 ft	
% Meas.: 67.26	
Water Temp.: None	
ADCP Temp.: 53.0 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: not sure

Project Name: prince20100612 q838.mmt
Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	L	12	0	156	165	568	109	16.6	0.000	858	81	345	15:33	15:36	0.67	2.48	18	0
002	R	12	8	107	120	571	88.3	25.1	3.46	808	77	355	15:36	15:38	0.88	2.27	29	0
003	L	12	8	122	146	568	106	15.4	10.2	847	96	404	15:39	15:41	0.72	2.09	2	0
004	R	12	5	148	153	551	105	15.7	4.73	830	81	333	15:42	15:44	0.66	2.49	10	0
005	L	12	5	111	142	576	108	17.8	-1.06	843	88	412	15:45	15:47	0.79	2.04	2	0
006	R	12	5	90	154	578	164	12.1	3.57	912	90	410	15:48	15:49	0.87	2.22	3	0
007	L	12	5	111	138	569	124	9.85	1.45	843	91	422	15:50	15:52	0.78	1.99	3	0
008	R	12	5	97	129	558	95.8	15.5	2.68	801	89	418	15:53	15:54	0.91	1.92	2	0
009	L	12	5	96	129	545	117	24.8	2.51	818	84	401	15:55	15:56	0.77	2.04	2	0
010	R	12	5	83	136	591	105	16.5	2.65	850	85	396	15:57	15:58	0.95	2.15	6	0
011	L	12	5	102	132	532	140	30.6	2.22	837	85	408	15:59	16:00	0.77	2.05	5	0
012	R	12	5	80	129	559	100	21.6	2.47	812	82	394	16:01	16:02	1.02	2.06	3	0
Mean		12	5	108	139	564	114	18.5	2.91	838	86	392	Total	00:29	0.82	2.15	7	0
SDev		0	2	24	13.0	15.8	20.9	5.95	2.77	29.6	5.3	30.0			0.11	0.18		
SD/M		0.00	0.39	0.22	0.09	0.03	0.18	0.32	0.95	0.04	0.06	0.08			0.14	0.09		

Remarks: Q with StreamPro 840 cfs using BT with 4% error, no GPS data.

* - value not consistent for all transects

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number:
Station Name: Prince Creek

Meas. No: 21
Date: 07/08/2010

Party: RTK/DAV	Width: 75.7 ft	Processed by: DAV
Boat/Motor: tethered	Area: 97.4 ft ²	Mean Velocity: 0.148 ft/s
Gage Height: 14.22 ft	G.H.Change: 0.000 ft	Discharge: 14.0 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.04
BT Error Vel.: 32.81 ft/s	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 9.71 ft/s	
Max. Depth: 2.00 ft	
Mean Depth: 1.28 ft	
% Meas.: 32.19	
Water Temp.: None	
ADCP Temp.: 58.9 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: at the gage

Project Name: prince20100708 q14cfs.mmt
Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	5	5	100	5.30	3.88	2.93	1.02	0.424	13.6	78	102	15:21	15:23	0.73	0.13	3	8
<i>002</i>	L	5	5	165	4.80	4.03	2.79	-0.318	-0.812	12.5	79	122	16:06	16:09	0.46	0.10	2	13
<i>002</i>	L	5	5	81	4.80	4.03	2.79	0.459	0.459	12.5	76	99	15:25	15:27	0.88	0.12	0	4
<i>006</i>	L	5	5	90	7.10	5.16	3.74	-0.424	-0.247	15.3	74	86	15:38	15:39	0.78	0.18	1	9
<i>008</i>	L	5	5	85	6.64	5.19	3.60	0.636	-0.459	15.6	74	90	15:42	15:44	0.79	0.17	2	7
010	L	5	5	85	6.75	4.20	3.85	0.212	-0.247	14.7	73	85	15:46	15:47	0.79	0.17	2	4
Mean		5	5	101	5.90	4.41	3.28	0.265	-0.147	14.0	76	97	Total	00:26	0.74	0.15	2	7
SDev		0	0	32	1.05	0.597	0.499	0.560	0.501	1.37	2.5	13.9			0.15	0.03		
SD/M		0.00	0.00	0.32	0.18	0.14	0.15	2.11	3.40	0.10	0.03	0.14			0.20	0.22		

Remarks: Q with StreamPro14 cfs using BT with 10% error, no GPS data. All the right starting transects are bad.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number:
Station Name: Prince Creek

Meas. No: 22
Date: 08/31/2010

Party: RTK/DAV	Width: 76.2 ft	Processed by: DAV
Boat/Motor: tethered	Area: 95.5 ft ²	Mean Velocity: 0.930 ft/s
Gage Height: 14.62 ft	G.H.Change: 0.000 ft	Discharge: 88.7 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.04
BT Error Vel.: 32.81 ft/s*	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s*	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s*	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s*	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 13.5 ft/s	
Max. Depth: 1.86 ft	
Mean Depth: 1.25 ft	
% Meas.: 35.25	
Water Temp.: None	
ADCP Temp.: 45.6 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: not sure

Project Name: prince20100831000r.mmt
Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	6	6	158	38.8	34.0	21.5	1.84	1.77	97.9	86	107	11:34	11:37	0.47	0.92	16	0
001	R	6	10	77	26.0	28.5	14.1	2.51	8.26	79.4	67	84	11:37	11:38	0.72	0.94	0	0
Mean		6	8	117	32.4	31.2	17.8	2.17	5.01	88.7	76	96	Total	00:04	0.60	0.93	8	0
SDev		0	3	57	9.06	3.87	5.24	0.474	4.59	13.1	13.2	15.8			0.18	0.02		
SD/M		0.00	0.35	0.49	0.28	0.12	0.29	0.22	0.92	0.15	0.17	0.17			0.30	0.02		

Remarks: Q with StreamPro 89 cfs using BT with 15% error (2 transects only), no GPS data.

* - value not consistent for all transects

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number:
Station Name: Prince Creek

Meas. No: 23
Date: 05/27/2011

Party: DB	Width: 127 ft	Processed by: DAV
Boat/Motor: kayak	Area: 198 ft ²	Mean Velocity: 2.00 ft/s
Gage Height: 15.88 ft	G.H.Change: 0.000 ft	Discharge: 395 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.04
BT Error Vel.: 32.81 ft/s	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 5.85 ft/s	
Max. Depth: 2.48 ft	
Mean Depth: 1.56 ft	
% Meas.: 41.53	
Water Temp.: None	
ADCP Temp.: 36.1 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: not sure

Project Name: prince20110527000r.mmt
Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	15	30	194	164	147	63.2	23.3	-3.78	394	128	187	17:29	17:33	0.59	2.11	11	0
001	L	15	30	121	146	176	58.0	22.8	-4.52	398	125	205	17:33	17:35	0.65	1.94	10	0
002	R	15	30	176	154	152	60.0	20.4	-6.53	381	126	189	17:35	17:39	0.55	2.01	6	0
003	L	15	30	121	149	182	62.3	21.1	-4.98	409	129	213	17:39	17:42	0.66	1.92	2	1
Mean		15	30	153	153	164	60.9	21.9	-4.95	395	127	198	Total	00:12	0.61	2.00	7	0
SDev		0	0	38	8.13	17.2	2.37	1.38	1.16	11.7	1.8	12.6			0.05	0.09		
SD/M		0.00	0.00	0.25	0.05	0.10	0.04	0.06	0.23	0.03	0.01	0.06			0.09	0.04		

Remarks: Q with StreamPro 395 cfs using BT with 3 % error, no GPS data.

Station Number:
Station Name: Prince Creek

Meas. No:24
Date: 05/30/2011

Party: DB/CB	Width: 253 ft	Processed by: DAV
Boat/Motor: kayak	Area: 1,100 ft ²	Mean Velocity: 5.96 ft/s
Gage Height: 19.78 ft	G.H.Change: 0.000 ft	Discharge: 6,550 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.5°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.04
BT Error Vel.: 0.33 ft/s	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 3.50 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 9.00 ft/s	WV : 219 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 12.0 ft/s	
Max. Depth: 7.79 ft	
Mean Depth: 4.34 ft	
% Meas.: 33.12	
Water Temp.: None	
ADCP Temp.: 36.1 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: not sure

Project Name: Prince_20110530000r.mmt
Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
004	L	6	40	976	2785	2286	1512	55.0	305	6943	265	1153	15:54	15:57	1.19	6.02	32	0
005	R	0	40	1506	2545	1969	1298	0.000	333	6145	254	1091	15:57	16:02	1.29	5.63	20	0
006	L	5	45	804	2492	2185	1435	38.5	385	6536	247	1086	16:06	16:09	1.34	6.02	20	0
007	R	5	45	867	2487	2205	1425	35.6	371	6524	246	1080	16:09	16:12	1.21	6.04	19	0
008	L	5	45	950	2558	2192	1437	32.6	360	6579	254	1081	16:13	16:16	1.21	6.09	36	0
Mean		4	43	1020	2573	2168	1421	32.3	351	6545	253	1098	Total	00:22	1.25	5.96	26	0
SDev		2	3	280	122	118	77.3	20.1	32.1	283	7.7	31.0			0.06	0.19		
SD/M		0.57	0.06	0.27	0.05	0.05	0.05	0.62	0.09	0.04	0.03	0.03			0.05	0.03		

Remarks: Q with StreamPro 6440 cfs using BT with 5% error and 6550 cfs using VTG with 4% error.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number:
Station Name: Prince Creek

Meas. No: 25
Date: 06/03/2011

Party: DB/DAV	Width: 77.7 ft	Processed by: DAV
Boat/Motor: kayak	Area: 385 ft ²	Mean Velocity: 2.15 ft/s
Gage Height: 16.14 ft	G.H.Change: 0.000 ft	Discharge: 827 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 10 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.89 ft/s	
Max. Depth: 6.90 ft	
Mean Depth: 4.96 ft	
% Meas.: 69.80	
Water Temp.: None	
ADCP Temp.: 36.1 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 300' US of gage

Project Name: prince20110603000r.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	8	6	87	126	588	102	5.69	25.9	848	84	405	10:45	10:47	0.92	2.09	6	0
001	R	8	6	85	123	593	96.4	11.3	21.6	845	75	382	10:47	10:49	0.78	2.21	4	0
002	L	8	6	84	117	557	92.4	10.0	25.1	802	75	370	10:49	10:51	0.79	2.17	2	0
003	R	8	6	89	120	569	93.1	9.57	20.1	812	76	384	10:51	10:53	0.77	2.11	6	0
Mean		8	6	86	121	577	96.0	9.14	23.2	827	78	385	Total	00:07	0.82	2.15	4	0
SDev		0	0	2	3.89	16.8	4.44	2.41	2.80	23.5	4.5	14.4			0.07	0.05		
SD/M		0.00	0.00	0.03	0.03	0.03	0.05	0.26	0.12	0.03	0.06	0.04			0.08	0.03		

Remarks: Q with StreamPro 827 cfs using BT with 3% error, no GPS data.

Station Number:
Station Name: Prince Creek

Meas. No: 26
Date: 06/06/2011

Party: RTK/DAV	Width: 66.0 ft	Processed by: DAV
Boat/Motor: kayak	Area: 328 ft ²	Mean Velocity: 2.65 ft/s
Gage Height: 16.29 ft	G.H.Change: 0.000 ft	Discharge: 867 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 10 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.84 ft/s	
Max. Depth: 6.82 ft	
Mean Depth: 4.97 ft	
% Meas.: 68.51	
Water Temp.: None	
ADCP Temp.: 44.0 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 300' US of gage

Project Name: prince20110606 q867cfs
 Software: 2.17

Tr.#		Edge Distance		#Ens.	Discharge					Width	Area	Time		Mean Vel.		% Bad		
		L	R		Top	Middle	Bottom	Left	Right			Total	Start	End	Boat	Water	Ens.	Bins
002	R	8	6	79	114	566	91.7	14.6	43.8	830	62	310	11:20	11:21	0.64	2.68	3	0
003	L	8	6	68	116	599	95.1	21.1	39.0	870	62	327	11:22	11:23	0.74	2.66	3	0
004	R	8	6	81	129	615	105	12.4	35.1	896	69	335	11:23	11:25	0.69	2.67	2	0
005	L	8	6	65	129	609	101	14.9	32.3	886	70	340	11:27	11:28	0.95	2.61	3	0
006	R	8	6	81	120	581	96.8	12.9	41.0	852	67	327	11:28	11:30	0.66	2.60	11	0
Mean		8	6	74	122	594	97.8	15.2	38.2	867	66	328	Total	00:10	0.74	2.65	4	0
SDev		0	0	8	7.09	20.2	5.05	3.47	4.57	26.4	3.8	11.5			0.13	0.04		
SD/M		0.00	0.00	0.10	0.06	0.03	0.05	0.23	0.12	0.03	0.06	0.04			0.17	0.01		

Remarks: Q with StreamPro 867 cfs using BT with 3% error, no GPS data.

Station Number:
Station Name: Prince Creek

Meas. No: 29
Date: 05/25/2012

Party: DAV/JPB	Width: 21.0 ft	Processed by: DAV
Boat/Motor: tethered	Area: 25.4 ft ²	Mean Velocity: 0.851 ft/s
Gage Height: 14.99 ft	G.H.Change: 0.000 ft	Discharge: 21.6 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 0.33 ft/s	Bin Size: 3 cm Blank: 3 cm
WT Error Vel.: 1.10 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 5.00 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.81 ft/s	
Max. Depth: 2.15 ft	
Mean Depth: 1.21 ft	
% Meas.: 37.76	
Water Temp.: None	
ADCP Temp.: 33.1 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: at gage

Project Name: prince 5252012 q21.6cfs
Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	5	2	74	7.10	7.80	3.88	2.40	0.671	21.9	21	24	11:42	11:44	0.19	0.92	1	9
001	R	5	2	64	6.57	8.40	3.43	2.33	0.812	21.5	21	26	11:44	11:45	0.24	0.81	3	9
002	L	5	2	57	7.49	8.37	4.13	2.40	0.035	22.4	21	25	11:45	11:47	0.26	0.89	2	11
003	R	5	2	57	5.83	8.05	3.14	2.72	0.848	20.6	21	26	11:47	11:48	0.28	0.78	7	10
Mean		5	2	63	6.75	8.16	3.65	2.46	0.592	21.6	21	25	Total	00:05	0.24	0.85	3	10
SDev		0	0	8	0.719	0.284	0.445	0.174	0.379	0.773	0.4	1.2			0.04	0.06		
SD/M		0.00	0.00	0.13	0.11	0.03	0.12	0.07	0.64	0.04	0.02	0.05			0.16	0.07		

Remarks: Q with StreamPro 21.6 cfs using BT with 4% error, no GPS data.

Station Number:
Station Name: Prince Creek

Meas. No: 30
Date: 05/27/2012

Party: RTK/DAV	Width: 26.0 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 30.5 ft ²	Mean Velocity: 1.77 ft/s
Gage Height: 15.13 ft	G.H.Change: 0.000 ft	Discharge: 53.9 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 0.33 ft/s	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 1.10 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 4.00 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.78 ft/s	
Max. Depth: 2.18 ft	
Mean Depth: 1.17 ft	
% Meas.: 37.16	
Water Temp.: None	
ADCP Temp.: 33.4 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: at gage

Project Name: prince 5272012 q54cfs.mmt
Software: 2.17

Tr.#		Edge Distance		#Ens.	Discharge					Width	Area	Time		Mean Vel.		% Bad		
		L	R		Top	Middle	Bottom	Left	Right			Total	Start	End	Boat	Water	Ens.	Bins
001	R	6	5	53	16.5	20.2	9.68	4.84	4.38	55.4	26	31	17:44	17:45	0.30	1.80	11	3
002	L	6	5	56	15.8	20.9	9.46	4.73	3.85	54.7	27	32	17:45	17:47	0.31	1.71	11	2
003	R	6	5	53	16.2	19.6	10.8	3.32	4.31	54.3	26	30	17:47	17:48	0.28	1.80	6	4
004	L	6	5	73	15.6	19.5	9.39	3.11	3.60	51.3	25	29	17:49	17:50	0.34	1.77	5	2
Mean		6	5	58	16.0	20.0	9.84	4.00	4.03	53.9	26	31	Total	00:06	0.31	1.77	8	3
SDev		0	0	10	0.389	0.614	0.676	0.912	0.372	1.81	0.6	1.3			0.03	0.04		
SD/M		0.00	0.00	0.17	0.02	0.03	0.07	0.23	0.09	0.03	0.02	0.04			0.08	0.02		

Remarks: Q with StreamPro 54 cfs using BT with 3% error, no GPS data.

Station Number:
Station Name: Prince Creek

Meas. No: 31
Date: 06/05/2012

Party: RTK/DAV	Width: 150 ft	Processed by: DAV
Boat/Motor: not sure	Area: 595 ft ²	Mean Velocity: 5.82 ft/s
Gage Height: 18.27 ft	G.H.Change: 0.000 ft	Discharge: 3,460 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.12
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 19 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	Max. Vel.: 10.2 ft/s
	Max. Depth: 8.06 ft
	Mean Depth: 3.96 ft
	% Meas.: 52.99
	Water Temp.: None
	ADCP Temp.: 42.4 °F

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: not sure

Project Name: prince 6052012 q3442cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	20	10	199	776	1786	587	47.4	170	3367	146	570	18:31	18:33	1.26	5.91	0	0
001	R	20	10	167	823	1770	594	49.3	173	3409	152	581	18:33	18:34	1.39	5.87	0	1
002	L	20	10	158	804	1869	689	32.5	143	3537	151	598	18:35	18:36	1.54	5.92	4	1
003	R	20	10	140	778	1902	665	49.5	122	3516	151	629	18:37	18:38	1.59	5.59	1	1
Mean		20	10	166	795	1832	633	44.7	152	3457	150	595	Total	00:07	1.44	5.82	1	1
SDev		0	0	25	22.2	63.6	50.8	8.16	24.0	82.3	2.6	25.9			0.15	0.16		
SD/M		0.00	0.00	0.15	0.03	0.03	0.08	0.18	0.16	0.02	0.02	0.04			0.10	0.03		

Remarks: Q with RiverRay 3460 cfs using BT with 2% error, no GPS data.

Station Number:
Station Name: Prince Creek

Meas. No: 32
Date: 06/08/2012

Party: RTK/DAV	Width: 76.9 ft	Processed by: RTK
Boat/Motor: kayak	Area: 325 ft ²	Mean Velocity: 1.88 ft/s
Gage Height: 15.70 ft	G.H.Change: 0.000 ft	Discharge: 609 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.12
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 19 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 5.82 ft/s	
Max. Depth: 5.61 ft	
Mean Depth: 4.23 ft	
% Meas.: 53.78	
Water Temp.: None	
ADCP Temp.: 42.3 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: 500' US of gage

Project Name: prince 06082012 q559cfs
Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	6	6	125	140	304	115	4.91	6.25	571	78	329	11:39	11:40	0.91	1.73	0	0
001	R	6	6	114	153	338	114	6.00	10.7	621	77	323	11:40	11:41	0.91	1.92	1	0
002	L	6	6	81	144	326	121	4.80	17.3	614	77	339	11:41	11:42	1.36	1.81	2	0
003	R	6	6	92	155	343	118	7.80	8.05	631	75	310	11:42	11:43	1.17	2.03	2	0
Mean		6	6	103	148	328	117	5.88	10.6	609	77	325	Total	00:04	1.09	1.88	1	0
SDev		0	0	20	7.04	17.2	3.39	1.39	4.86	26.7	1.6	12.0			0.22	0.13		
SD/M		0.00	0.00	0.19	0.05	0.05	0.03	0.24	0.46	0.04	0.02	0.04			0.20	0.07		

Remarks: Q with RiverRay 562 cfs using BT with 2% error, 609 cfs using VTG with 4% error.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number:
Station Name: Prince Creek

Meas. No: 34
Date: 09/02/2012

Party: RTK/DAV	Width: 68.6 ft	Processed by: DAV
Boat/Motor: kayak	Area: 353 ft ²	Mean Velocity: 2.76 ft/s
Gage Height: 16.21 ft	G.H.Change: 0.000 ft	Discharge: 975 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft*	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 0.33 ft/s*	Bin Size: 9 cm Blank: 3 cm
WT Error Vel.: 0.50 ft/s*	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s*	WT Mode: 12 WT Pings: 6
WT Up Vel.: 4.60 ft/s*	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.58 ft/s	
Max. Depth: 6.59 ft	
Mean Depth: 5.15 ft	
% Meas.: 67.93	
Water Temp.: None	
ADCP Temp.: 41.9 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: 300' US

Project Name: prince 09022012 q966cfs
Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	4	3	70	145	655	155	5.09	1.77	961	70	361	14:47	14:48	0.93	2.66	7	15
001	L	4	3	71	153	643	183	4.94	1.06	986	68	343	14:48	14:50	0.92	2.88	3	18
002	R	4	3	71	146	662	158	6.29	0.388	972	70	363	14:50	14:51	0.92	2.68	3	14
003	L	4	3	84	153	708	145	5.97	-0.106	1011	68	353	14:52	14:53	0.80	2.87	4	0
004	R	4	3	79	145	644	149	5.47	1.98	945	67	347	14:54	14:56	0.93	2.72	9	14
Mean		4	3	75	148	662	158	5.55	1.02	975	69	353	Total	00:08	0.90	2.76	5	12
SDev		0	0	6	4.36	26.5	15.1	0.571	0.886	25.1	1.3	8.8			0.06	0.10		
SD/M		0.00	0.00	0.08	0.03	0.04	0.10	0.10	0.87	0.03	0.02	0.02			0.06	0.04		

Remarks: Q with StreamPro 975 cfs using BT with 3% error, no GPS data.

* - value not consistent for all transects

Station Number:
Station Name: Prince Creek

Meas. No: 35
Date: 05/28/2013

Party: RTK/DAV	Width: 30.6 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 39.1 ft ²	Mean Velocity: 1.87 ft/s
Gage Height: 16.21 ft	G.H.Change: 0.000 ft	Discharge: 73.1 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 0.33 ft/s*	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 1.40 ft/s*	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s*	WT Mode: 12 WT Pings: 6
WT Up Vel.: 3.43 ft/s*	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.43 ft/s	
Max. Depth: 2.55 ft	
Mean Depth: 1.28 ft	
% Meas.: 41.80	
Water Temp.: None	
ADCP Temp.: 36.0 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 200' us of gage

Project Name: prince20130528dav73cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	R	5	5	62	23.5	30.9	13.1	3.64	3.81	74.9	30	38	13:29	13:30	0.35	1.99	13	0
002	L	5	5	61	22.0	29.7	12.6	4.73	3.18	72.3	29	38	13:31	13:32	0.33	1.88	7	0
003	R	5	5	64	23.3	31.4	12.0	2.93	3.57	73.3	31	40	13:32	13:34	0.33	1.85	13	0
004	L	5	5	56	22.8	30.7	14.0	2.97	3.14	73.7	31	40	13:34	13:35	0.38	1.85	4	0
005	R	5	5	64	22.6	30.0	12.8	2.72	3.25	71.4	32	40	13:35	13:36	0.38	1.77	3	0
Mean		5	5	61	22.8	30.6	12.9	3.40	3.39	73.1	31	39	Total	00:07	0.35	1.87	8	0
SDev		0	0	3	0.598	0.680	0.737	0.822	0.290	1.34	1.1	1.1			0.02	0.08		
SD/M		0.00	0.00	0.05	0.03	0.02	0.06	0.24	0.09	0.02	0.04	0.03			0.06	0.04		

Remarks: Q with StreamPro 73 cfs using BT with 2% error, no GPS data.

* - value not consistent for all transects

Station Number:
Station Name: Prince Creek

Meas. No: 36
Date: 05/31/2013

Party: RTK/DAV	Width: 123 ft	Processed by: DAV
Boat/Motor: kayak	Area: 404 ft ²	Mean Velocity: 2.50 ft/s
Gage Height: 17.17 ft	G.H.Change: 0.000 ft	Discharge: 1,000 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.6°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 0.33 ft/s	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 1.00 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 4.68 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.68 ft/s	
Max. Depth: 4.28 ft	
Mean Depth: 3.27 ft	
% Meas.: 58.56	
Water Temp.: None	
ADCP Temp.: 37.1 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 50' DS of gage

Project Name: prince20130531dav1001cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	3	6	142	242	627	159	4.94	1.13	1034	123	390	11:21	11:23	1.09	2.65	21	2
001	R	3	6	123	243	580	169	2.05	1.84	996	134	446	11:24	11:26	1.11	2.23	11	1
002	L	3	6	104	250	593	170	4.91	2.44	1019	114	367	11:27	11:29	1.16	2.78	23	0
003	R	3	6	99	245	544	153	2.97	8.23	954	123	411	11:29	11:31	1.02	2.32	12	1
Mean		3	6	117	245	586	163	3.72	3.41	1001	123	404	Total	00:10	1.09	2.50	17	1
SDev		0	0	20	3.45	34.2	7.95	1.45	3.26	35.1	8.4	33.5			0.06	0.26		
SD/M		0.00	0.00	0.17	0.01	0.06	0.05	0.39	0.96	0.04	0.07	0.08			0.05	0.10		

Remarks: Q with StreamPro 1000 cfs using BT with 4% error, no GPS data.

Station Number:
Station Name: Prince Creek

Meas. No: 37
Date: 06/03/2013

Party: DAV/RTK	Width: 213 ft	Processed by: DAV
Boat/Motor: 10' zodiac w motor	Area: 1,220 ft ²	Mean Velocity: 5.50 ft/s
Gage Height: 20.01 ft	G.H.Change: 0.000 ft	Discharge: 6,640 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.350 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.6°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.15
BT Error Vel.: 3.28 ft/s*	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s*	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s*	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s*	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 12.0 ft/s	
Max. Depth: 7.69 ft	
Mean Depth: 5.74 ft	
% Meas.: 57.22	
Water Temp.: None	
ADCP Temp.: 35.1 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: 1600' US of gage

Project Name: prince20130603dav6638cfs
Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	10	10	149	1199	3608	1433	-5.33	150	6384	234	1353	13:35	13:37	2.56	4.72	1	0
002	L	10	10	97	1257	3823	1455	85.0	123	6743	174	983	13:40	13:41	2.49	6.86	3	1
003	R	10	10	121	1274	3839	1410	12.3	163	6698	222	1268	13:41	13:42	2.71	5.28	2	0
004	L	10	10	191	1285	3866	1530	-13.4	118	6786	227	1332	13:44	13:47	2.65	5.10	0	0
005	R	10	10	92	1241	3854	1382	9.89	92.7	6579	208	1183	13:47	13:48	3.54	5.56	0	0
Mean		10	10	130	1251	3798	1442	17.7	129	6638	213	1224	Total	00:12	2.79	5.50	1	0
SDev		0	0	41	33.5	108	56.2	39.1	27.5	162	23.5	149.7			0.43	0.82		
SD/M		0.00	0.00	0.31	0.03	0.03	0.04	2.21	0.21	0.02	0.11	0.12			0.15	0.15		

Remarks: Q with RiverRay 6540 cfs using BT with 2% error and 6640 cfs using VTG with 2 error.

* - value not consistent for all transects

Station Number:
Station Name: Prince Creek

Meas. No: 38
Date: 06/07/2013

Party: DAV/JPB	Width: 90.3 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 433 ft ²	Mean Velocity: 2.94 ft/s
Gage Height: 16.56 ft	G.H.Change: 0.000 ft	Discharge: 1,270 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.6°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.15
BT Error Vel.: 3.28 ft/s*	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s*	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s*	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s*	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 7.09 ft/s	
Max. Depth: 6.57 ft	
Mean Depth: 4.80 ft	
% Meas.: 54.57	
Water Temp.: None	
ADCP Temp.: 42.6 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: 300' US of gage

Project Name: prince20130607dav1270cfs
Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	4	4	147	308	680	231	4.91	22.3	1247	97	451	16:53	16:54	1.46	2.77	13	1
001	R	4	4	92	341	726	242	5.54	24.8	1340	94	465	16:54	16:56	1.21	2.88	20	2
002	L	4	4	87	315	696	225	3.21	13.2	1253	84	424	16:56	16:57	1.44	2.95	20	0
003	R	4	4	87	340	714	234	6.39	4.27	1298	87	414	16:57	16:58	1.38	3.13	3	2
004	L	4	4	104	335	659	227	4.87	9.11	1235	94	431	16:59	17:00	1.21	2.86	21	1
005	R	4	4	88	327	683	228	5.72	4.27	1248	86	415	17:00	17:01	1.34	3.01	3	1
Mean		4	4	100	328	693	231	5.11	13.0	1270	90	433	Total	00:08	1.34	2.94	13	1
SDev		0	0	24	13.5	24.3	6.24	1.09	8.88	40.6	5.3	20.5			0.11	0.13		
SD/M		0.00	0.00	0.24	0.04	0.03	0.03	0.21	0.68	0.03	0.06	0.05			0.08	0.04		

Remarks: Q with RiverRay 1200 cfs using BT with 3% error and 1270 cfs using VTG with 3% error.

* - value not consistent for all transects

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number:
Station Name: Prince Creek

Meas. No: 39
Date: 06/08/2013

Party: RTK/DAV	Width: 138 ft	Processed by: DAV
Boat/Motor: kayak	Area: 783 ft ²	Mean Velocity: 4.04 ft/s
Gage Height: 18.28 ft	G.H.Change: 0.000 ft	Discharge: 3,160 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:3	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.9°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 0.33 ft/s	Bin Size: 8 cm* Blank: 3 cm
WT Error Vel.: 0.60 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 8.14 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 8.14 ft/s	
Max. Depth: 8.44 ft	
Mean Depth: 5.69 ft	
% Meas.: 70.80	
Water Temp.: None	
ADCP Temp.: 36.4 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 500' US of gage

Project Name: prince20130608dav3161cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
002	R	4	4	53	457	2278	460	-3.92	18.9	3210	142	805	13:39	13:40	2.03	3.99	8	12
004	R	4	4	59	470	2313	484	-4.17	19.1	3281	135	786	13:43	13:44	1.91	4.17	3	12
005	L	4	4	50	431	2251	438	5.76	16.9	3142	131	806	13:44	13:45	2.26	3.90	14	19
007	R	4	4	62	460	2083	444	2.15	20.8	3010	139	757	13:46	13:48	1.84	3.98	2	11
008	L	4	4	43	436	2287	345	-5.26	21.7	3083	130	789	13:48	13:49	2.65	3.91	19	16
009	R	4	4	57	541	2218	458	1.87	20.4	3239	150	752	13:50	13:51	2.12	4.30	9	8
Mean		4	4	54	466	2238	438	-0.594	19.6	3161	138	783	Total	00:12	2.13	4.04	9	13
SDev		0	0	7	39.9	82.8	48.4	4.46	1.71	102	7.6	23.2			0.29	0.16		
SD/M		0.00	0.00	0.13	0.09	0.04	0.11	7.51	0.09	0.03	0.06	0.03			0.14	0.04		

Remarks: Q with StreamPro 3160 cfs using BT with 3% error, no GPS data.

* - value not consistent for all transects

Station Number:
Station Name: Prince Creek

Meas. No: 40
Date: 06/11/2013

Party: DAV/JPB	Width: 144 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 756 ft ²	Mean Velocity: 3.75 ft/s
Gage Height: 17.86 ft	G.H.Change: 0.000 ft	Discharge: 2,810 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.6°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.15
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 8.25 ft/s	
Max. Depth: 8.61 ft	
Mean Depth: 5.26 ft	
% Meas.: 56.39	
Water Temp.: None	
ADCP Temp.: 40.3 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 300' US of gage

Project Name: prince20130611dav2829cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	4	4	88	578	1642	475	8.30	14.3	2719	139	843	10:47	10:49	2.27	3.23	0	2
001	R	4	4	112	737	1577	489	9.46	11.7	2825	149	764	10:49	10:50	1.96	3.70	1	2
002	L	4	4	87	715	1646	466	3.28	20.4	2850	143	775	10:50	10:51	2.38	3.68	1	2
003	R	4	4	110	900	1462	441	5.16	18.6	2827	148	643	10:51	10:53	2.14	4.39	4	1
Mean		4	4	99	733	1582	468	6.55	16.2	2805	144	756	Total	00:05	2.19	3.75	1	2
SDev		0	0	14	132	86.0	20.3	2.84	3.99	58.9	4.7	83.1			0.18	0.48		
SD/M		0.00	0.00	0.14	0.18	0.05	0.04	0.43	0.25	0.02	0.03	0.11			0.08	0.13		

Remarks: Q with RiverRay 2810 cfs using BT with 2% error and 2830 cfs using VTG with 6%.

Station Number:
Station Name: Prince Creek

Meas. No: 41
Date: 06/15/2013

Party: RTK/KAP	Width: 70.8 ft	Processed by: DAV
Boat/Motor: kayak	Area: 324 ft ²	Mean Velocity: 1.77 ft/s
Gage Height: 15.81 ft	G.H.Change: 0.000 ft	Discharge: 575 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 0.33 ft/s	Bin Size: 9 cm Blank: 3 cm
WT Error Vel.: 0.60 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 3.37 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.37 ft/s	
Max. Depth: 6.24 ft	
Mean Depth: 4.57 ft	
% Meas.: 69.32	
Water Temp.: None	
ADCP Temp.: 54.2 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: 400' US of gage

Project Name: prince20130615dav575cfs
Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	6	3	126	94.6	396	76.7	3.07	-1.77	568	72	327	17:59	18:02	0.49	1.74	4	5
001	R	6	3	130	94.5	405	75.2	4.80	2.61	582	73	333	18:02	18:05	0.48	1.75	15	8
002	L	6	3	114	94.0	397	76.3	3.00	5.12	575	70	317	18:05	18:07	0.50	1.81	3	7
003	R	6	3	139	91.4	395	74.0	5.12	6.39	572	69	318	18:08	18:10	0.45	1.80	7	8
Mean		6	3	127	93.7	398	75.5	4.00	3.09	575	71	324	Total	00:10	0.48	1.77	7	7
SDev		0	0	10	1.53	4.58	1.21	1.12	3.60	5.91	1.8	7.4			0.02	0.04		
SD/M		0.00	0.00	0.08	0.02	0.01	0.02	0.28	1.16	0.01	0.03	0.02			0.05	0.02		

Remarks: Q with StreamPro 575 cfs using BT with 1% error, no GPS data.

Station Number:
Station Name: Prince Creek

Meas. No: 42
Date: 06/20/2013

Party: RTK	Width: 118 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 164 ft ²	Mean Velocity: 1.10 ft/s
Gage Height: 14.99 ft	G.H.Change: 0.000 ft	Discharge: 180 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.230 ft*	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 0.33 ft/s*	Bin Size: 3 cm Blank: 3 cm
WT Error Vel.: 1.60 ft/s*	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s*	WT Mode: 12 WT Pings: 6
WT Up Vel.: 6.11 ft/s*	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 5.32 ft/s	
Max. Depth: 2.18 ft	
Mean Depth: 1.39 ft	
% Meas.: 40.48	
Water Temp.: None	
ADCP Temp.: 67.8 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: 600' US of gage

Project Name: prince20130620dav180cfs
Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	5	0	138	69.9	80.3	33.8	0.953	0.000	185	118	170	17:30	17:33	0.81	1.09	1	1
001	R	5	0	128	82.7	70.6	38.8	0.177	0.000	192	119	158	17:33	17:36	0.91	1.22	2	3
002	L	5	0	125	72.6	64.3	34.0	0.600	0.000	172	119	157	17:36	17:38	0.90	1.09	2	1
003	R	5	0	132	74.2	67.0	34.3	0.459	0.000	176	119	159	17:39	17:41	0.85	1.11	2	2
004	L	5	0	111	62.9	80.2	31.4	0.424	0.000	175	118	177	17:42	17:44	0.96	0.99	1	2
005	R	5	0	129	70.6	73.6	33.1	0.212	0.000	177	117	165	17:44	17:46	0.84	1.08	0	2
Mean		5	0	127	72.2	72.7	34.2	0.471	0.000	180	118	164	Total	00:16	0.88	1.10	1	2
SDev		0	0	9	6.48	6.65	2.46	0.285	0.000	7.64	0.8	7.9			0.06	0.07		
SD/M		0.00	0.00	0.07	0.09	0.09	0.07	0.60	0.00	0.04	0.01	0.05			0.06	0.07		

Remarks: Q with StreamPro 180 cfs using BT with 4% error, no GPS data.

* - value not consistent for all transects

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number:
Station Name: Prince Creek

Meas. No: 45
Date: 08/22/2013

Party: RTK/DAV	Width: 49.2 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 78.7 ft ²	Mean Velocity: 1.29 ft/s
Gage Height: 14.44 ft	G.H.Change: 0.000 ft	Discharge: 102 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:6	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 0.33 ft/s	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 1.40 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 3.58 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.49 ft/s	
Max. Depth: 2.82 ft	
Mean Depth: 1.60 ft	
% Meas.: 52.90	
Water Temp.: None	
ADCP Temp.: 59.6 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 50' DS of gage

Project Name: prince20130822dav102cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	10	6	76	27.4	54.8	14.9	4.38	1.48	103	52	82	17:01	17:03	0.45	1.26	1	1
001	L	10	6	63	25.9	53.1	15.7	4.45	2.83	102	50	78	17:03	17:04	0.49	1.31	2	0
002	R	10	6	49	24.9	53.8	13.9	6.57	2.22	101	47	78	17:05	17:06	0.56	1.30	2	1
003	L	10	6	54	24.7	53.6	14.3	5.40	2.65	101	48	77	17:06	17:07	0.52	1.31	2	1
Mean		10	6	60	25.7	53.8	14.7	5.20	2.30	102	49	79	Total	00:05	0.51	1.29	2	1
SDev		0	0	12	1.23	0.736	0.749	1.02	0.597	0.904	2.3	2.1			0.05	0.02		
SD/M		0.00	0.00	0.20	0.05	0.01	0.05	0.20	0.26	0.01	0.05	0.03			0.10	0.02		

Remarks: Q with StreamPro 102 cfs using BT with 1% error, no GPS data.

Station Number:
Station Name: Prince Creek

Meas. No: 46
Date: 05/25/2014

Party: RTK/DAV	Width: 97.5 ft	Processed by: DAV
Boat/Motor: Tethered boat	Area: 205 ft ²	Mean Velocity: 1.76 ft/s
Gage Height: 15.66 ft	G.H.Change: 0.000 ft	Discharge: 360 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 5 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.78 ft/s	
Max. Depth: 3.81 ft	
Mean Depth: 2.12 ft	
% Meas.: 62.24	
Water Temp.: None	
ADCP Temp.: 34.4 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: at gage

Project Name: prince20140525000r.mmt
Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	4	15	105	81.4	233	55.7	1.06	3.96	375	105	212	06:28	06:30	0.73	1.77	1	0
001	L	4	15	93	79.7	225	55.3	1.66	8.62	370	99	205	06:30	06:32	0.76	1.80	1	0
002	R	4	15	90	81.4	231	52.3	0.459	6.11	371	104	211	06:32	06:34	0.84	1.76	1	0
003	L	-3	-3	97	75.9	214	48.0	-0.883	-1.55	336	75	186	06:34	06:36	0.77	1.80	1	0
004	R	4	15	95	74.7	216	48.0	0.494	6.78	346	103	211	06:37	06:39	0.82	1.64	1	0
Mean		3	11	96	78.6	224	51.8	0.558	4.78	360	98	205	Total	00:10	0.78	1.76	1	0
SDev		3	8	6	3.15	8.21	3.80	0.943	3.91	17.5	12.5	11.0			0.04	0.07		
SD/M		1.28	0.72	0.06	0.04	0.04	0.07	1.69	0.82	0.05	0.13	0.05			0.05	0.04		

Remarks: Q with StreamPro 360 cfs using BT with 5% error, no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number:
Station Name: Prince Creek

Meas. No: 47
Date: 06/07/2014

Party: DAV/JPB	Width: 160 ft	Processed by: DAV
Boat/Motor: kayak	Area: 629 ft ²	Mean Velocity: 4.12 ft/s
Gage Height: 17.81 ft	G.H.Change: 0.000 ft	Discharge: 2,590 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: Prince06072014_0.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	3	4	109	734	1394	480	3.07	6.67	2618	162	625	11:28	11:29	2.37	4.19	3	3
001	R	3	4	89	685	1361	491	5.30	6.50	2549	161	643	11:30	11:30	2.92	3.97	0	4
002	L	3	4	108	736	1381	532	1.73	6.18	2658	159	614	11:31	11:32	2.37	4.33	5	3
003	R	3	4	85	667	1346	512	5.86	5.19	2537	158	636	11:33	11:34	3.03	3.99	4	4
Mean		3	4	97	706	1371	504	3.99	6.14	2590	160	629	Total	00:06	2.67	4.12	3	4
SDev		0	0	13	34.7	21.3	23.2	1.93	0.662	57.5	1.9	12.4			0.35	0.17		
SD/M		0.00	0.00	0.13	0.05	0.02	0.05	0.48	0.11	0.02	0.01	0.02			0.13	0.04		

Remarks: Q with RiverRay 2590 cfs using BT with 2% error and 2470 cfs using VTG with 1% error.

Station Number:
Station Name: Prince Creek

Meas. No: 48
Date: 06/08/2014

Party: DAV/JPB	Width: 151 ft	Processed by: DAV
Boat/Motor: kayak	Area: 609 ft ²	Mean Velocity: 3.75 ft/s
Gage Height: 17.59 ft	G.H.Change: 0.000 ft	Discharge: 2,280 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 8.53 ft/s	
Max. Depth: 7.05 ft	
Mean Depth: 4.03 ft	
% Meas.: 48.47	
Water Temp.: None	
ADCP Temp.: 37.9 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: prince20140608q2280cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	3	3	128	690	1068	483	2.15	3.28	2246	147	591	10:34	10:35	1.88	3.80	5	2
001	R	3	3	93	682	1126	440	3.25	2.30	2253	149	618	10:36	10:37	2.76	3.65	11	1
002	L	3	3	136	754	1075	445	3.64	3.67	2281	150	571	10:37	10:39	1.87	4.00	14	2
003	R	3	3	100	693	1146	480	3.64	3.43	2327	159	658	10:39	10:40	2.66	3.54	24	2
Mean		3	3	114	705	1104	462	3.17	3.17	2277	151	609	Total	00:06	2.29	3.75	14	2
SDev		0	0	21	33.2	38.4	22.7	0.701	0.604	36.6	5.2	37.5			0.48	0.20		
SD/M		0.00	0.00	0.18	0.05	0.03	0.05	0.22	0.19	0.02	0.03	0.06			0.21	0.05		

Remarks: Q with RiverRay 2280 cfs using BT with 2% error and 2080 cfs using VTG with 1% error.

Station Number:
Station Name: Prince Creek

Meas. No: 49
Date: 07/11/2014

Party: RTK/DAV	Width: 47.6 ft	Processed by: DAV
Boat/Motor: Tethered boat	Area: 69.0 ft ²	Mean Velocity: 0.834 ft/s
Gage Height: 14.11 ft	G.H.Change: 0.000 ft	Discharge: 57.6 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:5	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.49 ft/s	
Max. Depth: 2.25 ft	
Mean Depth: 1.45 ft	
% Meas.: 53.41	
Water Temp.: None	
ADCP Temp.: 61.4 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: at gage

Project Name: prince20140711 q57.6cfs
Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
002	L	6	10	64	16.8	31.4	10.2	1.62	-0.388	59.6	50	72	15:37	15:39	0.50	0.82	5	0
003	R	6	10	48	14.9	31.0	8.86	3.07	2.65	60.5	47	69	15:39	15:40	0.59	0.88	2	1
004	L	6	10	50	14.5	30.8	8.51	3.04	-2.40	54.5	47	68	15:41	15:42	0.61	0.80	2	0
005	R	6	10	47	15.3	30.1	9.53	2.65	0.353	58.0	46	68	15:42	15:43	0.58	0.85	2	0
006	L	6	10	52	16.3	30.5	9.57	0.918	-2.58	54.7	50	70	15:44	15:45	0.61	0.78	2	1
007	R	6	10	39	16.2	30.7	9.53	1.48	0.283	58.2	46	66	15:45	15:46	0.73	0.88	5	0
Mean		6	10	50	15.7	30.8	9.38	2.13	-0.347	57.6	48	69	Total	00:08	0.60	0.83	3	0
SDev		0	0	8	0.890	0.430	0.608	0.908	1.95	2.49	1.8	2.0			0.07	0.04		
SD/M		0.00	0.00	0.16	0.06	0.01	0.06	0.43	5.62	0.04	0.04	0.03			0.12	0.05		

Remarks: Q with StreamPro 58 cfs using BT with 4% error, no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number:
 Station Name: Prince Creek

Meas. No: 51
 Date: 05/26/2015

Party: RTK	Width: 87.2 ft	Processed by: DAV
Boat/Motor: kayak	Area: 326 ft ²	Mean Velocity: 3.85 ft/s
Gage Height: 16.51 ft	G.H.Change: 0.000 ft	Discharge: 1,180 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft*	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (1.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 7 cm* Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 5.86 ft/s	
Max. Depth: 7.55 ft	
Mean Depth: 3.82 ft	
% Meas.: 73.03	
Water Temp.: None	
ADCP Temp.: 38.3 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: not sure

Project Name: prince20150526q1180cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	L	4	15	93	147	852	142	1.66	8.62	1161	99	205	06:30	06:32	0.76	5.66	1	0
001	L	15	5	92	147	852	142	12.1	8.48	1161	79	354	11:02	11:04	0.69	3.28	27	0
003	L	15	0	100	170	876	158	6.89	0.000	1211	89	392	11:06	11:08	0.73	3.09	3	0
006	R	15	0	117	168	856	148	10.8	0.000	1183	81	353	11:15	11:18	0.68	3.36	12	0
Mean		12	5	100	158	859	147	7.86	4.27	1179	87	326	Total	04:47	0.71	3.85	11	0
SDev		6	7	12	13.0	11.4	7.88	4.69	4.93	23.9	9.1	82.6			0.04	1.21		
SD/M		0.45	1.41	0.12	0.08	0.01	0.05	0.60	1.15	0.02	0.10	0.25			0.05	0.32		

Remarks: Q with StreamPro 1180 cfs using BT with 2% error using transects 001, 003, 005, and 006 (all but one right transect 800cfs or less)

* - value not consistent for all transects

Station Number:
Station Name: Prince Creek

Meas. No: 52
Date: 06/05/2015

Party: RTK/DAV	Width: 106 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 171 ft ²	Mean Velocity: 0.746 ft/s
Gage Height: 14.63 ft	G.H.Change: 0.000 ft	Discharge: 127 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 6 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 2.27 ft/s	
Max. Depth: 2.59 ft	
Mean Depth: 1.61 ft	
% Meas.: 49.88	
Water Temp.: None	
ADCP Temp.: 37.3 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: prince20150605q130cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
004	L	20	6	107	35.1	63.3	21.3	6.25	1.41	127	109	173	13:55	13:57	0.69	0.74	2	0
005	R	20	6	106	35.2	62.6	20.8	6.36	1.41	126	106	169	13:57	13:59	0.69	0.75	2	0
006	L	20	6	100	33.8	63.9	20.9	6.53	2.47	128	104	171	14:00	14:02	0.69	0.75	1	0
007	R	20	6	99	34.0	64.3	20.6	6.46	2.79	128	105	170	14:02	14:04	0.70	0.75	1	0
Mean		20	6	103	34.5	63.5	20.9	6.40	2.02	127	106	171	Total	00:09	0.69	0.75	1	0
SDev		0	0	4	0.734	0.707	0.273	0.124	0.715	0.736	1.9	1.6			0.00	0.01		
SD/M		0.00	0.00	0.04	0.02	0.01	0.01	0.02	0.35	0.01	0.02	0.01			0.01	0.01		

Remarks: Q with StreamPro 127 cfs using BT with 1% error, no GPS data.

Station Number:
Station Name: Prince Creek

Meas. No: 55
Date: 08/26/2015

Party: RTK/DAV	Width: 106 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 190 ft ²	Mean Velocity: 1.11 ft/s
Gage Height: 14.80 ft	G.H.Change: 0.000 ft	Discharge: 210 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 6 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.07 ft/s	
Max. Depth: 2.86 ft	
Mean Depth: 1.79 ft	
% Meas.: 54.58	
Water Temp.: None	
ADCP Temp.: 50.3 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: at gage

Project Name: prince20150826q210cfs.mmt
Software: 2.17

Tr.#		Edge Distance		#Ens.	Discharge					Width	Area	Time		Mean Vel.		% Bad		
		L	R		Top	Middle	Bottom	Left	Right			Total	Start	End	Boat	Water	Ens.	Bins
002	R	15	4	110	57.6	120	34.2	6.18	1.24	219	105	191	13:49	13:51	0.82	1.15	3	0
003	L	15	4	92	53.7	112	31.4	6.46	1.24	205	105	189	13:51	13:53	0.83	1.08	1	0
004	R	15	4	88	57.0	115	33.3	4.98	1.31	212	106	186	13:53	13:55	0.89	1.14	2	0
005	L	15	4	106	54.0	111	32.3	5.58	1.27	204	107	192	13:56	13:58	0.79	1.06	1	0
006	R	15	4	87	55.5	116	32.4	5.72	1.45	211	105	190	13:58	14:00	0.90	1.11	6	0
Mean		15	4	96	55.6	115	32.7	5.78	1.30	210	106	190	Total	00:10	0.85	1.11	3	0
SDev		0	0	11	1.75	3.64	1.06	0.572	0.088	6.21	1.1	2.1			0.05	0.04		
SD/M		0.00	0.00	0.11	0.03	0.03	0.03	0.10	0.07	0.03	0.01	0.01			0.06	0.03		

Remarks: Q with StreamPro 210 cfs using BT with 3% error, no GPS data.

Station Number:
Station Name: Prince Creek

Meas. No: 56
Date: 05/22/2016

Party: RTK/DAV	Width: 91.2 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 383 ft ²	Mean Velocity: 6.10 ft/s
Gage Height: 17.59 ft	G.H.Change: 0.000 ft	Discharge: 2,320 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: G
MagVar Method: None (17.1°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 12.1 ft/s	
Max. Depth: 7.94 ft	
Mean Depth: 4.21 ft	
% Meas.: 52.16	
Water Temp.: None	
ADCP Temp.: 34.8 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: 200' US

Project Name: prince20160522q2120cfs
Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	L	15	2	138	496	1140	517	16.4	4.24	2174	96	398	18:03	18:05	1.33	5.46	22	1
003	R	10	5	97	556	1332	597	20.3	3.07	2508	90	336	18:07	18:08	2.46	7.47	22	2
004	L	10	5	110	446	1155	585	10.3	50.0	2247	89	396	18:10	18:11	1.71	5.67	21	0
005	R	15	5	56	499	1206	579	29.6	22.6	2337	89	403	18:12	18:12	2.63	5.79	0	5
Mean		13	4	100	499	1208	570	19.2	20.0	2317	91	383	Total	00:09	2.03	6.10	16	2
SDev		3	1	34	44.8	87.3	35.6	8.05	21.9	144	3.3	31.8			0.62	0.92		
SD/M		0.23	0.35	0.34	0.09	0.07	0.06	0.42	1.10	0.06	0.04	0.08			0.30	0.15		

Remarks: Q with RiverRay 2320 cfs using BT with 6% error, 2080 cfs using VTG with 6% error.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number:
Station Name: Prince Creek

Meas. No: 57
Date: 05/29/2016

Party: DAV/JPB	Width: 77.4 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 337 ft ²	Mean Velocity: 3.17 ft/s
Gage Height: 16.38 ft	G.H.Change: 0.000 ft	Discharge: 1,070 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.1°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s*	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s*	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s*	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s*	WZ : 5
Use Weighted Mean Depth: YES	Max. Vel.: 6.28 ft/s
	Max. Depth: 7.47 ft
	Mean Depth: 4.35 ft
	% Meas.: 55.38
	Water Temp.: None
	ADCP Temp.: 41.0 °F

Performed Diag. Test: NO
Performed Moving Bed Test: YES
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: 300' US

Project Name: prince20160529q1070cfs
Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
006	L	10	4	76	228	561	242	7.45	12.5	1051	80	342	14:26	14:26	1.50	3.07	29	1
007	R	10	4	65	227	602	209	10.8	2.61	1051	77	338	14:27	14:27	1.73	3.11	12	1
008	L	10	4	59	232	583	244	8.83	15.0	1082	77	326	14:28	14:28	1.85	3.32	20	2
009	R	10	4	55	231	617	216	12.7	5.40	1083	77	339	14:28	14:29	1.93	3.19	9	1
Mean		10	4	63	229	591	228	9.96	8.87	1067	77	337	Total	00:03	1.75	3.17	18	1
SDev		0	0	9	2.49	24.1	17.8	2.30	5.82	18.2	1.5	7.1			0.19	0.11		
SD/M		0.00	0.00	0.15	0.01	0.04	0.08	0.23	0.66	0.02	0.02	0.02			0.11	0.03		

Remarks: Q with RiverRay 1070 cfs using BT with 2% error, 1110 cfs using VTG with 10% error (directional bias).

* - value not consistent for all transects

Station Number:
Station Name: Prince Creek

Meas. No: 58
Date: 05/31/2016

Party: JPB/DAV	Width: 136 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 253 ft ²	Mean Velocity: 1.57 ft/s
Gage Height: 15.33 ft	G.H.Change: 0.000 ft	Discharge: 397 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 6 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.38 ft/s	
Max. Depth: 3.50 ft	
Mean Depth: 1.86 ft	
% Meas.: 55.30	
Water Temp.: None	
ADCP Temp.: 50.2 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: 50' DS of gage

Project Name: prince20160531q397cfs.mmt
Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
004	R	20	6	113	96.4	223	65.5	8.62	3.71	397	135	255	18:00	18:02	0.91	1.56	1	0
005	L	20	6	116	96.0	212	64.4	9.43	4.06	386	135	248	18:03	18:05	0.86	1.56	2	0
006	R	20	6	99	101	224	71.3	8.12	4.45	409	135	253	18:05	18:07	0.97	1.62	2	0
007	L	20	6	125	99.0	214	65.5	6.36	4.03	389	138	252	18:08	18:10	0.81	1.54	2	0
008	R	20	6	105	99.4	224	66.1	8.51	3.92	402	137	258	18:10	18:12	0.95	1.56	2	0
Mean		20	6	111	98.5	219	66.6	8.21	4.03	397	136	253	Total	00:12	0.90	1.57	2	0
SDev		0	0	10	2.27	5.97	2.71	1.14	0.271	9.52	1.5	3.5			0.07	0.03		
SD/M		0.00	0.00	0.09	0.02	0.03	0.04	0.14	0.07	0.02	0.01	0.01			0.07	0.02		

Remarks: Q with RiveRay 397 cfs using BT with 2% error, no GPS data.

Station Number:
Station Name: Prince Creek

Meas. No: 59
Date: 06/04/2016

Party: RTK/DAV	Width: 99.9 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 155 ft ²	Mean Velocity: 0.686 ft/s
Gage Height: 14.42 ft	G.H.Change: 0.000 ft	Discharge: 106 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 6 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 2.88 ft/s	
Max. Depth: 2.40 ft	
Mean Depth: 1.55 ft	
% Meas.: 48.87	
Water Temp.: None	
ADCP Temp.: 47.1 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 20' DS of gage

Project Name: prince20160604q106cfs.mmt
 Software: 2.17

Tr.#		Edge Distance		#Ens.	Discharge					Width	Area	Time		Mean Vel.		% Bad		
		L	R		Top	Middle	Bottom	Left	Right			Total	Start	End	Boat	Water	Ens.	Bins
001	R	15	10	98	30.5	52.2	18.0	3.96	2.44	107	99	153	13:15	13:17	0.67	0.70	1	0
002	L	15	10	106	31.0	50.3	18.5	3.67	1.41	105	99	160	13:18	13:20	0.65	0.70	1	0
003	R	15	10	89	29.7	53.8	17.2	3.53	3.71	108	100	157	13:20	13:22	0.74	0.69	1	0
004	L	15	10	107	28.6	49.9	16.9	2.83	3.46	102	101	158	13:22	13:24	0.63	0.64	2	0
005	R	15	10	85	29.8	53.1	17.8	5.09	3.04	109	99	155	13:25	13:26	0.80	0.70	1	0
Mean		15	10	97	29.9	51.8	17.7	3.81	2.81	106	100	155	Total	00:10	0.70	0.69	1	0
SDev		0	0	10	0.912	1.69	0.665	0.824	0.918	2.82	0.9	3.0			0.07	0.02		
SD/M		0.00	0.00	0.10	0.03	0.03	0.04	0.22	0.33	0.03	0.01	0.02			0.10	0.04		

Remarks: Q with StreamPro 106 cfs using BT with 3% error, no GPS data.

Station Number:
Station Name: Prince Creek

Meas. No: 60
Date: 06/11/2016

Party: RTK/DAV	Width: 82.5 ft	Processed by: DAV
Boat/Motor: kayak	Area: 350 ft ²	Mean Velocity: 3.10 ft/s
Gage Height: 16.32 ft	G.H.Change: 0.000 ft	Discharge: 1,080 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 10 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 5.99 ft/s	
Max. Depth: 6.31 ft	
Mean Depth: 4.24 ft	
% Meas.: 68.96	
Water Temp.: None	
ADCP Temp.: 54.2 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: 300' US of gage

Project Name: prince20160611q1080cfs.mmt
Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	R	8	4	63	193	757	140	13.2	0.848	1104	79	334	16:12	16:13	1.21	3.30	3	0
002	L	8	4	74	196	730	136	10.2	2.47	1076	87	362	16:14	16:15	0.97	2.97	4	0
003	R	8	4	66	178	731	119	11.2	2.83	1042	83	352	16:15	16:17	1.21	2.96	3	0
004	L	8	4	62	193	792	146	11.4	0.883	1143	83	365	16:18	16:20	1.14	3.13	6	0
005	R	8	4	61	181	721	129	11.7	2.37	1045	82	348	16:20	16:21	1.18	3.01	5	0
006	L	8	4	70	196	734	145	9.75	-0.918	1083	85	349	16:22	16:24	1.09	3.11	4	0
007	R	8	4	64	183	766	132	11.4	-1.17	1091	79	338	16:24	16:25	1.19	3.23	8	0
Mean		8	4	65	189	747	135	11.3	1.04	1083	82	350	Total	00:13	1.14	3.10	5	0
SDev		0	0	5	7.59	25.3	9.44	1.11	1.62	34.8	2.8	11.4			0.09	0.13		
SD/M		0.00	0.00	0.07	0.04	0.03	0.07	0.10	1.55	0.03	0.03	0.03			0.08	0.04		

Remarks: Q with StreamPro 1080 cfs using BT with 3% error, no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number:
Station Name: Prince Creek

Meas. No: 63
Date: 06/02/2017

Party: DAV/MW	Width: 255 ft	Processed by: DAV
Boat/Motor: kayak	Area: 920 ft ²	Mean Velocity: 4.09 ft/s
Gage Height: 18.21 ft	G.H.Change: 0.000 ft	Discharge: 3,360 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.656 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 9.79 ft/s	
Max. Depth: 7.96 ft	
Mean Depth: 4.35 ft	
% Meas.: 51.68	
Water Temp.: None	
ADCP Temp.: 38.0 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: 400' US of gage

Project Name: prince20170602_q3200cfs
Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	3	3	314	779	1848	713	2.68	27.9	3371	585	1528	17:23	17:28	2.54	2.20	77	4
001	R	3	3	114	957	1650	616	7.80	3.92	3235	129	644	17:28	17:30	1.95	5.02	9	6
<i>002</i>	<i>L</i>	<i>3</i>	<i>3</i>	<i>144</i>	<i>897</i>	<i>1839</i>	<i>766</i>	<i>1.31</i>	<i>26.9</i>	<i>3531</i>	<i>165</i>	<i>841</i>	<i>17:30</i>	<i>17:31</i>	<i>2.29</i>	<i>4.20</i>	<i>29</i>	<i>5</i>
003	R	3	3	168	1013	1609	667	7.88	7.13	3304	142	668	17:31	17:33	1.69	4.95	29	4
Mean		3	3	185	912	1737	691	4.92	16.5	3360	255	920	Total	00:09	2.12	4.09	36	5
SDev		0	0	89	100	125	64.1	3.42	12.7	126	220.4	414.7			0.37	1.31		
SD/M		0.00	0.00	0.48	0.11	0.07	0.09	0.70	0.77	0.04	0.86	0.45			0.18	0.32		

Remarks: Q with RiverRay 3360 cfs using Bt with 4% error, 3210 cfs using VTG with 5% error.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number:
Station Name: Prince Creek

Meas. No: 64
Date: 06/05/2017

Party: DAV/CDA	Width: 83.8 ft	Processed by: DAV
Boat/Motor: kayak	Area: 426 ft ²	Mean Velocity: 4.57 ft/s
Gage Height: 17.15 ft	G.H.Change: 0.000 ft	Discharge: 1,950 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (16.5°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 8.08 ft/s	
Max. Depth: 8.56 ft	
Mean Depth: 5.08 ft	
% Meas.: 51.68	
Water Temp.: None	
ADCP Temp.: 38.2 °F	

Performed Diag. Test: NO
Performed Moving Bed Test: NO
Performed Compass Calibration: NO Evaluation: NO
Meas. Location: 300' US of gage

Project Name: prince 20170605_q1950cfs
Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	7	3	88	432	959	467	13.8	34.7	1907	88	429	17:46	17:47	1.53	4.45	39	2
001	R	20	3	71	389	1029	455	44.6	37.0	1955	85	428	17:47	17:48	1.54	4.57	6	3
002	L	20	3	40	385	1015	460	44.4	39.5	1944	81	412	17:48	17:48	2.55	4.71	10	2
003	R	15	3	53	399	1019	489	28.7	42.9	1978	82	434	17:48	17:49	2.05	4.56	2	1
Mean		16	3	63	401	1006	468	32.9	38.5	1946	84	426	Total	00:03	1.92	4.57	14	2
SDev		6	0	21	21.5	31.6	14.9	14.7	3.49	29.6	3.1	9.4			0.49	0.11		
SD/M		0.40	0.00	0.33	0.05	0.03	0.03	0.45	0.09	0.02	0.04	0.02			0.25	0.02		

Remarks: Q with RiverRay 1950 using BT with 2% error, 1940 cfs using VTG with 3% error.

Summary of Discharge Measurement Forms

Seabee Creek, Alaska

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 38
 Date: 05/30/2010

Party: DB/BL	Width: 96.0 ft	Processed by: DAV
Boat/Motor: kayak	Area: 154 ft ²	Mean Velocity: 1.05 ft/s
Gage Height: 62.25 ft	G.H.Change: 0.000 ft	Discharge: 159 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.469 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.04
BT Error Vel.: 32.81 ft/s	Bin Size: 7 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.95 ft/s	
Max. Depth: 2.75 ft	
Mean Depth: 1.60 ft	
% Meas.: 35.31	
Water Temp.: None	
ADCP Temp.: 33.6 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: seabee20100530001w000r
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
002	R	25	10	157	51.1	66.1	22.5	21.2	1.38	162	104	193	22:35	22:38	0.72	0.84	1	0
004	L	25	10	108	54.7	50.4	21.5	31.3	-0.565	157	95	142	22:38	22:40	0.62	1.11	5	0
005	R	25	10	140	53.5	58.3	21.7	21.6	1.06	156	91	147	22:40	22:43	0.51	1.07	0	0
006	L	25	10	134	56.1	52.9	22.9	31.8	1.09	165	98	147	22:43	22:45	0.51	1.12	8	1
007	R	25	10	135	48.5	54.4	19.4	24.5	1.87	149	92	149	22:47	22:49	0.58	1.00	4	0
008	L	25	10	122	60.8	55.7	23.4	26.8	0.565	167	96	143	22:49	22:51	0.56	1.17	12	0
Mean		25	10	132	54.1	56.3	21.9	26.2	0.901	159	96	154	Total	00:16	0.58	1.05	5	0
SDev		0	0	17	4.25	5.51	1.42	4.60	0.836	6.77	4.6	19.6			0.08	0.12		
SD/M		0.00	0.00	0.13	0.08	0.10	0.06	0.18	0.93	0.04	0.05	0.13			0.13	0.11		

Remarks: Q with StreamPro 159.4 cfs using BT with 4% error, no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 39
 Date: 05/31/2010

Party: DB	Width: 101 ft	Processed by: DAV
Boat/Motor: kayak	Area: 231 ft ²	Mean Velocity: 1.35 ft/s
Gage Height: 62.98 ft	G.H.Change: 0.000 ft	Discharge: 311 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.469 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.04
BT Error Vel.: 32.81 ft/s	Bin Size: 7 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.11 ft/s	
Max. Depth: 3.39 ft	
Mean Depth: 2.27 ft	
% Meas.: 52.74	
Water Temp.: None	
ADCP Temp.: 33.1 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at road X

Project Name: seabee20100530001w000r
 Software: 2.17

Tr.#		Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad	
		L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins
001	R	4	15	165	95.2	174	44.5	4.59	3.57	322	106	248	23:01	23:04	0.57	1.30	4	0
002	L	4	15	158	95.4	155	45.6	4.24	2.65	303	99	213	23:04	23:07	0.60	1.42	4	0
003	R	4	15	156	90.3	169	43.5	4.70	4.03	311	102	243	23:07	23:10	0.63	1.28	3	0
004	L	4	15	139	96.0	160	46.4	4.94	5.16	312	101	221	23:10	23:12	0.69	1.41	3	0
005	R	4	15	159	91.7	166	43.5	4.27	4.20	309	102	236	23:14	23:16	0.62	1.31	4	0
006	L	4	15	125	94.6	161	44.7	4.31	4.56	310	99	224	23:16	23:18	0.76	1.38	6	0
Mean		4	15	150	93.9	164	44.7	4.51	4.03	311	101	231	Total	00:17	0.65	1.35	4	0
SDev		0	0	15	2.29	6.86	1.14	0.283	0.860	6.23	2.4	13.6			0.07	0.06		
SD/M		0.00	0.00	0.10	0.02	0.04	0.03	0.06	0.21	0.02	0.02	0.06			0.11	0.05		

Remarks: Q with StreamPro 311 cfs using BT with 2% error, no GPS data.

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 40
 Date: 06/03/2010

Party: DB	Width: 94.2 ft	Processed by: DAV
Boat/Motor: kayak	Area: 271 ft ²	Mean Velocity: 0.857 ft/s
Gage Height: 62.61 ft	G.H.Change: 0.000 ft	Discharge: 232 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.469 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.04
BT Error Vel.: 32.81 ft/s	Bin Size: 7 cm* Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 6.62 ft/s	
Max. Depth: 5.37 ft	
Mean Depth: 2.87 ft	
% Meas.: 60.49	
Water Temp.: None	
ADCP Temp.: 34.2 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: seabee20100603000r.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	4	15	177	51.9	129	38.7	2.61	3.60	226	95	282	21:18	21:21	0.58	0.80	3	0
001	L	4	15	163	52.8	133	30.5	2.68	-2.22	217	97	276	21:21	21:24	0.61	0.78	6	0
002	R	4	15	158	53.5	135	35.5	2.68	3.53	230	94	275	21:24	21:27	0.63	0.84	9	1
003	L	4	15	156	55.5	140	31.9	2.93	4.27	235	95	274	21:27	21:30	0.61	0.86	1	0
004	R	4	15	153	56.3	138	38.7	2.68	4.45	240	91	261	21:30	21:33	0.64	0.92	5	1
005	L	4	15	158	58.4	145	29.5	2.79	-4.34	231	97	274	21:33	21:36	0.62	0.84	6	0
010	R	4	15	163	52.9	142	30.2	2.58	2.44	230	88	246	21:59	22:02	0.60	0.94	2	0
011	L	4	15	154	57.9	152	31.1	2.51	-4.56	239	94	277	22:02	22:05	0.63	0.86	3	0
012	R	4	15	165	55.6	149	32.5	2.47	4.52	244	96	277	22:05	22:08	0.57	0.88	8	0
013	L	4	15	138	53.1	139	28.0	2.44	3.07	225	94	268	22:08	22:11	0.69	0.84	3	0
Mean		4	15	158	54.8	140	32.7	2.64	1.48	232	94	271	Total	00:53	0.62	0.86	5	0
SDev		0	0	10	2.29	7.18	3.76	0.151	3.68	8.14	2.8	10.6			0.03	0.05		
SD/M		0.00	0.00	0.06	0.04	0.05	0.12	0.06	2.50	0.04	0.03	0.04			0.05	0.06		

Remarks: Q with StreamPro 232 cfs using BT with 4% error, no GPS data.

* - value not consistent for all transects

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 41
 Date: 06/06/2010

Party: DB	Width: 88.0 ft	Processed by: DAV
Boat/Motor: kayak	Area: 147 ft ²	Mean Velocity: 3.30 ft/s
Gage Height: 63.24 ft	G.H.Change: 0.000 ft	Discharge: 486 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.469 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.04
BT Error Vel.: 32.81 ft/s	Bin Size: 7 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 5.32 ft/s	
Max. Depth: 4.70 ft	
Mean Depth: 1.67 ft	
% Meas.: 40.65	
Water Temp.: None	
ADCP Temp.: 41.4 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: seabee20100606_000r.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	8	38	180	127	192	66.1	15.7	70.2	471	89	148	22:34	22:37	0.29	3.19	1	0
001	L	8	38	197	130	193	71.0	15.0	69.8	478	88	144	22:37	22:41	0.24	3.32	1	0
002	R	8	38	159	128	195	68.7	13.0	68.4	473	88	147	22:41	22:44	0.30	3.23	1	0
003	L	8	38	174	129	194	73.2	16.6	72.8	486	88	147	22:44	22:47	0.28	3.30	2	0
004	R	8	38	158	129	199	70.9	15.0	73.1	487	88	147	22:47	22:50	0.31	3.32	1	0
005	L	8	38	154	131	200	73.9	13.8	71.8	490	88	147	22:50	22:53	0.31	3.33	0	0
006	R	8	38	164	131	204	72.4	15.7	71.2	494	88	149	22:53	22:56	0.29	3.33	1	0
007	L	8	38	155	131	204	73.7	16.6	79.8	505	88	150	22:56	22:58	0.31	3.38	2	0
Mean		8	38	167	130	197	71.3	15.2	72.1	486	88	147	Total	00:24	0.29	3.30	1	0
SDev		0	0	15	1.44	4.74	2.71	1.27	3.48	11.2	0.4	1.6			0.02	0.06		
SD/M		0.00	0.00	0.09	0.01	0.02	0.04	0.08	0.05	0.02	0.00	0.01			0.08	0.02		

Remarks: Q with StreamPro 486 cfs using BT with 2% error, no GPS data.

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 49
 Date: 05/26/2011

Party: DB	Width: 110 ft	Processed by: DAV
Boat/Motor: kayak	Area: 276 ft ²	Mean Velocity: 1.06 ft/s
Gage Height: 65.01 ft	G.H.Change: 0.000 ft	Discharge: 292 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (20.4°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 7 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 5.54 ft/s	
Max. Depth: 4.93 ft	
Mean Depth: 2.51 ft	
% Meas.: 65.39	
Water Temp.: None	
ADCP Temp.: 34.1 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: seabee 2011 05 26000
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	20	8	261	60.3	190	41.7	-3.81	-1.06	287	110	273	21:06	21:11	0.31	1.05	2	2
001	L	20	8	216	60.4	183	44.2	-3.18	-0.530	284	109	290	21:12	21:16	0.37	0.98	4	2
003	L	24	13	222	61.1	186	45.4	5.54	0.600	299	113	287	21:23	21:27	0.34	1.04	7	3
004	R	20	14	243	67.1	207	39.3	-4.03	-1.06	309	109	263	21:31	21:36	0.33	1.17	1	1
005	L	20	14	212	62.8	190	38.5	-5.76	-1.38	284	108	266	21:37	21:41	0.35	1.07	4	2
Mean		21	11	230	62.3	191	41.8	-2.25	-0.685	292	110	276	Total	00:34	0.34	1.06	4	2
SDev		2	3	21	2.82	9.56	3.01	4.46	0.780	11.1	1.7	12.1			0.02	0.07		
SD/M		0.09	0.27	0.09	0.05	0.05	0.07	1.99	1.14	0.04	0.02	0.04			0.06	0.07		

Remarks: Q with StreamPro 292 cfs using BT with 4% error, no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 50
 Date: 05/27/2011

Party: RTK	Width: 73.4 ft	Processed by: DAV
Boat/Motor: kayak	Area: 170 ft ²	Mean Velocity: 2.59 ft/s
Gage Height: 63.63 ft	G.H.Change: 0.000 ft	Discharge: 440 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 6 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 5.28 ft/s	
Max. Depth: 3.65 ft	
Mean Depth: 2.31 ft	
% Meas.: 55.37	
Water Temp.: None	
ADCP Temp.: 35.9 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: not sure

Project Name: seabee 20110527000r.mmt
 Software: 2.17

Tr.#		Edge Distance		#Ens.	Discharge					Width	Area	Time		Mean Vel.		% Bad		
		L	R		Top	Middle	Bottom	Left	Right			Total	Start	End	Boat	Water	Ens.	Bins
000	R	5	15	91	120	244	62.4	5.93	15.4	448	75	170	23:00	23:02	0.61	2.64	2	1
001	L	5	15	95	107	243	56.1	8.23	14.5	429	72	172	23:02	23:04	0.62	2.49	8	0
002	R	5	15	105	113	226	57.8	15.9	16.7	430	71	158	23:04	23:06	0.49	2.71	2	0
003	L	5	15	86	113	260	60.0	4.48	14.2	452	75	179	23:07	23:08	0.69	2.53	2	0
Mean		5	15	94	113	243	59.1	8.63	15.2	440	73	170	Total	00:08	0.60	2.59	4	0
SDev		0	0	8	5.48	13.8	2.73	5.06	1.12	12.0	1.8	8.4			0.08	0.10		
SD/M		0.00	0.00	0.09	0.05	0.06	0.05	0.59	0.07	0.03	0.02	0.05			0.14	0.04		

Remarks: Q with StreamPro 440 cfs using BT with 3% error, no GPS data.

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 51
 Date: 05/29/2011

Party: RTK	Width: 88.9 ft	Processed by: DAV
Boat/Motor: kayak	Area: 241 ft ²	Mean Velocity: 2.82 ft/s
Gage Height: 64.12 ft	G.H.Change: 0.000 ft	Discharge: 676 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 6 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 5.49 ft/s	
Max. Depth: 5.36 ft	
Mean Depth: 2.71 ft	
% Meas.: 58.28	
Water Temp.: None	
ADCP Temp.: 36.5 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at road X

Project Name: seabee20110529000r.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	R	0	0	91	189	414	104	0.000	0.000	707	96	258	00:31	00:33	1.01	2.74	2	1
002	L	0	0	119	163	422	96.1	0.000	0.000	680	83	234	00:33	00:35	0.79	2.91	2	0
003	R	0	0	107	173	376	108	0.000	0.000	658	92	247	00:36	00:38	0.78	2.66	1	0
004	L	0	0	103	178	384	103	0.000	0.000	665	84	222	00:38	00:40	0.82	2.99	2	0
005	R	0	0	100	184	375	112	0.000	0.000	671	90	242	00:40	00:42	0.84	2.78	6	1
Mean		0	0	104	177	394	105	0.000	0.000	676	89	241	Total	00:11	0.85	2.82	3	0
SDev		0	0	10	10.2	21.8	5.97	0.000	0.000	19.3	5.3	13.6			0.09	0.13		
SD/M		0.00	0.00	0.10	0.06	0.06	0.06	0.00	0.00	0.03	0.06	0.06			0.11	0.05		

Remarks: Q with StreamPro 676 cfs using BT with 3% error, no GPS data.

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 52
 Date: 05/30/2011

Party: RTK	Width: 88.9 ft	Processed by: DAV
Boat/Motor: kayak	Area: 216 ft ²	Mean Velocity: 2.75 ft/s
Gage Height: 63.78 ft	G.H.Change: 0.000 ft	Discharge: 594 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 5 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 5.66 ft/s	
Max. Depth: 5.19 ft	
Mean Depth: 2.44 ft	
% Meas.: 56.97	
Water Temp.: None	
ADCP Temp.: 39.2 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: road X

Project Name: seabee20110530000r.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
002	R	0	5	127	179	328	98.3	0.000	0.883	606	93	221	00:41	00:43	0.87	2.74	9	1
003	L	0	5	123	148	338	95.6	0.000	0.953	583	82	207	00:44	00:46	0.77	2.82	2	1
004	R	0	10	103	167	338	89.4	0.000	2.05	596	95	225	00:47	00:49	0.92	2.65	6	1
005	L	0	10	111	149	350	91.3	0.000	2.08	592	86	213	00:49	00:51	0.80	2.78	2	1
Mean		0	8	116	161	338	93.6	0.000	1.49	594	89	216	Total	00:10	0.84	2.75	4	1
SDev		0	3	11	14.8	9.14	4.05	0.000	0.663	9.52	6.2	8.1			0.07	0.07		
SD/M		0.00	0.38	0.09	0.09	0.03	0.04	0.00	0.44	0.02	0.07	0.04			0.08	0.03		

Remarks: Q with StreamPro 594 cfs using BT with 2%error, no GPS data

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 53
 Date: 05/30/2011

Party: RTK	Width: 73.6 ft	Processed by: DAV
Boat/Motor: kaysk	Area: 152 ft ²	Mean Velocity: 2.41 ft/s
Gage Height: 63.09 ft	G.H.Change: 0.000 ft	Discharge: 356 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 5 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.81 ft/s	
Max. Depth: 4.44 ft	
Mean Depth: 2.05 ft	
% Meas.: 49.63	
Water Temp.: None	
ADCP Temp.: 41.6 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at road X

Project Name: seabee20110530a000r.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	0	15	95	131	183	61.6	0.000	-2.97	373	78	151	22:26	22:28	0.96	2.46	18	0
001	L	0	15	81	109	177	61.7	0.000	6.64	354	60	114	22:28	22:30	0.87	3.10	9	1
003	L	0	15	93	94.6	172	47.9	0.000	9.15	324	65	134	22:33	22:35	0.80	2.41	14	1
004	R	0	15	87	109	178	59.1	0.000	18.2	364	83	176	22:37	22:38	0.90	2.08	24	3
006	R	0	15	76	107	173	65.5	0.000	20.0	366	82	184	22:41	22:42	1.12	1.99	26	2
Mean		0	15	86	110	177	59.2	0.000	10.2	356	74	152	Total	00:16	0.93	2.41	18	1
SDev		0	0	8	13.1	4.48	6.70	0.000	9.32	19.3	10.4	28.7			0.12	0.44		
SD/M		0.00	0.00	0.09	0.12	0.03	0.11	0.00	0.91	0.05	0.14	0.19			0.13	0.18		

Remarks: Q with StreamPro 356 cfs using BT with 5% error, no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 54
 Date: 06/01/2011

Party: DAV	Width: 66.2 ft	Processed by: DAV
Boat/Motor: kayak	Area: 122 ft ²	Mean Velocity: 1.99 ft/s
Gage Height: 62.71 ft	G.H.Change: 0.000 ft	Discharge: 242 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.38 ft/s	
Max. Depth: 2.61 ft	
Mean Depth: 1.84 ft	
% Meas.: 55.49	
Water Temp.: None	
ADCP Temp.: 35.8 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: road X

Project Name: seabee20110601000r.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	8	6	79	59.8	138	34.2	9.53	4.45	246	65	121	21:57	21:59	0.60	2.03	1	0
001	L	8	6	88	58.9	129	35.1	10.1	3.43	237	65	119	21:59	22:01	0.60	1.99	2	0
002	R	8	6	69	60.5	133	34.8	9.11	5.01	242	66	120	22:01	22:03	0.69	2.02	1	0
003	L	8	6	82	58.9	138	32.5	10.8	4.45	245	68	128	22:03	22:05	0.64	1.91	2	0
Mean		8	6	79	59.5	135	34.2	9.89	4.33	242	66	122	Total	00:07	0.63	1.99	2	0
SDev		0	0	8	0.784	4.25	1.18	0.734	0.662	4.07	1.5	4.1			0.05	0.05		
SD/M		0.00	0.00	0.10	0.01	0.03	0.03	0.07	0.15	0.02	0.02	0.03			0.07	0.03		

Remarks: Q with StreamPro 242 cfs using BT with 2% error, no GPS data

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 56
 Date: 07/12/2011

Party: RTK/DAV	Width: 4.55 ft	Processed by: DAV
Boat/Motor: Tethered boat	Area: 5.41 ft ²	Mean Velocity: 0.341 ft/s
Gage Height: 60.73 ft	G.H.Change: 0.000 ft	Discharge: 1.85 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 2 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 9.84 ft/s	
Max. Depth: 1.77 ft	
Mean Depth: 1.19 ft	
% Meas.: 37.14	
Water Temp.: None	
ADCP Temp.: 56.5 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 100' DS of road X

Project Name: seabee20110712000r.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
006	R	1	1	40	0.212	0.671	-0.141	0.671	0.247	1.66	4	5	13:36	13:37	0.09	0.33	7	8
008	L	1	1	36	0.494	0.706	0.283	0.247	0.141	1.87	5	5	13:39	13:40	0.06	0.34	6	2
009	R	1	1	36	0.530	0.671	0.247	0.318	0.141	1.91	5	6	13:40	13:41	0.08	0.31	3	1
010	L	1	1	37	0.530	0.706	0.283	0.177	0.283	1.94	4	5	13:41	13:42	0.06	0.38	5	0
Mean		1	1	37	0.441	0.689	0.168	0.353	0.203	1.85	5	5	Total	00:06	0.07	0.34	5	3
SDev		0	0	2	0.154	0.020	0.207	0.220	0.073	0.127	0.3	0.6			0.01	0.03		
SD/M		0.00	0.00	0.05	0.35	0.03	1.23	0.62	0.36	0.07	0.07	0.10			0.16	0.09		

Remarks: Q with StreamPro 1.8 cfs using BT with 7% error, no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 57
 Date: 07/19/2011

Party: RTK	Width: 40.4 ft	Processed by: DAV
Boat/Motor: tethered	Area: 43.2 ft ²	Mean Velocity: 0.605 ft/s
Gage Height: 61.22 ft	G.H.Change: 0.000 ft	Discharge: 26.2 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 2 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 13.2 ft/s	
Max. Depth: 1.59 ft	
Mean Depth: 1.07 ft	
% Meas.: 32.59	
Water Temp.: None	
ADCP Temp.: 58.0 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at road crossing

Project Name: seabee20110719000r.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	5	0	121	13.4	9.61	6.22	0.565	0.000	29.8	42	43	18:44	18:46	0.29	0.69	2	1
001	L	-3	-3	93	10.2	7.06	4.59	-0.459	0.247	21.6	33	39	18:46	18:48	0.39	0.55	4	1
002	R	5	0	90	13.4	10.5	6.50	1.06	0.000	31.4	43	47	18:49	18:51	0.39	0.67	2	3
003	L	5	0	83	13.3	9.75	6.32	1.06	0.000	30.4	43	45	18:51	18:53	0.41	0.68	2	2
004	R	5	0	85	11.7	8.69	5.86	1.09	0.000	27.3	43	46	18:53	18:55	0.43	0.59	2	2
005	L	5	0	83	11.5	8.02	5.30	0.848	0.000	25.6	40	42	18:55	18:57	0.40	0.61	1	3
007	L	5	0	85	10.5	6.78	4.73	0.388	0.000	22.4	38	37	19:01	19:03	0.37	0.61	1	2
009	L	5	0	83	10.1	8.37	4.94	1.13	0.000	24.5	42	46	19:05	19:07	0.41	0.54	2	4
010	R	5	0	88	9.22	7.98	4.56	1.27	0.000	23.0	43	46	19:08	19:10	0.39	0.50	3	5
011	L	5	0	80	11.0	8.62	5.33	0.706	0.000	25.7	38	42	19:10	19:12	0.40	0.61	1	3
Mean		4	-0	89	11.4	8.53	5.43	0.766	0.025	26.2	40	43	Total	00:28	0.39	0.60	2	3
SDev		3	1	12	1.51	1.16	0.742	0.512	0.078	3.45	3.3	3.3			0.04	0.06		
SD/M		0.63	3.16	0.13	0.13	0.14	0.14	0.67	3.16	0.13	0.08	0.08			0.10	0.11		

Remarks: Q with StreamPro 26 cfs using BT with 13% error, no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 63
 Date: 05/24/2012

Party: DAV	Width: 32.1 ft	Processed by: DAV
Boat/Motor: tethered	Area: 38.8 ft ²	Mean Velocity: 1.20 ft/s
Gage Height: 61.74 ft	G.H.Change: 0.000 ft	Discharge: 46.3 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 0.33 ft/s	Bin Size: 2 cm Blank: 3 cm
WT Error Vel.: 1.10 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 3.50 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.46 ft/s	
Max. Depth: 1.86 ft	
Mean Depth: 1.21 ft	
% Meas.: 39.45	
Water Temp.: None	
ADCP Temp.: 32.7 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at road crossing

Project Name: seabee 5242012 q46cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	4	6	82	15.0	18.0	8.69	2.58	2.30	46.5	33	39	09:57	09:58	0.27	1.20	10	5
001	R	4	6	62	13.8	19.8	8.48	3.07	2.83	48.0	32	40	09:59	10:00	0.36	1.20	8	4
002	L	4	6	66	13.9	18.4	8.51	2.93	2.12	45.8	32	38	10:00	10:01	0.34	1.21	9	5
003	R	4	6	68	13.7	16.9	8.83	3.00	2.54	45.1	32	38	10:02	10:03	0.32	1.17	7	6
Mean		4	6	69	14.1	18.3	8.63	2.90	2.45	46.3	32	39	Total	00:06	0.32	1.20	9	5
SDev		0	0	9	0.588	1.21	0.164	0.220	0.307	1.25	0.5	0.8			0.04	0.02		
SD/M		0.00	0.00	0.13	0.04	0.07	0.02	0.08	0.13	0.03	0.02	0.02			0.12	0.01		

Remarks: Q with StreamPro 46 cfs using BT with 3% error, no GPS data.

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 65
 Date: 05/25/2012

Party: DAV	Width: 42.4 ft	Processed by: DAV
Boat/Motor: Tethered Boat	Area: 57.1 ft ²	Mean Velocity: 1.66 ft/s
Gage Height: 62.08 ft	G.H.Change: 0.000 ft	Discharge: 95.0 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 0.33 ft/s	Bin Size: 3 cm Blank: 3 cm
WT Error Vel.: 1.10 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 3.90 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.81 ft/s	
Max. Depth: 2.38 ft	
Mean Depth: 1.35 ft	
% Meas.: 45.24	
Water Temp.: None	
ADCP Temp.: 34.5 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at road X

Project Name: seabee05252012q95cfs.mmt
 Software: 2.17

Tr.#		Edge Distance		#Ens.	Discharge					Width	Area	Time		Mean Vel.		% Bad		
		L	R		Top	Middle	Bottom	Left	Right			Total	Start	End	Boat	Water	Ens.	Bins
002	R	4	8	74	28.5	44.2	16.5	3.57	3.85	96.6	43	57	21:43	21:44	0.39	1.69	1	6
003	L	4	8	58	26.3	41.6	15.8	3.92	5.01	92.6	42	56	21:45	21:46	0.47	1.65	5	2
004	R	4	8	62	27.3	40.9	16.8	3.28	5.09	93.4	42	56	21:46	21:48	0.45	1.66	3	5
005	L	4	8	59	27.8	45.2	16.3	3.74	4.48	97.5	43	59	21:48	21:49	0.47	1.65	5	5
Mean		4	8	63	27.5	43.0	16.3	3.63	4.61	95.0	42	57	Total	00:05	0.44	1.66	4	5
SDev		0	0	7	0.903	2.06	0.458	0.271	0.573	2.38	0.7	1.4			0.04	0.02		
SD/M		0.00	0.00	0.12	0.03	0.05	0.03	0.07	0.12	0.03	0.02	0.02			0.09	0.01		

Remarks: Q with StreamPro 95 cfs using BT with 3% error, no GPS data.

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 66
 Date: 06/01/2012

Party: DAV	Width: 67.5 ft	Processed by: DAV
Boat/Motor: tethered	Area: 147 ft ²	Mean Velocity: 3.19 ft/s
Gage Height: 63.53 ft	G.H.Change: 0.000 ft	Discharge: 467 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 7 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 5.22 ft/s	
Max. Depth: 4.33 ft	
Mean Depth: 2.17 ft	
% Meas.: 49.74	
Water Temp.: None	
ADCP Temp.: 35.9 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at road crossing

Project Name: seabee60112000r.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
002	L	6	20	53	116	251	68.8	25.9	32.1	494	71	156	11:58	11:59	0.86	3.16	6	0
003	R	6	20	47	92.3	215	56.9	28.5	38.2	431	61	134	11:59	12:00	1.00	3.22	4	0
004	L	6	20	46	111	239	72.0	31.1	33.6	486	67	150	12:00	12:01	0.88	3.24	4	0
005	R	6	20	47	103	229	59.2	26.9	39.2	457	62	135	12:02	12:03	0.98	3.39	4	0
006	L	6	20	57	122	250	74.4	30.3	25.4	502	76	163	12:03	12:04	0.93	3.08	16	0
007	R	6	20	69	117	230	68.4	29.6	27.2	472	71	147	12:07	12:09	0.99	3.22	23	0
008	L	6	20	47	98.1	212	52.2	32.0	31.6	426	65	140	12:09	12:10	1.09	3.03	9	0
Mean		6	20	52	109	232	64.6	29.2	32.5	467	67	147	Total	00:11	0.96	3.19	9	0
SDev		0	0	8	10.9	15.4	8.44	2.23	5.13	30.1	5.4	11.0			0.08	0.12		
SD/M		0.00	0.00	0.16	0.10	0.07	0.13	0.08	0.16	0.06	0.08	0.07			0.08	0.04		

Remarks: Q with StreamPro 467 cfs using BT with 6% error, no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 67
 Date: 06/02/2012

Party: RTK/DAV	Width: 86.7 ft	Processed by: DAV
Boat/Motor: kayak	Area: 183 ft ²	Mean Velocity: 2.81 ft/s
Gage Height: 63.56 ft	G.H.Change: 0.000 ft	Discharge: 514 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 6 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 5.15 ft/s	
Max. Depth: 4.54 ft	
Mean Depth: 2.12 ft	
% Meas.: 59.05	
Water Temp.: None	
ADCP Temp.: 39.2 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at road crossing

Project Name: FACTORY_006r.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
006	R	10	20	106	95.6	298	67.7	34.9	13.3	510	91	189	10:02	10:04	0.58	2.69	1	0
007	L	10	20	86	90.4	301	68.1	35.7	22.3	518	84	180	10:05	10:06	0.65	2.87	2	0
008	R	10	20	77	96.9	304	68.9	26.2	19.0	515	90	187	10:07	10:08	0.78	2.75	1	0
009	L	10	20	79	86.5	311	65.5	29.0	21.9	514	82	177	10:09	10:10	0.73	2.90	3	0
Mean		10	20	87	92.4	304	67.6	31.5	19.1	514	87	183	Total	00:07	0.69	2.81	2	0
SDev		0	0	13	4.81	5.35	1.44	4.59	4.12	3.28	4.6	5.7			0.09	0.10		
SD/M		0.00	0.00	0.15	0.05	0.02	0.02	0.15	0.22	0.01	0.05	0.03			0.13	0.04		

Remarks: Q with StreamPro 514 cfs using Bt with 1% error, no GPS data.

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 76
 Date: 05/28/2013

Party: DAV/RTK	Width: 44.9 ft	Processed by: DAV
Boat/Motor: Tethered boat	Area: 68.8 ft ²	Mean Velocity: 1.78 ft/s
Gage Height: 62.42 ft	G.H.Change: 0.000 ft	Discharge: 122 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.8°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 0.33 ft/s	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 1.40 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 4.29 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.29 ft/s	
Max. Depth: 2.22 ft	
Mean Depth: 1.53 ft	
% Meas.: 49.23	
Water Temp.: None	
ADCP Temp.: 35.0 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at road crossing

Project Name: seabee20130528dav125cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	L	4	6	74	35.4	58.7	19.7	3.78	3.39	121	43	67	19:26	19:28	0.41	1.81	3	1
002	R	4	6	69	36.7	60.7	20.7	2.86	3.28	124	45	68	19:28	19:30	0.46	1.82	1	1
003	L	4	6	60	35.3	56.2	19.9	2.65	1.91	116	45	68	19:30	19:31	0.60	1.72	7	0
004	R	4	6	60	37.9	62.9	21.0	2.93	3.00	128	44	68	19:32	19:33	0.54	1.88	2	0
005	L	4	6	80	36.6	62.9	19.4	2.47	1.77	123	48	74	19:33	19:35	0.44	1.67	1	1
Mean		4	6	68	36.4	60.3	20.2	2.94	2.67	122	45	69	Total	00:08	0.49	1.78	3	1
SDev		0	0	9	1.05	2.85	0.680	0.503	0.776	4.31	1.7	2.7			0.08	0.08		
SD/M		0.00	0.00	0.13	0.03	0.05	0.03	0.17	0.29	0.04	0.04	0.04			0.16	0.05		

Remarks: Q with StreamPro 122 cfs using BT with 6% error, no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 77
 Date: 05/30/2013

Party: DAV	Width: 51.3 ft	Processed by: DAV
Boat/Motor: Tethered boat	Area: 93.1 ft ²	Mean Velocity: 2.65 ft/s
Gage Height: 62.87 ft	G.H.Change: 0.000 ft	Discharge: 245 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.8°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 0.33 ft/s	Bin Size: 6 cm Blank: 3 cm
WT Error Vel.: 1.10 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 4.92 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.92 ft/s	
Max. Depth: 3.04 ft	
Mean Depth: 1.82 ft	
% Meas.: 53.02	
Water Temp.: None	
ADCP Temp.: 34.1 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at road crossing

Project Name: seabee20130530dav245cfs
 Software: 2.17

Tr.#		Edge Distance		#Ens.	Discharge					Width	Area	Time		Mean Vel.		% Bad		
		L	R		Top	Middle	Bottom	Left	Right			Total	Start	End	Boat	Water	Ens.	Bins
003	R	3	10	93	60.0	127	41.4	4.98	8.30	241	54	93	11:14	11:16	0.62	2.61	4	1
004	L	3	10	85	57.8	131	40.6	5.93	7.38	243	54	100	11:16	11:18	0.59	2.43	12	0
005	R	3	10	77	61.2	130	43.7	7.91	9.18	252	48	84	11:19	11:20	0.61	2.99	5	1
006	R	3	10	75	58.9	127	41.8	6.29	8.79	243	50	87	11:25	11:27	0.49	2.77	4	0
007	L	3	10	74	54.8	135	42.1	5.90	8.55	246	51	101	11:27	11:29	0.50	2.43	7	1
Mean		3	10	80	58.5	130	41.9	6.20	8.44	245	51	93	Total	00:14	0.56	2.65	6	1
SDev		0	0	8	2.45	3.52	1.14	1.07	0.676	4.55	2.6	7.3			0.06	0.24		
SD/M		0.00	0.00	0.10	0.04	0.03	0.03	0.17	0.08	0.02	0.05	0.08			0.11	0.09		

Remarks: Q with StreamPro 245 cfs using BT with 2%, no GPS data.

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 78
 Date: 06/01/2013

Party: DAV	Width: 61.7 ft	Processed by: DAV
Boat/Motor: Tethered boat	Area: 122 ft ²	Mean Velocity: 2.42 ft/s
Gage Height: 62.85 ft	G.H.Change: 0.000 ft	Discharge: 295 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 31.12
BT Error Vel.: 0.33 ft/s	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 1.40 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 4.78 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.78 ft/s	
Max. Depth: 4.12 ft	
Mean Depth: 1.98 ft	
% Meas.: 57.05	
Water Temp.: None	
ADCP Temp.: 43.0 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at road crossing

Project Name: seabee20130601dav295cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	6	10	106	65.5	167	45.3	11.1	8.58	298	60	116	14:24	14:26	0.41	2.56	2	0
001	L	6	10	97	65.3	167	49.4	11.4	8.69	302	62	124	14:27	14:29	0.52	2.44	10	1
002	R	6	10	111	65.3	172	44.9	10.2	7.38	300	61	120	14:29	14:31	0.49	2.51	1	1
003	L	6	10	116	60.4	165	44.0	8.05	6.25	284	61	122	14:32	14:34	0.66	2.32	13	1
004	L	6	10	129	64.4	170	44.9	6.89	6.18	292	66	128	14:36	14:38	0.46	2.28	12	1
Mean		6	10	111	64.2	168	45.7	9.52	7.42	295	62	122	Total	00:13	0.51	2.42	8	1
SDev		0	0	12	2.17	2.74	2.10	1.97	1.21	7.44	2.3	4.5			0.10	0.12		
SD/M		0.00	0.00	0.11	0.03	0.02	0.05	0.21	0.16	0.03	0.04	0.04			0.19	0.05		

Remarks: Q with StreamPro 29 5cfs using BT with 3% error, no GPS data.

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 79
 Date: 06/02/2013

Party: DAV, JPB	Width: 79.8 ft	Processed by: DAV
Boat/Motor: kayak	Area: 219 ft ²	Mean Velocity: 3.04 ft/s
Gage Height: 63.96 ft	G.H.Change: 0.000 ft	Discharge: 665 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.5°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: YES	Serial #: 592 Firmware: 31.12
BT Error Vel.: 0.33 ft/s*	Bin Size: 6 cm Blank: 3 cm
WT Error Vel.: 1.15 ft/s*	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 5.00 ft/s	
Use Weighted Mean Depth: YES	
Max. Vel.: 5.20 ft/s	
Max. Depth: 4.66 ft	
Mean Depth: 2.75 ft	
% Meas.: 58.57	
Water Temp.: None	
ADCP Temp.: 55.8 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at road crossing

Project Name: seabee20130602dav665cfs
 Software: 2.17

Tr.#		Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad	
		L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins
000	R	4	6	53	176	365	98.3	19.7	1.70	661	83	207	21:04	21:05	1.17	3.19	0	0
001	L	4	6	46	158	411	90.4	2.01	6.18	668	81	228	21:06	21:07	1.39	2.93	0	0
002	R	4	6	33	167	359	101	18.3	5.93	652	77	204	21:07	21:07	1.74	3.19	0	2
003	L	4	6	33	153	423	88.5	4.94	10.6	681	78	237	21:07	21:08	2.01	2.87	0	2
Mean		4	6	41	164	390	94.5	11.2	6.11	665	80	219	Total	00:04	1.58	3.04	0	1
SDev		0	0	10	10.3	32.3	5.96	9.07	3.65	12.2	2.7	15.8			0.37	0.17		
SD/M		0.00	0.00	0.24	0.06	0.08	0.06	0.81	0.60	0.02	0.03	0.07			0.24	0.06		

Remarks: Q with StreamPro 665 cfs using BT with 2% error, no GPS data.

* - value not consistent for all transects

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 80
 Date: 06/03/2013

Party: DAV	Width: 68.4 ft	Processed by: DAV
Boat/Motor: kayak	Area: 216 ft ²	Mean Velocity: 3.48 ft/s
Gage Height: 751 ft	G.H.Change: 0.000 ft	Discharge: 751 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 0.33 ft/s	Bin Size: 9 cm Blank: 3 cm
WT Error Vel.: 0.60 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 5.24 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 5.24 ft/s	
Max. Depth: 5.11 ft	
Mean Depth: 3.16 ft	
% Meas.: 58.67	
Water Temp.: None	
ADCP Temp.: 36.6 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at road

Project Name: seabee20130603dav751cfs.
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
004	L	4	4	77	176	440	117	6.11	7.38	746	68	217	07:39	07:41	0.81	3.44	3	3
005	R	4	4	75	176	440	124	5.09	7.06	753	66	209	07:41	07:42	0.95	3.60	3	6
006	L	4	4	72	181	439	119	6.57	3.96	750	70	219	07:43	07:44	0.89	3.43	4	3
007	R	4	4	66	181	444	123	4.06	4.98	757	69	220	07:45	07:46	0.93	3.44	3	5
Mean		4	4	72	178	441	121	5.46	5.84	751	68	216	Total	00:06	0.89	3.48	3	4
SDev		0	0	5	2.77	2.31	3.55	1.12	1.65	4.72	1.7	4.7			0.06	0.08		
SD/M		0.00	0.00	0.07	0.02	0.01	0.03	0.20	0.28	0.01	0.02	0.02			0.07	0.02		

Remarks: Q with StreamPro 751 cfs using BT with 1% error, no GPS data.

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 82
 Date: 06/12/2013

Party: DAV	Width: 55.8 ft	Processed by: DAV
Boat/Motor: tethered	Area: 96.6 ft ²	Mean Velocity: 1.63 ft/s
Gage Height: 62.24 ft	G.H.Change: 0.000 ft	Discharge: 157 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:3	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.8°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 0.33 ft/s	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 1.40 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 3.99 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.84 ft/s	
Max. Depth: 3.92 ft	
Mean Depth: 1.73 ft	
% Meas.: 50.29	
Water Temp.: None	
ADCP Temp.: 56.0 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at road crossing

Project Name: seabee20130612dav157cfs
 Software: 2.17

Tr.#		Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad	
		L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins
000	R	6	6	84	38.8	75.7	23.9	11.5	1.91	152	57	101	16:53	16:55	0.52	1.50	1	1
001	L	4	6	79	42.6	79.2	26.3	1.17	4.80	154	54	90	16:56	16:57	0.56	1.70	1	0
002	R	6	6	80	41.4	78.6	30.9	5.86	4.63	161	53	96	16:58	16:59	0.51	1.68	1	1
003	L	6	6	64	45.8	82.3	27.6	3.81	1.17	161	60	99	17:00	17:01	0.67	1.63	2	1
Mean		6	6	76	42.1	78.9	27.2	5.60	3.13	157	56	97	Total	00:07	0.56	1.63	1	1
SDev		1	0	9	2.91	2.72	2.89	4.41	1.86	4.79	3.1	4.6			0.07	0.09		
SD/M		0.18	0.00	0.12	0.07	0.03	0.11	0.79	0.60	0.03	0.06	0.05			0.13	0.06		

Remarks: Q with StreamPro 157 cfs using BT with 3% error, no GPS data.

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 83
 Date: 06/16/2013

Party: RTK	Width: 45.7 ft	Processed by: DAV
Boat/Motor: Tethered boat	Area: 41.2 ft ²	Mean Velocity: 1.59 ft/s
Gage Height: 61.78 ft	G.H.Change: 0.000 ft	Discharge: 64.4 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.220 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (21.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 0.33 ft/s	Bin Size: 2 cm* Blank: 3 cm
WT Error Vel.: 2.00 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 4.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.81 ft/s	
Max. Depth: 1.72 ft	
Mean Depth: 0.899 ft	
% Meas.: 26.79	
Water Temp.: None	
ADCP Temp.: 48.9 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at road crossing

Project Name: seabee20130616dav64cfs.
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	12	14	126	16.7	19.5	9.15	10.2	7.13	62.8	52	55	18:43	18:45	0.27	1.15	2	0
001	L	16	8	108	20.6	14.0	9.53	12.0	3.99	60.2	46	39	18:47	18:49	0.24	1.56	1	2
002	R	10	8	98	24.3	17.3	10.0	6.00	4.31	62.0	44	39	18:49	18:51	0.25	1.59	1	1
003	L	10	8	97	24.5	17.9	10.5	6.60	4.63	64.1	44	39	18:52	18:54	0.26	1.64	2	2
004	R	10	8	95	28.0	16.3	11.9	6.99	4.41	67.6	45	37	18:55	18:57	0.27	1.80	1	1
005	L	10	8	111	26.3	17.1	10.9	7.38	4.84	66.6	46	40	18:57	18:59	0.25	1.67	1	1
006	R	4	8	102	30.3	18.6	12.0	2.51	4.20	67.6	43	40	19:00	19:02	0.29	1.70	1	1
Mean		10	9	105	24.4	17.3	10.6	7.39	4.79	64.4	46	41	Total	00:19	0.26	1.59	1	1
SDev		4	2	11	4.56	1.76	1.11	3.06	1.07	2.93	2.8	6.0			0.02	0.21		
SD/M		0.34	0.26	0.10	0.19	0.10	0.10	0.41	0.22	0.05	0.06	0.14			0.06	0.13		

Remarks: Q with StreamPro 64 cf using BT with 5% error, no GPS data.

* - value not consistent for all transects

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 86
 Date: 08/25/2013

Party: RTK/DAV	Width: 12.3 ft	Processed by: DAV
Boat/Motor: Tethered boat	Area: 22.0 ft ²	Mean Velocity: 0.205 ft/s
Gage Height: 60.77 ft	G.H.Change: 0.000 ft	Discharge: 4.53 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:5	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 31.12
BT Error Vel.: 0.33 ft/s	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 1.40 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 3.72 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 2.97 ft/s	
Max. Depth: 2.31 ft	
Mean Depth: 1.80 ft	
% Meas.: 49.35	
Water Temp.: None	
ADCP Temp.: 46.5 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 100' DS of road X

Project Name: seabee20130825dav4.4cfs.
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	2	2	45	1.20	2.72	0.706	0.212	-0.071	4.73	12	23	17:58	17:59	0.19	0.21	7	2
001	L	2	2	56	1.09	2.33	0.706	0.494	0.177	4.80	12	22	17:59	18:00	0.16	0.22	9	6
003	L	2	2	49	0.918	1.84	0.636	0.353	0.742	4.45	12	22	18:02	18:03	0.18	0.20	8	3
004	R	2	2	50	0.918	2.01	0.565	0.247	0.459	4.17	12	22	18:03	18:04	0.18	0.19	6	6
005	L	2	2	44	1.09	2.40	0.671	0.388	0.212	4.77	12	22	18:05	18:06	0.20	0.21	7	2
006	R	2	2	42	0.883	2.15	0.494	0.424	0.283	4.24	12	22	18:06	18:07	0.21	0.20	12	2
Mean		2	2	47	1.02	2.24	0.630	0.353	0.300	4.53	12	22	Total	00:09	0.19	0.21	8	3
SDev		0	0	5	0.129	0.312	0.085	0.107	0.276	0.281	0.2	0.4			0.02	0.01		
SD/M		0.00	0.00	0.11	0.13	0.14	0.13	0.30	0.92	0.06	0.01	0.02			0.09	0.05		

Remarks: Q with StreamPro 4.5 cfs using BT with 6% error, no GPS data

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 89
 Date: 05/17/2014

Party: RTK	Width: 77.8 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 152 ft ²	Mean Velocity: 2.04 ft/s
Gage Height: 62.93 ft	G.H.Change: 0.000 ft	Discharge: 310 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 4 cm* Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 5.37 ft/s	
Max. Depth: 3.37 ft	
Mean Depth: 1.96 ft	
% Meas.: 50.41	
Water Temp.: None	
ADCP Temp.: 33.2 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: DS edge of road

Project Name: seabee20140517000r.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	L	0	5	89	111	154	47.5	0.000	3.74	318	64	139	04:12	04:13	0.80	2.29	7	0
001	L	0	10	96	98.4	157	44.5	0.000	8.12	308	74	154	04:19	04:21	0.76	2.00	6	0
002	R	0	10	85	98.5	156	42.1	0.000	7.03	303	78	151	04:21	04:23	0.90	2.01	2	1
003	L	0	10	91	103	154	45.1	0.000	7.17	309	77	151	04:23	04:25	0.82	2.04	3	0
004	R	0	10	85	115	156	48.5	0.000	6.89	327	78	150	04:25	04:27	0.89	2.17	2	1
001	R	10	10	98	111	154	47.5	-1.77	6.22	318	87	157	04:31	04:33	0.76	2.03	3	0
002	L	10	10	92	98.5	156	42.1	-0.883	7.63	303	84	159	04:34	04:35	0.70	1.91	7	0
007	L	10	10	95	86.2	162	40.9	-2.05	6.50	293	79	156	04:29	04:31	0.77	1.88	11	0
Mean		4	9	91	103	156	44.8	-0.587	6.66	310	78	152	Total	00:19	0.80	2.04	5	0
SDev		5	2	5	9.41	2.50	2.90	0.873	1.32	10.5	7.0	6.2			0.07	0.13		
SD/M		1.38	0.19	0.05	0.09	0.02	0.06	1.49	0.20	0.03	0.09	0.04			0.09	0.07		

Remarks: Q with StreamPro 310 cfs using BT with 2% error, no GPS data.

* - value not consistent for all transects

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 90
 Date: 05/18/2014

Party: RTK	Width: 90.6 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 189 ft ²	Mean Velocity: 2.10 ft/s
Gage Height: 63.39 ft	G.H.Change: 0.000 ft	Discharge: 397 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft*	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (21.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 31.12
BT Error Vel.: 32.81 ft/s*	Bin Size: 4 cm* Blank: 3 cm
WT Error Vel.: 32.81 ft/s*	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s*	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s*	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 5.92 ft/s	
Max. Depth: 3.88 ft	
Mean Depth: 2.09 ft	
% Meas.: 54.82	
Water Temp.: 33.0 °F	
ADCP Temp.: 33.6 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: DS edge of road

Project Name: seabee20140518000r.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	10	5	105	120	219	58.7	-1.87	3.53	399	81	181	03:51	03:53	0.87	2.20	2	1
001	L	10	5	109	116	230	56.6	-1.70	3.46	407	95	213	03:53	03:56	0.74	1.91	1	0
002	R	10	5	129	123	218	53.4	-1.94	2.15	395	91	169	03:56	03:58	0.77	2.33	2	2
003	L	10	5	110	113	225	54.1	-1.24	3.18	392	99	197	03:59	04:01	0.73	1.99	4	1
004	R	10	5	132	128	219	56.9	-1.73	2.86	405	92	196	04:02	04:05	0.69	2.07	2	1
005	L	10	5	99	121	207	52.1	-2.05	2.93	382	89	201	04:05	04:07	0.80	1.90	1	2
001	L	10	5	98	116	230	56.6	0.424	4.06	407	87	200	04:16	04:18	0.70	2.04	1	2
002	R	10	5	94	123	218	53.4	-2.19	2.58	395	89	187	04:18	04:20	0.86	2.11	2	1
003	L	10	5	90	113	225	54.1	-1.98	2.61	392	91	203	04:20	04:22	0.87	1.93	2	2
004	R	10	5	96	128	219	56.9	-2.58	3.85	405	91	189	04:22	04:24	0.80	2.14	4	1
005	L	10	5	91	121	207	52.1	-0.918	3.18	382	88	176	04:25	04:26	0.93	2.17	1	1
006	R	10	5	85	132	205	52.2	-1.84	3.50	391	92	179	04:27	04:29	0.95	2.18	1	1
007	L	10	5	98	126	215	53.6	-1.77	2.54	395	94	187	04:29	04:31	0.84	2.12	2	2
008	R	10	5	89	136	214	58.1	-1.27	3.04	410	91	178	04:31	04:33	0.98	2.30	2	1
009	L	10	5	97	126	210	57.1	-1.91	2.72	395	90	183	04:33	04:35	0.79	2.16	2	2
Mean		10	5	101	123	217	55.1	-1.64	3.08	397	91	189	Total	00:44	0.82	2.10	2	1
SDev		0	0	14	6.77	7.99	2.30	0.698	0.529	8.73	4.0	11.9			0.09	0.13		
SD/M		0.00	0.00	0.14	0.06	0.04	0.04	0.43	0.17	0.02	0.04	0.06			0.11	0.06		

Remarks: Q with StreamPro 397 cfs using BT with 2% error, no GPS data.
 no ice running, Qm at 1551-1633 hr

* - value not consistent for all transects

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 91
 Date: 05/19/2014

Party: RTK	Width: 75.1 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 114 ft ²	Mean Velocity: 1.75 ft/s
Gage Height: 62.51 ft	G.H.Change: 0.000 ft	Discharge: 199 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.220 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: G
MagVar Method: None (21.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: 4-Clear	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.41 ft/s	
Max. Depth: 2.35 ft	
Mean Depth: 1.52 ft	
% Meas.: 48.95	
Water Temp.: 34.0 °F	
ADCP Temp.: 35.5 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: DS edgeof road

Project Name: seabee20140519000r.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	5	5	132	68.7	97.1	35.2	-0.459	1.48	202	74	111	08:39	08:42	0.48	1.82	2	1
001	R	5	5	135	63.4	102	33.4	-0.388	1.13	200	75	117	08:42	08:45	0.48	1.71	1	0
002	L	5	5	134	66.9	96.8	35.0	-0.388	0.848	199	75	113	08:45	08:48	0.50	1.76	1	0
003	R	5	5	119	66.7	93.9	34.8	-0.777	1.17	196	76	113	08:48	08:50	0.59	1.73	2	0
Mean		5	5	130	66.4	97.5	34.6	-0.503	1.16	199	75	114	Total	00:10	0.51	1.75	1	0
SDev		0	0	7	2.21	3.44	0.848	0.185	0.260	2.55	0.8	2.5			0.05	0.05		
SD/M		0.00	0.00	0.06	0.03	0.04	0.02	0.37	0.22	0.01	0.01	0.02			0.11	0.03		

Remarks: Q with StreamPro 199 cfs using BT with 1%, no GPS data.
 Qm time 2030 hr

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 92
 Date: 05/20/2014

Party: RTK	Width: 62.8 ft	Processed by: DAV
Boat/Motor: ADCP Kayak	Area: 90.5 ft ²	Mean Velocity: 1.46 ft/s
Gage Height: 62.22 ft	G.H.Change: 0.000 ft	Discharge: 132 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.220 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (21.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: 4-Clear	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 3 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.92 ft/s	
Max. Depth: 2.03 ft	
Mean Depth: 1.44 ft	
% Meas.: 48.72	
Water Temp.: 33.0 °F	
ADCP Temp.: 34.7 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: DS side of road

Project Name: seabee20140520000r.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	R	0	5	105	44.8	65.1	23.1	0.000	1.70	135	63	90	06:32	06:34	0.62	1.49	4	0
002	L	0	5	110	40.3	63.7	21.6	0.000	1.48	127	63	93	06:35	06:37	0.52	1.36	1	1
003	R	0	5	98	44.8	63.5	23.9	0.000	1.52	134	63	89	06:37	06:39	0.62	1.51	2	0
004	L	0	5	100	43.3	65.3	23.6	0.000	1.17	133	61	90	06:39	06:41	0.56	1.49	1	0
Mean		0	5	103	43.3	64.4	23.0	0.000	1.47	132	63	90	Total	00:08	0.58	1.46	2	0
SDev		0	0	5	2.15	0.935	1.01	0.000	0.221	3.52	1.0	1.9			0.05	0.07		
SD/M		0.00	0.00	0.05	0.05	0.01	0.04	0.00	0.15	0.03	0.02	0.02			0.09	0.05		

Remarks: Q with StreamPro132 cfs using BT with 3% error, no GPS data.
 Qm from 1834-1841 hr

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 93
 Date: 05/23/2014

Party: RTK	Width: 49.6 ft	Processed by: DAV
Boat/Motor: wading	Area: 67.0 ft ²	Mean Velocity: 0.904 ft/s
Gage Height: 61.74 ft	G.H.Change: 0.000 ft	Discharge: 60.6 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.220 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: F
MagVar Method: None (18.4°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: 4-Clear	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 3 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 5.12 ft/s	
Max. Depth: 2.57 ft	
Mean Depth: 1.35 ft	
% Meas.: 46.50	
Water Temp.: 36.0 °F	
ADCP Temp.: 34.1 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: DS side of road

Project Name: seabee20140523000r.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
003	L	3	5	93	19.7	27.7	10.4	-0.177	1.45	59.1	48	66	07:03	07:05	0.46	0.90	1	0
004	R	3	5	90	20.5	28.6	10.9	-0.071	1.66	61.6	48	65	07:05	07:07	0.42	0.94	1	0
005	L	3	5	106	21.6	29.2	11.7	-0.318	1.13	63.3	51	69	07:07	07:09	0.44	0.93	1	0
006	R	3	5	88	19.7	27.9	10.2	-0.035	1.06	58.8	49	67	07:10	07:12	0.47	0.88	1	1
007	L	3	5	87	19.8	27.4	11.0	0.388	1.34	60.0	51	68	07:12	07:14	0.50	0.88	1	0
Mean		3	5	92	20.3	28.2	10.8	-0.042	1.33	60.6	50	67	Total	00:10	0.46	0.90	1	0
SDev		0	0	8	0.833	0.733	0.560	0.265	0.243	1.88	1.6	1.4			0.03	0.03		
SD/M		0.00	0.00	0.08	0.04	0.03	0.05	6.25	0.18	0.03	0.03	0.02			0.06	0.03		

Remarks: Q with StreamPro 61 cfs using BT with 3% error, no GPS data.
 Qm made at 1915 hr

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 94
 Date: 05/26/2014

Party: RTK	Width: 43.2 ft	Processed by: DAV
Boat/Motor: wading	Area: 47.3 ft ²	Mean Velocity: 0.545 ft/s
Gage Height: 61.37 ft	G.H.Change: 0.000 ft	Discharge: 24.7 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (21.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 3 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.76 ft/s	
Max. Depth: 1.92 ft	
Mean Depth: 1.11 ft	
% Meas.: 37.10	
Water Temp.: None	
ADCP Temp.: 32.9 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: not sure

Project Name: prince20140525000r.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	L	4	4	91	9.78	9.85	5.19	0.530	1.06	24.2	49	54	10:58	11:00	0.54	0.45	3	1
001	L	-3	-3	124	9.78	9.85	5.19	-0.353	-0.247	24.2	29	40	11:05	11:07	0.57	0.60	26	0
002	R	2	4	119	8.26	8.65	4.41	-0.318	0.600	21.6	50	65	11:07	11:10	0.45	0.33	1	1
004	R	2	15	78	9.61	9.22	5.23	0.318	2.01	26.3	45	42	11:12	11:13	0.41	0.63	5	0
005	L	2	15	74	8.19	8.76	4.56	0.283	2.83	24.6	44	42	11:14	11:15	0.38	0.58	3	0
006	R	2	15	59	9.53	9.46	4.80	0.212	3.14	27.2	43	40	11:16	11:17	0.44	0.68	0	0
Mean		1	8	90	9.19	9.30	4.90	0.112	1.57	24.7	43	47	Total	00:18	0.46	0.55	6	0
SDev		2	8	26	0.754	0.521	0.358	0.362	1.32	1.95	7.7	10.3			0.07	0.13		
SD/M		1.69	0.94	0.29	0.08	0.06	0.07	3.24	0.84	0.08	0.18	0.22			0.16	0.24		

Remarks: Q with StreamPro 24.7 cfs using BT with 8% error, no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 96
 Date: 06/02/2014

Party: MFS/JSO	Width: 95.9 ft	Processed by: MFS/DAV
Boat/Motor: SM OS TRI	Area: 124 ft ²	Mean Velocity: 1.25 ft/s
Gage Height: 62.33 ft	G.H.Change: 0.000 ft	Discharge: 155 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.170 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: G
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: 4-Clear	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: YES	Serial #: 592 Firmware: 31.12
BT Error Vel.: 0.33 ft/s*	Bin Size: 3 cm Blank: 3 cm
WT Error Vel.: 1.61 ft/s*	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 1.50 ft/s	
Use Weighted Mean Depth: YES	
Max. Vel.: 4.35 ft/s	
Max. Depth: 2.32 ft	
Mean Depth: 1.29 ft	
% Meas.: 56.83	
Water Temp.: 34.0 °F	
ADCP Temp.: 34.1 °F	

Performed Diag. Test: YES
 Performed Moving Bed Test: YES
 Performed Compass Calibration: YES Evaluation: YES
 Meas. Location: FORD @ SW END OF RUNWAY

Project Name: seabee_20140602.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
003	R	18	13	212	41.6	91.1	25.9	-3.04	0.777	156	94	122	16:11	16:15	0.26	1.28	0	2
006	L	22	16	207	39.9	89.6	24.6	0.636	6.53	161	96	125	16:21	16:25	0.25	1.29	0	2
007	R	22	16	204	41.1	85.8	25.8	-2.15	4.52	155	97	122	16:26	16:30	0.27	1.27	0	1
008	L	22	16	176	37.4	86.6	22.1	-2.30	4.91	149	97	125	16:30	16:34	0.30	1.19	0	2
Mean		21	15	199	40.0	88.3	24.6	-1.71	4.18	155	96	124	Total	00:23	0.27	1.25	0	2
SDev		2	2	16	1.87	2.48	1.75	1.61	2.43	5.18	1.2	1.8			0.02	0.05		
SD/M		0.10	0.10	0.08	0.05	0.03	0.07	0.94	0.58	0.03	0.01	0.01			0.08	0.04		

Remarks: Q with StreamPro 155 cfs using BT with 3% error, no GPS data.
 SPADCP592. AT D/S EDGE OF FORD 100 FT BLW GAGE.
 VALID Tr003, 006-008. Tr008 SCREEN DEPTH FOR BT SPIKE.
 NO MB FROM LCT.
 EXTRAP SOLUTION POWER/ POWER 0.2178, NOT USED, <1% DIFF.

* - value not consistent for all transects

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 97
 Date: 06/05/2014

Party: DAV/JPB	Width: 77.9 ft	Processed by: DAV
Boat/Motor: Tethered boat	Area: 161 ft ²	Mean Velocity: 2.01 ft/s
Gage Height: 63.09 ft	G.H.Change: 0.000 ft	Discharge: 314 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.300 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.4°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 8.06 ft/s	
Max. Depth: 3.79 ft	
Mean Depth: 2.08 ft	
% Meas.: 36.11	
Water Temp.: None	
ADCP Temp.: 40.8 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: YES
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at road X

Project Name: Seabee06052014_0.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	2	10	179	136	120	64.1	1.45	10.7	332	97	197	15:38	15:40	0.73	1.69	41	4
001	L	2	20	94	116	113	49.1	0.424	23.8	303	66	134	15:40	15:41	0.92	2.26	15	5
003	R	2	10	132	137	110	60.6	2.68	8.37	319	92	190	15:43	15:44	0.97	1.68	40	6
004	L	2	10	113	123	110	56.2	0.918	12.6	303	56	125	15:45	15:46	1.12	2.42	35	6
Mean		2	13	129	128	113	57.5	1.37	13.9	314	78	161	Total	00:07	0.93	2.01	33	5
SDev		0	5	36	10.1	4.84	6.45	0.972	6.82	14.2	19.7	37.0			0.16	0.38		
SD/M		0.00	0.40	0.28	0.08	0.04	0.11	0.71	0.49	0.05	0.25	0.23			0.17	0.19		

Remarks: Q with RiverRay 333 cfs using BT with 12% error, 314 cfs using VTG with 5% error.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 102
 Date: 05/18/2015

Party: RTK	Width: 82.0 ft	Processed by: DAV
Boat/Motor: wading	Area: 169 ft ²	Mean Velocity: 1.99 ft/s
Gage Height: 63.80 ft	G.H.Change: 0.000 ft	Discharge: 334 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (20.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 3 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 6.31 ft/s	
Max. Depth: 3.40 ft	
Mean Depth: 2.06 ft	
% Meas.: 59.65	
Water Temp.: None	
ADCP Temp.: 38.5 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at road crossing

Project Name: seabee20150518q335cfs.
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	10	15	119	87.8	199	41.6	2.15	2.47	333	82	176	23:48	23:50	0.62	1.89	3	1
001	R	10	15	84	88.6	208	40.6	2.12	-0.953	338	82	178	23:51	23:52	0.77	1.90	4	1
002	L	10	15	83	95.0	200	45.6	3.88	-5.09	339	84	168	23:53	23:54	0.82	2.02	4	1
004	L	10	15	100	93.6	191	41.3	1.91	-0.636	328	80	153	23:57	23:58	0.65	2.14	3	1
Mean		10	15	96	91.2	200	42.3	2.52	-1.05	334	82	169	Total	00:10	0.72	1.99	3	1
SDev		0	0	17	3.61	6.77	2.25	0.919	3.10	5.48	1.7	11.3			0.10	0.12		
SD/M		0.00	0.00	0.18	0.04	0.03	0.05	0.37	2.95	0.02	0.02	0.07			0.13	0.06		

Remarks: Q with StreamPro 334 cfs with 2% error using BT, no GPS data.

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 104
 Date: 05/21/2015

Party: RTK	Width: 122 ft	Processed by: DAV
Boat/Motor: kayak	Area: 378 ft ²	Mean Velocity: 2.39 ft/s
Gage Height: 64.89 ft	G.H.Change: 0.000 ft	Discharge: 897 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (20.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 8 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 5.91 ft/s	
Max. Depth: 5.52 ft	
Mean Depth: 3.10 ft	
% Meas.: 69.15	
Water Temp.: None	
ADCP Temp.: 37.2 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: not sure

Project Name: seabee20150521 q897cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	10	15	98	168	631	99.5	1.24	3.88	903	130	414	05:52	05:54	0.97	2.19	2	0
001	R	10	15	111	180	626	99.5	2.79	2.40	911	116	356	05:54	05:57	0.78	2.56	2	0
002	L	10	15	112	172	605	96.1	2.05	3.14	878	120	364	05:57	05:59	0.78	2.41	2	0
Mean		10	15	107	173	620	98.4	2.02	3.14	897	122	378	Total	00:07	0.85	2.39	2	0
SDev		0	0	8	6.16	13.9	1.95	0.777	0.742	17.1	7.3	31.4			0.11	0.19		
SD/M		0.00	0.00	0.07	0.04	0.02	0.02	0.38	0.24	0.02	0.06	0.08			0.13	0.08		

Remarks: Q with streamPro 897 cfs using BT with 2% error, no GPS data. 100 cfs from Colville River and 30 cfs outflow to airport.

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 105
 Date: 05/21/2015

Party: RTK	Width: 120 ft	Processed by: DAV
Boat/Motor: kayak	Area: 358 ft ²	Mean Velocity: 2.22 ft/s
Gage Height: 64.65 ft	G.H.Change: 0.000 ft	Discharge: 795 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (20.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 8 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 5.12 ft/s	
Max. Depth: 5.39 ft	
Mean Depth: 2.99 ft	
% Meas.: 65.77	
Water Temp.: None	
ADCP Temp.: 41.2 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: not sure

Project Name: seabee20150521c000r.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	10	10	114	172	513	107	1.06	2.33	795	120	354	12:09	12:11	0.93	2.24	1	0
001	L	10	10	121	156	522	101	-0.530	1.70	779	121	368	12:12	12:14	0.80	2.12	2	0
002	R	10	10	127	171	534	103	1.84	1.13	811	118	352	12:14	12:17	0.71	2.30	2	0
Mean		10	10	120	166	523	104	0.789	1.72	795	120	358	Total	00:07	0.81	2.22	1	0
SDev		0	0	7	9.02	10.5	3.04	1.21	0.601	15.8	1.3	8.6			0.11	0.10		
SD/M		0.00	0.00	0.05	0.05	0.02	0.03	1.53	0.35	0.02	0.01	0.02			0.14	0.04		

Remarks: Q with StreamPro 795 cfs using BT with 2% error, no GPS data. 225 cfs from Colville River and 30 cfs from airport inflow.

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 106
 Date: 05/21/2015

Party: RTK	Width: 120 ft	Processed by: DAV
Boat/Motor: kayak	Area: 325 ft ²	Mean Velocity: 2.24 ft/s
Gage Height: 64.37 ft	G.H.Change: 0.000 ft	Discharge: 728 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (20.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 8 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 5.26 ft/s	
Max. Depth: 5.02 ft	
Mean Depth: 2.70 ft	
% Meas.: 65.05	
Water Temp.: None	
ADCP Temp.: 43.5 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at road crossing

Project Name: seabee20150521 q728cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	10	10	112	152	477	94.1	2.01	3.14	728	121	327	21:16	21:19	0.83	2.23	2	0
001	R	10	10	109	159	478	97.9	1.09	1.98	738	117	325	21:19	21:21	0.84	2.27	2	0
002	L	10	10	118	151	465	101	2.33	-1.41	718	123	323	21:21	21:24	0.93	2.22	2	0
Mean		10	10	113	154	473	97.6	1.81	1.24	728	120	325	Total		0.87	2.24	2	0
SDev		0	0	5	4.50	7.26	3.35	0.642	2.37	10.1	2.9	2.0		00:07	0.06	0.02		
SD/M		0.00	0.00	0.04	0.03	0.02	0.03	0.35	1.91	0.01	0.02	0.01			0.06	0.01		

Remarks: Q with StreamPro 728 cfs using BT with 1% error, no GPS data. 300 cfs from Colville River which includes 50 cfs from airport inflow

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 107
 Date: 05/22/2015

Party: RTK	Width: 102 ft	Processed by: DAV
Boat/Motor: kayak	Area: 265 ft ²	Mean Velocity: 2.37 ft/s
Gage Height: 64.07 ft	G.H.Change: 0.000 ft	Discharge: 627 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (20.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 6 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.84 ft/s	
Max. Depth: 4.76 ft	
Mean Depth: 2.61 ft	
% Meas.: 62.48	
Water Temp.: None	
ADCP Temp.: 38.0 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: not sure

Project Name: seabee20150522-q 627cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	10	15	120	137	389	86.6	1.34	5.54	619	96	256	10:25	10:27	0.72	2.42	3	0
001	R	10	15	85	150	393	88.2	1.62	1.84	634	108	276	10:28	10:29	0.97	2.30	1	0
002	L	10	15	101	142	393	87.0	2.93	1.70	626	101	263	10:30	10:32	0.82	2.39	2	0
Mean		10	15	102	143	392	87.3	1.97	3.03	627	102	265	Total	00:06	0.83	2.37	2	0
SDev		0	0	18	6.62	2.35	0.815	0.848	2.18	7.53	6.1	10.4			0.13	0.06		
SD/M		0.00	0.00	0.17	0.05	0.01	0.01	0.43	0.72	0.01	0.06	0.04			0.15	0.03		

Remarks: Q with StreamPro 627 cfs using BT with 1% error, no GPS data. 188 cfs from Colville and 38 cfs inflow from airport. Not sure if airport inflow and Collvile are part of the 627 cfs or on top of it.

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 108
 Date: 05/22/2015

Party: RTK	Width: 82.2 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 185 ft ²	Mean Velocity: 2.29 ft/s
Gage Height: 63.31 ft	G.H.Change: 0.000 ft	Discharge: 421 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (20.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 6 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.64 ft/s	
Max. Depth: 4.04 ft	
Mean Depth: 2.26 ft	
% Meas.: 52.79	
Water Temp.: None	
ADCP Temp.: 44.1 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: not sure

Project Name: Seabee20150522 q420cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	5	5	98	107	222	63.8	-0.636	5.30	397	67	164	18:04	18:06	0.70	2.41	1	0
001	R	5	15	95	110	221	70.4	0.353	13.3	415	85	190	18:07	18:09	0.79	2.18	1	0
002	L	5	15	94	110	224	70.9	0.353	12.9	419	85	188	18:09	18:11	0.74	2.22	1	0
003	R	5	15	90	133	222	82.8	0.141	15.5	454	92	195	18:12	18:14	0.90	2.33	9	0
Mean		5	13	94	115	222	72.0	0.053	11.8	421	82	185	Total	00:09	0.78	2.29	3	0
SDev		0	5	3	12.0	1.65	7.92	0.470	4.45	23.8	10.7	13.7			0.09	0.10		
SD/M		0.00	0.40	0.04	0.10	0.01	0.11	8.87	0.38	0.06	0.13	0.07			0.11	0.05		

Remarks: Q with StreamPro 421 cfs using BT with 6% error, no GPS data. 100 cfs from Colville and 20 cfs inflow from airport.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 109
 Date: 05/23/2015

Party: RTK	Width: 70.6 ft	Processed by: DAV
Boat/Motor: wading	Area: 143 ft ²	Mean Velocity: 1.84 ft/s
Gage Height: 62.83 ft	G.H.Change: 0.000 ft	Discharge: 262 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (20.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 3 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 7.13 ft/s	
Max. Depth: 3.02 ft	
Mean Depth: 2.02 ft	
% Meas.: 55.61	
Water Temp.: None	
ADCP Temp.: 37.3 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at road crossing

Project Name: seabee20150523q260cfs
 Software: 2.17

Tr.#		Edge Distance		#Ens.	Discharge					Width	Area	Time		Mean Vel.		% Bad		
		L	R		Top	Middle	Bottom	Left	Right			Total	Start	End	Boat	Water	Ens.	Bins
000	R	5	5	108	84.0	152	33.3	0.989	-0.565	269	71	143	11:51	11:53	0.51	1.88	0	2
001	L	5	5	101	79.9	148	33.7	0.812	0.883	263	71	145	11:54	11:56	0.57	1.81	1	1
002	R	5	5	87	85.9	151	34.9	0.989	1.38	274	72	143	11:56	11:58	0.63	1.92	1	0
003	L	5	5	90	75.0	139	32.4	0.848	0.353	247	73	148	11:58	12:00	0.65	1.67	1	2
004	R	5	5	80	79.1	139	33.7	0.494	2.19	255	67	137	12:01	12:02	0.65	1.86	1	1
005	L	5	5	83	81.0	145	33.2	1.17	1.17	261	69	139	12:03	12:04	0.62	1.89	1	2
Mean		5	5	91	80.8	146	33.5	0.883	0.901	262	71	143	Total	00:12	0.60	1.84	1	1
SDev		0	0	11	3.83	5.65	0.833	0.228	0.939	9.68	2.2	4.1			0.06	0.09		
SD/M		0.00	0.00	0.12	0.05	0.04	0.02	0.26	1.04	0.04	0.03	0.03			0.09	0.05		

Remarks: Q with StreamPro 262 cfs with 4% error using BT, no GPS data. 20 cfs from Colville River including 5 cfs from airport.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 111
 Date: 05/26/2015

Party: RTK	Width: 50.7 ft	Processed by: DAV
Boat/Motor: wading	Area: 81.6 ft ²	Mean Velocity: 1.38 ft/s
Gage Height: 62.11 ft	G.H.Change: 0.000 ft	Discharge: 112 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.78 ft/s	
Max. Depth: 2.74 ft	
Mean Depth: 1.61 ft	
% Meas.: 50.99	
Water Temp.: None	
ADCP Temp.: 46.6 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at road crossing

Project Name: seabee20150526q112cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	6	6	80	34.0	61.9	20.9	0.848	2.40	120	53	86	21:41	21:42	0.47	1.40	1	0
001	L	6	6	75	32.2	58.2	19.6	1.91	2.90	115	50	82	21:43	21:44	0.54	1.40	8	0
002	R	6	6	75	32.1	57.2	19.7	0.424	3.81	113	53	85	21:45	21:46	0.51	1.34	3	0
003	L	6	6	74	29.3	53.9	18.5	-0.494	3.60	105	49	79	21:46	21:48	0.58	1.32	1	1
004	R	6	6	76	31.3	54.9	19.0	-0.212	3.11	108	48	76	21:48	21:50	0.50	1.42	1	0
Mean		6	6	76	31.8	57.2	19.6	0.494	3.16	112	51	82	Total	00:08	0.52	1.38	3	0
SDev		0	0	2	1.71	3.14	0.900	0.949	0.564	5.95	2.3	4.1			0.04	0.05		
SD/M		0.00	0.00	0.03	0.05	0.05	0.05	1.92	0.18	0.05	0.04	0.05			0.09	0.03		

Remarks: Q with StreamPro 112 cfs with 5% error using BT, no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 112
 Date: 06/12/2015

Party: DAV	Width: 31.5 ft	Processed by: DAV
Boat/Motor:	Area: 54.3 ft ²	Mean Velocity: 0.282 ft/s
Gage Height: 61.17 ft	G.H.Change: 0.000 ft	Discharge: 15.1 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 5.32 ft/s	
Max. Depth: 2.56 ft	
Mean Depth: 1.82 ft	
% Meas.: 49.51	
Water Temp.: None	
ADCP Temp.: 47.0 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 15' US of road crossing

Project Name: seabee20150612q15cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
009	L	4	6	68	3.88	6.85	2.68	0.953	0.848	15.3	36	60	13:31	13:32	0.41	0.26	3	2
010	R	4	6	68	4.77	7.27	3.11	1.13	-0.918	15.4	36	59	13:33	13:35	0.37	0.26	1	4
011	L	4	6	63	3.67	7.63	2.26	0.742	1.24	15.5	34	54	13:35	13:36	0.40	0.29	6	1
012	R	4	6	67	4.10	7.03	3.11	0.494	-0.494	14.2	36	57	13:36	13:38	0.35	0.25	1	8
013	L	-3	-3	63	4.59	8.55	2.93	-0.742	-0.283	15.1	16	42	13:38	13:39	0.42	0.35	6	1
Mean		3	4	65	4.20	7.47	2.82	0.516	0.078	15.1	32	54	Total	00:08	0.39	0.28	4	3
SDev		3	4	3	0.464	0.671	0.357	0.742	0.920	0.510	8.7	6.9			0.03	0.04		
SD/M		1.28	1.00	0.04	0.11	0.09	0.13	1.44	11.84	0.03	0.28	0.13			0.07	0.15		

Remarks: Q with StreamPro 15 cfs using BT with 3% error, no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 113
 Date: 09/02/2015

Party: RTK/DAV	Width: 33.1 ft	Processed by: DAV
Boat/Motor: wading	Area: 50.6 ft ²	Mean Velocity: 0.598 ft/s
Gage Height: 61.21 ft	G.H.Change: 0.000 ft	Discharge: 30.3 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (VB)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.43 ft/s	
Max. Depth: 2.46 ft	
Mean Depth: 1.53 ft	
% Meas.: 46.56	
Water Temp.: None	
ADCP Temp.: 43.5 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at road crossing

Project Name: seabee20150902q30cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
006	L	4	6	74	7.95	14.7	5.40	0.953	1.38	30.4	33	50	16:14	16:15	0.32	0.61	4	0
007	R	4	6	59	7.70	13.9	5.16	1.73	1.02	29.5	33	51	16:16	16:17	0.37	0.58	7	0
008	L	4	6	58	8.19	14.1	5.65	1.77	1.70	31.4	33	51	16:18	16:19	0.41	0.62	5	1
009	R	4	6	65	8.12	13.8	5.58	0.848	1.62	30.0	33	51	16:19	16:20	0.39	0.59	2	1
Mean		4	6	64	7.99	14.1	5.45	1.32	1.43	30.3	33	51	Total	00:06	0.37	0.60	4	1
SDev		0	0	7	0.220	0.428	0.220	0.491	0.303	0.795	0.4	0.4			0.04	0.02		
SD/M		0.00	0.00	0.11	0.03	0.03	0.04	0.37	0.21	0.03	0.01	0.01			0.10	0.03		

Remarks: Q with StreamPro 30.3 cfs with 3% error using BT, no GPS data.

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 117
 Date: 05/21/2016

Party: DAV/JPB	Width: 71.5 ft	Processed by: DAV
Boat/Motor: ADCP kayak	Area: 144 ft ²	Mean Velocity: 2.39 ft/s
Gage Height: 63.12 ft	G.H.Change: 0.000 ft	Discharge: 345 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.1°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 7 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.35 ft/s	
Max. Depth: 3.87 ft	
Mean Depth: 2.02 ft	
% Meas.: 60.36	
Water Temp.: None	
ADCP Temp.: 38.6 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at road crossing

Project Name: seabee20160521q345cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	R	5	10	77	73.3	221	55.6	4.94	8.48	364	65	141	19:38	19:39	0.64	2.58	3	0
002	L	5	20	83	66.4	211	48.7	5.44	15.8	347	75	149	19:40	19:42	0.55	2.33	2	0
003	R	5	20	73	64.2	198	45.8	6.46	13.8	329	74	144	19:42	19:44	0.62	2.28	3	0
004	L	5	20	62	65.0	202	46.2	11.7	14.4	339	73	143	19:44	19:46	0.72	2.38	3	0
Mean		5	18	73	67.2	208	49.1	7.12	13.1	345	72	144	Total	00:07	0.63	2.39	3	0
SDev		0	5	9	4.14	10.4	4.53	3.08	3.21	14.8	4.4	3.6			0.07	0.13		
SD/M		0.00	0.29	0.12	0.06	0.05	0.09	0.43	0.24	0.04	0.06	0.03			0.11	0.06		

Remarks: Q with StreamPro 345 cfs using BT with 4% error, no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 118
 Date: 05/23/2016

Party: DAV/JPB	Width: 84.4 ft	Processed by: DAV
Boat/Motor: ADCP kayak	Area: 209 ft ²	Mean Velocity: 2.29 ft/s
Gage Height: 63.51 ft	G.H.Change: 0.000 ft	Discharge: 478 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.1°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 7 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.91 ft/s	
Max. Depth: 4.25 ft	
Mean Depth: 2.48 ft	
% Meas.: 59.47	
Water Temp.: None	
ADCP Temp.: 37.3 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at road crossing

Project Name: seabee20160523q478cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
011	R	7	7	80	129	287	66.7	1.38	8.93	493	84	206	11:44	11:45	0.86	2.40	1	0
012	L	7	7	104	114	284	67.9	-0.283	7.95	474	85	212	11:46	11:48	0.80	2.23	3	1
013	R	7	7	77	112	282	60.1	-0.918	9.11	463	83	210	11:48	11:50	0.81	2.20	3	0
014	L	7	7	93	127	283	67.6	-0.989	4.66	481	86	208	11:50	11:52	1.00	2.31	1	1
Mean		7	7	88	121	284	65.6	-0.203	7.66	478	84	209	Total	00:08	0.87	2.29	2	0
SDev		0	0	12	8.45	2.08	3.69	1.10	2.07	12.4	1.4	2.8			0.09	0.09		
SD/M		0.00	0.00	0.14	0.07	0.01	0.06	5.42	0.27	0.03	0.02	0.01			0.11	0.04		

Remarks: Q with StreamPro 478 cfs using BT with 3% error, no GPS data.

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 119
 Date: 05/25/2016

Party: DAV/JPB	Width: 53.0 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 100 ft ²	Mean Velocity: 2.12 ft/s
Gage Height: 62.58 ft	G.H.Change: 0.000 ft	Discharge: 212 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 6 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.87 ft/s	
Max. Depth: 3.39 ft	
Mean Depth: 1.89 ft	
% Meas.: 55.32	
Water Temp.: None	
ADCP Temp.: 43.9 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at road crossing

Project Name: seabee20160525q212cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	2	10	88	52.0	120	34.9	3.57	5.16	216	54	100	20:50	20:52	0.50	2.16	1	0
001	L	2	10	73	50.6	122	33.5	3.18	7.88	217	53	101	20:52	20:54	0.52	2.16	3	0
002	R	2	10	78	50.1	115	35.2	2.44	7.24	210	53	100	20:54	20:56	0.49	2.09	1	0
003	L	2	10	85	49.1	113	33.7	3.11	8.02	207	52	99	20:56	20:58	0.53	2.08	2	0
Mean		2	10	81	50.4	118	34.3	3.07	7.07	212	53	100	Total	00:07	0.51	2.12	2	0
SDev		0	0	7	1.22	4.56	0.869	0.469	1.32	5.17	0.8	0.6			0.02	0.04		
SD/M		0.00	0.00	0.08	0.02	0.04	0.03	0.15	0.19	0.02	0.02	0.01			0.04	0.02		

Remarks: Q with StreamPro 212 cfs using BT with 2% error, no GPS data.

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 120
 Date: 05/26/2016

Party: DAV/JPB	Width: 51.6 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 95.2 ft ²	Mean Velocity: 1.79 ft/s
Gage Height: 62.35 ft	G.H.Change: 0.000 ft	Discharge: 171 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.73 ft/s	
Max. Depth: 3.04 ft	
Mean Depth: 1.85 ft	
% Meas.: 55.93	
Water Temp.: None	
ADCP Temp.: 43.9 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at road crossing

Project Name: seabee20160526q171cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	2	6	88	46.5	102	27.2	0.989	2.37	179	52	97	11:42	11:44	0.45	1.84	1	0
002	L	2	6	94	42.7	91.1	26.9	1.84	2.54	165	50	93	11:46	11:47	0.41	1.77	2	0
003	R	2	6	96	46.3	95.8	27.3	1.62	2.44	173	52	94	11:49	11:51	0.43	1.84	0	0
004	L	2	6	81	43.0	93.3	25.0	1.73	2.58	166	52	96	11:52	11:53	0.49	1.73	2	0
Mean		2	6	89	44.6	95.5	26.6	1.55	2.48	171	52	95	Total	00:10	0.44	1.79	1	0
SDev		0	0	7	2.07	4.62	1.09	0.381	0.097	6.61	0.9	1.8			0.03	0.05		
SD/M		0.00	0.00	0.08	0.05	0.05	0.04	0.25	0.04	0.04	0.02	0.02			0.07	0.03		

Remarks: Q with StreamPro 171 cfs using BT with 4% error, no GPS data.

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 121
 Date: 05/27/2016

Party: DAV/JPB	Width: 54.4 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 91.5 ft ²	Mean Velocity: 1.38 ft/s
Gage Height: 62.14 ft	G.H.Change: 0.000 ft	Discharge: 126 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.31 ft/s	
Max. Depth: 2.44 ft	
Mean Depth: 1.68 ft	
% Meas.: 52.91	
Water Temp.: None	
ADCP Temp.: 49.6 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at road crossing

Project Name: seabee20160517q126cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	4	6	90	37.5	69.6	22.0	0.388	0.318	130	60	98	14:02	14:04	0.51	1.32	1	0
001	L	4	4	107	34.7	66.3	19.6	1.70	0.883	123	52	88	14:04	14:07	0.47	1.39	11	0
002	R	4	4	95	35.5	65.7	20.3	1.84	1.02	124	54	92	14:07	14:09	0.46	1.36	1	0
003	L	4	4	111	36.8	65.9	21.5	2.47	1.55	128	51	88	14:09	14:11	0.46	1.46	6	0
Mean		4	4	100	36.1	66.9	20.8	1.60	0.945	126	54	92	Total	00:08	0.47	1.38	5	0
SDev		0	1	10	1.28	1.82	1.10	0.874	0.508	3.14	3.9	4.9			0.02	0.06		
SD/M		0.00	0.22	0.10	0.04	0.03	0.05	0.55	0.54	0.02	0.07	0.05			0.05	0.04		

Remarks: Q with StreamPro 126 cfs using BT with 2% error, no GPS data.

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 122
 Date: 05/29/2016

Party: DAV/JPB	Width: 43.0 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 62.2 ft ²	Mean Velocity: 1.27 ft/s
Gage Height: 61.84 ft	G.H.Change: 0.000 ft	Discharge: 79.1 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	Max. Vel.: 3.32 ft/s
	Max. Depth: 2.70 ft
	Mean Depth: 1.45 ft
	% Meas.: 44.78
	Water Temp.: None
	ADCP Temp.: 46.7 °F

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at road crossing

Project Name: seabee20160529q79cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	L	2	6	81	25.7	35.6	15.6	0.918	1.94	79.8	43	62	16:47	16:48	0.41	1.29	1	2
002	R	2	6	69	26.4	36.9	16.0	1.20	1.34	81.8	44	62	16:49	16:50	0.47	1.32	1	0
003	L	2	6	86	24.6	34.5	15.6	0.953	1.06	76.8	44	63	16:50	16:52	0.40	1.21	2	1
004	R	2	6	73	25.1	35.0	15.7	1.20	2.05	79.1	42	61	16:53	16:54	0.43	1.29	3	0
005	L	2	6	83	24.2	34.9	15.0	1.52	2.19	77.8	42	62	16:55	16:56	0.40	1.25	2	1
Mean		2	6	78	25.2	35.4	15.6	1.16	1.72	79.1	43	62	Total	00:09	0.42	1.27	2	1
SDev		0	0	7	0.853	0.944	0.349	0.241	0.489	1.91	0.8	0.7			0.03	0.04		
SD/M		0.00	0.00	0.09	0.03	0.03	0.02	0.21	0.28	0.02	0.02	0.01			0.07	0.03		

Remarks: Q with StreamPro 79 cfs using BT with 2% error, no GPS data.

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 124
 Date: 06/04/2016

Party: RTK/DAV	Width: 7.55 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 10.4 ft ²	Mean Velocity: 1.33 ft/s
Gage Height: 61.11 ft	G.H.Change: 0.000 ft	Discharge: 13.8 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: P
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.16 ft/s	
Max. Depth: 1.99 ft	
Mean Depth: 1.38 ft	
% Meas.: 31.62	
Water Temp.: None	
ADCP Temp.: 47.0 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 300' DS of road X

Project Name: seabee20160604q13cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
013	L	1	1	46	5.09	4.73	3.11	0.212	2.01	15.1	9	12	18:59	19:00	0.20	1.24	15	1
014	R	1	1	38	4.31	4.03	2.40	0.530	1.66	12.9	8	11	19:01	19:01	0.15	1.23	5	0
015	L	1	1	45	4.73	4.45	2.86	0.459	1.94	14.5	8	10	19:02	19:03	0.15	1.38	16	0
016	R	1	1	38	4.20	4.80	2.65	0.565	1.87	14.1	7	11	19:04	19:05	0.14	1.32	5	0
017	L	1	1	44	3.43	3.78	2.30	0.565	2.22	12.3	6	8	19:05	19:06	0.17	1.50	9	0
Mean	1	1	42	4.35	4.36	2.66	0.466	1.94	13.8	8	10	Total	00:06	0.16	1.33	10	0	
SDev	0	0	4	0.625	0.445	0.332	0.149	0.206	1.16	1.1	1.4			0.02	0.11			
SD/M	0.00	0.00	0.09	0.14	0.10	0.12	0.32	0.11	0.08	0.15	0.14			0.15	0.08			

Remarks: Q with StreamPro 13.8 cfs using BT with 8% error, no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 129
 Date: 05/28/2017

Party: DAV	Width: 72.1 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 126 ft ²	Mean Velocity: 1.95 ft/s
Gage Height: 63.19 ft	G.H.Change: 0.000 ft	Discharge: 245 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 5 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	Max. Vel.: 4.30 ft/s
	Max. Depth: 3.73 ft
	Mean Depth: 1.74 ft
	% Meas.: 58.61
	Water Temp.: None
	ADCP Temp.: 39.5 °F

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at road crossing

Project Name: seabee20170528q245cfs
 Software: 2.17

Tr.#		Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad	
		L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins
003	R	6	20	83	53.1	149	35.8	7.27	11.7	256	73	131	21:33	21:34	0.55	1.96	2	0
004	L	6	20	82	49.6	144	30.5	5.76	9.11	239	71	127	21:35	21:36	0.63	1.88	2	0
005	R	6	20	83	52.7	142	33.1	5.47	11.7	245	72	123	21:37	21:38	0.53	1.99	4	0
006	L	6	20	84	52.4	139	31.7	5.40	9.89	238	73	121	21:39	21:40	0.63	1.97	5	0
Mean		6	20	83	52.0	143	32.8	5.98	10.6	245	72	126	Total	00:07	0.59	1.95	3	0
SDev		0	0	1	1.59	4.03	2.26	0.879	1.29	8.33	0.8	4.4			0.05	0.05		
SD/M		0.00	0.00	0.01	0.03	0.03	0.07	0.15	0.12	0.03	0.01	0.03			0.08	0.03		

Remarks: Q with StreamPro 245 cfs using BT with 3% error, no GPS data.

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 130
 Date: 05/31/2017

Party: DAV	Width: 59.8 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 116 ft ²	Mean Velocity: 2.09 ft/s
Gage Height: 62.75 ft	G.H.Change: 0.000 ft	Discharge: 243 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 6 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.06 ft/s	
Max. Depth: 3.51 ft	
Mean Depth: 1.95 ft	
% Meas.: 58.52	
Water Temp.: None	
ADCP Temp.: 41.6 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at road crossing

Project Name: seabee20170531q243cfs.
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
002	L	0	15	71	51.5	139	36.6	0.000	12.8	240	57	114	15:58	16:00	0.66	2.11	3	0
003	R	0	15	56	53.3	140	36.4	0.000	12.9	243	59	115	16:00	16:01	0.72	2.11	2	0
004	L	0	15	101	49.6	140	33.5	0.000	11.7	235	58	113	16:01	16:03	0.67	2.07	6	0
005	R	0	15	70	57.0	146	36.9	0.000	12.9	252	60	115	16:04	16:05	0.65	2.19	3	0
006	L	0	15	66	55.6	144	34.9	0.000	7.77	243	65	124	16:06	16:07	0.70	1.95	3	0
Mean		0	15	72	53.4	142	35.7	0.000	11.6	243	60	116	Total	00:08	0.68	2.09	3	0
SDev		0	0	17	3.01	2.92	1.44	0.000	2.20	6.36	3.3	4.6			0.03	0.09		
SD/M		0.00	0.00	0.23	0.06	0.02	0.04	0.00	0.19	0.03	0.06	0.04			0.04	0.04		

Remarks: Q with StreamPro 243 cfs using BT with 3% error, no GPS data.

Station Number: 15875020
 Station Name: Seabee Creek

Meas. No: 131
 Date: 06/04/2017

Party: DAV	Width: 55.7 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 94.6 ft ²	Mean Velocity: 1.54 ft/s
Gage Height: 62.28 ft	G.H.Change: 0.000 ft	Discharge: 146 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 5 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.30 ft/s	
Max. Depth: 3.05 ft	
Mean Depth: 1.70 ft	
% Meas.: 52.80	
Water Temp.: None	
ADCP Temp.: 42.7 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at road crossing

Project Name: seabee20170604q146cfs.
 Software: 2.17

Tr.#		Edge Distance		#Ens.	Discharge					Width	Area	Time		Mean Vel.		% Bad		
		L	R		Top	Middle	Bottom	Left	Right			Total	Start	End	Boat	Water	Ens.	Bins
000	R	6	10	79	36.4	78.8	23.4	2.97	6.04	148	56	93	20:01	20:03	0.50	1.58	1	0
001	L	6	10	70	34.6	77.5	23.2	2.72	4.91	143	57	97	20:03	20:04	0.55	1.47	3	0
002	R	6	10	64	34.8	75.4	23.4	7.24	4.87	146	55	94	20:05	20:06	0.57	1.55	2	0
003	L	6	10	63	35.4	76.4	22.6	6.96	5.79	147	55	94	20:06	20:07	0.58	1.57	3	0
Mean		6	10	69	35.3	77.0	23.2	4.97	5.40	146	56	95	Total	00:06	0.55	1.54	2	0
SDev		0	0	7	0.803	1.44	0.392	2.46	0.600	2.07	0.9	1.8			0.04	0.05		
SD/M		0.00	0.00	0.11	0.02	0.02	0.02	0.50	0.11	0.01	0.02	0.02			0.07	0.03		

Remarks: Q with StreamPro 146 cfs using BT with 1% error, no GPS data.

Summary of Discharge Measurement Forms

Ublutuoch River, Alaska

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 55
 Date: 06/08/2010

Party: DB/BL	Width: 391 ft	Processed by: DAV
Boat/Motor: kayak	Area: 2,520 ft ²	Mean Velocity: 1.23 ft/s
Gage Height: 19.25 ft at 1215 hr	G.H.Change:	Discharge: 3,120 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.430 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: Model (20.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: Rio Grande / 1200 kHz
WT 3-Beam Solution: NO	Serial #: 3600 Firmware: 10.17
BT Error Vel.: 0.33 ft/s*	Bin Size: 25 cm Blank: 25 cm
WT Error Vel.: 3.50 ft/s	BT Mode: 5 BT Pings: 1
BT Up Vel.: 1.00 ft/s	WT Mode: 1 WT Pings: 1
WT Up Vel.: 4.00 ft/s	WV : 175
Use Weighted Mean Depth: YES	
Max. Vel.: 5.80 ft/s	
Max. Depth: 17.5 ft	
Mean Depth: 6.47 ft	
% Meas.: 53.00	
Water Temp.: None	
ADCP Temp.: 35.9 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: YES Evaluation: YES
 Meas. Location: 1/2 mile DS of gage

Project Name: ublutuoch_20100608.mmt
 Software: 2.11

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	25	40	1103	809	1755	657	41.6	37.4	3300	395	2546	11:59	12:04	1.34	1.30	65	10
001	R	20	40	1068	607	1648	610	41.8	17.8	2924	346	2388	12:04	12:09	1.36	1.22	66	12
002	L	20	40	1308	548	1402	547	42.4	26.8	2567	423	2536	12:09	12:15	1.14	1.01	70	12
003	R	25	40	1158	1078	1794	930	57.4	15.5	3875	408	2645	12:16	12:21	1.37	1.47	71	12
004	L	25	40	1334	479	1603	559	37.0	25.6	2705	393	2405	12:21	12:27	1.04	1.13	68	11
005	R	25	40	1216	776	1708	789	40.2	16.2	3330	379	2599	12:27	12:32	1.29	1.28	71	12
Mean		23	40	1197	716	1652	682	43.4	23.2	3117	391	2520	Total	00:33	1.26	1.23	69	11
SDev		3	0	108	219	141	150	7.12	8.45	482	26.4	103.5			0.14	0.16		
SD/M		0.11	0.00	0.09	0.31	0.09	0.22	0.16	0.36	0.15	0.07	0.04			0.11	0.13		

Remarks: Q with RioGrande 3117cfs using BT with 15% error and 3719cfs using VTG with 23% error.

* - value not consistent for all transects

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 56
 Date: 06/10/2010

Party: DB/BL	Width: 126 ft	Processed by: DAV
Boat/Motor: kayak	Area: 994 ft ²	Mean Velocity: 1.96 ft/s
Gage Height: 16.29 ft 1215 hr	G.H.Change:	Discharge: 1,800 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.459 ft*	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: Rio Grande / 1200 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 10.17
BT Error Vel.: 32.81 ft/s*	Bin Size: 25 cm Blank: 25 cm
WT Error Vel.: 32.81 ft/s*	BT Mode: 5 BT Pings: 1
BT Up Vel.: 32.81 ft/s*	WT Mode: 1 WT Pings: 1
WT Up Vel.: 32.81 ft/s*	WV : 0
Use Weighted Mean Depth: NO	
Max. Vel.: 4.96 ft/s	
Max. Depth: 11.9 ft	
Mean Depth: 7.80 ft	
% Meas.: 72.73	
Water Temp.: None	
ADCP Temp.: 37.9 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 1/2 mile DS of gage

Project Name: ublu20100610000r.mmt
 Software: 2.11

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	R	0	8	144	219	1250	251	0.000	-7.13	1712	135	985	11:55	11:57	0.96	1.74	8	0
002	L	0	8	142	199	1245	250	0.000	7.42	1702	167	1458	11:57	12:00	1.26	1.17	11	0
005	R	0	8	121	237	1375	275	0.000	7.10	1894	131	989	12:04	12:06	1.09	1.91	6	0
006	L	0	8	130	234	1383	281	0.000	9.64	1907	135	1095	12:06	12:08	1.06	1.74	15	0
007	R	0	8	152	229	1313	258	0.000	12.3	1813	128	949	12:08	12:11	0.88	1.91	16	0
008	L	0	8	182	220	1358	236	0.000	7.70	1822	170	1420	12:12	12:15	1.02	1.28	17	0
009	R	0	8	139	226	1253	269	0.000	11.4	1759	119	893	12:18	12:20	0.99	1.97	17	0
010	L	0	8	131	240	1346	288	0.000	7.88	1882	126	974	12:20	12:23	1.00	1.93	9	0
012	L	10	8	142	188	1260	275	2.86	11.8	1738	74	551	12:30	12:32	0.73	3.16	33	0
013	R	10	8	113	181	1289	256	3.21	15.9	1745	79	624	12:33	12:35	0.73	2.80	19	0
Mean		2	8	139	217	1307	264	0.607	8.39	1797	126	994	Total	00:40	0.97	1.96	15	0
SDev		4	0	19	20.9	54.8	16.3	1.28	6.13	76.9	31.3	289.2			0.16	0.61		
SD/M		2.11	0.00	0.14	0.10	0.04	0.06	2.11	0.73	0.04	0.25	0.29			0.17	0.31		

Remarks: Q with RioGrande 1798cfs using BT with 4% error, no GPS data.

* - value not consistent for all transects

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15862500
 Station Name: Ublutuoch River

Meas No: 57
 Date: 06/15/2010

Party: RTK	Width: 44.8 ft	Processed by: DAV
Boat/Motor: kayak	Area: 182 ft ²	Mean Velocity: 3.16 ft/s
Gage Height: 10.16 ft at 1300 hr	G.H.Change:	Discharge: 568 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.459 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.04
BT Error Vel.: 32.81 ft/s	Bin Size: 8 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 5.10 ft/s	
Max. Depth: 6.01 ft	
Mean Depth: 4.04 ft	
% Meas.: 66.17	
Water Temp.: None	
ADCP Temp.: 44.9 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: not sure

Project Name: ublu20100615000r.mmt
 Software: 2.11

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	3	3	80	112	374	80.1	7.10	4.48	578	45	177	12:57	12:58	0.68	3.27	5	0
001	L	3	3	75	111	374	76.6	6.04	3.74	572	43	167	12:58	12:59	0.65	3.42	3	0
002	R	3	3	65	112	370	81.4	6.57	3.96	575	43	171	13:00	13:01	0.73	3.35	5	0
003	L	3	3	72	108	363	77.2	6.32	4.38	559	44	173	13:01	13:02	0.68	3.23	4	0
005	R	3	3	57	89.7	399	66.8	0.600	3.32	560	49	220	13:11	13:12	0.93	2.54	9	0
Mean		3	3	69	107	376	76.4	5.33	3.98	568	45	182	Total	00:15	0.73	3.16	5	0
SDev		0	0	9	9.62	13.6	5.73	2.67	0.476	8.95	2.5	21.7			0.11	0.36		
SD/M		0.00	0.00	0.13	0.09	0.04	0.08	0.50	0.12	0.02	0.05	0.12			0.16	0.11		

Remarks: Q with StreamPro 569cfs using BT with 2% error, no GPS data.

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 58
 Date: 07/06/2010

Party: Kemnitz/Vas	Width: 24.6 ft	Processed by: DAV
Boat/Motor: Tethered boat	Area: 51.8 ft ²	Mean Velocity: 1.26 ft/s
Gage Height: 6.16 ft at 1400 hr	G.H.Change:	Discharge: 65.3 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: F
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Power (0.1667)	Control1: 4-Clear	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.04
BT Error Vel.: 0.33 ft/s	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 1.10 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 4.30 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.21 ft/s	
Max. Depth: 2.51 ft	
Mean Depth: 2.10 ft	
% Meas.: 56.52	
Water Temp.: None	
ADCP Temp.: 55.1 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 200' DS of gage

Project Name: ublu20100610001rdv.mmt
 Software: 2.11

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
005	L	1	1	55	17.8	38.0	10.8	0.494	0.424	67.5	26	56	14:00	14:01	0.52	1.21	9	5
006	R	1	1	55	16.9	37.8	9.78	0.318	0.247	65.1	24	50	14:01	14:02	0.47	1.30	5	7
007	L	1	1	56	17.7	35.7	11.3	0.883	0.247	65.9	26	53	14:02	14:03	0.52	1.24	14	3
008	R	1	1	51	16.2	36.1	9.64	0.424	0.283	62.7	23	48	14:04	14:04	0.48	1.31	4	6
Mean		1	1	54	17.2	36.9	10.4	0.530	0.300	65.3	25	52	Total	00:04	0.50	1.26	8	5
SDev		0	0	2	0.751	1.17	0.816	0.246	0.084	2.00	1.8	3.5			0.03	0.05		
SD/M		0.00	0.00	0.04	0.04	0.03	0.08	0.47	0.28	0.03	0.07	0.07			0.06	0.04		

Remarks: Q with StreamPro 65cfs using BT with 3% error, no GPS data.

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No:60
 Date: 06/02/2011

Party: DB/DAV	Width: 101 ft	Processed by: DAV
Boat/Motor: kayak	Area: 450 ft ²	Mean Velocity: 3.76 ft/s
Gage Height: 18.50 ft 1240 hr	G.H.Change:	Discharge: 1,690 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 8 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 6.19 ft/s	
Max. Depth: 7.04 ft	
Mean Depth: 4.46 ft	
% Meas.: 69.48	
Water Temp.: None	
ADCP Temp.: 32.7 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: ublu20110602000r.mmt
 Software: 2.11

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	8	4	199	262	1193	211	5.58	5.69	1678	90	427	12:33	12:37	0.54	3.93	28	0
001	L	13	4	151	265	1143	220	14.6	7.66	1650	104	454	12:37	12:41	0.56	3.64	16	0
002	R	13	4	156	270	1177	209	10.8	8.23	1676	99	435	12:41	12:44	0.55	3.85	12	0
003	L	13	4	152	291	1189	269	9.89	6.67	1766	113	485	12:45	12:48	0.62	3.64	27	0
Mean		12	4	164	272	1176	227	10.2	7.06	1692	101	450	Total	00:15	0.57	3.76	21	0
SDev		3	0	23	13.1	22.7	28.1	3.70	1.12	50.5	9.7	25.9			0.03	0.15		
SD/M		0.21	0.00	0.14	0.05	0.02	0.12	0.36	0.16	0.03	0.10	0.06			0.06	0.04		

Remarks: Q with StreamPro 1692cfs using BT with 3% error, no GPS data.

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 61
 Date: 06/05/2011

Party: DB/DAV	Width: 115 ft	Processed by: DAV
Boat/Motor: kayak	Area: 518 ft ²	Mean Velocity: 3.17 ft/s
Gage Height: 16.78 ft 1520 hr	G.H.Change:	Discharge: 1,640 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 9 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 6.33 ft/s	
Max. Depth: 7.96 ft	
Mean Depth: 4.49 ft	
% Meas.: 70.73	
Water Temp.: None	
ADCP Temp.: 37.4 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: ublu20110605000r.mmt
 Software: 2.11

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	25	10	125	235	1129	214	25.9	26.7	1630	116	502	15:15	15:18	0.63	3.25	34	0
001	L	25	10	87	230	1152	202	24.2	21.5	1629	115	527	15:18	15:20	0.85	3.09	18	0
002	R	25	10	97	226	1122	190	25.5	20.9	1584	116	507	15:20	15:22	0.70	3.13	14	0
003	L	25	10	106	239	1242	208	14.4	20.2	1723	114	536	15:23	15:25	0.76	3.21	25	0
Mean		25	10	103	232	1161	203	22.5	22.3	1642	115	518	Total	00:10	0.74	3.17	23	0
SDev		0	0	16	5.66	55.1	10.4	5.42	2.98	58.2	0.9	16.5			0.09	0.07		
SD/M		0.00	0.00	0.16	0.02	0.05	0.05	0.24	0.13	0.04	0.01	0.03			0.13	0.02		

Remarks: Q with StreamPro 1642cfs using BT with 4% error, no GPS data.

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 62
 Date: 06/07/2011

Party: DB/DAV	Width: 83.9 ft	Processed by: DAV
Boat/Motor: kayak	Area: 352 ft ²	Mean Velocity: 3.30 ft/s
Gage Height: 14.77 ft at 1115 hr	G.H.Change:	Discharge: 1,160 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 10 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 6.73 ft/s	
Max. Depth: 7.98 ft	
Mean Depth: 4.20 ft	
% Meas.: 64.03	
Water Temp.: None	
ADCP Temp.: 35.7 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: ublu20110607000r.mmt
 Software: 2.11

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	12	6	92	191	749	163	13.5	9.71	1127	89	362	11:09	11:11	0.70	3.11	21	0
001	L	12	6	84	192	735	149	10.0	9.46	1095	80	336	11:11	11:13	0.74	3.26	18	1
002	R	12	6	85	202	799	187	10.1	10.0	1209	80	332	11:13	11:15	0.75	3.64	18	0
003	L	12	6	73	218	874	176	14.2	8.37	1291	86	369	11:16	11:17	0.99	3.50	21	0
004	R	12	6	81	185	758	157	15.9	9.39	1126	81	351	11:18	11:20	0.80	3.21	10	0
005	L	12	6	77	199	542	351	15.4	8.33	1116	88	364	11:20	11:22	0.80	3.07	32	1
Mean		12	6	82	198	743	197	13.2	9.22	1161	84	352	Total	00:12	0.80	3.30	20	0
SDev		0	0	7	11.7	111	76.7	2.56	0.706	74.8	4.0	15.5			0.10	0.23		
SD/M		0.00	0.00	0.08	0.06	0.15	0.39	0.19	0.08	0.06	0.05	0.04			0.13	0.07		

Remarks: Q with StreamPro 1161cfs using BT with 6% error, no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 63
 Date: 07/08/2011

Party: RTK / DAV	Width: 16.6 ft	Processed by: DAV
Boat/Motor: Tethered boat	Area: 22.5 ft ²	Mean Velocity: 1.85 ft/s
Gage Height: 5.75 ft at 1350 hr	G.H.Change:	Discharge: 41.6 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 0.33 ft/s*	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 1.10 ft/s*	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s*	WT Mode: 12 WT Pings: 6
WT Up Vel.: 5.20 ft/s*	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 5.18 ft/s	
Max. Depth: 2.05 ft	
Mean Depth: 1.36 ft	
% Meas.: 37.75	
Water Temp.: None	
ADCP Temp.: 58.0 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 100' DS of gage

Project Name: ublu20110708000 41.2cfs
 Software: 2.11

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	1	1	45	16.1	15.2	8.90	1.02	0.742	41.9	17	22	13:48	13:49	0.37	1.88	2	5
001	R	1	1	47	16.1	16.7	9.04	1.02	0.742	43.6	17	23	13:49	13:50	0.30	1.89	4	1
002	L	1	1	48	15.8	16.1	8.62	0.989	0.777	42.3	17	23	13:50	13:51	0.30	1.86	4	7
003	R	1	1	59	14.4	15.6	7.70	1.02	0.777	39.5	17	23	13:51	13:53	0.30	1.69	2	8
004	L	1	1	54	15.9	15.3	8.76	1.06	0.742	41.7	16	21	13:53	13:54	0.25	1.94	4	6
005	R	1	1	55	14.8	15.3	8.26	1.20	0.777	40.4	16	22	13:55	13:56	0.26	1.84	2	5
Mean	1	1	51	15.5	15.7	8.55	1.05	0.759	0.759	41.6	17	22	Total	00:08	0.30	1.85	3	5
SDev	0	0	5	0.717	0.592	0.493	0.075	0.019	1.45	0.3	0.7				0.04	0.09		
SD/M	0.00	0.00	0.11	0.05	0.04	0.06	0.07	0.03	0.03	0.02	0.03				0.15	0.05		

Remarks: Q with StreamPro 41.6cfs using BT with 3% error, no GPS data.

* - value not consistent for all transects

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 64
 Date: 08/28/2011

Party: RTK/DAV	Width: 15.4 ft	Processed by: DAV
Boat/Motor: Tethered boat Gage	Area: 18.9 ft ²	Mean Velocity: 0.395 ft/s
Height: 4.88 ft at 1445 hr	G.H.Change:	Discharge: 7.48 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Power (0.1667)	Control1: 4-Clear	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 0.33 ft/s	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 1.00 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 3.60 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.55 ft/s	
Max. Depth: 2.31 ft	
Mean Depth: 1.23 ft	
% Meas.: 38.04	
Water Temp.: None	
ADCP Temp.: 49.6 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 100' DS of gage

Project Name: ublu20110828000 q51cfs
 Software: 2.11

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	L	1	2	48	2.72	2.79	1.27	0.212	0.530	7.49	15	18	14:45	14:46	0.22	0.42	2	8
002	R	1	2	49	2.86	2.90	1.34	0.141	0.388	7.66	15	18	14:46	14:47	0.21	0.42	2	8
003	L	1	2	55	2.97	3.00	1.48	0.106	0.283	7.80	16	20	14:48	14:49	0.21	0.40	2	11
004	R	1	2	52	2.61	2.72	1.20	0.071	0.388	6.96	16	20	14:49	14:50	0.23	0.35	0	13
Mean		1	2	51	2.79	2.85	1.32	0.132	0.397	7.48	15	19	Total	00:05	0.22	0.40	1	10
SDev		0	0	3	0.155	0.124	0.121	0.060	0.101	0.371	0.7	0.9			0.01	0.03		
SD/M		0.00	0.00	0.06	0.06	0.04	0.09	0.46	0.26	0.05	0.04	0.05			0.04	0.08		

Remarks: Q with StreamPro 7.5 cfs usinf BT with 5% error, no GPS data

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 65
 Date: 06/03/2012

Party: DAV/JPB	Width: 40.5 ft	Processed by: DAV
Boat/Motor: kayak	Area: 126 ft ²	Mean Velocity: 1.18 ft/s
Gage Height: 13.50 at 1130 hr	G.H.Change:	Discharge: 148 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (20.9°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.12
BT Error Vel.: 3.28 ft/s*	Bin Size: 10 cm Blank: 19 cm
WT Error Vel.: 32.81 ft/s*	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s*	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s*	WZ : 5
Use Weighted Mean Depth: YES	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location:

Project Name: ublu 6032012 q148.3cfs
 Software: 2.11

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	6	4	99	38.3	67.5	28.3	3.85	4.91	143	48	145	11:24	11:25	1.02	0.98	0	0
001	L	6	4	65	42.9	66.9	25.7	2.54	4.17	142	39	120	11:25	11:26	1.09	1.18	23	0
002	R	6	4	51	46.2	71.8	33.3	5.26	2.12	159	43	133	11:26	11:26	1.20	1.19	2	0
003	L	6	4	48	45.5	75.5	27.6	2.58	2.72	154	40	122	11:26	11:27	1.25	1.27	0	0
006	L	6	4	83	42.4	74.4	27.1	2.37	3.78	150	40	127	11:28	11:29	0.74	1.18	0	0
007	R	6	4	59	41.5	69.0	31.4	3.92	3.28	149	39	127	11:30	11:31	0.96	1.17	2	0
008	L	6	4	65	41.1	70.3	25.4	2.58	2.68	142	36	110	11:31	11:32	0.88	1.29	0	0
Mean		6	4	67	42.6	70.8	28.4	3.30	3.38	148	41	126	Total	00:07	1.02	1.18	4	0
SDev		0	0	18	2.70	3.33	2.95	1.08	0.969	6.56	4.0	11.0			0.18	0.10		
SD/M		0.00	0.00	0.27	0.06	0.05	0.10	0.33	0.29	0.04	0.10	0.09			0.18	0.08		

Remarks: Q with RiverRay 48cfs using BT with 4% error, no GPS data.

* - value not consistent for all transects

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 66
 Date: 06/05/2012

Party: DAV/JPB	Width: 82.8 ft	Processed by: DAV
Boat/Motor: kayak	Area: 514 ft ²	Mean Velocity: 4.30 ft/s
Gage Height: 18.29 at 1120 hr	G.H.Change:	Discharge: 2,120 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (20.9°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.12
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 19 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 10.8 ft/s	
Max. Depth: 12.3 ft	
Mean Depth: 6.17 ft	
% Meas.: 58.48	
Water Temp.: None	
ADCP Temp.: 34.9 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: ublu 06052012 q2114cfs
 Software: 2.11

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	15	6	158	335	1256	529	10.6	14.8	2146	94	587	11:18	11:20	1.26	3.65	21	3
001	L	15	6	56	328	1261	522	41.8	29.3	2178	73	473	11:20	11:21	2.17	4.61	5	1
002	R	15	6	45	308	1188	552	59.4	19.9	2127	95	625	11:21	11:21	3.03	3.41	9	1
003	L	15	6	56	302	1206	498	5.19	25.8	2037	65	356	11:21	11:22	2.43	5.72	2	3
004	R	15	6	40	296	1212	497	21.2	18.5	2044	96	611	11:22	11:23	3.14	3.35	3	1
005	L	15	6	63	325	1316	527	-7.77	25.0	2184	74	433	11:23	11:23	2.76	5.04	29	2
Mean		15	6	69	316	1240	521	21.7	22.2	2119	83	514	Total	00:05	2.47	4.30	11	2
SDev		0	0	44	15.8	47.1	20.8	24.8	5.39	64.7	13.7	109.5			0.69	0.98		
SD/M		0.00	0.00	0.64	0.05	0.04	0.04	1.14	0.24	0.03	0.17	0.21			0.28	0.23		

Remarks: Q with RiverRay 2119cfs using BT with 3% error and 1366cfs using VTG with 16% error.

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 67
 Date: 06/07/2012

Party: RTK/DAV	Width: 74.3 ft	Processed by: DAV
Boat/Motor: kayak	Area: 455 ft ²	Mean Velocity: 3.52 ft/s
Gage Height: 16.40 ft at 1205 hr	G.H.Change:	Discharge: 1,600 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.12
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 19 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: ublu 201120607 q1602.4cfs
 Software: 2.11

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	10	6	96	248	931	368	11.7	14.4	1574	79	470	12:02	12:03	1.12	3.35	0	2
001	L	10	6	101	251	954	378	18.8	25.6	1628	72	445	12:04	12:05	1.06	3.66	3	1
002	R	10	6	103	254	906	400	24.6	11.9	1596	75	457	12:05	12:06	1.10	3.50	5	0
003	L	10	6	86	249	942	389	8.12	26.1	1614	72	451	12:06	12:07	1.21	3.58	8	1
Mean		10	6	96	250	933	384	15.8	19.5	1603	74	455	Total	00:04	1.12	3.52	4	1
SDev		0	0	8	2.62	20.6	13.8	7.37	7.37	23.3	3.1	10.8			0.06	0.13		
SD/M		0.00	0.00	0.08	0.01	0.02	0.04	0.47	0.38	0.01	0.04	0.02			0.06	0.04		

Remarks: Q with RiverRay 1603cfs using BT with 1% error and 1356cfs using VTG with 25% error.

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 68
 Date: 06/09/2012

Party: RTK/DAV	Width: 61.9 ft	Processed by: DAV
Boat/Motor: kayak	Area: 352 ft ²	Mean Velocity: 3.07 ft/s
Gage Height: 13.64 ft at 1115 hr	G.H.Change:	Discharge: 1,080 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.12
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 19 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 7.92 ft/s	
Max. Depth: 9.20 ft	
Mean Depth: 5.68 ft	
% Meas.: 59.51	
Water Temp.: None	
ADCP Temp.: 35.0 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: ublu 20120609 q1078cfs
 Software: 2.11

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	10	4	103	176	626	254	13.8	2.54	1071	60	337	11:13	11:14	0.84	3.18	4	1
001	L	10	4	85	174	627	229	-3.71	5.26	1032	61	339	11:15	11:16	1.06	3.04	4	2
002	R	10	4	74	179	658	262	5.51	6.25	1111	65	374	11:16	11:17	1.10	2.97	0	2
005	L	10	4	78	172	637	225	6.60	4.70	1045	62	340	11:19	11:19	1.20	3.08	1	2
006	R	10	4	66	185	659	276	28.5	4.56	1153	62	365	11:20	11:21	1.26	3.16	2	1
007	L	10	4	81	174	642	220	11.1	5.19	1052	62	354	11:21	11:22	1.09	2.97	2	2
Mean		10	4	81	177	641	245	10.3	4.75	1078	62	352	Total	00:08	1.09	3.07	2	2
SDev		0	0	13	4.76	14.7	22.6	10.8	1.23	46.2	1.5	15.5			0.15	0.09		
SD/M		0.00	0.00	0.15	0.03	0.02	0.09	1.04	0.26	0.04	0.02	0.04			0.13	0.03		

Remarks: Q with RiverRay 1078cfs using BT with 4% error and 927cfs using VTG with 20% error.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 69
 Date: 07/07/2012

Party: RTK/DAV	Width: 25.3 ft	Processed by: DAV
Boat/Motor: Tethered boat	Area: 42.4 ft ²	Mean Velocity: 1.35 ft/s
Gage Height: 5.93 ft at 1340 hr		Discharge: 57.2 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 0.33 ft/s	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 1.10 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 3.70 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 3.62 ft/s	
Max. Depth: 2.42 ft	
Mean Depth: 1.68 ft	
% Meas.: 48.95	
Water Temp.: None	
ADCP Temp.: 57.2 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 100' DS of gage

Project Name: ublu 70072012 q57.2cfs
 Software: 2.11

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	4	4	55	14.5	27.8	7.52	2.12	5.58	57.6	25	41	13:37	13:38	0.31	1.40	4	2
001	R	4	4	57	14.8	28.0	8.02	2.19	4.59	57.6	25	42	13:38	13:39	0.28	1.37	4	4
002	L	4	4	58	14.7	27.7	7.95	1.84	4.38	56.6	26	44	13:39	13:40	0.30	1.28	3	2
003	R	4	4	52	14.4	28.4	7.84	2.15	4.17	56.9	25	42	13:41	13:42	0.31	1.34	4	4
Mean		4	4	55	14.6	28.0	7.83	2.07	4.68	57.2	25	42	Total	00:05	0.30	1.35	4	3
SDev		0	0	3	0.194	0.311	0.218	0.162	0.625	0.487	0.6	1.4			0.02	0.05		
SD/M		0.00	0.00	0.05	0.01	0.01	0.03	0.08	0.13	0.01	0.02	0.03			0.05	0.04		

Remarks: Q with StreamPro 57cfs using BT with 1% error, no GPS data.

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 70
 Date: 09/01/2012

Party: RTK/DAV	Width: 16.6 ft	Processed by: DAV
Boat/Motor: Tethered Boat	Area: 21.8 ft ²	Mean Velocity: 0.476 ft/s
Gage Height: 4.97 ft at 1155 hr		Discharge: 10.4 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 31.12
BT Error Vel.: 0.33 ft/s	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 1.10 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 3.00 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	Max. Vel.: 4.33 ft/s
	Max. Depth: 1.58 ft
	Mean Depth: 1.32 ft
	% Meas.: 42.95
	Water Temp.: None
	ADCP Temp.: 43.6 °F

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 100' DS of gage

Project Name: ublu 9012012 q10.5cfs.mmt
 Software: 2.11

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	1	1	41	3.85	4.87	1.84	0.283	0.177	11.0	17	22	11:49	11:50	0.30	0.50	2	16
001	L	1	1	52	3.67	4.77	1.87	0.212	0.212	10.7	16	22	11:50	11:52	0.22	0.49	2	14
002	R	1	1	52	3.50	4.70	1.87	0.177	0.106	10.4	16	22	11:52	11:53	0.25	0.48	2	12
006	R	1	1	57	3.64	3.96	1.84	0.106	0.212	9.71	17	21	11:58	11:59	0.21	0.46	2	14
007	L	1	1	76	3.74	3.99	1.91	0.247	0.141	10.0	17	22	12:00	12:01	0.17	0.46	1	17
Mean		1	1	55	3.68	4.46	1.86	0.205	0.170	10.4	17	22	Total	00:12	0.23	0.48	2	15
SDev		0	0	13	0.131	0.446	0.030	0.068	0.046	0.515	0.7	0.5			0.05	0.02		
SD/M		0.00	0.00	0.23	0.04	0.10	0.02	0.33	0.27	0.05	0.04	0.02			0.20	0.03		

Remarks: Q with StreamPro 10.4cfs using BT with 5% error, no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 71
 Date: 06/06/2013

Party: DAV/JPB	Width: 106 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 435 ft ²	Mean Velocity: 3.04 ft/s
Gage Height: 18.40 ft at 1440 hr		Discharge: 1,320 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.4°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: YES	Serial #: 592 Firmware: 31.12
BT Error Vel.: 0.33 ft/s*	Bin Size: 15 cm Blank: 3 cm
WT Error Vel.: 0.98 ft/s*	BT Mode: 10 BT Pings: 2
BT Up Vel.: 1.00 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 4.00 ft/s	
Use Weighted Mean Depth: YES	
Max. Vel.: 4.86 ft/s	
Max. Depth: 6.44 ft	
Mean Depth: 4.13 ft	
% Meas.: 64.38	
Water Temp.: None	
ADCP Temp.: 40.0 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: ublu20130606dav1318cfs
 Software: 2.11

Tr.#		Edge Distance		#Ens.	Discharge					Width	Area	Time		Mean Vel.		% Bad		
		L	R		Top	Middle	Bottom	Left	Right			Total	Start	End	Boat	Water	Ens.	Bins
000	R	4	4	57	253	851	205	7.31	5.12	1322	119	455	14:37	14:38	1.62	2.90	35	1
001	L	4	4	60	254	859	208	2.05	8.40	1332	105	441	14:39	14:40	1.50	3.02	15	0
002	R	4	4	46	249	840	200	11.3	11.2	1311	96	405	14:42	14:43	1.55	3.24	35	0
003	L	4	4	56	245	844	206	2.22	10.2	1308	103	439	14:43	14:44	1.55	2.98	11	0
Mean		4	4	54	250	849	205	5.73	8.73	1318	106	435	Total	00:07	1.56	3.04	24	0
SDev		0	0	6	3.98	8.26	3.80	4.46	2.67	11.0	9.4	21.3			0.05	0.14		
SD/M		0.00	0.00	0.11	0.02	0.01	0.02	0.78	0.31	0.01	0.09	0.05			0.03	0.05		

Remarks: Q with StreamPro 1318cfs using BT with 1% error, no GPS data.

* - value not consistent for all transects

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 72
 Date: 06/09/2013

Party: DAV/JPB	Width: 111 ft	Processed by:
Boat/Motor: Kayak	Area: 694 ft ²	Mean Velocity: 3.51 ft/s
Gage Height: 18.43 ft at 1255 hr		Discharge: 2,430 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.4°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.15
BT Error Vel.: 3.28 ft/s*	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s*	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s*	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s*	WZ : 5
Use Weighted Mean Depth: YES	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: ublu20130609dav2410cfs
 Software: 2.11

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	4	4	130	430	1516	453	3.18	1.34	2404	102	638	12:53	12:54	2.01	3.77	28	3
001	L	4	4	126	450	1509	487	-1.13	6.96	2452	116	741	12:55	12:56	1.35	3.31	13	1
002	R	4	4	104	443	1509	462	1.31	1.48	2417	113	692	12:56	12:57	1.71	3.49	5	4
003	L	4	4	106	455	1531	469	0.883	5.65	2461	114	706	12:58	12:59	1.63	3.49	10	2
Mean		4	4	116	444	1516	468	1.06	3.86	2433	111	694	Total	00:05	1.67	3.51	14	3
SDev		0	0	13	10.9	10.0	14.3	1.77	2.87	27.6	6.0	42.9			0.27	0.19		
SD/M		0.00	0.00	0.12	0.02	0.01	0.03	1.67	0.75	0.01	0.05	0.06			0.16	0.05		

Remarks: Q with RiverRay 2434cfs using BT with 1% error and 2410cfs using VTG with 10% error.

* - value not consistent for all transects

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 73
 Date: 06/11/2013

Party: DAV/JPB	Width: 89.4 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 700 ft ²	Mean Velocity: 2.91 ft/s
Gage Height: 16.69 ft at 1300 hr		Discharge: 2,040 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.4°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:		ADCP:
BT 3-Beam Solution: YES	Max. Vel.: 8.07 ft/s	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Max. Depth: 12.0 ft	Serial #: 54988 Firmware: 44.15
BT Error Vel.: 3.28 ft/s	Mean Depth: 7.83 ft	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	% Meas.: 64.18	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	Water Temp.: None	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	ADCP Temp.: 37.3 °F	WZ : 5
Use Weighted Mean Depth: YES		

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: ublbu20130611dav2061cfs
 Software: 2.11

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	L	4	4	89	311	1352	462	4.87	3.18	2133	86	697	12:59	13:00	1.43	3.06	10	1
002	R	4	4	76	286	1312	427	2.90	1.27	2029	89	688	13:00	13:01	1.84	2.95	16	2
003	L	4	4	73	271	1256	411	4.20	2.86	1944	93	714	13:01	13:02	1.83	2.72	19	2
Mean		4	4	79	289	1306	434	3.99	2.44	2036	89	700	Total	00:02	1.70	2.91	15	2
SDev		0	0	9	20.3	48.4	26.2	1.01	1.02	94.6	3.1	13.3			0.24	0.17		
SD/M		0.00	0.00	0.11	0.07	0.04	0.06	0.25	0.42	0.05	0.04	0.02			0.14	0.06		

Remarks: Q with RiverRay 2036cfs using BT with 5% error and 2061cfs using VTG with 4% error.

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 74
 Date: 06/13/2013

Party: DAV/JPB Boat/Motor: Kayak Gage Height: 14.00 ft at 1125 hr	Width: 70.1 ft Area: 482 ft ²	Processed by: DAV Mean Velocity: 3.18 ft/s Discharge: 1,530 ft ³ /s
----------------------------------------------------------------------	---------------------------------------------	--------------------------------------------------------------------------------------

Area Method: Avg. Course Nav. Method: Bottom Track MagVar Method: None (19.4°) Depth Sounder: Not Used Discharge Method: None % Correction: 0.00	ADCP Depth: 0.600 ft Shore Ens.:10 Bottom Est: Power (0.1667) Top Est: Power (0.1667)	Index Vel.: 0.00 ft/s Adj. Mean Vel: 0.00 ft/s Rated Area: 0.000 ft ² Control1: Unspecified Control2: Unspecified Control3: Unspecified	Rating No.: 1 Qm Rating: U Diff.: 0.000%
-----------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------

Screening Thresholds: BT 3-Beam Solution: YES WT 3-Beam Solution: YES BT Error Vel.: 3.28 ft/s* WT Error Vel.: 32.81 ft/s* BT Up Vel.: 32.81 ft/s* WT Up Vel.: 32.81 ft/s* Use Weighted Mean Depth: YES	Max. Vel.: 7.43 ft/s Max. Depth: 10.5 ft Mean Depth: 6.88 ft % Meas.: 59.80 Water Temp.: None ADCP Temp.: 49.1 °F	ADCP: Type/Freq.: RiverRay / 600 kHz Serial #: 54988 Firmware: 44.15 Bin Size: 10 cm Blank: 16 cm BT Mode: Auto BT Pings: Dyn WT Mode: Auto WT Pings: Dyn WZ : 5
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location:

Project Name: ublu20130613dav1505cfs
 Software: 2.11

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	4	4	78	251	930	357	1.98	4.03	1544	75	485	11:22	11:23	1.28	3.19	28	2
001	L	4	4	77	236	858	362	1.45	2.97	1460	69	475	11:24	11:24	1.35	3.07	1	1
002	R	4	4	65	250	954	348	1.62	-0.989	1553	69	488	11:25	11:25	1.55	3.18	15	2
003	L	4	4	56	257	925	386	2.65	4.20	1575	68	480	11:26	11:26	1.65	3.28	0	0
Mean		4	4	69	249	917	363	1.92	2.55	1533	70	482	Total	00:03	1.46	3.18	11	1
SDev		0	0	10	9.07	41.0	16.2	0.531	2.42	50.3	3.1	5.6			0.17	0.09		
SD/M		0.00	0.00	0.15	0.04	0.04	0.04	0.28	0.95	0.03	0.04	0.01			0.12	0.03		

Remarks: Q with RiverRay 1533cfs using BT with 3% error and 1505cfs using VTG with 4% error.

* - value not consistent for all transects

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 75
 Date: 06/17/2013

Party: RTK/KAP	Width: 51.1 ft	Processed by: DAV
Boat/Motor: kayak	Area: 249 ft ²	Mean Velocity: 2.96 ft/s
Gage Height: 10.91 ft at 1055 hr		Discharge: 738 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.15
BT Error Vel.: 0.33 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 0.50 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 1.00 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 5.20 ft/s	WZ : 0
Use Weighted Mean Depth: NO	
Max. Vel.: 5.19 ft/s	
Max. Depth: 7.11 ft	
Mean Depth: 4.88 ft	
% Meas.: 63.96	
Water Temp.: None	
ADCP Temp.: 52.9 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 20' US of gage

Project Name: ublu20130617dav738cfs
 Software: 2.11

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	6	6	137	101	466	156	0.706	13.8	738	54	250	10:45	10:48	0.45	2.95	21	23
001	R	6	6	112	107	484	148	4.94	15.3	760	52	254	10:48	10:50	0.41	2.99	13	19
002	L	6	6	113	96.4	469	135	1.20	19.8	722	50	249	10:51	10:53	0.47	2.90	6	19
003	R	6	6	107	107	472	160	2.40	15.4	757	53	251	10:54	10:56	0.45	3.02	4	17
004	L	6	6	111	96.1	463	136	2.79	13.3	712	50	247	10:56	10:58	0.47	2.88	10	21
005	R	6	6	106	107	491	131	3.96	12.6	745	52	250	11:00	11:02	0.41	2.98	5	16
006	L	6	6	94	102	457	151	9.15	12.3	731	48	241	11:02	11:04	0.53	3.03	5	20
Mean		6	6	111	102	472	145	3.59	14.6	738	51	249	Total	00:19	0.46	2.96	9	19
SDev		0	0	13	4.90	12.1	11.3	2.86	2.57	17.8	2.1	4.2			0.04	0.06		
SD/M		0.00	0.00	0.12	0.05	0.03	0.08	0.79	0.18	0.02	0.04	0.02			0.09	0.02		

Remarks: Q with RiverRay 738 cfs using BT with 2% error, no GPS data.

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 76
 Date: 06/21/2013

Party: RTK	Width: 42.0 ft	Processed by: DAV
Boat/Motor: kayak	Area: 154 ft ²	Mean Velocity: 2.49 ft/s
Gage Height: 8.96 ft at 1110 hr		Discharge: 382 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.15
BT Error Vel.: 0.33 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 1.00 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 1.00 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 5.08 ft/s	WZ : 0
Use Weighted Mean Depth: NO	
Max. Vel.: 5.08 ft/s	
Max. Depth: 5.11 ft	
Mean Depth: 3.67 ft	
% Meas.: 63.66	
Water Temp.: None	
ADCP Temp.: 60.1 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: ublu20130621dav382cfs
 Software: 2.11

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	0	3	95	64.4	234	57.8	0.000	5.26	362	42	167	11:09	11:11	0.63	2.17	28	5
001	L	3	3	83	73.8	252	64.4	2.97	1.87	395	46	157	11:11	11:13	0.52	2.53	22	6
002	R	3	3	95	70.4	245	67.8	2.12	3.39	388	42	151	11:13	11:15	0.48	2.57	21	5
003	L	3	3	86	67.9	242	66.6	2.54	4.48	384	38	142	11:15	11:17	0.50	2.70	22	7
Mean		2	3	89	69.1	243	64.1	1.91	3.75	382	42	154	Total	00:07	0.53	2.49	23	6
SDev		1	0	6	3.96	7.50	4.47	1.32	1.47	14.6	3.1	10.2			0.07	0.23		
SD/M		0.67	0.00	0.07	0.06	0.03	0.07	0.69	0.39	0.04	0.07	0.07			0.13	0.09		

Remarks: Q with RiverRay 382cfs using BT with 4% error, no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No. 77
 Date: 07/06/2013

Party: RTK/DAV	Width: 29.1 ft	Processed by: DAV
Boat/Motor: Tethered boat	Area: 87.4 ft ²	Mean Velocity: 1.37 ft/s
Gage Height: 6.83 ft at 1205 hr		Discharge: 120 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.15
BT Error Vel.: 0.33 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 1.00 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 1.00 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 3.49 ft/s	WZ : 0
Use Weighted Mean Depth: NO	
Max. Vel.: 3.36 ft/s	
Max. Depth: 3.65 ft	
Mean Depth: 3.00 ft	
% Meas.: 69.05	
Water Temp.: None	
ADCP Temp.: 61.1 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 50' DS of gage

Project Name: ublu20130706dav120cfs
 Software: 2.11

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	L	2	2	77	20.9	85.2	15.8	1.09	-0.494	122	29	88	11:58	12:00	0.31	1.40	4	3
001	R	2	2	93	19.1	77.9	14.8	0.848	0.177	113	30	89	12:00	12:02	0.29	1.27	6	5
003	L	2	2	68	20.4	82.0	16.1	1.38	0.953	121	29	87	12:04	12:05	0.36	1.39	3	5
004	R	2	2	73	20.6	85.2	14.8	1.24	-0.247	122	29	87	12:06	12:07	0.34	1.39	4	3
005	L	2	2	72	20.8	83.6	15.2	1.59	0.459	122	29	86	12:07	12:09	0.34	1.41	7	4
Mean		2	2	76	20.4	82.8	15.3	1.23	0.170	120	29	87	Total	00:10	0.33	1.37	5	4
SDev		0	0	10	0.713	3.05	0.594	0.281	0.573	3.99	0.4	0.9			0.03	0.06		
SD/M		0.00	0.00	0.13	0.03	0.04	0.04	0.23	3.38	0.03	0.01	0.01			0.09	0.04		

Remarks: Q with StreamPro 120cfs using BT with 3% error, no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 79
 Date: 08/23/2013

Party: RTK/DAV	Width: 19.5 ft	Processed by: DAV
Boat/Motor: Tethered boat	Area: 26.2 ft ²	Mean Velocity: 0.728 ft/s
Gage Height: 5.18 ft at 1300 hr		Discharge: 19.0 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:6	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 44.15
BT Error Vel.: 0.33 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 1.40 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 1.00 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 5.51 ft/s	WZ : 0
Use Weighted Mean Depth: NO	
Max. Vel.: 2.59 ft/s	
Max. Depth: 1.63 ft	
Mean Depth: 1.34 ft	
% Meas.: 40.11	
Water Temp.: None	
ADCP Temp.: 45.4 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 100' US of gage

Project Name: ublu20130824dav19cfs.mmt
 Software: 2.11

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	R	2	2	49	6.43	7.31	3.21	0.530	0.565	18.0	20	26	12:55	12:57	0.27	0.68	2	4
002	L	2	2	46	6.71	7.31	3.85	0.848	0.812	19.6	20	27	12:57	12:58	0.30	0.73	2	0
003	R	2	2	46	6.82	7.73	3.71	-0.459	0.706	18.5	19	26	12:58	12:59	0.29	0.71	2	4
004	L	2	2	47	6.92	8.16	3.46	0.459	0.989	20.0	19	25	13:00	13:01	0.29	0.79	4	2
Mean		2	2	47	6.72	7.63	3.56	0.344	0.768	19.0	20	26	Total	00:05	0.29	0.73	3	2
SDev		0	0	1	0.213	0.406	0.280	0.562	0.179	0.916	0.4	0.5			0.01	0.05		
SD/M		0.00	0.00	0.03	0.03	0.05	0.08	1.63	0.23	0.05	0.02	0.02			0.05	0.06		

Remarks: Q with StreamPro 19cfs using BT with 5% error, no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 80
 Date: 05/27/2014

Party: RTK/DAV Boat/Motor: kayak Gage Height: 14.70 ft at 1040 hr	Width: 44.4 ft Area: 191 ft ²	Processed by: DAV Mean Velocity: 3.09 ft/s Discharge: 579 ft ³ /s
-------------------------------------------------------------------------	---------------------------------------------	------------------------------------------------------------------------------------

Area Method: Avg. Course Nav. Method: Bottom Track MagVar Method: None (0.0°) Depth Sounder: Not Used Discharge Method: None % Correction: 0.00	ADCP Depth: 0.600 ft Shore Ens.:10 Bottom Est: Power (0.1667) Top Est: Power (0.1667)	Index Vel.: 0.00 ft/s Adj.Mean Vel: 0.00 ft/s Rated Area: 0.000 ft ² Control1: Unspecified Control2: Unspecified Control3: Unspecified	Rating No.: 1 Qm Rating: U Diff.: 0.000%
----------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------

Screening Thresholds: BT 3-Beam Solution: YES WT 3-Beam Solution: YES BT Error Vel.: 3.28 ft/s WT Error Vel.: 32.81 ft/s BT Up Vel.: 32.81 ft/s WT Up Vel.: 32.81 ft/s Use Weighted Mean Depth: YES	Max. Vel.: 7.77 ft/s Max. Depth: 6.80 ft Mean Depth: 4.30 ft % Meas.: 49.85 Water Temp.: None ADCP Temp.: 34.3 °F	ADCP: Type/Freq.: RiverRay / 600 kHz Serial #: 54988 Firmware: 44.15 Bin Size: 10 cm Blank: 16 cm BT Mode: Auto BT Pings: Dyn WT Mode: Auto WT Pings: Dyn WZ : 5
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: ublu_0.mmt
 Software: 2.11

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	2	2	123	136	298	111	1.20	0.636	547	48	222	10:39	10:40	1.00	2.46	2	4
001	L	2	2	59	184	317	124	4.20	3.74	633	38	156	10:41	10:41	1.26	4.06	2	4
002	R	2	2	48	159	249	114	4.66	2.65	530	45	192	10:41	10:42	1.56	2.76	8	2
003	L	2	2	45	197	291	111	3.35	4.56	607	47	196	10:42	10:43	1.63	3.10	2	3
Mean		2	2	68	169	289	115	3.35	2.90	579	44	191	Total	00:03	1.36	3.09	4	3
SDev		0	0	37	27.0	28.4	6.05	1.53	1.70	48.6	4.5	27.1			0.29	0.69		
SD/M		0.00	0.00	0.54	0.16	0.10	0.05	0.46	0.59	0.08	0.10	0.14			0.21	0.22		

Remarks: Q with RiverRay 580cfs using BT with 8% error, no GPS data. Flow over snow/ice.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 81
 Date: 06/02/2014

Party: DAV/JPB	Width: 43.3 ft	Processed by: DAV
Boat/Motor: kayak	Area: 170 ft ²	Mean Velocity: 2.37 ft/s
Gage Height: 13.31 ft at 1215 hr		Discharge: 397 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.2°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	Max. Vel.: 5.88 ft/s
	Max. Depth: 6.99 ft
	Mean Depth: 3.94 ft
	% Meas.: 45.70
	Water Temp.: None
	ADCP Temp.: 34.5 °F

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage and 50' DS

Project Name: ublu06022014_0.mmt
 Software: 2.11

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	L	3	3	60	139	189	99.8	2.58	5.72	436	43	172	12:10	12:10	1.15	2.53	28	3
003	L	3	3	51	115	160	82.5	4.10	4.91	367	38	148	12:11	12:11	1.30	2.47	22	0
004	R	3	3	49	130	157	79.7	1.91	5.72	374	47	168	12:12	12:13	1.72	2.22	37	2
005	L	3	3	69	115	170	68.4	2.12	7.56	364	36	136	12:13	12:13	1.08	2.67	43	1
006	R	3	3	78	122	214	90.2	1.87	6.14	434	57	217	12:14	12:15	1.43	2.00	58	1
007	L	3	3	55	112	199	89.1	2.30	6.11	409	39	178	12:15	12:16	1.13	2.30	25	1
Mean		3	3	60	122	182	84.9	2.48	6.03	397	43	170	Total	00:06	1.30	2.37	36	1
SDev		0	0	11	10.5	22.8	10.7	0.835	0.872	33.4	7.6	27.8			0.24	0.24		
SD/M		0.00	0.00	0.19	0.09	0.13	0.13	0.34	0.14	0.08	0.17	0.16			0.19	0.10		

Remarks: Q with RiverRay 397cfs using BT with 8% error and 404cfs using VTG with 10% error. Snow/ice on the bottom.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 82
 Date: 06/06/2014

Party: DAV/JPB	Width: 60.4 ft	Processed by: DAV
Boat/Motor: kayak	Area: 305	Mean Velocity: 3.53 ft/s
Gage Height: 14.07 ft at 1105 hr		Discharge: 1,080 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.2°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 6.44 ft/s	
Max. Depth: 8.00 ft	
Mean Depth: 5.05 ft	
% Meas.: 53.43	
Water Temp.: None	
ADCP Temp.: 35.1 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: YES
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: Ublu06062014_0.mmt
 Software: 2.11

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	3	3	65	224	545	284	2.86	6.53	1062	66	317	11:03	11:03	1.72	3.35	25	2
001	L	3	3	43	209	591	263	1.66	14.8	1079	57	301	11:04	11:04	2.07	3.58	7	1
003	L	3	3	45	211	585	266	0.812	15.0	1078	59	297	11:05	11:05	2.17	3.63	7	1
004	R	3	3	40	221	579	277	3.96	15.1	1095	61	304	11:06	11:06	2.34	3.61	25	0
005	L	3	3	42	204	574	262	1.09	22.4	1063	60	305	11:06	11:07	2.31	3.49	10	3
Mean		3	3	47	214	575	270	2.08	14.8	1076	60	305	Total	00:03	2.12	3.53	15	2
SDev		0	0	10	8.53	17.7	9.44	1.31	5.63	13.6	3.5	7.7			0.25	0.12		
SD/M		0.00	0.00	0.22	0.04	0.03	0.03	0.63	0.38	0.01	0.06	0.03			0.12	0.03		

Remarks: Q with RiverRay1076cfs using BT with 1% error and 1013cfs using VTG with 8% error. Snow/ice on the bottom.

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 83
 Date: 06/09/2014

Party: DAV/JPB	Width: 50.1 ft	Processed by: DAV
Boat/Motor: kayak	Area: 269 ft ²	Mean Velocity: 2.85 ft/s
Gage Height: 11.28 ft at 1050 hr		Discharge: 764 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (19.2°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 54988 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 6.26 ft/s	
Max. Depth: 7.53 ft	
Mean Depth: 5.36 ft	
% Meas.: 54.65	
Water Temp.: None	
ADCP Temp.: 38.6 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: YES
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: at gage

Project Name: Ublu06092014_0.mmt
 Software: 2.11

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	L	4	4	51	168	433	151	1.27	17.1	771	53	277	10:51	10:51	1.62	2.79	22	4
002	R	4	4	41	161	406	166	4.13	10.1	747	48	269	10:52	10:53	1.88	2.89	20	3
003	L	4	4	35	166	430	164	-1.38	14.3	773	51	275	10:53	10:53	1.98	2.81	3	2
004	R	4	4	41	166	413	173	11.7	8.72	773	47	257	10:53	10:54	1.91	3.00	27	3
005	L	4	4	42	163	406	174	0.636	15.5	758	52	275	10:54	10:54	1.81	2.75	17	1
Mean		4	4	42	165	418	165	3.26	13.1	764	50	269	Total	00:03	1.84	2.85	17	3
SDev		0	0	6	3.01	13.2	9.00	5.09	3.57	11.6	2.7	9.6			0.14	0.10		
SD/M		0.00	0.00	0.14	0.02	0.03	0.05	1.56	0.27	0.02	0.05	0.04			0.08	0.03		

Remarks: Q with RiverRay 764cfs using BT with 2% error and 739cfs using VTG with 7% error.

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 84
 Date: 07/12/2014

Party: RTK/DAV	Width: 22.1 ft	Processed by: DAV
Boat/Motor: Tethered boat	Area: 30.2 ft ²	Mean Velocity: 2.47 ft/s
Gage Height: 6.22 ft at 1100 hr		Discharge: 74.6 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 44.16
BT Error Vel.: 32.81 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 0
Use Weighted Mean Depth: NO	
Max. Vel.: 4.50 ft/s	
Max. Depth: 2.05 ft	
Mean Depth: 1.37 ft	
% Meas.: 39.60	
Water Temp.: None	
ADCP Temp.: 55.0 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 30' US of gage

Project Name: ublu20140712 q75cfs mmt
 Software: 2.11

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	2	2	53	25.6	34.0	15.1	2.61	0.742	78.1	21	32	10:56	10:57	0.33	2.45	2	1
001	L	2	2	68	26.2	28.1	14.3	2.61	2.01	73.2	22	29	10:58	10:59	0.29	2.49	7	6
002	R	2	2	51	27.0	28.9	14.8	2.12	1.55	74.3	22	29	10:59	11:00	0.35	2.54	2	2
003	L	2	2	55	27.2	27.3	14.8	1.66	1.94	72.9	23	30	11:01	11:02	0.35	2.41	11	1
Mean		2	2	56	26.5	29.6	14.8	2.25	1.56	74.6	22	30	Total	00:05	0.33	2.47	6	2
SDev		0	0	8	0.760	3.05	0.350	0.458	0.583	2.38	0.7	1.2			0.03	0.05		
SD/M		0.00	0.00	0.14	0.03	0.10	0.02	0.20	0.37	0.03	0.03	0.04			0.10	0.02		

Remarks: Q with StreamPro 74.6cfs using BT with 3% error, no GPS data.

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 86
 Date: 05/25/2015

Party: RTK	Width: 102 ft	Processed by: DAV
Boat/Motor: Kayak Gage Height: 17.48 ft at 1140 hr	Area: 594 ft ²	Mean Velocity: 3.28 ft/s Discharge: 1,900 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.700 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (20.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: _____ Firmware: 44.16
BT Error Vel.: 0.33 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: NO	
Max. Vel.: 7.32 ft/s	
Max. Depth: 9.29 ft	
Mean Depth: 5.80 ft	
% Meas.: 56.87	
Water Temp.: None	
ADCP Temp.: 33.4 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 50' US of gage

Project Name: ublu_15-05-25_1
 Software: 2.15

Tr.#		Edge Distance		#Ens.	Discharge					Width	Area	Time		Mean Vel.		% Bad		
		L	R		Top	Middle	Bottom	Left	Right			Total	Start	End	Boat	Water	Ens.	Bins
000	R	5	8	284	400	1029	404	2.30	-0.812	1834	131	760	11:35	11:38	1.05	2.41	26	3
001	L	5	8	104	412	1080	363	0.671	16.6	1873	96	548	11:39	11:40	1.37	3.42	14	4
002	R	5	8	93	417	1106	407	6.57	3.00	1939	89	530	11:41	11:42	1.28	3.66	13	2
003	L	5	8	94	434	1100	374	0.812	31.9	1941	94	536	11:42	11:43	1.45	3.62	6	4
Mean		5	8	143	416	1079	387	2.59	12.7	1897	102	594	Total	00:08	1.29	3.28	15	3
SDev		0	0	94	14.2	35.2	21.9	2.75	14.8	52.5	19.3	111.4			0.17	0.59		
SD/M		0.00	0.00	0.65	0.03	0.03	0.06	1.06	1.17	0.03	0.19	0.19			0.13	0.18		

Remarks: Q with RiverRay 1900cfs using BT with 3% error, no GPS data.

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 87
 Date: 05/30/2015

Party: RTK/DAV	Width: 47.3 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 242 ft ²	Mean Velocity: 3.07 ft/s
Gage Height: 11.01 ft at 1130 hr		Discharge: 740 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 18.4 ft/s	
Max. Depth: 7.11 ft	
Mean Depth: 5.11 ft	
% Meas.: 53.44	
Water Temp.: None	
ADCP Temp.: 40.8 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 50' US of gage

Project Name: ublu20150530_0.mmt
 Software: 2.15

Tr.#		Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad	
		L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins
000	R	3	4	85	170	392	142	2.12	6.32	712	48	239	11:29	11:30	0.83	2.98	16	5
001	L	3	4	82	178	417	150	0.706	11.5	758	48	249	11:30	11:31	0.81	3.04	0	1
002	R	3	4	68	178	390	168	1.20	8.26	745	46	228	11:31	11:32	0.97	3.27	12	3
003	L	3	4	67	169	383	171	7.42	13.9	745	47	251	11:32	11:33	1.04	2.97	16	1
Mean		3	4	75	174	395	158	2.86	10.0	740	47	242	Total	00:03	0.91	3.07	11	2
SDev		0	0	9	4.95	15.1	14.2	3.09	3.37	19.5	1.1	10.8			0.11	0.14		
SD/M		0.00	0.00	0.12	0.03	0.04	0.09	1.08	0.34	0.03	0.02	0.04			0.12	0.05		

Remarks: Q with RiverRay 740cfs using BT with 3% error, 720cfs using VTG with 11% error (directional bias).

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 88
 Date: 06/02/2015

Party: DAV/JPB	Width: 39.7 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 164 ft ²	Mean Velocity: 2.70 ft/s
Gage Height: 9.49 ft at 1340 hr		Discharge: 442 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 5.69 ft/s	
Max. Depth: 5.60 ft	
Mean Depth: 4.14 ft	
% Meas.: 49.38	
Water Temp.: None	
ADCP Temp.: 40.3 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: YES Evaluation: YES
 Meas. Location: 50' DS of gage

Project Name: Ublu06022015_0.mmt
 Software: 2.15

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	3	3	85	131	221	80.9	7.80	1.98	443	41	167	13:37	13:38	0.73	2.66	11	2
001	L	3	3	95	140	223	94.3	3.46	5.62	467	39	162	13:39	13:39	0.94	2.88	5	4
002	R	3	3	58	127	214	86.7	4.56	4.27	437	40	164	13:40	13:40	0.97	2.66	3	2
003	L	3	3	70	121	213	81.6	5.93	6.46	428	35	150	13:40	13:41	1.34	2.85	4	0
004	R	3	3	72	136	230	91.9	5.33	2.79	466	42	167	13:42	13:43	0.99	2.80	18	0
005	L	3	3	45	117	209	71.0	4.59	11.6	414	41	175	13:43	13:43	1.29	2.36	9	0
Mean		3	3	70	129	219	84.4	5.28	5.46	442	40	164	Total	00:05	1.04	2.70	8	1
SDev		0	0	18	8.87	7.75	8.45	1.49	3.45	21.2	2.5	8.1			0.23	0.19		
SD/M		0.00	0.00	0.26	0.07	0.04	0.10	0.28	0.63	0.05	0.06	0.05			0.22	0.07		

Remarks: Q with RiverRay 440cfs with 5% error using BT, 460cfs with 3% error using VTG.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 89
 Date: 06/07/2015

Party: DAV/JPB	Width: 39.3 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 134 ft ²	Mean Velocity: 2.35 ft/s
Gage Height: 8.52 at 1520 hr ft		Discharge: 314 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (18.3°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 50' US of gage

Project Name: Ublu_06072015_0.mmt
 Software: 2.15

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	4	4	59	110	133	58.1	5.93	5.51	312	39	126	15:18	15:19	0.93	2.47	20	3
001	L	4	4	77	115	140	61.5	4.34	5.51	326	42	138	15:19	15:20	0.83	2.37	31	1
002	R	4	4	66	105	130	58.2	5.72	7.84	307	38	124	15:20	15:21	0.84	2.47	21	2
003	L	4	4	58	104	145	58.9	5.33	2.93	316	39	128	15:21	15:21	0.89	2.46	41	2
004	R	4	4	50	98.6	150	51.5	5.76	4.52	310	37	139	15:22	15:23	0.97	2.24	2	0
005	L	4	4	71	102	149	55.2	5.12	4.13	315	41	150	15:23	15:24	0.76	2.10	17	1
Mean		4	4	63	106	141	57.2	5.37	5.07	314	39	134	Total	00:05	0.87	2.35	22	2
SDev		0	0	10	5.87	8.39	3.45	0.584	1.66	6.80	1.7	9.7			0.08	0.15		
SD/M		0.00	0.00	0.16	0.06	0.06	0.06	0.11	0.33	0.02	0.04	0.07			0.09	0.06		

Remarks: Q with RiverRay 314 cfs using BT with 2% error, 310cfs with 13% error using VTG.

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 90
 Date: 06/11/2015

Party: RTK/DAV	Width: 42.3 ft	Processed by: DAV
Boat/Motor: Kayak	Area: 108 ft ²	Mean Velocity: 2.39 ft/s
Gage Height: 8.14 ft at 1330 hr		Discharge: 257 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 7 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.82 ft/s	
Max. Depth: 4.50 ft	
Mean Depth: 2.55 ft	
% Meas.: 61.98	
Water Temp.: None	
ADCP Temp.: 47.7 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 50' US of gage

Project Name: ublu20150611.mmt
 Software: 2.15

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	4	6	88	46.3	161	49.6	3.92	7.13	268	41	99	13:22	13:24	0.46	2.71	8	1
001	L	4	6	67	43.9	167	43.5	3.71	7.27	265	42	109	13:24	13:26	0.58	2.43	7	0
002	R	4	6	62	42.5	140	46.2	3.43	8.33	241	44	104	13:26	13:27	0.59	2.31	10	1
003	L	4	6	70	41.5	166	38.2	3.43	5.79	255	41	109	13:28	13:29	0.56	2.33	10	0
004	R	4	6	62	44.7	155	49.1	4.80	6.22	260	43	107	13:31	13:32	0.57	2.42	8	0
005	L	4	6	64	39.3	167	37.6	3.46	6.53	254	43	117	13:33	13:34	0.58	2.17	11	0
Mean		4	6	68	43.0	159	44.0	3.79	6.88	257	42	108	Total	00:11	0.56	2.39	9	0
SDev		0	0	10	2.47	10.4	5.24	0.534	0.904	9.70	0.9	6.0			0.05	0.18		
SD/M		0.00	0.00	0.15	0.06	0.07	0.12	0.14	0.13	0.04	0.02	0.06			0.09	0.08		

Remarks: Q with RiverRay 257 cfs with 4% error using BT, no GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 91
 Date: 07/02/2015

Party: RTK/KAP	Width: 22.8 ft	Processed by: DAV
Boat/Motor: none	Area: 35.0 ft ²	Mean Velocity: 1.25 ft/s
Gage Height: 5.75 ft at 1050 hr		Discharge: 43.9 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (21.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 3 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 13.5 ft/s	
Max. Depth: 1.88 ft	
Mean Depth: 1.54 ft	
% Meas.: 48.75	
Water Temp.: None	
ADCP Temp.: 62.6 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 15' US of gage

Project Name: [ublu20150702000r.mmt
 Software: 2.15

Tr.#	Edge Distance		#Ens.	Discharge					Width	Area	Time		Mean Vel.		% Bad			
	L	R		Top	Middle	Bottom	Left	Right			Total	Start	End	Boat	Water	Ens.	Bins	
000	R	1	1	91	16.3	21.9	7.20	0.035	-0.035	45.4	23	35	10:43	10:45	0.19	1.30	1	2
001	L	1	1	72	15.2	20.0	6.75	0.353	-0.177	42.1	23	34	10:45	10:47	0.24	1.22	1	5
002	R	1	1	100	14.7	22.0	6.67	0.494	-0.318	43.5	22	36	10:48	10:50	0.17	1.23	1	1
003	L	1	1	83	15.4	21.7	7.17	0.459	-0.212	44.5	22	35	10:51	10:53	0.21	1.27	1	1
Mean		1	1	86	15.4	21.4	6.95	0.335	-0.185	43.9	23	35	Total	00:09	0.20	1.25	1	2
SDev		0	0	12	0.689	0.966	0.277	0.209	0.117	1.42	0.5	0.4			0.03	0.04		
SD/M		0.00	0.00	0.14	0.04	0.05	0.04	0.62	0.63	0.03	0.02	0.01			0.14	0.03		

Remarks: Q with StreamPro 44cfs with 3% error using BT, no GPS data.

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 92
 Date: 08/27/2015

Party: RTK/DAV	Width: 23.0 ft	Processed by: DAV
Boat/Motor: wading	Area: 33.2 ft ²	Mean Velocity: 0.450 ft/s
Gage Height: 5.07 ft at 1020 hr		Discharge: 14.7 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 4 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 2.92 ft/s	
Max. Depth: 1.91 ft	
Mean Depth: 1.44 ft	
% Meas.: 43.84	
Water Temp.: None	
ADCP Temp.: 43.3 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 100' DS of gage

Project Name: ublu20150827000r.mmt
 Software: 2.15

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
003	R	2	2	59	4.77	6.60	2.54	-0.106	0.530	14.3	23	35	10:16	10:17	0.32	0.41	3	1
005	L	2	2	58	4.77	6.43	2.83	-0.035	0.283	14.3	22	33	10:18	10:20	0.34	0.44	10	0
006	R	2	2	59	4.84	7.24	2.54	-0.212	0.636	15.0	25	38	10:20	10:21	0.33	0.40	3	0
009	L	2	2	50	5.62	5.51	3.00	0.318	0.706	15.1	22	27	10:25	10:26	0.34	0.55	2	5
Mean		2	2	56	5.00	6.44	2.73	-0.009	0.539	14.7	23	33	Total	00:10	0.34	0.45	5	2
SDev		0	0	4	0.413	0.715	0.226	0.230	0.185	0.440	1.3	4.4			0.01	0.07		
SD/M		0.00	0.00	0.08	0.08	0.11	0.08	26.00	0.34	0.03	0.06	0.13			0.03	0.15		

Remarks: Q with StreamPro 14.7cfs with 3% error using BT, no GPS data.

Station Number: 15862500

Meas. No: 93

Station Name: Ublutuoch

Date: 05/24/2016

Party: DAV/RTK	Width: 72.5 ft	Processed by: DAV
Boat/Motor: ADCP kayak	Area: 308 ft ²	Mean Velocity: 2.65 ft/s
Gage Height: 16.17 ft at 1130 hr		Discharge: 811 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.7°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 0 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 50 cm Blank: 50 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 0 BT Pings: 1
BT Up Vel.: 32.81 ft/s	WT Mode: 1 WT Pings: 1
WT Up Vel.: 32.81 ft/s	WV : 170
Use Weighted Mean Depth: YES	
Max. Vel.: 7.48 ft/s	
Max. Depth: 6.01 ft	
Mean Depth: 4.24 ft	
% Meas.: 58.56	
Water Temp.: None	
ADCP Temp.: 33.6 °F	

Performed Diag. Test: NO

Project Name: ublu20160524q810cfs1.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: 100' DS of gage

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	2	6	111	211	490	146	1.66	-1.73	848	74	284	11:25	11:26	1.20	2.99	1	4
001	L	2	6	86	188	444	135	1.17	0.777	769	69	284	11:26	11:27	1.21	2.71	1	1
004	R	4	6	77	166	440	137	6.89	-3.35	746	78	329	11:32	11:33	1.56	2.27	0	2
005	L	4	6	64	204	526	139	3.96	7.35	880	75	332	11:33	11:33	1.50	2.65	0	1
006	R	4	6	69	183	469	144	6.92	6.39	810	76	329	11:34	11:35	1.43	2.46	0	3
007	L	4	6	68	185	478	133	7.45	7.73	811	64	287	11:35	11:36	1.21	2.82	0	1
Mean		3	6	79	190	475	139	4.67	2.86	811	73	308	Total	00:10	1.35	2.65	0	2
SDev		1	0	17	16.0	32.0	5.37	2.81	4.91	49.1	5.0	24.8			0.17	0.26		
SD/M		0.31	0.00	0.22	0.08	0.07	0.04	0.60	1.72	0.06	0.07	0.08			0.12	0.10		

Remarks: Q with RiverRay 811cfs using VTG with 6% error, 810cfs using BT with 8% error.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number:15862500

Meas. No: 94

Station Name: Ublutuoch

Date: 05/28/2016

Party: DAV/JPB	Width: 50.6 ft	Processed by: DAV
Boat/Motor: kayak	Area: 146 ft ²	Mean Velocity: 4.67 ft/s
Gage Height: 14.49 ft at 1000 hr		Discharge: 673 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.7°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	Max. Vel.: 10.2 ft/s
	Max. Depth: 4.91 ft
	Mean Depth: 2.92 ft
	% Meas.: 46.45
	Water Temp.: None
	ADCP Temp.: 33.1 °F

Performed Diag. Test: NO

Project Name: ublu20160528q674cfs.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: YES Evaluation: YES

Meas. Location: 30' DS of gage

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
003	L	6	6	50	226	349	121	2.30	6.22	704	40	120	09:55	09:55	1.91	5.88	24	3
004	R	6	6	52	197	279	117	21.3	8.19	622	49	134	09:59	09:59	1.64	4.66	35	3
005	L	6	4	62	206	305	135	5.33	9.11	661	44	134	10:00	10:00	1.68	4.94	8	5
006	R	6	4	70	210	306	130	10.9	3.46	661	57	151	10:01	10:02	1.35	4.38	33	3
007	L	6	4	62	214	308	138	8.48	8.26	677	47	149	10:03	10:03	1.50	4.53	21	4
009	R	4	4	76	254	317	135	4.98	6.46	718	68	189	10:04	10:04	1.25	3.80	39	3
010	L	4	4	69	210	326	123	5.62	7.24	672	49	149	10:05	10:05	1.44	4.53	7	2
Mean		5	5	63	217	313	128	8.42	6.99	673	51	146	Total	00:10	1.54	4.67	24	3
SDev		1	1	10	18.6	21.5	8.26	6.32	1.87	31.3	9.3	22.0			0.22	0.64		
SD/M		0.18	0.21	0.15	0.09	0.07	0.06	0.75	0.27	0.05	0.18	0.15			0.14	0.14		

Remarks: Q with RiverRay 674 cfs using Bt with 5% error. Bad GPS data.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15862500
 Station Name: Ublutuoch

Meas. No: 95
 Date: 06/02/2016

Party: DAV/RTK	Width: 40.9 ft	Processed by: DAV
Boat/Motor: kayak	Area: 83.5 ft ²	Mean Velocity: 3.77 ft/s
Gage Height: 10.50 ft at 1125 hr		Discharge: 314 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.499 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 5 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 6.35 ft/s	
Max. Depth: 3.04 ft	
Mean Depth: 2.04 ft	
% Meas.: 48.04	
Water Temp.: None	
ADCP Temp.: 33.8 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 200' US of gage

Project Name: ublu20160602q314cfs1.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
002	R	4	6	62	112	152	43.0	2.83	12.1	322	42	85	11:24	11:25	0.52	3.79	3	0
003	L	4	6	51	109	153	40.0	2.12	10.7	315	42	86	11:26	11:27	0.70	3.65	4	0
004	R	4	6	44	111	154	43.5	2.05	10.9	322	40	83	11:27	11:28	0.78	3.89	0	0
005	L	4	6	57	103	145	37.1	2.44	10.9	299	40	80	11:28	11:29	0.71	3.73	7	1
Mean		4	6	53	109	151	40.9	2.36	11.2	314	41	83	Total	00:05	0.68	3.77	4	0
SDev		0	0	8	3.95	3.82	2.95	0.355	0.644	10.6	1.3	2.6			0.11	0.10		
SD/M		0.00	0.00	0.15	0.04	0.03	0.07	0.15	0.06	0.03	0.03	0.03			0.16	0.03		

Remarks: Q with StreamPro 314cfs using BT with 3% error, no GPS data.

Station Number: 15862500

Meas. No: 96

Station Name: Ublutuoch

Date: 06/06/2016

Party: DAV/CA	Width: 33.2 ft	Processed by: DAV
Boat/Motor: ADCP kayak	Area: 128 ft ²	Mean Velocity: 2.25 ft/s
Gage Height: 8.36 ft at 925 hr		Discharge: 286 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.400 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 9 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.26 ft/s	
Max. Depth: 5.16 ft	
Mean Depth: 3.84 ft	
% Meas.: 61.10	
Water Temp.: None	
ADCP Temp.: 37.1 °F	

Performed Diag. Test: NO

Project Name: ubllu20160606q290.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: 300' DS of gage

Tr.#		Edge Distance		#Ens.	Discharge					Width	Area	Time		Mean Vel.		% Bad		
		L	R		Top	Middle	Bottom	Left	Right			Total	Start	End	Boat	Water	Ens.	Bins
000	R	4	6	77	49.2	176	41.3	8.72	18.0	293	37	141	09:21	09:22	0.47	2.09	17	0
001	L	4	6	47	47.9	178	40.5	8.76	16.7	292	32	122	09:23	09:24	0.58	2.39	6	0
002	R	4	6	47	47.4	177	39.1	9.57	13.1	286	33	127	09:24	09:25	0.56	2.25	6	0
003	L	4	6	48	44.8	169	35.4	8.37	16.2	273	31	120	09:25	09:26	0.68	2.28	15	1
Mean		4	6	54	47.3	175	39.1	8.86	16.0	286	33	128	Total	00:05	0.57	2.25	11	0
SDev		0	0	15	1.85	4.27	2.61	0.508	2.07	9.07	2.6	9.2			0.09	0.12		
SD/M		0.00	0.00	0.28	0.04	0.02	0.07	0.06	0.13	0.03	0.08	0.07			0.15	0.05		

Remarks: Q with StreamPro 286cfs using BT with 3% error, no GPS data.

Station Number:15862500

Meas. No: 97

Station Name: Ublutuoch

Date: 06/09/2016

Party: RTK/DAV	Width: 34.3 ft	Processed by: DAV
Boat/Motor: ADCP kayak	Area: 100 ft ²	Mean Velocity: 2.16 ft/s
Gage Height: 7.87 ft at 1015 hr		Discharge: 217 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s*	Bin Size: 6 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s*	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s*	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s*	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.55 ft/s	
Max. Depth: 4.46 ft	
Mean Depth: 2.93 ft	
% Meas.: 63.32	
Water Temp.: None	
ADCP Temp.: 36.8 °F	

Performed Diag. Test: NO

Project Name: ubku20160609q217cfs.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: 100 US of gage

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	L	10	6	75	25.3	145	18.8	17.9	13.5	220	32	98	10:12	10:13	0.45	2.24	27	0
002	R	10	6	52	28.3	136	27.1	12.8	17.9	222	37	105	10:14	10:15	0.46	2.11	8	0
003	L	10	6	56	26.2	131	18.3	17.8	14.7	208	35	97	10:15	10:16	0.46	2.14	21	0
Mean		10	6	61	26.6	137	21.4	16.2	15.4	217	34	100	Total	00:04	0.46	2.16	19	0
SDev		0	0	12	1.55	6.94	4.97	2.89	2.29	7.46	2.4	4.3			0.00	0.07		
SD/M		0.00	0.00	0.20	0.06	0.05	0.23	0.18	0.15	0.03	0.07	0.04			0.01	0.03		

Remarks: Q with StreamPro 217 cfs with 3% error, no GPS data.

* - value not consistent for all transects

Station Number:15862500

Meas. No: 98

Station Name: Ublutuoch

Date: 06/13/2016

Party: DAV/RTK	Width: 42.3 ft	Processed by: DAV
Boat/Motor: Trimaran	Area: 95.5 ft ²	Mean Velocity: 2.07 ft/s
Gage Height: 7.73 ft at 1030 hr		Discharge: 198 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 6 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.01 ft/s	
Max. Depth: 3.50 ft	
Mean Depth: 2.26 ft	
% Meas.: 60.88	
Water Temp.: None	
ADCP Temp.: 49.0 °F	

Performed Diag. Test: NO

Project Name: ublu20160613q198cfs.mmt

Performed Moving Bed Test: NO

Software: 2.17

Performed Compass Calibration: NO Evaluation: NO

Meas. Location: 500' US of gage at road X

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
001	L	4	6	68	37.9	116	28.0	3.85	5.76	192	42	94	10:23	10:25	0.46	2.04	3	0
002	R	4	6	67	40.6	126	30.4	3.78	5.76	207	44	97	10:25	10:26	0.51	2.13	4	1
003	L	4	6	86	37.0	120	27.8	3.28	5.65	193	41	95	10:27	10:28	0.52	2.04	20	0
004	R	4	6	71	38.0	117	29.7	3.39	6.78	195	43	96	10:29	10:30	0.52	2.03	11	1
005	L	4	6	58	38.0	121	28.7	4.87	7.24	200	41	95	10:31	10:32	0.55	2.10	16	0
Mean		4	6	70	38.3	120	28.9	3.84	6.24	198	42	96	Total	00:08	0.51	2.07	11	0
SDev		0	0	10	1.34	3.95	1.10	0.629	0.726	6.09	1.1	1.1			0.03	0.05		
SD/M		0.00	0.00	0.15	0.04	0.03	0.04	0.16	0.12	0.03	0.03	0.01			0.06	0.02		

Remarks: Q with StreamPro 198cfs using BT with 3% error, no GPS data.

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 101
 Date: 05/28/2017

Party: DAV/CDA	Width: 31.0 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 32.6 ft ²	Mean Velocity: 2.34 ft/s
Gage Height: 13.73 ft	G.H.Change: 0.000 ft	Discharge: 76.0 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 3 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	
Max. Vel.: 4.31 ft/s	
Max. Depth: 1.35 ft	
Mean Depth: 1.05 ft	
% Meas.: 33.37	
Water Temp.: None	
ADCP Temp.: 37.9 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 50' US of gauge

Project Name: ubli20170528q76cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	0	0	50	32.2	24.0	15.9	0.000	0.247	72.4	28	31	17:10	17:11	0.57	2.33	2	0
001	L	3	3	60	29.7	25.6	14.7	1.94	3.00	75.0	33	34	17:11	17:12	0.54	2.18	12	0
002	R	3	3	47	31.6	26.6	15.0	2.15	3.32	78.7	31	33	17:12	17:13	0.52	2.41	2	0
003	L	3	3	51	31.2	25.2	16.1	2.22	3.32	78.0	32	32	17:14	17:15	0.48	2.42	4	0
Mean		2	2	52	31.2	25.4	15.4	1.58	2.47	76.0	31	33	Total	00:05	0.53	2.34	5	0
SDev		1	1	6	1.08	1.08	0.673	1.06	1.49	2.89	2.1	1.4			0.04	0.11		
SD/M		0.67	0.58	0.11	0.03	0.04	0.04	0.67	0.60	0.04	0.07	0.04			0.07	0.05		

Remarks: Q with StreamPro 76 cfs using BT with 4% error, no GPS data.

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 102
 Date: 05/30/2017

Party: DAV/CDA	Width: 92.8 ft	Processed by: DAV
Boat/Motor: kayak	Area: 358 ft ²	Mean Velocity: 3.71 ft/s
Gage Height: 16.61 ft	G.H.Change: 0.000 ft	Discharge: 1,310 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.5°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 31.12
BT Error Vel.: 3.28 ft/s*	Bin Size: 3 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s*	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s*	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s*	WV : 170 WO : 1, 4
Use Weighted Mean Depth: YES	
Max. Vel.: 8.79 ft/s	
Max. Depth: 5.67 ft	
Mean Depth: 4.00 ft	
% Meas.: 52.40	
Water Temp.: None	
ADCP Temp.: 32.4 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: @ gauge

Project Name: ublu20170530q1280cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	4	3	106	477	703	208	3.78	4.38	1396	141	449	16:25	16:26	1.79	3.11	33	0
001	L	4	3	67	387	697	197	2.93	10.3	1294	76	328	16:26	16:27	1.73	3.94	13	0
002	R	4	3	71	398	675	198	4.41	7.59	1283	79	323	16:27	16:28	1.69	3.98	15	1
003	L	4	3	60	370	670	204	11.1	9.78	1266	76	332	16:28	16:29	2.02	3.82	20	1
Mean		4	3	76	408	686	202	5.55	8.03	1310	93	358	Total	00:04	1.81	3.71	20	1
SDev		0	0	21	47.3	16.1	5.04	3.74	2.71	58.8	32.2	60.9			0.15	0.41		
SD/M		0.00	0.00	0.27	0.12	0.02	0.02	0.67	0.34	0.04	0.35	0.17			0.08	0.11		

Remarks: Q with StreamPro 1310 cfs using BT with 4% error, no GPS data.

* - value not consistent for all transects

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 103
 Date: 06/01/2017

Party: DAV/CDA	Width: 75.2 ft	Processed by: DAV
Boat/Motor: kayak	Area: 332 ft ²	Mean Velocity: 3.98 ft/s
Gage Height: 15.74 ft	G.H.Change: 0.000 ft	Discharge: 1,320 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.5°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 31.12
BT Error Vel.: 3.28 ft/s	Bin Size: 3 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 170 WO : 1, 4
Use Weighted Mean Depth: YES	
Max. Vel.: 7.32 ft/s	
Max. Depth: 6.55 ft	
Mean Depth: 4.40 ft	
% Meas.: 54.19	
Water Temp.: None	
ADCP Temp.: 33.4 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: @ gauge

Project Name: ublu20170601_q1325cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
003	L	6	3	57	374	742	241	6.57	11.6	1375	76	349	16:21	16:22	1.82	3.94	7	2
005	L	6	3	74	375	697	216	1.91	15.1	1305	71	305	16:26	16:27	2.06	4.28	24	2
006	R	6	3	61	357	706	213	7.52	6.85	1290	78	340	16:28	16:29	1.94	3.79	21	1
007	L	6	3	49	369	708	203	2.22	12.7	1295	76	332	16:29	16:29	2.45	3.89	20	2
Mean		6	3	60	369	713	218	4.56	11.5	1316	75	332	Total	00:07	2.07	3.98	18	2
SDev		0	0	10	8.13	19.9	15.9	2.90	3.45	39.8	2.6	19.2			0.27	0.21		
SD/M		0.00	0.00	0.17	0.02	0.03	0.07	0.64	0.30	0.03	0.04	0.06			0.13	0.05		

Remarks: Q with RiverRay 1316 cfs using BT with 3% error, 1270 cfs using VTG with 4% error.

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 104
 Date: 06/03/2017

Party: DAV/MW	Width: 63.8 ft	Processed by: DAV
Boat/Motor: kayak	Area: 262 ft ²	Mean Velocity: 3.72 ft/s
Gage Height: 13.79 ft	G.H.Change: 0.000 ft	Discharge: 973 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.5°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s	WZ : 5
Use Weighted Mean Depth: YES	Max. Vel.: 6.83 ft/s
	Max. Depth: 6.22 ft
	Mean Depth: 4.10 ft
	% Meas.: 51.90
	Water Temp.: None
	ADCP Temp.: 32.1 °F

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 50' US of gage

Project Name: ublu 20170603_q1000cfs
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
017	R	6	6	59	305	522	166	21.4	16.0	1031	66	265	16:19	16:20	1.42	3.90	24	2
018	L	6	6	50	281	523	158	10.1	17.6	990	65	273	16:20	16:20	1.68	3.63	10	1
019	R	6	6	50	253	492	159	13.4	13.5	930	62	257	16:20	16:21	1.66	3.63	0	1
020	L	6	6	63	274	482	158	5.90	19.0	939	62	252	16:21	16:22	1.34	3.72	5	1
Mean		6	6	55	278	505	160	12.7	16.5	973	64	262	Total	00:02	1.52	3.72	10	1
SDev		0	0	7	21.6	20.9	4.01	6.54	2.34	47.1	2.3	9.2			0.17	0.13		
SD/M		0.00	0.00	0.12	0.08	0.04	0.03	0.52	0.14	0.05	0.04	0.04			0.11	0.03		

Remarks: Q with RiverRay 973 cfs using BT with 5% error, 1000 cfs using VTG with 6% error.

Discharge for transects in *italics* have a total Q more than 5% from the mean

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 105
 Date: 06/05/2017

Party: DAV/CDA	Width: 59.8 ft	Processed by: DAV
Boat/Motor: kayak	Area: 272 ft ²	Mean Velocity: 3.12 ft/s
Gage Height: 12.52 ft	G.H.Change: 0.000 ft	Discharge: 848 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.600 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (17.5°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: RiverRay / 600 kHz
WT 3-Beam Solution: YES	Serial #: 47849 Firmware: 44.16
BT Error Vel.: 3.28 ft/s*	Bin Size: 10 cm Blank: 16 cm
WT Error Vel.: 32.81 ft/s*	BT Mode: Auto BT Pings: Dyn
BT Up Vel.: 32.81 ft/s*	WT Mode: Auto WT Pings: Dyn
WT Up Vel.: 32.81 ft/s*	WZ : 5
Use Weighted Mean Depth: YES	
Max. Vel.: 5.84 ft/s	
Max. Depth: 6.70 ft	
Mean Depth: 4.55 ft	
% Meas.: 54.58	
Water Temp.: None	
ADCP Temp.: 33.2 °F	

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: 50 US of gauge

Project Name: ublu20170605_q840cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	6	4	33	211	479	134	21.7	12.3	858	54	259	16:13	16:13	2.02	3.31	0	1
001	L	6	4	38	232	472	139	2.51	19.7	865	61	272	16:13	16:14	2.18	3.18	5	0
002	R	6	4	48	221	466	149	8.65	8.48	853	60	276	16:14	16:15	1.63	3.09	0	1
003	L	6	4	41	222	434	138	0.812	19.8	814	64	280	16:15	16:15	2.17	2.91	5	1
Mean		6	4	40	222	463	140	8.42	15.1	848	60	272	Total	00:02	2.00	3.12	3	1
SDev		0	0	6	8.84	20.0	6.21	9.48	5.63	22.8	4.0	9.1			0.26	0.17		
SD/M		0.00	0.00	0.16	0.04	0.04	0.04	1.13	0.37	0.03	0.07	0.03			0.13	0.05		

Remarks: Q with RiverRay 848 cfs using VTG with 3% error, 840 cfs using BT with 2% error.

* - value not consistent for all transects

Station Number: 15862500
 Station Name: Ublutuoch River

Meas. No: 106
 Date: 08/20/2017

Party: DAV/AB	Width: 24.6 ft	Processed by: DAV
Boat/Motor: Tethered	Area: 70.1 ft ²	Mean Velocity: 1.79 ft/s
Gage Height: 6.87 ft	G.H.Change: 0.000 ft	Discharge: 125 ft ³ /s

Area Method: Avg. Course	ADCP Depth: 0.200 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: Bottom Track	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: U
MagVar Method: None (0.0°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft ²	Diff.: 0.000%
Depth: Composite (BT)	Top Est: Power (0.1667)	Control1: Unspecified	
Discharge Method: None		Control2: Unspecified	
% Correction: 0.00		Control3: Unspecified	

Screening Thresholds:	ADCP:
BT 3-Beam Solution: NO	Type/Freq.: StreamPro / 2000 kHz
WT 3-Beam Solution: NO	Serial #: _____ Firmware: 31.12
BT Error Vel.: 32.81 ft/s	Bin Size: 6 cm Blank: 3 cm
WT Error Vel.: 32.81 ft/s	BT Mode: 10 BT Pings: 2
BT Up Vel.: 32.81 ft/s	WT Mode: 12 WT Pings: 6
WT Up Vel.: 32.81 ft/s	WV : 0 WO : 1, 4
Use Weighted Mean Depth: NO	Max. Vel.: 4.58 ft/s
	Max. Depth: 3.25 ft
	Mean Depth: 2.85 ft
	% Meas.: 68.24
	Water Temp.: None
	ADCP Temp.: 46.3 °F

Performed Diag. Test: NO
 Performed Moving Bed Test: NO
 Performed Compass Calibration: NO Evaluation: NO
 Meas. Location: @ gauge

Project Name: ublu20170820q125cfs.mmt
 Software: 2.17

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	1	1	196	22.2	82.3	14.4	0.600	0.424	120	25	72	11:42	11:45	0.15	1.67	7	1
001	L	1	1	169	23.1	84.5	15.6	0.565	0.706	125	24	69	11:47	11:50	0.17	1.81	1	0
002	R	1	1	127	22.9	85.3	14.7	0.106	0.848	124	24	68	11:51	11:53	0.18	1.83	3	1
003	L	1	1	125	23.4	86.1	15.9	0.565	0.883	127	25	71	11:53	11:56	0.19	1.80	2	1
004	R	1	1	127	24.2	89.0	16.1	0.565	1.06	131	25	72	11:56	11:58	0.22	1.82	3	1
Mean	1	1	148	23.2	85.5	15.3	0.480	0.784	125	25	70	Total	00:16		0.18	1.79	3	1
SDev	0	0	32	0.717	2.42	0.775	0.210	0.237	4.05	0.6	1.8				0.02	0.07		
SD/M	0.00	0.00	0.22	0.03	0.03	0.05	0.44	0.30	0.03	0.02	0.03				0.13	0.04		

Remarks: Q with StreamPro 125 cfs using BT with 3% error, no GPS data.

Appendix B

Water Temperature and Conductivity Data at Selected Stations

Fish Creek

Ikpikpuk River

Judy Creek

Ublutuoch River

Year	Fish Creek			Ikpikpuk River			Judy Creek			Ublutuoch River			
	Date	Conductivity (μ S)	Water Temperature ($^{\circ}$ C)	Date	Conductivity (μ S)	Water Temperature ($^{\circ}$ C)	Date	Conductivity (μ S)	Water Temperature ($^{\circ}$ C)	Date	Conductivity (μ S)	Water Temperature ($^{\circ}$ C)	
1999										7/9	109	16.0	
2000							7/11	135	9.5				
2001										7/21	90	17.0	
2002	6/11	96	8.2	6/4	77	11.0	6/11	96	8.2	6/11	105	9.1	
	6/13	104	7.7	6/22	84	2.3	6/12	124	9.6	6/12	101	9.6	
	6/21	104	7.3	7/12	86	7.1	6/13	129	7.7	6/21	96	9.2	
	7/8	110	10.4	8/21	117	5.1	6/21	134	8.0	8/20	138	4.9	
	9/7	145	11.5	9/5	105	8.0	6/22	60	6.3	9/7	139	10.3	
							7/10	128	14.6				
							8/20	214	4.5				
2003	5/3	126	0.4	5/31	78	0.3	6/3	110	0.6	6/4	64	17.0	
	6/3	69	1.6	6/2	48	16.0	6/6	91	1.9	7/2	105	14.8	
	6/4	39	19.0	6/5	50	19.0	6/9	100	5.3	7/10	70	17.0	
	6/6	100	0.5	6/30	127	18.2	8/21	179	6.3				
	6/9	85	3.0	7/11	80	17.5							
	7/1	112	16.0	8/26	102	6.8							
	7/4	107	13.6	8/28	96	18.0							
	7/9	104	19.0	12/3	265	-0.2							
	8/21	142	5.6										
2004	6/3	72	-0.1	7/23	128	17.3	6/2	80	0.2	6/3	63	-0.1	
	6/4	63	-0.1	9/2	140	6.2	6/3	88	0.4	6/5	77	1.5	
	6/8	86	16.0	9/3	256	4.2	6/5	82	0.7	6/10	84	1.5	
	6/10	84	2.3				6/8	86	1.6	7/22	112	12.6	
	7/22	121	14.9				6/12	91	3.5	8/11	127	13.9	
	8/12	125	14.7				7/22	153	16.1	8/31	158	8.3	
							8/12	157	13.3				
						9/1	186	7.5					

Year	Fish Creek			Ikpikpuk River			Judy Creek			Ublutuoch River		
	Date	Conductivity	Water Temperature	Date	Conductivity	Water Temperature	Date	Conductivity	Water Temperature	Date	Conductivity	Water Temperature
		(μ S)	($^{\circ}$ C)		(μ S)	($^{\circ}$ C)		(μ S)	($^{\circ}$ C)		(μ S)	($^{\circ}$ C)
2005	6/9	114	1.0	6/2	54	0.4	6/4	28	1.8	6/8	68	0.2
	6/11	90	0.4	6/7	31	0.8	6/11	93	1.3	6/13	83	0.0
	6/13	85	1.6	6/12	325	2.3				7/14	89	11.9
	7/26	195	12.8	7/17	89	14.2				9/2	171	5.7
				8/31	184	5.6				9/8	137	4.8
				9/13	174	6.8						
2006	5/29	135	0.4	6/4	40	2.2	5/29	127	0.7	6/6	71	0.0
	8/4	130	12.4	6/11	42	8.8	6/8	94	3.3	6/9	70	2.2
	9/10	148	5.5	7/6	100	12.0	7/7	142	11.2	6/10	71	5.3
				8/3	113	15.1	8/4	164	14.0	7/9	102	11.7
				9/1	112	6.9	9/10	193	5.5			
				9/12	138	9.1						
				10/17	180	0.0						
2007	6/8	123	6.8				6/6	103	5.1	6/6	75	0.1
							7/15	173	14.6	6/8	111	4.6
										6/11	93	6.8
										7/11	120	18.4
									8/23	158	11.8	
2008	8/31	172	5.2	6/5	51	3.0	6/5	114	3.2	6/3	82	0.0
	10/8	218	7.7	6/8	50	4.4	6/9	102	8.0	6/6	91	0.0
				6/15	82	12.9	6/13	118	10.2	6/9	86	5.2
				7/12	106	18.1	7/11	164	16.5	6/13	91	8.5
				8/9	96	9.3				6/17	88	13.2
				9/1	135	4.9				7/11	104	18.1
				10/8	198	8.4				8/10	137	9.8
										8/31	143	4.5
2009	5/30	90	1.9	7/10	120	14.0	8/31	199	4.6	5/30	81	10.2
	6/2	87	5.7	8/8	180	0.0	10/9	263	0.1	6/2	75	0.1
	6/11	89	10.9							6/11	81	10.2

Year	Fish Creek			Ikpikpuk River			Judy Creek			Ublutuoch River		
	Date	Conductivity	Water Temperature	Date	Conductivity	Water Temperature	Date	Conductivity	Water Temperature	Date	Conductivity	Water Temperature
		(μ S)	($^{\circ}$ C)		(μ S)	($^{\circ}$ C)		(μ S)	($^{\circ}$ C)		(μ S)	($^{\circ}$ C)
2009	10/9	208	0.1							8/30	148	6.1
2010	6/14	86	6.7	6/11	160	14.5	6/10	104	5.9	6/10	311	1.8
	7/6	0	11.4	6/17	78	11.0	6/14	100	8.3	7/6	105	12.6
	8/30	155	9.4				8/30	167	9.5	8/28	149	11.1
2011	6/2	166	0.9	6/3	25	3.8	6/2	85	1.3	6/2	65	1.4
	6/5	88	1.3	8/26	141	11.7	6/5	109	2.5	6/5	97	2.2
	6/7	95	1.7	10/13	163	0.7	6/7	110	2.8	6/7	89	1.1
	7/8	61	13.7				7/8	155	13.7	7/8	105	15.5
	8/27	155	9.8				8/28	203	9.7	8/28	147	9.6
2012	5/27	131	1.6	6/4	37	5.9	5/27	160	1.5	6/3	37	1.5
	6/3	123	1.6	7/5	122	15.0	6/5	88	2.4	6/5	52	0.9
	6/5	109	1.0	10/21	150	0.8	6/9	110	2.9	6/9	86	0.3
	6/9	89	2.6				7/7	151	16.3	7/7	102	14.8
	7/7	122	14.3									
	10/20	25	0.5									
2013	6/2	16	0.7	5/28	76	0.6	6/2	72	0.1	6/6	61	1.3
	6/6	84	0.9	5/31	21	0.6	6/6	78	1.9	6/9	69	1.4
	6/9	87	2.3	6/5	29	3.0	6/9	94	2.7	6/11	65	2.1
	6/11	96	4.8	6/18	71	14.9	6/13	92	11.4	6/13	69	9.3
	6/13	96	8.2	10/24	37	0.5	6/17	102	13.4	6/17	68	11.7
	6/17	29	12.9				6/21	108	17.3	6/21	82	15.4
	6/21	93	15.6				7/6	134	17.2	7/6	102	16.0
	7/6	115	16.6				8/23	193	7.6	7/15	107	14.9
	8/23	142	7.1				10/23	203	0.6	8/23	153	7.5
2014	6/2	82	1.2	5/26	50	3.5	5/27	106	0.8	5/27	76	0.7
	6/6	85	2.6	6/8	44	5.6	6/6	97	3.8	6/2	76	0.9
	6/9	141	1.2	8/9	127	7.7	6/9	157	2.1	6/6	78	1.1
	7/12	117	15.5				7/12	137	14.5	6/9	89	3.0
						8/17	169	13.7	7/12	105	13.2	

Appendix C

Rating Curves

Fish Creek

Ikpikpuk River

Judy Creek

Otuk Creek

Prince Creek

Seabee Creek

Ublutuoch River

Rating Curve

Fish Creek, Alaska

STATION NUMBER Id Site Fish Creek SOURCE AGENCY: BLM/UAF

LATITUDE 70°16.23' N LONGITUDE 151°52.155' W

Date Processed: 2018-07-30 13:48:43 UTC-08:00 By Dragos Vas

Rating for Discharge (ft³/s)

Created by rkemnitz on 2018-07-30 20:47:11 [UTC], Updated by Dragos Vas on 2018-07-30 21:45:52

[UTC]

Offset1: 14.70

EXPANDED CAQRating TABLE

Stage (ft)	Discharge (ft ³ /s)										DIFF IN Q PER .1 UNITS
	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09	
15.00				13.0*	13.8	14.5	15.3	16.1	17.0	17.8	8.14
15.10	18.7	19.6	20.5	21.4	22.4	23.3	24.3	25.3	26.4	27.4	9.80
15.20	28.5	29.5	30.7	31.8	32.9	34.1	35.3	36.4	37.7	38.9	11.70
15.30	40.2	41.4	42.7	44.0	45.3	46.7	48.1	49.4	50.8	52.3	13.50
15.40	53.7	55.2	56.6	58.1	59.6	61.2	62.7	64.3	65.9	67.5	15.40
15.50	69.1	70.7	72.4	74.0	75.7	77.5	79.2	80.9	82.7	84.5	17.20
15.60	86.3	88.1	89.9	91.8	93.6	95.5	97.4	99.4	101*	103	18.70
15.70	105	107	109	111	113	115	117	119	121	123	20.00
15.80	125	127	129	131	133	135	137	140	142	144	21.00
15.90	146	148	150	153	155	157	160	162	164	166	23.00
16.00	169	171	173	176	178	181	183	186	188	190	24.00
16.10	193	195	198	200	203	206	208	211	213	216	26.00
16.20	219	221	224	227	229	232	235	237	240	243	27.00
16.30	246	248	251	254	257	260	262	265	268	271	28.00
16.40	274	277	280	283	286	289	292	295	298	301	30.00
16.50	304	307	310	313	316	319	322	326	329	332	31.00
16.60	335	338	341	345	348	351	354	358	361	364	33.00
16.70	368	371	374	378	381	384	388	391	395	398	33.00
16.80	401	405	408	412	415	419	422	426	429	433	36.00
16.90	437	440	444	447	451	455	458	462	466	469	36.00
17.00	473	477	481	484	488	492	496	499	503	507	38.00
17.10	511	515	519	522	526	530	534	538	542	546	39.00
17.20	550	554	558	562	566	570	574	578	582	586	40.00
17.30	590	594	599	603	607	611	615	619	624	628	42.00
17.40	632	636	641	645	649	653	658	662	666	671	43.00
17.50	675	679	684	688	692	697	701	706	710	715	44.00
17.60	719	724	728	733	737	742	746	751	755	760	46.00
17.70	765	769	774	778	783	788	792	797	802	806	46.00
17.80	811	816	821	825	830	835	840	845	849	854	48.00
17.90	859	864	869	874	879	883	888*	893	898	903	48.00
18.00	907	912	917	922	926	931	936	941	946	950	48.00
18.10	955	960	965	970	975	980	985	989	994	999	45.00
18.20	1000	1010	1010	1020	1020	1030	1030	1040	1040	1050	50.00

18.30	1050	1060	1060	1070	1070	1080	1080	1090	1090	1100	60.00
18.40	1110	1110	1120	1120	1130	1130	1140	1140	1150	1150	50.00
18.50	1160	1160	1170	1170	1180	1180	1190	1190	1200	1210	50.00
18.60	1210	1220	1220	1230	1230	1240	1240	1250	1250	1260	50.00
18.70	1260	1270	1280	1280	1290	1290	1300	1300	1310	1310	60.00
18.80	1320	1330	1330	1340	1340	1350	1350	1360	1360	1370	60.00
18.90	1380	1380	1390	1390	1400	1400	1410	1420	1420	1430	50.00
19.00	1430	1440	1440	1450	1460	1460	1470	1470	1480	1480	60.00
19.10	1490	1500	1500	1510	1510	1520	1530	1530	1540	1540	60.00
19.20	1550	1560	1560	1570	1570	1580	1590	1590	1600	1600	60.00
19.30	1610	1620	1620	1630	1630	1640	1650	1650	1660	1660	60.00
19.40	1670	1680	1680	1690	1690	1700	1710	1710	1720	1730	60.00
19.50	1730	1740	1740	1750	1760	1760	1770	1780	1780	1790	60.00
19.60	1790	1800	1810	1810	1820	1830	1830	1840	1850	1850	70.00
19.70	1860	1860	1870	1880	1880	1890	1900	1900	1910	1920	60.00
19.80	1920	1930	1940	1940	1950	1960	1960	1970	1980	1980	70.00
19.90	1990	1990	2000	2010	2010	2020	2030	2030	2040	2050	60.00
20.00	2050	2060	2070	2070	2080	2090	2100	2100	2110	2120	70.00
20.10	2120	2130	2140	2140	2150	2160	2160	2170	2180	2180	70.00
20.20	2190	2200	2200	2210	2220	2220	2230	2240	2250	2250	70.00
20.30	2260	2270	2270	2280	2290	2290	2300	2310	2320	2320	70.00
20.40	2330	2340	2340	2350	2360	2360	2370	2380	2390	2390	70.00
20.50	2400	2410	2410	2420	2430	2440	2440	2450	2460	2470	70.00
20.60	2470	2480	2490	2490	2500	2510	2520	2520	2530	2540	80.00
20.70	2550	2550	2560	2570	2570	2580	2590	2600	2600	2610	70.00
20.80	2620	2630	2630	2640	2650	2660	2660	2670	2680	2690	70.00
20.90	2690	2700	2710	2720	2720	2730	2740	2750	2750	2760	80.00
21.00	2770	2780	2780	2790	2800	2810	2810	2820	2830	2840	70.00
21.10	2840	2850	2860	2870	2880	2880	2890	2900	2910	2910	80.00
21.20	2920	2930	2940	2950	2950	2960	2970	2980	2980	2990	80.00
21.30	3000	3010	3020	3020	3030	3040	3050	3060	3060	3070	80.00
21.40	3080	3090	3090	3100	3110	3120	3130	3130	3140	3150	80.00
21.50	3160	3170	3170	3180	3190	3200	3210	3210	3220	3230	80.00
21.60	3240	3250	3260	3260	3270	3280	3290	3300	3300	3310	80.00
21.70	3320	3330	3340	3350	3350	3360	3370	3380	3390	3390	80.00
21.80	3400	3410	3420	3430	3440	3440	3450	3460	3470	3480	90.00
21.90	3490	3490	3500	3510	3520	3530	3540	3540	3550	3560	80.00
22.00	3570	3580	3590	3600	3600	3610	3620	3630	3640	3650	80.00
22.10	3650	3660	3670	3680	3690	3700	3710	3710	3720	3730	90.00
22.20	3740	3750	3760	3770	3770	3780	3790	3800	3810	3820	90.00
22.30	3830	3840	3840	3850	3860	3870	3880	3890	3900	3910	80.00
22.40	3910	3920	3930	3940	3950	3960	3970	3980	3980	3990	90.00
22.50	4000	4010	4020	4030	4040	4050	4060	4060	4070	4080	90.00
22.60	4090	4100	4110	4120	4130	4140	4140	4150	4160	4170	90.00
22.70	4180	4190	4200	4210	4220	4230	4240	4240	4250	4260	90.00

22.80	4270	4280	4290	4300	4310	4320	4330	4340	4340	4350	90.00
22.90	4360	4370	4380	4390	4400	4410	4420	4430	4440	4450	100.00
23.00	4460	4460	4470	4480	4490	4500	4510	4520	4530	4540	90.00
23.10	4550	4560	4570	4580	4590	4590	4600	4610	4620	4630	90.00
23.20	4640	4650	4660	4670	4680	4690	4700	4710	4720	4730	100.00
23.30	4740	4750	4760	4770	4770	4780	4790	4800	4810	4820	90.00
23.40	4830	4840	4850	4860	4870	4880	4890	4900	4910	4920	100.00
23.50	4930	4940	4950	4960	4970	4980	4990	5000	5010	5020	100.00
23.60	5030	5030	5040	5050	5060	5070	5080	5090	5100	5110	90.00
23.70	5120	5130	5140	5150	5160	5170	5180	5190	5200	5210	100.00
23.80	5220	5230	5240	5250	5260	5270	5280	5290	5300	5310	100.00
23.90	5320	5330	5340	5350	5360	5370	5380	5390	5400	5410	100.00
24.00	5420	5430	5440	5450	5460	5470	5480	5490	5500	5510	100.00
24.10	5520	5530	5540	5550	5560	5570	5580	5590	5600	5610	100.00
24.20	5620	5630	5640	5650	5660	5680	5690	5700	5710	5720	110.00
24.30	5730	5740	5750	5760	5770	5780	5790	5800	5810	5820	100.00
24.40	5830	5840	5850	5860	5870	5880	5890	5900	5910	5920	100.00
24.50	5930	5940	5950	5970							

"" indicates a rating descriptor point

Rating Curve

Ikpikpuk River, Alaska

STATION NUMBER Id Site Ikpikpuk River SOURCE AGENCY: BLM/UAF
 LATITUDE 69°46.008' N LONGITUDE 154°39.826' W
 Date Processed: 2018-07-30 15:19:48 UTC-08:00 By Dragos Vas
 Rating for Discharge (ft³/s)
 Created by rkemnitz on 2018-02-27 15:29:25 [UTC], Updated by Dragos Vas on 2018-07-30 15:12:33

[UTC]

Offset1: 21.60

EXPANDED CAQRating TABLE

Stage (ft)	Discharge (ft ³ /s)										DIFF IN Q PER .1 UNITS
	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09	
21.80	2.70*	3.03	3.38	3.75	4.15	4.57	5.01	5.47	5.96	6.48	4.31
21.90	7.01	7.58	8.16	8.78	9.42	10.1	10.8	11.5	12.2	13.0	6.79
22.00	13.8	14.6	15.5	16.4	17.3	18.2	19.2	20.2	21.2	22.3	9.50
22.10	23.3	24.5	25.6	26.8	28.0	29.2	30.5	31.8	33.1	34.5	12.60
22.20	35.9	37.3	38.7	40.2	41.8	43.3	44.9	46.5	48.2	49.8	15.70
22.30	51.6	53.3	55.1	56.9	58.8	60.7	62.6	64.5	66.5	68.5	19.00
22.40	70.6	72.7	74.8	77.0	79.2	81.4	83.7	86.0	88.4	90.8	22.60
22.50	93.2	95.6	98.1	101	103	106	108	111	114	117	25.80
22.60	119	122	125	128	131	134	137	140	143	146	30.00
22.70	149	153	156	159	163	166	169	173	176	180	34.00
22.80	183	187	191	194	198	202	206	210	214	217	38.00
22.90	221	225	230	234	238	242	246	251	255	259	43.00
23.00	264	268	273	277	282	286	291	296	301	305	46.00
23.10	310	315	320	325	330	335	340	345	351	356	51.00
23.20	361	366	372	377	383	388	394	399	405	411	55.00
23.30	416	422	428	434	440	446	452	458	464	470	60.00
23.40	476	483	489	495	502	508	515	521	528	534	65.00
23.50	541	548	555	561	568	575	582	589	596	603	70.00
23.60	611	618	625	632	640	647	655	662	670	677	74.00
23.70	685	693	700	708	716	724	732	740	748	756	79.00
23.80	764	772	781	789	797	806	814	823	831	840	84.00
23.90	848	857*	864	870	877	883	890	896	903	909	68.00
24.00	916	923	929	936	943	949	956	963	970	976	67.00
24.10	983	990	997	1000	1010	1020	1020	1030	1040	1050	67.00
24.20	1050	1060	1070	1070	1080	1090	1100	1100	1110	1120	70.00
24.30	1120	1130	1140	1150	1150	1160	1170	1180	1180	1190	80.00
24.40	1200	1200	1210	1220	1230	1230	1240	1250	1260	1260	70.00
24.50	1270	1280	1290	1300	1300	1310	1320	1330	1330	1340	80.00
24.60	1350	1360	1370	1370	1380	1390	1400	1400	1410	1420	80.00
24.70	1430	1440	1440	1450	1460	1470	1480	1490	1490	1500	80.00
24.80	1510	1520	1530	1530	1540	1550	1560	1570	1580	1580	80.00
24.90	1590	1600	1610	1620	1630	1630	1640	1650	1660	1670	90.00

25.00	1680	1690	1690	1700	1710	1720	1730	1740	1750	1760	80.00
25.10	1760	1770	1780	1790	1800	1810	1820	1830	1830	1840	90.00
25.20	1850	1860	1870	1880	1890	1900	1910	1920	1920	1930	90.00
25.30	1940	1950	1960	1970	1980	1990	2000	2010	2020	2030	90.00
25.40	2030	2040	2050	2060	2070	2080	2090	2100	2110	2120	100.00
25.50	2130	2140	2150	2160	2170	2180	2190	2200	2200	2210	90.00
25.60	2220	2230	2240	2250	2260	2270	2280	2290	2300	2310	100.00
25.70	2320	2330	2340	2350	2360	2370	2380	2390	2400	2410	100.00
25.80	2420	2430	2440	2450	2460	2470	2480	2490	2500	2510	100.00
25.90	2520	2530	2540	2550	2560	2570	2580	2590	2600	2610	100.00
26.00	2620	2630	2650	2660	2670	2680	2690	2700	2710	2720	110.00
26.10	2730	2740	2750	2760	2770	2780	2790	2800	2810	2820	110.00
26.20	2840	2850	2860	2870	2880	2890	2900	2910	2920	2930	100.00
26.30	2940	2950	2960	2980	2990	3000	3010	3020	3030	3040	110.00
26.40	3050	3060	3070	3090	3100	3110	3120	3130*	3140	3150	120.00
26.50	3170	3180	3190	3200	3210	3230	3240	3250	3260	3280	120.00
26.60	3290	3300	3310	3330	3340	3350	3360	3370	3390	3400	120.00
26.70	3410	3420	3440	3450	3460	3470	3490	3500	3510	3530	130.00
26.80	3540	3550	3560	3580	3590	3600	3610	3630	3640	3650	130.00
26.90	3670	3680	3690	3710	3720	3730	3740	3760	3770	3780	130.00
27.00	3800	3810	3820	3840	3850	3860	3880	3890	3900	3920	130.00
27.10	3930	3940	3960	3970	3980	4000	4010	4020	4040	4050	130.00
27.20	4060	4080	4090	4100	4120	4130	4150	4160	4170	4190	140.00
27.30	4200	4210	4230	4240	4260	4270	4280	4300	4310	4320	140.00
27.40	4340	4350	4370	4380	4390	4410	4420	4440	4450	4470	140.00
27.50	4480	4490	4510	4520	4540	4550	4560	4580	4590	4610	140.00
27.60	4620	4640	4650	4670	4680	4690	4710	4720	4740	4750	150.00
27.70	4770	4780	4800	4810	4830	4840	4860	4870	4880	4900	140.00
27.80	4910	4930	4940	4960	4970	4990	5000	5020	5030	5050	150.00
27.90	5060	5080	5090	5110	5120	5140	5150	5170	5180	5200	150.00
28.00	5210	5230	5250	5260	5280	5290	5310	5320	5340	5350	160.00
28.10	5370	5380	5400	5410	5430	5450	5460	5480	5490	5510	150.00
28.20	5520	5540	5550	5570	5590	5600	5620	5630	5650	5660	160.00
28.30	5680	5700	5710	5730	5740	5760	5780	5790	5810	5820	160.00
28.40	5840	5860	5870	5890	5900	5920	5940	5950	5970	5990	160.00
28.50	6000	6020	6030	6050	6070	6080	6100	6120	6130	6150	160.00
28.60	6160	6180	6200	6210	6230	6250	6260	6280	6300	6310	170.00
28.70	6330	6350	6360	6380	6400	6410	6430	6450	6460	6480	170.00
28.80	6500	6510	6530	6550	6570	6580	6600	6620	6630	6650	170.00
28.90	6670	6680	6700	6720	6740	6750	6770	6790	6800	6820	170.00
29.00	6840	6860	6870	6890	6910	6930	6940	6960	6980	7000	170.00
29.10	7010	7030	7050	7070	7080	7100	7120	7140	7150	7170	180.00
29.20	7190	7210	7220	7240	7260	7280	7290	7310	7330	7350	180.00
29.30	7370	7380	7400	7420	7440	7460	7470	7490	7510	7530	180.00
29.40	7550	7560	7580	7600	7620	7640	7650	7670	7690	7710	180.00

29.50	7730	7750	7760	7780	7800	7820	7840	7860	7870	7890	180.00
29.60	7910	7930	7950	7970	7990	8000	8020	8040	8060	8080	190.00
29.70	8100	8120	8130	8150	8170	8190	8210	8230	8250	8270	180.00
29.80	8280	8300	8320	8340	8360	8380	8400	8420	8440	8460	190.00
29.90	8470	8490	8510	8530	8550	8570	8590	8610	8630	8650	200.00
30.00	8670	8690	8700	8720	8740	8760	8780	8800	8820	8840	190.00
30.10	8860	8880	8900	8920	8940	8960	8980	9000	9020	9040	200.00
30.20	9060	9080	9100	9110	9130	9150	9170	9190	9210	9230	190.00
30.30	9250	9270	9290	9310	9330	9350	9370	9390	9410	9430	200.00
30.40	9450	9470	9490	9510	9530	9550	9570	9590	9610	9630	200.00
30.50	9650	9680	9700	9720	9740	9760	9780	9800	9820	9840	210.00
30.60	9860	9880	9900*	9930	9950	9980	10000	10000	10100	10100	240.00
30.70	10100	10100	10200	10200	10200	10200	10300	10300	10300	10300	300.00
30.80	10400	10400	10400	10400	10500	10500	10500	10600	10600	10600	200.00
30.90	10600	10700	10700	10700	10700	10800	10800	10800	10800	10900	300.00
31.00	10900	10900	11000	11000	11000	11000	11100	11100	11100	11100	300.00
31.10	11200	11200	11200	11300	11300	11300	11300	11400	11400	11400	300.00
31.20	11500	11500	11500	11500	11600	11600	11600	11600	11700	11700	200.00
31.30	11700	11800	11800	11800	11800	11900	11900	11900	12000	12000	300.00
31.40	12000	12000	12100	12100	12100	12200	12200	12200	12200	12300	300.00
31.50	12300	12300	12400	12400	12400	12500	12500	12500	12500	12600	300.00
31.60	12600	12600	12700	12700	12700	12700	12800	12800	12800	12900	300.00
31.70	12900	12900	13000	13000	13000	13000	13100	13100	13100	13200	300.00
31.80	13200	13200	13300	13300	13300	13300	13400	13400	13400	13500	300.00
31.90	13500	13500	13600	13600	13600	13700	13700	13700	13700	13800	300.00
32.00	13800	13800	13900	13900	13900	14000	14000	14000	14100	14100	300.00
32.10	14100	14200	14200	14200	14200	14300	14300	14300	14400	14400	300.00
32.20	14400	14500	14500	14500	14600	14600	14600	14700	14700	14700	400.00
32.30	14800	14800	14800	14900	14900	14900	15000	15000	15000	15000	300.00
32.40	15100	15100	15100	15200	15200	15200	15300	15300	15300	15400	300.00
32.50	15400	15400	15500	15500	15500	15600	15600	15600	15700	15700	300.00
32.60	15700	15800	15800	15800	15900	15900	15900	16000	16000	16000*	400.00
32.70	16100	16100	16100	16200	16200	16200	16200	16300	16300	16300	200.00
32.80	16300	16400	16400	16400	16400	16500	16500	16500	16500	16600	300.00
32.90	16600	16600	16700	16700	16700	16700	16800	16800	16800	16800	300.00
33.00	16900	16900	16900	16900	17000	17000	17000	17100	17100	17100	200.00
33.10	17100	17200	17200	17200	17200	17300	17300	17300	17400	17400	300.00
33.20	17400	17400	17500	17500	17500	17500	17600	17600	17600	17600	300.00
33.30	17700	17700	17700	17800	17800	17800	17800	17900	17900	17900	300.00
33.40	18000	18000	18000	18000	18100	18100	18100	18100	18200	18200	200.00
33.50	18200	18300	18300	18300	18300	18400	18400	18400	18400	18500	300.00
33.60	18500	18500	18600	18600	18600	18600	18700	18700	18700	18800	300.00
33.70	18800	18800	18800	18900	18900	18900	19000	19000	19000	19000	300.00
33.80	19100	19100	19100	19200	19200	19200	19200	19300	19300	19300	200.00
33.90	19300	19400	19400	19400	19500	19500	19500	19500	19600	19600	300.00

34.00	19600	19700	19700	19700	19700	19800	19800	19800	19900	19900	300.00
34.10	19900	20000	20000	20000	20000	20100	20100	20100	20200	20200	300.00
34.20	20200	20200	20300	20300	20300	20400	20400	20400	20400	20500	300.00
34.30	20500	20500	20600	20600	20600	20600	20700	20700	20700	20800	300.00
34.40	20800	20800	20900	20900	20900	20900	21000	21000	21000	21100	300.00
34.50	21100	21100	21100	21200	21200	21200	21300	21300	21300	21400	300.00
34.60	21400	21400	21400	21500	21500	21500	21600	21600	21600	21700	300.00
34.70	21700	21700	21700	21800	21800	21800	21900	21900	21900	22000	300.00
34.80	22000	22000	22000	22100	22100	22100	22200	22200	22200	22300	300.00
34.90	22300	22300	22300	22400	22400	22400	22500	22500	22500	22600	300.00
35.00	22600	22600	22700	22700	22700	22700	22800	22800	22800	22900	300.00
35.10	22900	22900	23000	23000	23000	23000	23100	23100	23100	23200	300.00
35.20	23200	23200	23300	23300	23300	23400	23400	23400	23500	23500	300.00
35.30	23500	23500	23600	23600	23600	23700	23700	23700	23800	23800	300.00
35.40	23800	23900	23900	23900	23900	24000	24000	24000	24100	24100	300.00
35.50	24100	24200	24200	24200	24300	24300	24300	24400	24400	24400	400.00
35.60	24500	24500	24500	24500	24600	24600	24600	24700	24700	24700	300.00
35.70	24800	24800	24800	24900	24900	24900	25000	25000	25000	25100	300.00
35.80	25100	25100	25200	25200	25200	25200	25300	25300	25300	25400	300.00
35.90	25400	25400	25500	25500	25500	25600	25600	25600	25700	25700	300.00
36.00	25700	25800	25800	25800	25900	25900	25900	26000	26000	26000	400.00
36.10	26100	26100	26100	26200	26200	26200	26200	26300	26300	26300	300.00
36.20	26400	26400	26400	26500	26500	26500	26600	26600	26600	26700	300.00
36.30	26700	26700	26800	26800	26800	26900	26900	26900	27000	27000	300.00
36.40	27000	27100	27100	27100	27200	27200	27200	27300	27300	27300	400.00
36.50	27400	27400	27400	27500	27500	27500	27600	27600	27600	27700	300.00
36.60	27700	27700	27800	27800	27800	27900	27900	27900	28000	28000	300.00
36.70	28000	28100	28100	28100	28200	28200	28200	28300	28300	28300	400.00
36.80	28400	28400	28400	28500	28500	28500	28600	28600	28600	28700	300.00
36.90	28700	28700	28800	28800	28800	28900	28900	28900	29000	29000	300.00
37.00	29000	29100	29100	29200	29200	29200	29300	29300	29300	29400	400.00
37.10	29400	29400	29500	29500	29500	29600	29600	29600	29700	29700	300.00
37.20	29700	29800	29800	29800	29900	29900	29900	30000	30000	30000	400.00
37.30	30100	30100	30100	30200	30200	30300	30300	30300	30400	30400	300.00
37.40	30400	30500	30500	30500	30600	30600	30600	30700	30700	30700	400.00
37.50	30800	30800	30800	30900	30900	31000	31000	31000	31100	31100	300.00
37.60	31100	31200	31200	31200	31300	31300	31300	31400	31400	31400	400.00
37.70	31500	31500	31600	31600	31600	31700	31700	31700	31800	31800	300.00
37.80	31800	31900	31900	31900	32000	32000	32000	32100	32100	32200	400.00
37.90	32200	32200	32300	32300	32300	32400	32400	32400	32500	32500	300.00
38.00	32500	32600	32600	32700	32700	32700	32800	32800	32800	32900	400.00
38.10	32900	32900	33000	33000	33100	33100	33100	33200	33200	33200	400.00
38.20	33300	33300	33300	33400	33400	33500	33500	33500	33600	33600	300.00
38.30	33600	33700	33700	33700	33800	33800	33900	33900	33900	34000	400.00
38.40	34000	34000	34100	34100	34100	34200	34200	34300	34300	34300	400.00

38.50	34400	34400	34400	34500	34500	34500	34600	34600	34700	34700	300.00
38.60	34700	34800	34800	34800	34900	34900	35000	35000	35000	35100	400.00
38.70	35100	35100	35200	35200	35300	35300	35300	35400	35400	35400	400.00
38.80	35500	35500	35600	35600	35600	35700	35700	35700	35800	35800	300.00
38.90	35800	35900	35900	36000	36000	36000	36100	36100	36100	36200	400.00
39.00	36200	36300	36300	36300	36400	36400	36500	36500	36500	36600	400.00
39.10	36600	36600	36700	36700	36800	36800	36800	36900	36900	36900	400.00
39.20	37000	37000	37100	37100	37100	37200	37200	37200	37300	37300	400.00
39.30	37400	37400	37400	37500	37500	37600	37600	37600	37700	37700	300.00
39.40	37700	37800	37800	37900	37900	37900	38000	38000	38100	38100	400.00
39.50	38100	38200	38200	38200	38300	38300	38400	38400	38400	38500	400.00
39.60	38500	38600	38600	38600	38700	38700	38700	38800	38800	38900	400.00
39.70	38900	38900	39000	39000	39100	39100	39100	39200	39200	39300	400.00
39.80	39300	39300	39400	39400	39400	39500	39500	39600	39600	39600	400.00
39.90	39700	39700	39800	39800	39800	39900	39900	40000	40000	40000	400.00
40.00	40100	40100	40200	40200	40200	40300	40300	40400	40400	40400	400.00
40.10	40500	40500	40500	40600	40600	40700	40700	40700	40800	40800	400.00
40.20	40900	40900	40900	41000	41000	41100	41100	41100	41200	41200	400.00
40.30	41300	41300	41300	41400	41400	41500	41500	41500	41600	41600	400.00
40.40	41700	41700	41700	41800	41800	41900	41900	41900	42000	42000	400.00
40.50	42100	42100	42100	42200	42200	42300	42300	42300	42400	42400	400.00
40.60	42500	42500	42500	42600	42600	42700	42700	42800	42800	42800	400.00
40.70	42900	42900	43000	43000	43000	43100	43100	43200	43200	43200	400.00
40.80	43300	43300	43400	43400	43400	43500	43500	43600	43600	43600	400.00
40.90	43700	43700	43800	43800	43900	43900	43900	44000	44000	44100	400.00
41.00	44100	44100	44200	44200	44300	44300	44300	44400	44400	44500	400.00
41.10	44500	44600	44600	44600	44700	44700	44800	44800	44800	44900	400.00
41.20	44900	45000	45000	45000	45100	45100	45200	45200	45300	45300	400.00
41.30	45300	45400	45400	45500	45500	45500	45600	45600	45700	45700	500.00
41.40	45800	45800	45800	45900	45900	46000	46000	46000	46100	46100	400.00
41.50	46200	46200	46300	46300	46300	46400	46400	46500	46500	46600	400.00
41.60	46600	46600	46700	46700	46800	46800	46800	46900	46900	47000	400.00
41.70	47000	47100	47100	47100	47200	47200	47300*	47300	47400	47400	400.00
41.80	47400	47500	47500	47600	47600	47700	47700	47700	47800	47800	500.00
41.90	47900	47900	48000	48000	48000	48100	48100	48200	48200	48200	400.00
42.00	48300	48300	48400	48400	48500	48500	48500	48600	48600	48700	400.00
42.10	48700	48800	48800	48800	48900	48900	49000	49000	49100	49100	500.00
42.20	49200	49200	49200	49300	49300	49400	49400	49500	49500	49500	400.00
42.30	49600	49600	49700	49700	49800	49800	49800	49900	49900	50000	400.00
42.40	50000	50100	50100	50100	50200	50200	50300	50300	50400	50400	

"*" indicates a rating descriptor point

Rating Curve

Judy Creek, Alaska

STATION NUMBER Id Site Judy Creek SOURCE AGENCY: BLM/UAF
 LATITUDE 70°13.241' N LONGITUDE 151°50.13' W
 Date Processed: 2018-07-30 15:32:48 UTC-08:00 By Dragos Vas
 Rating for Discharge (ft³/s)
 Created by rkemnitz on 2017-10-29 10:55:41 [UTC], Updated by Dragos Vas on 2018-07-30 11:18:56

[UTC]

Offset1: 18.25

EXPANDED CAQRating TABLE

Stage (ft)	Discharge (ft ³ /s)										DIFF IN Q PER .1 UNITS
	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09	
18.60									5.00*	5.26	2.65
18.70	5.53	5.80	6.08	6.37	6.67	6.97	7.28	7.60	7.93	8.26	3.07
18.80	8.60	8.95	9.30	9.67	10.0	10.4	10.8	11.2	11.6	12.0	3.80
18.90	12.4	12.9	13.3	13.7	14.2	14.6	15.1	15.6	16.0	16.5	4.60
19.00	17.0	17.5	18.1	18.6	19.1	19.6	20.2	20.7	21.3	21.9	5.40
19.10	22.4	23.0	23.6	24.2	24.8	25.5	26.1	26.7	27.4	28.0	6.30
19.20	28.7	29.3	30.0	30.7	31.4	32.1	32.8	33.5	34.3	35.0	7.10
19.30	35.8	36.5	37.3	38.0	38.8	39.6	40.4	41.2	42.0	42.9	7.90
19.40	43.7	44.5	45.4	46.2	47.1	48.0	48.9	49.8	50.7	51.6	8.80
19.50	52.5	53.4	54.4	55.3	56.3	57.2	58.2	59.2	60.2	61.2	9.70
19.60	62.2	63.2	64.3	65.3	66.3	67.4	68.5	69.5	70.6	71.7	10.60
19.70	72.8	73.9	75.0	76.2	77.3	78.5	79.6	80.8	82.0	83.2	11.50
19.80	84.3	85.5	86.8	88.0	89.2	90.5	91.7	93.0	94.2	95.5	12.50
19.90	96.8	98.1	99.4	101	102	103	105	106	107	109	13.20
20.00	110	112	113	114	116	117	119	120	122	123	15.00
20.10	125	126	128	129	131	132	134	135	137	138	15.00
20.20	140	141	143	145	146	148	150	151	153	155	16.00
20.30	156	158	160	161	163	165	166	168	170	172	17.00
20.40	173	175	177	179	181	182	184	186	188	190	19.00
20.50	192	194	196	197	199	201	203	205	207	209	19.00
20.60	211	213	215	217	219	221	223	225	227	229	20.00
20.70	231	233	235	238	240	242	244	246	248	250	22.00
20.80	253	255	257	259	261	264	266	268	270	273	22.00
20.90	275	277	280	282	284	287	289	291	294	296	23.00
21.00	298	301	303	306	308	310	313	315	318	320	25.00
21.10	323	325	328	330	333	335	338	341	343	346	25.00
21.20	348	351	354	356	359	361	364	367	369	372	27.00
21.30	375	378	380	383	386	389	391	394	397	400	27.00
21.40	402	405	408	411	414	417	420	422	425	428	29.00
21.50	431	434	437	440	443	446	449	452	455	458	30.00
21.60	461	464	467	470	473	476	479	482	486	489	31.00
21.70	492	495	498	501	504	508	511	514	517	521	32.00
21.80	524	527	530	534	537	540	543	547	550	553	33.00

21.90	557	560	564	567	570	574	577	581	584	588	34.00
22.00	591	594	598	601	605	608	612	616	619	623	35.00
22.10	626	630	633	637	641	644	648	652	655	659	37.00
22.20	663	666	670	674	678	681	685	689	693	696	37.00
22.30	700	704	708	712	716	719	723	727	731	735	39.00
22.40	739	743	747	751	755	759	763	767	771	775	40.00
22.50	779	783	787	791	795	799*	804	809	814	818	44.00
22.60	823	828	833	838	843	848*	853	858	863	869	51.00
22.70	874	879	884	889	895	900*	905	911	916	922	53.00
22.80	927	933	938	944	949	955*	960	966	971	977	55.00
22.90	982	988	993	999	1000	1010*	1020	1020	1030	1030	58.00
23.00	1040	1050	1050	1060	1060	1070*	1080	1080	1090	1100	60.00
23.10	1100	1110	1120	1130	1130	1140*	1150	1150	1160	1170	70.00
23.20	1170	1180	1190	1200	1200	1210*	1220	1230	1240	1240	80.00
23.30	1250	1260	1270	1280	1290	1300	1310	1320	1320	1330	90.00
23.40	1340	1350	1360	1370	1380	1390*	1400	1410	1420	1430	90.00
23.50	1430	1440	1450	1460	1470	1480*	1490	1500	1510	1520	100.00
23.60	1530	1540	1550	1560	1570	1580*	1590	1600	1620	1630	110.00
23.70	1640	1660	1670	1680	1690	1710	1720	1730	1750	1760	130.00
23.80	1770	1790	1800	1810	1830	1840	1860	1870	1880	1900	140.00
23.90	1910	1930	1940	1960	1970	1990	2000	2020	2030	2050	150.00
24.00	2060	2080	2090	2110	2120	2140	2150	2170	2180	2200	160.00
24.10	2220	2230	2250	2260	2280	2300	2310	2330	2350	2360	160.00
24.20	2380	2400	2410	2430	2450	2470	2480	2500	2520	2540	170.00
24.30	2550	2570	2590	2610	2630	2640	2660	2680	2700	2720	190.00
24.40	2740	2760	2780	2790	2810	2830	2850	2870	2890	2910	190.00
24.50	2930	2950	2970	2990	3010	3030	3050	3070	3090	3110	200.00
24.60	3130	3160	3180	3200	3220	3240	3260	3280	3300	3330	220.00
24.70	3350	3370	3390	3410	3440	3460	3480	3500	3530	3550	220.00
24.80	3570	3600	3620	3640	3670	3690	3710	3740	3760	3790	240.00
24.90	3810	3830	3860	3880	3910	3930	3960	3980	4010	4030	250.00
25.00	4060	4080	4110	4130	4160	4190	4210	4240	4260	4290	260.00
25.10	4320	4340	4370	4400	4430	4450	4480	4510	4540	4560	270.00
25.20	4590	4620	4650	4670	4700	4730	4760	4790	4820	4850	290.00
25.30	4880	4910	4940	4960	4990	5020	5050	5080	5110	5140	300.00
25.40	5180	5210	5240	5270	5300	5330	5360	5390	5420	5460	310.00
25.50	5490	5520	5550	5580	5620	5650	5680	5720	5750	5780	330.00
25.60	5820	5850	5880	5920	5950	5980	6020	6050	6090	6120	340.00
25.70	6160	6190	6230	6260	6300	6330	6370	6410	6440	6480	350.00
25.80	6510	6550	6590	6620	6660	6700	6740	6770	6810	6850	380.00
25.90	6890	6930	6960	7000	7040	7080	7120	7160	7200	7240	390.00
26.00	7280	7320	7360	7400	7440	7480	7520	7560	7600	7640	400.00
26.10	7680	7720	7760	7810	7850	7890	7930	7970	8020	8060	420.00
26.20	8100	8150	8190	8230	8280	8320	8360	8410	8450	8500	440.00
26.30	8540	8590	8630	8680	8720	8770	8810	8860	8910	8950	

"" indicates a rating descriptor point

Rating Curve

Otuk Creek, Alaska

STATION NUMBER Id Site Otuk Creek SOURCE AGENCY: BLM/UAF
 LATITUDE 68°29.128' N LONGITUDE 155°43.032' W
 Date Processed: 2018-07-30 14:39:03 UTC-08:00 By Dragos Vas
 Rating for Discharge (ft³/s)

Created by Dragos on 2018-07-30 21:04:49 [UTC], Updated by Dragos on 2018-07-30 00:00:56
 [UTC]

Offset1: 15.40

EXPANDED CAQRating TABLE

Stage (ft)	Discharge (ft ³ /s)										DIFF IN Q PER .1 UNITS
	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09	
15.60						9.14	9.70	10.3	10.8	11.4	5.72
15.70	12.0	12.6	13.3	13.9	14.5	15.2	15.8	16.5	17.2	17.9	6.50
15.80	18.5	19.2	20.0	20.7	21.4	22.1	22.9	23.6	24.4	25.2	7.40
15.90	25.9	26.7	27.5	28.3	29.1	29.9	30.8	31.6	32.4	33.3	8.20
16.00	34.1	35.0	35.9	36.7	37.6	38.5	39.4	40.3	41.2	42.1	8.90
16.10	43.0	44.0	44.9	45.8	46.8	47.7	48.7	49.7	50.6	51.6	9.60
16.20	52.6	53.6	54.6	55.6*	57.2	58.8	60.4	62.0	63.7	65.4	14.50
16.30	67.1	68.9	70.7	72.5	74.3	76.2	78.0	79.9	81.9	83.8	18.70
16.40	85.8	87.8	89.9	91.9	94.0	96.2	98.3	100	103	105	21.20
16.50	107	109	112	114	116	119	121	124	126	129	24.00
16.60	131	134	136	139	142	144	147	150	153	155	27.00
16.70	158	161	164	167	170	173	176	179	182	185	30.00
16.80	188	191	194	197	201	204	207	211	214	217	33.00
16.90	221	224	228	231	235	238	242	245	249	253	36.00
17.00	257	260	264	268	272	276	280	283	287	291	38.00
17.10	295	300	304	308	312	316	320	325	329	333	43.00
17.20	338	342	346	351	355	360	364	369	374	378	45.00
17.30	383	388	392	397	402	407	412	417	422	426	49.00
17.40	432	437	442	447	452	457	462	468	473	478	51.00
17.50	483	489	494	500*	502	505	508	511	513	516	36.00
17.60	519	522	524	527	530	532	535	538	541	543	27.00
17.70	546	549	552	554	557	560	563	566	568	571	28.00
17.80	574	577	579	582	585	588	590	593	596	599	28.00
17.90	602	604	607	610	613	616	618	621	624	627	28.00
18.00	630	632	635	638	641	644	646	649	652	655	28.00
18.10	658	661	663	666	669	672	675	678	680	683	28.00
18.20	686	689	692	695	697	700	703	706	709	712	29.00
18.30	715	717	720	723	726	729	732	735	737	740	28.00
18.40	743	746	749	752	755	758	760	763	766	769	29.00
18.50	772	775	778	781	783	786	789	792	795	798	29.00
18.60	801	804	807	810	812	815	818	821	824	827	29.00
18.70	830	833	836	839	842	845	847	850	853	856	29.00
18.80	859	862	865	868	871	874	877	880	883	886	30.00

18.90	889	891	894	897	900	903	906	909	912	915	29.00
19.00	918	921	924	927	930	933	936	939	942	945	30.00
19.10	948	951	954	957	959	962	965	968	971	974	29.00
19.20	977	980	983	986	989	992	995	998	1000	1000	33.00
19.30	1010	1010	1010	1020	1020	1020	1030	1030	1030	1030	30.00
19.40	1040	1040	1040	1050	1050	1050	1060	1060	1060	1060	30.00
19.50	1070	1070	1070	1080	1080	1080	1090	1090	1090	1090	30.00
19.60	1100	1100	1100	1110	1110	1110	1120	1120	1120	1120	30.00
19.70	1130	1130	1130	1140	1140	1140	1150	1150	1150	1160	30.00
19.80	1160	1160	1160	1170	1170	1170	1180	1180	1180	1190	30.00
19.90	1190	1190	1200	1200	1200	1200	1210	1210	1210	1220	30.00
20.00	1220	1220	1230	1230	1230	1230	1240	1240	1240	1250	30.00
20.10	1250	1250	1260	1260	1260	1270	1270	1270	1280	1280	30.00
20.20	1280	1280	1290	1290	1290	1300	1300	1300	1310	1310	30.00
20.30	1310	1320	1320	1320	1320	1330	1330	1330	1340	1340	30.00
20.40	1340	1350	1350	1350	1360	1360	1360	1370	1370	1370	30.00
20.50	1370	1380	1380	1380	1390	1390	1390	1400	1400	1400	40.00
20.60	1410	1410	1410	1420	1420	1420	1420	1430	1430	1430	30.00
20.70	1440	1440	1440	1450	1450	1450	1460	1460	1460	1470	30.00
20.80	1470	1470	1470	1480	1480	1480	1490	1490	1490	1500	30.00
20.90	1500	1500	1510	1510	1510	1520	1520	1520	1530	1530	30.00
21.00	1530	1530	1540	1540	1540	1550	1550	1550	1560	1560	30.00
21.10	1560	1570	1570	1570	1580	1580	1580	1590	1590	1590	40.00
21.20	1600	1600	1600	1600	1610	1610	1610	1620	1620	1620	30.00
21.30	1630	1630	1630	1640	1640	1640	1650	1650	1650	1660	30.00
21.40	1660	1660	1670	1670	1670	1680	1680	1680	1680	1690	30.00
21.50	1690	1690	1700	1700	1700	1710	1710	1710	1720	1720	30.00
21.60	1720	1730									

"" indicates a rating descriptor point

Rating Curve

Prince Creek, Alaska

STATION NUMBER Id Site Prince Creek SOURCE AGENCY: BLM/UAF

LATITUDE 69°19.30' N LONGITUDE 152°30.84' W

Date Processed: 2018-07-30 15:39:34 UTC-08:00 By Dragos vas

Rating for Discharge (ft³/s)

Created by rkemnitz on 2018-03-10 22:42:35 [UTC], Updated by Dragos Vas on 2018-07-30 00:51:14

[UTC]

Offset1: 13.00

EXPANDED CAQRating TABLE

Stage (ft)	Discharge (ft ³ /s)										DIFF IN Q PER .1 UNITS
	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09	
13.10	0.130*	0.165	0.206	0.252	0.304	0.361	0.425	0.495	0.572	0.655	0.62
13.20	0.746	0.844	0.949	1.06	1.18	1.31	1.45	1.59	1.74	1.90	1.32
13.30	2.07	2.25	2.44	2.64	2.84	3.06	3.28	3.52	3.76	4.02	2.21
13.40	4.28	4.56	4.84	5.14	5.44	5.76	6.09	6.43	6.78	7.14	3.23
13.50	7.51	7.90	8.29	8.70	9.12	9.55	10.0	10.5	10.9	11.4	4.39
13.60	11.9	12.4	12.9	13.5	14.0	14.6	15.1	15.7	16.3	16.9	5.60
13.70	17.5	18.2	18.8	19.5	20.2	20.9	21.6	22.3	23.0	23.8	7.10
13.80	24.6	25.3	26.1	27.0	27.8	28.6	29.5	30.3	31.2	32.1	8.50
13.90	33.1	34.0	34.9	35.9	36.9	37.9	38.9	39.9	41.0	42.0	10.00
14.00	43.1	44.2	45.3	46.4	47.6	48.7	49.9	51.1	52.3	53.6	11.70
14.10	54.8	56.1	57.4	58.7	60.0	61.3	62.7	64.0	65.4	66.8	13.50
14.20	68.3	69.7	71.2	72.6	74.1	75.7	77.2	78.7	80.3	81.9	15.20
14.30	83.5	85.1	86.8	88.5	90.1	91.8	93.6	95.3	97.1	98.9	17.50
14.40	101	102	104	106	108	110	112	114	116	118	19.00
14.50	120	122	124	126	128	130	132	134	137	139	21.00
14.60	141	143	145	148	150*	153	155	158	160	163	25.00
14.70	166	169	171	174	177	180	183	186	189	192	29.00
14.80	195	198	201	204	207	210	213	216	220	223	31.00
14.90	226	230	233	236	240	243	247	250	254	258	35.00
15.00	261	265	269	272	276	280	284	288	291	295	38.00
15.10	299	303	307	311	316	320	324	328	332	337	42.00
15.20	341	345	350	354	359	363	368	372	377	381	45.00
15.30	386	391	395	400	405	410	415	420	425	430	49.00
15.40	435	440	445	450	455	461	466	471	477	482	52.00
15.50	487	493	498	504	509	515	521	526	532	538	57.00
15.60	544	550	556	562	567	574	580	586	592	598	60.00
15.70	604	611	617	623	630	636	643	649	656	662	65.00
15.80	669	676	682	689	696	703	710	717	724	731	69.00
15.90	738	745	752	759	767	774	781	789	796	804	73.00
16.00	811	819	826	834	842	850	857	865	873	881	78.00
16.10	889	897	905	913	921	930	938	946	955	963	83.00
16.20	972	980	989	997	1010	1010	1020	1030	1040	1050	88.00
16.30	1060	1070	1080	1090	1100	1100	1110	1120	1130	1140	90.00

16.40	1150	1160	1170	1180	1190	1200	1210	1220	1230	1240	100.00
16.50	1250	1260	1270	1280	1290	1300	1310	1320	1330	1340	100.00
16.60	1350	1360	1370	1380	1390	1400	1410	1420	1440	1450	110.00
16.70	1460	1470	1480	1490	1500	1510	1520	1540	1550	1560	110.00
16.80	1570	1580	1590	1610	1620	1630	1640	1650	1660	1680	120.00
16.90	1690	1700	1710	1730	1740	1750	1760	1770	1790	1800*	120.00
17.00	1810	1820	1830	1840	1850	1860	1870	1880	1890	1910	110.00
17.10	1920	1930	1940	1950	1960	1970	1980	1990	2000	2010	100.00
17.20	2020	2040	2050	2060	2070	2080	2090	2100	2110	2130	120.00
17.30	2140	2150	2160	2170	2180	2190	2210	2220	2230	2240	110.00
17.40	2250	2260	2280	2290	2300	2310	2320	2340	2350	2360	120.00
17.50	2370	2380	2400	2410	2420	2430	2440	2460	2470	2480	120.00
17.60	2490	2510	2520	2530	2540	2560	2570	2580	2590	2610	130.00
17.70	2620	2630	2650	2660	2670	2680	2700	2710	2720	2740	130.00
17.80	2750	2760	2780	2790	2800	2820	2830	2840	2860	2870	130.00
17.90	2880	2900	2910	2920	2940	2950	2960	2980	2990	3010	140.00
18.00	3020	3030	3050	3060	3080	3090	3100	3120	3130	3150	140.00
18.10	3160	3170	3190	3200	3220	3230	3250	3260	3270	3290	140.00
18.20	3300	3320	3330	3350	3360	3380	3390	3410	3420	3440	150.00
18.30	3450	3470	3480	3500	3510	3530	3540	3560	3570	3590	150.00
18.40	3600	3620	3630	3650	3660	3680	3690	3710	3730	3740	160.00
18.50	3760	3770	3790	3800	3820	3840	3850	3870	3880	3900	160.00
18.60	3920	3930	3950	3960	3980	4000	4010	4030	4040	4060	160.00
18.70	4080	4090	4110	4130	4140	4160	4180	4190	4210	4230	160.00
18.80	4240	4260	4280	4290	4310	4330	4340	4360	4380	4400	170.00
18.90	4410	4430	4450	4460	4480	4500	4520	4530	4550	4570	180.00
19.00	4590	4600	4620	4640	4660	4670	4690	4710	4730	4750	170.00
19.10	4760	4780	4800	4820	4840	4850	4870	4890	4910	4930	180.00
19.20	4940	4960	4980	5000	5020	5040	5050	5070	5090	5110	190.00
19.30	5130	5150	5170	5190	5200	5220	5240	5260	5280	5300	190.00
19.40	5320	5340	5360	5380	5390	5410	5430	5450	5470	5490	190.00
19.50	5510	5530	5550	5570	5590	5610	5630	5650	5670	5690	200.00
19.60	5710	5730	5750	5770	5790	5810	5830	5850	5870	5890	200.00
19.70	5910	5930	5950	5970	5990	6010	6030	6050	6070	6090	200.00
19.80	6110	6130	6150	6170	6190	6210	6230	6260	6280	6300	210.00
19.90	6320	6340	6360	6380	6400	6420	6450	6470	6490	6510	210.00
20.00	6530	6550	6570	6590	6620	6640	6660	6680	6700	6720	220.00
20.10	6750	6770	6790	6810	6830	6860	6880	6900	6920	6940	220.00
20.20	6970	6990	7010	7030	7060	7080					

"" indicates a rating descriptor point

Rating Curve

Seabee Creek, Alaska

STATION NUMBER Id Site Seabee Creek SOURCE AGENCY: BLM/UAF
 LATITUDE 69°22.29' N LONGITUDE 152°09.47' W
 Date Processed: 2018-07-30 15:54:30 UTC-08:00 By Dragos Vas
 Rating for Discharge (ft³/s)
 Created by rkemnitz on 2018-03-27 17:55:04 [UTC], Updated by Dragos Vas on 2018-07-30 18:28:01

[UTC]

Offset1: 60.35

EXPANDED CAQRating TABLE

Stage (ft)	Discharge (ft ³ /s)										DIFF IN Q PER .1 UNITS
	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09	
60.40		0.02*	0.03	0.05	0.06	0.08	0.11	0.14	0.17	0.21	0.25
60.50	0.25	0.29	0.35	0.40	0.46	0.53	0.61	0.68	0.77	0.86	0.71
60.60	0.96	1.06	1.18	1.29	1.42	1.55	1.69	1.84	2.00	2.16	1.37
60.70	2.33	2.51	2.70	2.90	3.11	3.32	3.55	3.78	4.02	4.28	2.21
60.80	4.54	4.81	5.09	5.38	5.68	6.00	6.32	6.65	7.00	7.35	3.18
60.90	7.72	8.09	8.48	8.88	9.29	9.71	10.1	10.6	11.0	11.5	4.28
61.00	12.0	12.5	13.0	13.5	14.1	14.6*	15.2	15.8	16.4	17.0	5.70
61.10	17.7	18.3	19.0	19.7	20.4	21.2	21.9	22.7	23.4	24.2	7.30
61.20	25.0	25.9	26.7	27.6	28.4	29.3	30.2	31.2	32.1	33.1	9.10
61.30	34.1	35.1	36.1	37.2	38.2	39.3	40.4	41.5	42.7	43.8	10.90
61.40	45.0	46.2	47.4	48.7	49.9	51.2	52.5*	53.4	54.2	55.1	11.00
61.50	56.0	56.9	57.8	58.7	59.6	60.5	61.4	62.3	63.3	64.2	9.20
61.60	65.2	66.1	67.1	68.0	69.0	70.0	70.9	71.9	72.9	73.9	9.70
61.70	74.9	75.9	77.0	78.0	79.0	80.1	81.1	82.2	83.2	84.3	10.40
61.80	85.3	86.4	87.5	88.6	89.7	90.8	91.9	93.0	94.1	95.2	11.00
61.90	96.3	97.5	98.6	99.7	101	102	103	104	106	107	11.70
62.00	108	109	110	112	113	114	115	116	118	119	12.00
62.10	120	121	123	124	125	126	128	129	130	132	13.00
62.20	133	134	136*	137	139	141	142	144	146	148	16.00
62.30	149	151	153	155	157	159	160	162	164	166	19.00
62.40	168	170	172	174	176	178	180	182	184	186	20.00
62.50	188	190	192	194	196	198	200	203	205	207	21.00
62.60	209	211	213	216	218	220	222	225	227	229	22.00
62.70	231	234	236	238	241	243	245	248	250	253	24.00
62.80	255	258	260	263	265	268	270	273	275	278	25.00
62.90	280	283	285	288	291	293	296	299	301	304	27.00
63.00	307	309	312	315	318	320	323	326	329	332	27.00
63.10	334	337	340	343	346	349	352	355	358	361	30.00
63.20	364	367	370	373	376	379	382	385	388	391	30.00
63.30	394	397	401	404	407	410	413	416	420	423	32.00
63.40	426	430	433	436	439	443	446	450	453	456	34.00
63.50	460	463	467	470	473	477	480	484	488	491	35.00
63.60	495	498	502	505	509	513	516	520	524	527	

"" indicates a rating descriptor point

Rating Curve

Ublutuoch River, Alaska

STATION NUMBER Id Site Ubutuoch River SOURCE AGENCY:
 BLM/UAF

LATITUDE 70°14.591' N LONGITUDE 151°17.823' W
 Date Processed: 2018-07-30 16:02:57 UTC-08:00 By Dragos Vas
 Rating for Discharge (ft³/s)

Created by richard on 2017-04-03 15:58:46 [UTC], Updated by Dr5agos Vas on 2018-07-30 07:05:30
 [UTC]

Offset1: 4.50

EXPANDED CAQRating TABLE

Stage (ft)	Discharge (ft ³ /s)										DIFF IN Q PER .1 UNITS
	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09	
4.50				0.1*	0.13	0.19	0.26	0.34	0.42	0.52	0.77
4.60	0.62	0.72	0.84	0.96	1.09	1.22	1.37	1.51	1.67	1.83	1.37
4.70	1.99	2.17	2.34	2.53	2.72	2.91	3.11	3.31	3.53	3.74	1.97
4.80	3.96	4.19	4.42	4.66	4.90	5.15	5.40	5.65	5.92	6.18	2.49
4.90	6.45	6.73	7.01	7.30	7.58	7.88	8.18	8.48	8.79	9.10	2.97
5.00	9.42	9.74	10.1	10.4	10.7	11.1	11.4	11.8	12.1	12.5	3.38
5.10	12.8	13.2	13.6	13.9	14.3	14.7	15.1	15.5	15.9	16.3	3.90
5.20	16.7	17.1	17.5	17.9	18.3	18.7	19.2	19.6	20.0	20.5	4.20
5.30	20.9	21.3	21.8	22.2	22.7	23.2	23.6	24.1	24.6	25.0	4.60
5.40	25.5	26.0	26.5	27.0	27.5	28.0	28.5	29.0	29.5	30.0	5.00
5.50	30.5	31.0	31.5	32.1	32.6	33.1	33.7	34.2	34.7	35.3	5.30
5.60	35.8	36.4	37.0	37.5	38.1	38.7	39.2	39.8	40.4	41.0	5.70
5.70	41.5	42.1	42.7	43.3	43.9	44.5	45.1	45.7	46.3	47.0	6.10
5.80	47.6	48.2	48.8	49.5	50.1	50.7	51.4	52.0	52.6	53.3	6.30
5.90	53.9	54.6	55.3	55.9	56.6	57.3	57.9	58.6	59.3	60.0	6.70
6.00	60.6	61.3	62.0	62.7	63.4	64.1	64.8	65.5	66.2	66.9	7.00
6.10	67.6	68.4	69.1	69.8	70.5	71.3	72.0	72.7	73.5	74.2	7.40
6.20	75.0	75.7	76.5	77.2	78.0	78.7	79.5	80.3	81.0	81.8	7.60
6.30	82.6	83.4	84.2	84.9	85.7	86.5	87.3	88.1	88.9	89.7	7.90
6.40	90.5	91.3	92.1	93.0	93.8	94.6	95.4	96.2	97.1	97.9	8.20
6.50	98.7	99.6	100	101	102	103	104	105	106	106	8.30
6.60	107	108	109	110	111	112	113	113	114	115	9.00
6.70	116	117	118	119	120	121	121	122	123	124	9.00
6.80	125	126	127	128	129	130	131	132	133	134	9.00
6.90	134	135	136	137	138	139	140	141	142	143	10.00
7.00	144	145	146	147	148	149	150	151	152	153	10.00
7.10	154	155	156	157	158	159	160	161	162	163	10.00
7.20	164	165	166	167	168	169	170	171	173	174	11.00
7.30	175	176	177	178	179	180	181	182	183	184	10.00
7.40	185	186	188	189	190	191	192	193	194	195	11.00
7.50	196	197	199	200	201	202	203	204	205	206	12.00
7.60	208	209	210	211	212	213	214	216	217	218	11.00

7.70	219	220	221	223	224	225	226	227	228	230	12.00
7.80	231	232	233	234	236	237	238	239	240	242	12.00
7.90	243	244	245	246	248	249	250	251	252	254	12.00
8.00	255	256	257	259	260	261	262	264	265	266	12.00
8.10	267	269	270	271	272	274	275	276	278	279	13.00
8.20	280	281	283	284	285	287	288	289	290	292	13.00
8.30	293	294	296	297	298	300	301	302	304	305	13.00
8.40	306	308	309	310	312	313	314	316	317	318	14.00
8.50	320	321	322	324	325	326	328	329	331	332	13.00
8.60	333	335	336	338	339	340	342	343	344	346	14.00
8.70	347	349	350	351	353	354	356	357	359	360	14.00
8.80	361	363	364	366	367	369	370	371	373	374	15.00
8.90	376	377	379	380	382	383	384	386	387	389	14.00
9.00	390	392	393	395	396	398	399	401	402	404	15.00
9.10	405	407	408	410	411	413	414	416	417	419	15.00
9.20	420	422	423	425	426	428	429	431	432	434	15.00
9.30	435	437	439	440	442	443	445	446	448	449	16.00
9.40	451	453	454	456	457	459	460	462	463	465	16.00
9.50	467	468	470	471	473	475	476	478	479	481	16.00
9.60	483	484	486	487	489	491	492	494	495	497	16.00
9.70	499	500	502	504	505	507	509	510	512	513	16.00
9.80	515	517	518	520	522	523	525	527	528	530	17.00
9.90	532	533	535	537	538	540	542	543	545	547	16.00
10.00	548	550	552	554	555	557	559	560	562	564	17.00
10.10	565	567	569	571	572	574	576	578	579	581	18.00
10.20	583	584	586	588	590	591	593	595	597	598	17.00
10.30	600	602	604	605	607	609	611	612	614	616	18.00
10.40	618	620	621	623	625	627	628	630	632	634	18.00
10.50	636	637	639	641	643	645	646	648	650	652	18.00
10.60	654	655	657	659	661	663	665	666	668	670	18.00
10.70	672	674	676	677	679	681	683	685	687	689	18.00
10.80	690	692	694	696	698	700	702	703	705	707	19.00
10.90	709	711	713	715	717	719	720	722	724	726	19.00
11.00	728	730	732	734	736	737	739	741	743	745	19.00
11.10	747	749	751	753	755	757	759	761	762	764	19.00
11.20	766	768	770	772	774	776	778	780	782	784	20.00
11.30	786	788	790	792	794	796	798	800	802	804	20.00
11.40	806	808	809	811	813	815	817	819	821	823	19.00
11.50	825	827	829	831	833	835	837	839	841	843	20.00
11.60	845	848	850	852	854	856	858	860	862	864	21.00
11.70	866	868	870	872	874	876	878	880	882	884	20.00
11.80	886	888	890	892	895	897	899	901	903	905	21.00
11.90	907	909	911	913	915	917	919	922	924	926	21.00
12.00	928	930	932	934	936	938	940	943	945	947	21.00
12.10	949	951	953	955	957	959	962	964	966	968	21.00

12.20	970	972	974	977	979	981	983	985	987	989	22.00
12.30	992	994	996	998	1000	1000	1000	1010	1010	1010	18.00
12.40	1010	1020	1020	1020	1020	1020	1030	1030	1030	1030	30.00
12.50	1040	1040	1040	1040	1040	1050	1050	1050	1050	1050	20.00
12.60	1060	1060	1060	1060	1070	1070	1070	1070	1070	1080	20.00
12.70	1080	1080	1080	1090	1090	1090	1090	1090	1100	1100	20.00
12.80	1100	1100	1110	1110	1110	1110	1120	1120	1120	1120	20.00
12.90	1120	1130	1130	1130	1130	1140	1140	1140	1140	1140	30.00
13.00	1150	1150	1150	1150	1160	1160	1160	1160	1170	1170	20.00
13.10	1170	1170	1170	1180	1180	1180	1180	1190	1190	1190	20.00
13.20	1190	1200	1200	1200	1200	1200	1210	1210	1210	1210	30.00
13.30	1220	1220	1220	1220	1230	1230	1230	1230	1240	1240	20.00
13.40	1240	1240	1240	1250	1250	1250	1250	1260	1260	1260	20.00
13.50	1260	1270	1270	1270	1270	1280	1280	1280	1280	1290	30.00
13.60	1290	1290	1290	1290	1300	1300	1300	1300	1310	1310	20.00
13.70	1310	1310	1320	1320	1320	1320	1330	1330	1330	1330	30.00
13.80	1340	1340	1340	1340	1350	1350	1350	1350	1360	1360	20.00
13.90	1360	1360	1370	1370	1370	1370	1380	1380	1380	1380	30.00
14.00	1390	1390	1390	1390	1390	1400	1400	1400	1400	1410	20.00
14.10	1410	1410	1410	1420	1420	1420	1420	1430	1430	1430	20.00
14.20	1430	1440	1440	1440	1440	1450	1450	1450	1450	1460	30.00
14.30	1460	1460	1470	1470	1470	1470	1480	1480	1480	1480	30.00
14.40	1490	1490	1490	1490	1500	1500	1500	1500	1510	1510	20.00
14.50	1510	1510	1520	1520	1520	1520	1530	1530	1530	1530	30.00
14.60	1540	1540	1540	1540	1550	1550	1550	1550	1560	1560	20.00
14.70	1560	1570	1570	1570	1570	1580	1580	1580	1580	1590	30.00
14.80	1590	1590	1590	1600	1600	1600	1600	1610	1610	1610	20.00
14.90	1610	1620	1620	1620	1630	1630	1630	1630	1640	1640	30.00
15.00	1640	1640	1650	1650	1650	1650	1660	1660	1660	1670	30.00
15.10	1670	1670	1670	1680	1680	1680	1680	1690	1690	1690	20.00
15.20	1690	1700	1700	1700	1710	1710	1710	1710	1720	1720	30.00
15.30	1720	1720	1730	1730	1730	1730	1740	1740	1740	1750	30.00
15.40	1750	1750	1750	1760	1760	1760	1760	1770	1770	1770	30.00
15.50	1780	1780	1780	1780	1790	1790	1790	1790	1800	1800	20.00
15.60	1800	1810	1810	1810	1810	1820	1820	1820	1830	1830	30.00
15.70	1830	1830	1840	1840	1840	1840	1850	1850	1850	1860	30.00
15.80	1860	1860	1860	1870	1870	1870	1880	1880	1880	1880	30.00
15.90	1890	1890	1890	1890	1900	1900	1900	1910	1910	1910	20.00
16.00	1910	1920	1920	1920	1930	1930	1930	1930	1940	1940	30.00
16.10	1940	1950	1950	1950	1950	1960	1960	1960	1970	1970	30.00
16.20	1970	1970	1980	1980	1980	1990	1990	1990	1990	2000	30.00
16.30	2000	2000	2010	2010	2010	2010	2020	2020	2020	2030	30.00
16.40	2030	2030	2030	2040	2040	2040	2050	2050	2050	2060	30.00
16.50	2060	2060	2060	2070	2070	2070	2080	2080	2080	2080	30.00
16.60	2090	2090	2090	2100	2100	2100	2100	2110	2110	2110	30.00

16.70	2120	2120	2120	2130	2130	2130	2130	2140	2140	2140	30.00
16.80	2150	2150	2150	2150	2160	2160	2160	2170	2170	2170	30.00
16.90	2180	2180	2180	2180	2190	2190	2190	2200	2200	2200	30.00
17.00	2210	2210	2210	2210	2220	2220	2220	2230	2230	2230	30.00
17.10	2240	2240	2240	2240	2250	2250	2250	2260	2260	2260	30.00
17.20	2270	2270	2270	2270	2280	2280	2280	2290	2290	2290	30.00
17.30	2300	2300	2300	2300	2310	2310	2310	2320	2320	2320	30.00
17.40	2330	2330	2330	2340	2340	2340	2340	2350	2350	2350	30.00
17.50	2360	2360*									

"*" indicates a rating descriptor point

Appendix D

Summary of Daily Mean Flows

Fish Creek

Ikpikpuk River

Judy Creek

Otuk Creek

Prince Creek

Seabee Creek

Ublutuoch River

Summary of Daily Mean Flows

Fish Creek, Alaska

Daily Mean by Year

Identifier: Fish Creek

Units: ft³/s
Filter: None

Year: 2001	Aggr:	511.0	Min:	0.0	Max:	3638.8	Total (Acre-ft):	*				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	* UN	* UN	* UN	* UN	* UN	* UN	1259.3 UN	425.0 UN	425.7 UN	259.5 UN	224.1 UN	189.9 UN
2	* UN	* UN	* UN	* UN	* UN	* UN	1216.5 UN	426.2 UN	420.2 UN	258.3 UN	223.0 UN	188.8 UN
3	* UN	* UN	* UN	* UN	* UN	* UN	1142.7 UN	424.1 UN	402.4 UN	257.2 UN	221.8 UN	187.6 UN
4	* UN	* UN	* UN	* UN	* UN	* UN	1071.9 UN	408.1 UN	380.4 UN	256.1 UN	220.7 UN	186.5 UN
5	* UN	* UN	* UN	* UN	* UN	5.8 UN	1020.6 UN	406.8 UN	360.0 UN	254.9 UN	219.6 UN	185.3 UN
6	* UN	* UN	* UN	* UN	* UN	357.3 UN	980.3 UN	406.9 UN	336.4 UN	253.8 UN	218.4 UN	184.2 UN
7	* UN	* UN	* UN	* UN	* UN	721.8 UN	948.1 UN	401.3 UN	315.4 UN	252.6 UN	217.3 UN	183.1 UN
8	* UN	* UN	* UN	* UN	* UN	700.4 UN	915.8 UN	393.8 UN	289.1 UN	251.5 UN	216.1 UN	181.9 UN
9	* UN	* UN	* UN	* UN	* UN	1021.3 UN	868.5 UN	387.2 UN	284.6 UN	250.3 UN	215.0 UN	180.8 UN
10	* UN	* UN	* UN	* UN	* UN	1200.1 UN	818.8 UN	369.9 UN	283.4 UN	249.2 UN	213.9 UN	179.6 UN
11	* UN	* UN	* UN	* UN	* UN	1922.3 UN	777.1 UN	346.4 UN	282.3 UN	248.1 UN	212.7 UN	178.5 UN
12	* UN	* UN	* UN	* UN	* UN	1734.0 UN	729.6 UN	342.0 UN	281.1 UN	246.9 UN	211.6 UN	177.4 UN
13	* UN	* UN	* UN	* UN	* UN	1952.6 UN	686.5 UN	338.6 UN	280.0 UN	245.8 UN	210.4 UN	176.2 UN
14	* UN	* UN	* UN	* UN	* UN	3001.1 UN	643.4 UN	339.9 UN	278.9 UN	244.6 UN	209.3 UN	175.1 UN
15	* UN	* UN	* UN	* UN	* UN	3487.7 UN	609.3 UN	343.9 UN	277.7 UN	243.5 UN	208.1 UN	173.9 UN
16	* UN	* UN	* UN	* UN	* UN	3072.2 UN	584.7 UN	357.6 UN	276.6 UN	242.4 UN	207.0 UN	172.8 UN
17	* UN	* UN	* UN	* UN	* UN	2708.8 UN	573.0 UN	385.6 UN	275.4 UN	241.2 UN	205.9 UN	171.7 UN
18	* UN	* UN	* UN	* UN	* UN	2559.9 UN	567.0 UN	420.1 UN	274.3 UN	240.1 UN	204.7 UN	170.5 UN
19	* UN	* UN	* UN	* UN	* UN	2336.9 UN	560.0 UN	450.8 UN	273.2 UN	238.9 UN	203.6 UN	169.4 UN
20	* UN	* UN	* UN	* UN	* UN	2150.0 UN	553.5 UN	465.1 UN	272.0 UN	237.8 UN	202.4 UN	168.2 UN
21	* UN	* UN	* UN	* UN	* UN	2011.2 UN	542.4 UN	465.0 UN	270.9 UN	236.7 UN	201.3 UN	167.1 UN
22	* UN	* UN	* UN	* UN	* UN	1868.3 UN	523.0 UN	462.3 UN	269.7 UN	235.5 UN	200.2 UN	165.9 UN
23	* UN	* UN	* UN	* UN	* UN	1733.4 UN	504.4 UN	456.9 UN	268.6 UN	234.4 UN	199.0 UN	164.8 UN
24	* UN	* UN	* UN	* UN	* UN	1644.7 UN	490.7 UN	451.7 UN	267.5 UN	233.2 UN	197.9 UN	163.7 UN
25	* UN	* UN	* UN	* UN	* UN	1536.2 UN	463.2 UN	453.7 UN	266.3 UN	232.1 UN	196.7 UN	162.5 UN
26	* UN	* UN	* UN	* UN	* UN	1451.3 UN	436.8 UN	451.5 UN	265.2 UN	231.0 UN	195.6 UN	161.4 UN
27	* UN	* UN	* UN	* UN	* UN	1394.3 UN	432.9 UN	446.6 UN	264.0 UN	229.8 UN	194.5 UN	160.2 UN
28	* UN	* UN	* UN	* UN	* UN	1366.7 UN	430.9 UN	436.6 UN	262.9 UN	228.7 UN	193.3 UN	159.1 UN
29	* UN	* UN	* UN	* UN	* UN	1334.1 UN	426.0 UN	433.5 UN	261.8 UN	227.5 UN	192.2 UN	158.0 UN
30	* UN	* UN	* UN	* UN	* UN	1297.5 UN	422.0 UN	430.9 UN	260.6 UN	226.4 UN	191.0 UN	156.8 UN
31	* UN	* UN	* UN	* UN	* UN	421.2 UN	421.2 UN	428.3 UN	260.6 UN	225.3 UN	190.0 UN	155.7 UN
Aggr	*	*	*	*	*	1760.6	697.4	411.5	297.6	242.4	207.6	172.8
Min	*	*	*	*	*	0.0	421.2	338.6	260.0	224.7	190.5	155.1
Max	*	*	*	*	*	3638.8	1278.1	467.9	427.0	260.0	224.7	190.5
Total	*	*	*	*	*	88395.4	42882.6	25301.7	*	*	*	*

Date Processed: February 14, 2018 17:04
Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Fish Creek

Units: ft³/s
Filter: None

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	154.5 UN	119.2 UN	87.3 UN	51.9 UN	17.7 UN	2044.8 UN	693.0 UN	286.9 UN	268.1 UN	245.0 UN	213.7 UN	183.3 UN
2	153.4 UN	118.0 UN	86.1 UN	50.8 UN	16.5 UN	1927.1 UN	693.6 UN	279.7 UN	266.3 UN	244.0 UN	212.6 UN	182.3 UN
3	152.3 UN	116.9 UN	85.0 UN	49.6 UN	15.4 UN	1818.2 UN	731.2 UN	267.2 UN	264.2 UN	242.9 UN	211.6 UN	181.3 UN
4	151.1 UN	115.8 UN	83.8 UN	48.5 UN	14.3 UN	1714.4 UN	757.9 UN	256.4 UN	263.2 UN	241.9 UN	210.6 UN	180.3 UN
5	150.0 UN	114.6 UN	82.7 UN	47.3 UN	13.1 UN	1640.3 UN	793.1 UN	248.2 UN	264.4 UN	240.9 UN	209.6 UN	179.3 UN
6	148.8 UN	113.5 UN	81.5 UN	46.2 UN	12.0 UN	1563.8 UN	791.0 UN	249.2 UN	266.6 UN	239.9 UN	208.6 UN	178.3 UN
7	147.7 UN	112.3 UN	80.4 UN	45.1 UN	10.8 UN	1467.1 UN	755.9 UN	251.6 UN	268.7 UN	238.9 UN	207.6 UN	177.3 UN
8	146.6 UN	111.2 UN	79.3 UN	43.9 UN	9.7 UN	1398.0 UN	729.1 UN	247.9 UN	268.2 UN	237.9 UN	206.6 UN	176.3 UN
9	145.4 UN	110.1 UN	78.1 UN	42.8 UN	8.6 UN	1332.4 UN	683.8 UN	243.6 UN	267.2 UN	236.9 UN	205.6 UN	175.3 UN
10	144.3 UN	108.9 UN	77.0 UN	41.6 UN	7.4 UN	1282.0 UN	653.3 UN	238.0 UN	266.2 UN	235.9 UN	204.6 UN	174.3 UN
11	143.1 UN	107.8 UN	75.8 UN	40.5 UN	6.3 UN	1232.5 UN	618.4 UN	231.3 UN	265.2 UN	234.9 UN	203.6 UN	173.2 UN
12	142.0 UN	106.6 UN	74.7 UN	39.3 UN	5.1 UN	1161.4 UN	585.4 UN	224.6 UN	264.2 UN	233.9 UN	202.5 UN	172.2 UN
13	140.9 UN	105.5 UN	73.6 UN	38.2 UN	4.0 UN	1075.4 UN	556.6 UN	221.2 UN	263.2 UN	232.8 UN	201.5 UN	171.2 UN
14	139.7 UN	104.4 UN	72.4 UN	37.1 UN	2.9 UN	1023.9 UN	543.4 UN	215.7 UN	262.1 UN	231.8 UN	200.5 UN	170.2 UN
15	138.6 UN	103.2 UN	71.3 UN	35.9 UN	1.7 UN	992.3 UN	530.4 UN	222.0 UN	261.1 UN	230.8 UN	199.5 UN	169.2 UN
16	137.4 UN	102.1 UN	70.1 UN	34.8 UN	0.6 UN	954.2 UN	509.1 UN	228.3 UN	260.1 UN	229.8 UN	198.5 UN	168.2 UN
17	136.3 UN	100.9 UN	69.0 UN	33.6 UN	35.6 UN	916.8 UN	489.0 UN	239.8 UN	259.1 UN	228.8 UN	197.5 UN	167.2 UN
18	135.2 UN	99.8 UN	67.9 UN	32.5 UN	106.0 UN	887.3 UN	462.2 UN	239.2 UN	258.1 UN	227.8 UN	196.5 UN	166.2 UN
19	134.0 UN	98.7 UN	66.7 UN	31.4 UN	236.5 UN	855.4 UN	443.3 UN	248.5 UN	257.1 UN	226.8 UN	195.5 UN	165.2 UN
20	132.9 UN	97.5 UN	65.6 UN	30.2 UN	440.4 UN	822.6 UN	425.1 UN	248.5 UN	256.1 UN	225.8 UN	194.5 UN	164.2 UN
21	131.7 UN	96.4 UN	64.4 UN	29.1 UN	684.8 UN	798.1 UN	405.7 UN	251.7 UN	255.1 UN	224.8 UN	193.4 UN	163.1 UN
22	130.6 UN	95.2 UN	63.3 UN	27.9 UN	984.8 UN	780.9 UN	391.7 UN	256.7 UN	254.1 UN	223.8 UN	192.4 UN	162.1 UN
23	129.5 UN	94.1 UN	62.2 UN	26.8 UN	1529.5 UN	778.4 UN	382.0 UN	260.5 UN	253.0 UN	222.7 UN	191.4 UN	161.1 UN
24	128.3 UN	93.0 UN	61.0 UN	25.7 UN	1949.8 UN	770.5 UN	368.0 UN	264.4 UN	252.0 UN	221.7 UN	190.4 UN	160.1 UN
25	127.2 UN	91.8 UN	59.9 UN	24.5 UN	2267.2 UN	744.5 UN	357.1 UN	268.0 UN	251.0 UN	220.7 UN	189.4 UN	159.1 UN
26	126.0 UN	90.7 UN	58.7 UN	23.4 UN	2675.3 UN	724.8 UN	351.5 UN	269.8 UN	250.0 UN	219.7 UN	188.4 UN	158.1 UN
27	124.9 UN	89.5 UN	57.6 UN	22.2 UN	3557.7 UN	722.4 UN	342.2 UN	271.3 UN	249.0 UN	218.7 UN	187.4 UN	157.1 UN
28	123.7 UN	88.4 UN	56.5 UN	21.1 UN	3130.9 UN	713.1 UN	331.1 UN	271.9 UN	248.0 UN	217.7 UN	186.4 UN	156.1 UN
29	122.6 UN	87.3 UN	55.3 UN	20.0 UN	2614.0 UN	715.5 UN	323.2 UN	271.9 UN	247.0 UN	216.7 UN	185.4 UN	155.1 UN
30	121.5 UN	86.2 UN	54.2 UN	18.8 UN	2381.7 UN	693.7 UN	309.1 UN	270.6 UN	246.0 UN	215.7 UN	184.4 UN	154.1 UN
31	120.3 UN	85.0 UN	53.0 UN	17.7 UN	2300.5 UN	665.49.1 UN	294.0 UN	269.9 UN	244.7 UN	214.7 UN	183.3 UN	153.0 UN
Aggr	137.4	103.8	70.1	35.4	807.8	1118.4	525.8	252.1	259.2	229.8	199.0	168.2
Min	119.8	87.8	52.5	18.2	0.0	676.8	289.0	202.1	245.5	214.2	183.9	152.5
Max	155.1	119.8	87.8	52.5	3685.1	2158.7	808.1	291.5	269.2	245.5	214.2	183.9
Total	*	*	*	*	*	66549.1	32331.1	15499.6	*	*	*	*

Date Processed: February 14, 2018 17:04
Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Fish Creek

Units: ft³/s
Filter: None

Year: 2003	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft): *										
1	152.0	UN	120.7	UN	92.4	UN	61.1	UN	30.8	UN	7.5	UN	810.5	UN	462.4	UN	340.4	UN	327.7	UN	66.1	UN	0.4	UN
2	151.0	UN	119.7	UN	91.4	UN	60.1	UN	29.8	UN	26.9	UN	792.7	UN	452.0	UN	336.6	UN	323.5	UN	62.3	UN	0.1	UN
3	150.0	UN	118.7	UN	90.4	UN	59.1	UN	28.8	UN	107.7	UN	804.7	UN	440.1	UN	333.1	UN	310.4	UN	58.5	UN	0.0	UN
4	149.0	UN	117.7	UN	89.4	UN	58.1	UN	27.8	UN	578.6	UN	842.8	UN	429.6	UN	341.4	UN	295.2	UN	54.8	UN	0.0	UN
5	148.0	UN	116.7	UN	88.4	UN	57.1	UN	26.8	UN	775.1	UN	841.2	UN	421.8	UN	347.3	UN	277.2	UN	51.2	UN	0.0	UN
6	147.0	UN	115.7	UN	87.4	UN	56.1	UN	25.8	UN	1343.7	UN	839.8	UN	420.5	UN	351.8	UN	262.8	UN	47.8	UN	0.0	UN
7	146.0	UN	114.7	UN	86.4	UN	55.1	UN	24.7	UN	2372.5	UN	844.6	UN	412.6	UN	360.1	UN	251.9	UN	44.4	UN	0.0	UN
8	145.0	UN	113.6	UN	85.4	UN	54.0	UN	23.7	UN	2572.2	UN	818.7	UN	403.5	UN	371.5	UN	240.4	UN	41.2	UN	0.0	UN
9	143.9	UN	112.6	UN	84.3	UN	53.0	UN	22.7	UN	2412.5	UN	801.1	UN	395.2	UN	374.8	UN	228.7	UN	38.0	UN	0.0	UN
10	142.9	UN	111.6	UN	83.3	UN	52.0	UN	21.7	UN	2758.0	UN	772.4	UN	393.8	UN	377.2	UN	216.9	UN	35.0	UN	0.0	UN
11	141.9	UN	110.6	UN	82.3	UN	51.0	UN	20.7	UN	3097.3	UN	735.7	UN	391.4	UN	376.8	UN	205.1	UN	32.1	UN	0.0	UN
12	140.9	UN	109.6	UN	81.3	UN	50.0	UN	19.7	UN	3376.1	UN	704.9	UN	383.2	UN	384.8	UN	193.5	UN	29.4	UN	0.0	UN
13	139.9	UN	108.6	UN	80.3	UN	49.0	UN	18.7	UN	2998.7	UN	686.4	UN	379.9	UN	383.4	UN	182.3	UN	26.8	UN	0.0	UN
14	138.9	UN	107.6	UN	79.3	UN	48.0	UN	17.7	UN	2619.4	UN	660.6	UN	380.5	UN	391.7	UN	171.6	UN	24.4	UN	0.0	UN
15	137.9	UN	106.6	UN	78.3	UN	47.0	UN	16.7	UN	2364.2	UN	638.6	UN	369.7	UN	381.3	UN	161.6	UN	22.1	UN	0.0	UN
16	136.9	UN	105.6	UN	77.3	UN	46.0	UN	15.7	UN	2165.6	UN	623.2	UN	366.1	UN	380.9	UN	152.5	UN	20.1	UN	0.0	UN
17	135.9	UN	104.6	UN	76.3	UN	45.0	UN	14.6	UN	2001.9	UN	601.9	UN	364.7	UN	372.0	UN	144.2	UN	18.2	UN	0.0	UN
18	134.9	UN	103.5	UN	75.3	UN	43.9	UN	13.6	UN	1872.2	UN	572.9	UN	367.3	UN	314.3	UN	136.7	UN	16.4	UN	0.0	UN
19	133.8	UN	102.5	UN	74.2	UN	42.9	UN	12.6	UN	1761.3	UN	551.1	UN	373.5	UN	266.0	UN	129.9	UN	14.3	UN	0.0	UN
20	132.8	UN	101.5	UN	73.2	UN	41.9	UN	11.6	UN	1655.6	UN	523.6	UN	381.0	UN	294.9	UN	123.6	UN	12.2	UN	0.0	UN
21	131.8	UN	100.5	UN	72.2	UN	40.9	UN	10.6	UN	1556.4	UN	496.1	UN	384.7	UN	340.3	UN	117.8	UN	10.2	UN	0.0	UN
22	130.8	UN	99.5	UN	71.2	UN	39.9	UN	9.6	UN	1459.1	UN	473.8	UN	390.3	UN	348.6	UN	112.3	UN	8.3	UN	0.0	UN
23	129.8	UN	98.5	UN	70.2	UN	38.9	UN	8.6	UN	1357.8	UN	454.7	UN	391.0	UN	345.3	UN	107.0	UN	6.6	UN	0.0	UN
24	128.8	UN	97.5	UN	69.2	UN	37.9	UN	7.6	UN	1273.1	UN	450.8	UN	384.6	UN	332.3	UN	101.8	UN	5.2	UN	0.0	UN
25	127.8	UN	96.5	UN	68.2	UN	36.9	UN	6.6	UN	1186.7	UN	459.9	UN	384.7	UN	301.0	UN	96.9	UN	3.9	UN	0.0	UN
26	126.8	UN	95.5	UN	67.2	UN	35.9	UN	5.6	UN	1115.4	UN	468.2	UN	385.0	UN	266.4	UN	92.1	UN	2.9	UN	0.0	UN
27	125.8	UN	94.5	UN	66.2	UN	34.9	UN	4.5	UN	1047.7	UN	473.0	UN	376.8	UN	269.4	UN	87.4	UN	2.2	UN	0.0	UN
28	124.8	UN	93.4	UN	65.2	UN	33.8	UN	3.5	UN	972.6	UN	470.4	UN	375.0	UN	292.5	UN	82.9	UN	1.6	UN	0.0	UN
29	123.7	UN	92.3	UN	64.1	UN	32.8	UN	2.5	UN	904.9	UN	464.0	UN	367.6	UN	316.5	UN	78.5	UN	1.1	UN	0.0	UN
30	122.7	UN	91.2	UN	63.1	UN	31.8	UN	1.5	UN	855.6	UN	466.1	UN	358.2	UN	326.4	UN	74.3	UN	0.8	UN	0.0	UN
31	121.7	UN	90.1	UN	62.1	UN	30.7	UN	0.5	UN	806.9	UN	467.0	UN	347.4	UN	347.4	UN	70.1	UN	0.7	UN	0.0	UN
Aggr	136.9		107.1		77.3		46.5		15.7		1619.9		632.6		391.4		340.6		172.8		25.3		0.0	
Min	121.2		92.9		61.6		31.3		0.0		0.0		442.6		343.4		265.3		68.1		0.6		0.0	
Max	152.5		121.2		92.9		61.6		31.3		3468.5		854.6		473.4		396.9		328.0		68.1		0.6	
Total	*		*		*		*		*		96389.0		38898.4		24067.4		20268.7		10625.3		1503.9		1.0	

Date Processed: February 14, 2018 17:04
Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Fish Creek

Units: ft³/s
Filter: None

Year: 2004	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):
	1	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1275.2 UN	427.2 UN	277.4 UN	270.9 UN	104.8 UN	0.0 UN	234914.3
	2	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	93.5 UN	1214.3 UN	423.6 UN	282.5 UN	280.0 UN	98.8 UN	0.0 UN	
	3	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1288.0 UN	1145.4 UN	414.9 UN	290.5 UN	277.5 UN	93.0 UN	0.0 UN	
	4	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2039.4 UN	1085.4 UN	404.6 UN	301.2 UN	282.4 UN	87.2 UN	0.0 UN	
	5	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	3117.5 UN	1032.7 UN	393.1 UN	320.0 UN	266.2 UN	81.4 UN	0.0 UN	
	6	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	3794.6 UN	991.1 UN	377.0 UN	327.1 UN	238.0 UN	75.8 UN	0.0 UN	
	7	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	3726.4 UN	961.9 UN	363.4 UN	333.8 UN	233.6 UN	70.3 UN	0.0 UN	
	8	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	4061.4 UN	933.1 UN	354.9 UN	338.4 UN	217.6 UN	64.9 UN	0.0 UN	
	9	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	4355.9 UN	895.9 UN	349.3 UN	339.5 UN	213.9 UN	59.7 UN	0.0 UN	
	10	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	4044.2 UN	858.4 UN	338.2 UN	337.9 UN	214.3 UN	54.6 UN	0.0 UN	
	11	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	3684.2 UN	838.5 UN	324.9 UN	339.5 UN	215.7 UN	49.6 UN	0.0 UN	
	12	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	3331.5 UN	804.1 UN	320.1 UN	338.3 UN	220.5 UN	44.9 UN	0.0 UN	
	13	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	3019.4 UN	772.4 UN	321.4 UN	332.7 UN	220.1 UN	40.3 UN	0.0 UN	
	14	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2782.9 UN	736.9 UN	330.9 UN	330.9 UN	213.3 UN	35.9 UN	0.0 UN	
	15	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2584.6 UN	710.9 UN	337.3 UN	327.7 UN	213.9 UN	31.7 UN	0.0 UN	
	16	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2563.4 UN	676.7 UN	332.2 UN	319.9 UN	205.9 UN	27.8 UN	0.0 UN	
	17	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2367.3 UN	644.3 UN	329.9 UN	314.0 UN	191.6 UN	24.1 UN	0.0 UN	
	18	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2220.9 UN	619.2 UN	324.3 UN	309.9 UN	186.1 UN	20.7 UN	0.0 UN	
	19	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2141.9 UN	594.6 UN	320.4 UN	302.9 UN	180.7 UN	17.6 UN	0.0 UN	
	20	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2016.6 UN	573.6 UN	315.1 UN	297.2 UN	175.3 UN	14.7 UN	0.0 UN	
	21	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1912.2 UN	563.5 UN	309.1 UN	293.0 UN	169.7 UN	12.1 UN	0.0 UN	
	22	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1818.4 UN	550.4 UN	306.8 UN	286.6 UN	164.1 UN	9.8 UN	0.0 UN	
	23	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1731.8 UN	535.2 UN	307.8 UN	282.9 UN	158.3 UN	7.9 UN	0.0 UN	
	24	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1655.4 UN	519.0 UN	297.2 UN	288.8 UN	152.5 UN	6.2 UN	0.0 UN	
	25	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1612.5 UN	493.0 UN	291.1 UN	292.2 UN	146.6 UN	4.8 UN	0.0 UN	
	26	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1576.2 UN	476.9 UN	288.1 UN	303.5 UN	140.7 UN	3.7 UN	0.0 UN	
	27	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1537.1 UN	458.1 UN	280.3 UN	293.8 UN	134.7 UN	2.8 UN	0.0 UN	
	28	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1481.8 UN	448.1 UN	271.8 UN	182.4 UN	128.7 UN	2.1 UN	0.0 UN	
	29	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1423.9 UN	438.3 UN	272.0 UN	153.0 UN	122.7 UN	1.4 UN	0.0 UN	
	30	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1350.8 UN	426.5 UN	270.3 UN	196.0 UN	116.7 UN	0.5 UN	0.0 UN	
	31	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	418.0 UN	418.0 UN	268.2 UN	110.7 UN	110.7 UN	0.0 UN	0.0 UN	
	Aggr	0.0	0.0	0.0	0.0	0.0	2311.1	732.0	331.1	297.8	195.6	38.3	0.0	
	Min	0.0	0.0	0.0	0.0	0.0	0.0	409.2	262.3	137.2	107.7	0.0	0.0	
	Max	0.0	0.0	0.0	0.0	0.0	4408.4	1323.2	433.0	343.9	287.8	107.7	0.0	
	Total	0.0	0.0	0.0	0.0	0.0	137521.1	45008.1	20360.9	17719.2	12025.8	2279.2	0.0	

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified

Date Processed: February 14, 2018 17:04



Daily Mean by Year

Identifier: Fish Creek

Units: ft³/s
Filter: None

Year: 2005	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Max:	2795.6	Sep	Oct	Nov	Dec	Total (Acre-ft):
Day 1	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1198.5 UN	392.8 UN	0.0	2795.6	201.1 UN	114.1 UN	10.4 UN	1.8 UN	164936.9
2	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1151.8 UN	380.9 UN	0.0	2795.6	196.7 UN	104.4 UN	9.8 UN	1.5 UN	
3	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1091.7 UN	366.2 UN	0.0	2795.6	200.9 UN	95.1 UN	9.3 UN	1.2 UN	
4	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1041.4 UN	352.5 UN	0.0	2795.6	205.0 UN	86.5 UN	8.9 UN	0.8 UN	
5	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	142.3 UN	993.1 UN	341.6 UN	0.0	2795.6	202.1 UN	78.8 UN	8.6 UN	0.3 UN	
6	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	996.0 UN	980.0 UN	327.6 UN	0.0	2795.6	199.4 UN	72.0 UN	8.2 UN	0.0 UN	
7	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1102.8 UN	957.7 UN	323.5 UN	0.0	2795.6	192.3 UN	66.2 UN	8.0 UN	0.0 UN	
8	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1563.2 UN	907.8 UN	329.0 UN	0.0	2795.6	189.2 UN	61.1 UN	7.8 UN	0.0 UN	
9	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1439.7 UN	884.1 UN	340.7 UN	0.0	2795.6	190.6 UN	56.8 UN	7.6 UN	0.0 UN	
10	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1423.9 UN	871.7 UN	341.3 UN	0.0	2795.6	182.6 UN	53.0 UN	7.4 UN	0.0 UN	
11	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1980.8 UN	861.3 UN	335.2 UN	0.0	2795.6	181.9 UN	49.7 UN	7.2 UN	0.0 UN	
12	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1600.5 UN	855.8 UN	324.0 UN	0.0	2795.6	179.1 UN	46.7 UN	7.1 UN	0.0 UN	
13	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1315.1 UN	841.9 UN	313.7 UN	0.0	2795.6	170.0 UN	44.0 UN	6.9 UN	0.0 UN	
14	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1702.1 UN	813.8 UN	296.8 UN	0.0	2795.6	164.7 UN	41.3 UN	6.7 UN	0.0 UN	
15	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2035.7 UN	789.2 UN	281.3 UN	0.0	2795.6	167.8 UN	38.7 UN	6.5 UN	0.0 UN	
16	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1931.6 UN	764.3 UN	275.6 UN	0.0	2795.6	163.7 UN	36.1 UN	6.3 UN	0.0 UN	
17	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2287.3 UN	726.3 UN	268.8 UN	0.0	2795.6	157.6 UN	33.6 UN	6.0 UN	0.0 UN	
18	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2705.1 UN	696.2 UN	262.4 UN	0.0	2795.6	162.7 UN	31.1 UN	5.7 UN	0.0 UN	
19	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2625.5 UN	668.0 UN	252.0 UN	0.0	2795.6	170.3 UN	28.8 UN	5.3 UN	0.0 UN	
20	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2378.1 UN	638.9 UN	244.7 UN	0.0	2795.6	155.1 UN	26.5 UN	5.0 UN	0.0 UN	
21	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2421.3 UN	605.8 UN	238.3 UN	0.0	2795.6	152.3 UN	24.4 UN	4.6 UN	0.0 UN	
22	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2190.3 UN	587.2 UN	231.3 UN	0.0	2795.6	167.3 UN	22.4 UN	4.2 UN	0.0 UN	
23	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1980.6 UN	560.3 UN	226.0 UN	0.0	2795.6	162.6 UN	20.6 UN	3.8 UN	0.0 UN	
24	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1810.2 UN	531.6 UN	218.6 UN	0.0	2795.6	157.4 UN	18.9 UN	3.5 UN	0.0 UN	
25	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1689.4 UN	513.4 UN	215.9 UN	0.0	2795.6	149.9 UN	17.4 UN	3.1 UN	0.0 UN	
26	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1597.3 UN	498.4 UN	216.2 UN	0.0	2795.6	151.1 UN	16.0 UN	2.8 UN	0.0 UN	
27	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1513.3 UN	479.3 UN	210.5 UN	0.0	2795.6	150.5 UN	14.8 UN	2.6 UN	0.0 UN	
28	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1436.4 UN	458.0 UN	213.4 UN	0.0	2795.6	143.4 UN	13.7 UN	2.4 UN	0.0 UN	
29	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1365.0 UN	439.0 UN	207.7 UN	0.0	2795.6	133.8 UN	12.7 UN	2.2 UN	0.0 UN	
30	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1282.6 UN	423.9 UN	208.3 UN	0.0	2795.6	124.0 UN	11.8 UN	2.0 UN	0.0 UN	
31	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	406.8 UN	406.8 UN	206.7 UN	0.0	2795.6	11.1 UN	11.1 UN	6.0 UN	0.0 UN	
Aggr	0.0	0.0	0.0	0.0	0.0	1483.9	749.6	282.1		2795.6	170.8	43.5	6.0	0.2	
Min	0.0	0.0	0.0	0.0	0.0	0.0	396.5	203.5		2795.6	119.0	10.7	1.9	0.0	
Max	0.0	0.0	0.0	0.0	0.0	2795.6	1236.2	396.5		2795.6	208.2	119.0	10.7	1.9	
Total	0.0	0.0	0.0	0.0	0.0	88296.3	46090.1	17342.6		2795.6	10165.7	2674.4	356.6	11.2	

Date Processed: February 14, 2018 17:04
Daily mean flows record grades: Bl - Ice Conditions affect record
EF - Estimated Data with fair confidence

F - Fair Data
G - Good Data
P - Poor Data
UN - Unspecified



Daily Mean by Year

Identifier: Fish Creek

Units: ft³/s
Filter: None

Year: 2006	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):
	1	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	586.5 UN	888.5 UN	366.0 UN	258.8 UN	180.0 UN	75.4 UN	11.4 UN	176218.0
	2	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	518.1 UN	850.2 UN	361.7 UN	254.2 UN	174.1 UN	72.3 UN	10.3 UN	
	3	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	440.6 UN	820.3 UN	350.8 UN	254.1 UN	184.6 UN	69.3 UN	9.2 UN	
	4	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	490.4 UN	787.9 UN	343.5 UN	251.7 UN	192.0 UN	66.3 UN	8.2 UN	
	5	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	768.6 UN	762.0 UN	334.1 UN	243.9 UN	167.8 UN	63.5 UN	7.3 UN	
	6	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1258.9 UN	716.5 UN	318.8 UN	238.9 UN	156.5 UN	60.6 UN	6.3 UN	
	7	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1263.6 UN	685.0 UN	318.3 UN	237.5 UN	159.6 UN	57.9 UN	5.4 UN	
	8	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1776.8 UN	674.2 UN	317.2 UN	229.9 UN	157.4 UN	55.2 UN	4.5 UN	
	9	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2795.1 UN	632.4 UN	313.7 UN	223.0 UN	154.3 UN	52.6 UN	3.6 UN	
	10	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2891.0 UN	612.3 UN	310.1 UN	217.8 UN	152.1 UN	50.1 UN	2.6 UN	
	11	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	3090.6 UN	590.5 UN	303.2 UN	213.5 UN	150.4 UN	47.6 UN	1.6 UN	
	12	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	3154.7 UN	559.8 UN	300.7 UN	206.0 UN	148.2 UN	45.3 UN	0.6 UN	
	13	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2972.2 UN	539.0 UN	293.7 UN	204.0 UN	144.9 UN	42.9 UN	0.0 UN	
	14	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2694.3 UN	515.7 UN	285.7 UN	204.9 UN	141.8 UN	40.7 UN	0.0 UN	
	15	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2445.2 UN	502.3 UN	286.2 UN	203.0 UN	139.5 UN	38.5 UN	0.0 UN	
	16	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2232.1 UN	486.3 UN	282.6 UN	197.0 UN	136.1 UN	36.3 UN	0.0 UN	
	17	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2064.1 UN	470.7 UN	277.8 UN	193.0 UN	132.1 UN	34.3 UN	0.0 UN	
	18	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1926.4 UN	459.4 UN	272.6 UN	194.0 UN	127.7 UN	32.2 UN	0.0 UN	
	19	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1804.2 UN	451.9 UN	272.5 UN	193.0 UN	123.4 UN	30.3 UN	0.0 UN	
	20	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1692.7 UN	443.6 UN	274.4 UN	187.2 UN	119.2 UN	28.4 UN	0.0 UN	
	21	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1600.9 UN	459.4 UN	279.4 UN	190.4 UN	115.1 UN	26.5 UN	0.0 UN	
	22	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1502.1 UN	466.6 UN	280.3 UN	191.4 UN	111.1 UN	24.8 UN	0.0 UN	
	23	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1414.3 UN	466.5 UN	278.9 UN	186.2 UN	107.1 UN	23.0 UN	0.0 UN	
	24	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1330.6 UN	465.2 UN	279.1 UN	188.9 UN	103.3 UN	21.4 UN	0.0 UN	
	25	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1262.6 UN	459.2 UN	284.2 UN	192.6 UN	99.5 UN	19.7 UN	0.0 UN	
	26	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1189.3 UN	438.5 UN	283.6 UN	192.6 UN	95.8 UN	18.2 UN	0.0 UN	
	27	0.0 UN	0.0 UN	0.0 UN	0.0 UN	5.1 UN	1123.7 UN	427.4 UN	286.3 UN	188.2 UN	92.2 UN	16.7 UN	0.0 UN	
	28	0.0 UN	0.0 UN	0.0 UN	0.0 UN	178.2 UN	1055.3 UN	413.6 UN	280.9 UN	187.9 UN	88.7 UN	15.3 UN	0.0 UN	
	29	0.0 UN	0.0 UN	0.0 UN	0.0 UN	348.8 UN	994.8 UN	396.9 UN	274.2 UN	186.9 UN	85.3 UN	13.9 UN	0.0 UN	
	30	0.0 UN	0.0 UN	0.0 UN	0.0 UN	377.7 UN	941.2 UN	392.0 UN	268.8 UN	185.5 UN	81.9 UN	12.7 UN	0.0 UN	
	31	0.0 UN	0.0 UN	0.0 UN	0.0 UN	534.4 UN	381.9 UN	381.9 UN	263.5 UN	185.5 UN	78.6 UN	12.7 UN	0.0 UN	
	Aggr	0.0	0.0	0.0	0.0	46.6	1642.7	555.3	298.2	209.9	132.3	39.7	2.3	
	Min	0.0	0.0	0.0	0.0	0.0	430.0	371.7	260.8	182.7	77.0	12.0	0.0	
	Max	0.0	0.0	0.0	0.0	585.3	3168.9	917.2	371.7	260.8	205.8	77.0	12.0	
	Total	0.0	0.0	0.0	0.0	2864.4	97746.9	34147.0	18333.1	12488.3	8132.9	2364.4	141.1	

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified

Date Processed: February 14, 2018 17:04



Daily Mean by Year

Identifier: Fish Creek

Units: ft³/s
Filter: None

Year: 2007	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):
	1	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	82.4 UN	503.0 UN	105.8 UN	42.1 UN	21.4 UN	1.7 UN	0.0 UN	82661.3
	2	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	143.9 UN	471.2 UN	100.4 UN	40.8 UN	20.5 UN	1.0 UN	0.0 UN	
	3	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	235.3 UN	446.2 UN	95.8 UN	41.5 UN	19.6 UN	0.3 UN	0.0 UN	
	4	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	532.8 UN	422.5 UN	90.2 UN	42.0 UN	18.9 UN	0.0 UN	0.0 UN	
	5	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1171.3 UN	403.8 UN	85.5 UN	40.9 UN	18.2 UN	0.0 UN	0.0 UN	
	6	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1912.1 UN	379.9 UN	83.4 UN	40.3 UN	17.5 UN	0.0 UN	0.0 UN	
	7	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1893.8 UN	356.1 UN	81.5 UN	40.1 UN	16.9 UN	0.0 UN	0.0 UN	
	8	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1623.2 UN	337.3 UN	84.1 UN	38.6 UN	16.3 UN	0.0 UN	0.0 UN	
	9	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2022.0 UN	323.0 UN	83.6 UN	38.2 UN	15.8 UN	0.0 UN	0.0 UN	
	10	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2099.4 UN	306.6 UN	79.4 UN	40.7 UN	15.2 UN	0.0 UN	0.0 UN	
	11	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1859.0 UN	295.7 UN	74.8 UN	40.8 UN	14.6 UN	0.0 UN	0.0 UN	
	12	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1633.2 UN	290.6 UN	71.5 UN	41.5 UN	14.0 UN	0.0 UN	0.0 UN	
	13	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1466.3 UN	281.0 UN	67.5 UN	41.5 UN	13.4 UN	0.0 UN	0.0 UN	
	14	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1313.5 UN	267.8 UN	66.8 UN	40.5 UN	12.7 UN	0.0 UN	0.0 UN	
	15	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1198.0 UN	246.8 UN	65.5 UN	39.7 UN	12.1 UN	0.0 UN	0.0 UN	
	16	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1090.7 UN	239.5 UN	65.2 UN	38.2 UN	11.4 UN	0.0 UN	0.0 UN	
	17	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	991.3 UN	234.1 UN	64.7 UN	42.0 UN	10.8 UN	0.0 UN	0.0 UN	
	18	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	919.5 UN	222.8 UN	63.7 UN	40.9 UN	10.1 UN	0.0 UN	0.0 UN	
	19	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	857.0 UN	205.3 UN	65.0 UN	40.0 UN	9.5 UN	0.0 UN	0.0 UN	
	20	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	805.9 UN	193.1 UN	62.2 UN	41.1 UN	8.9 UN	0.0 UN	0.0 UN	
	21	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	760.3 UN	185.5 UN	54.3 UN	38.5 UN	8.3 UN	0.0 UN	0.0 UN	
	22	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	719.2 UN	176.9 UN	51.3 UN	37.6 UN	7.7 UN	0.0 UN	0.0 UN	
	23	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	678.6 UN	167.6 UN	47.9 UN	35.3 UN	7.1 UN	0.0 UN	0.0 UN	
	24	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	644.8 UN	156.6 UN	45.9 UN	32.9 UN	6.5 UN	0.0 UN	0.0 UN	
	25	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	615.6 UN	149.4 UN	43.8 UN	30.6 UN	5.9 UN	0.0 UN	0.0 UN	
	26	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	598.4 UN	141.0 UN	41.6 UN	28.5 UN	5.3 UN	0.0 UN	0.0 UN	
	27	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	594.5 UN	135.1 UN	41.0 UN	26.6 UN	4.7 UN	0.0 UN	0.0 UN	
	28	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	575.9 UN	127.9 UN	43.2 UN	25.0 UN	4.1 UN	0.0 UN	0.0 UN	
	29	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	549.9 UN	120.7 UN	42.9 UN	23.6 UN	3.5 UN	0.0 UN	0.0 UN	
	30	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	521.6 UN	114.7 UN	42.0 UN	22.5 UN	2.9 UN	0.0 UN	0.0 UN	
	31	0.0 UN	0.0 UN	0.0 UN	0.0 UN	29.1 UN	111.1 UN	111.1 UN	41.7 UN	2.3 UN	0.0 UN	0.0 UN	0.0 UN	
	Aggr	0.0	0.0	0.0	0.0	0.9	1003.7	258.5	66.2	37.1	11.5	0.1	0.0	
	Min	0.0	0.0	0.0	0.0	0.0	56.1	107.7	40.4	21.9	2.0	0.0	0.0	
	Max	0.0	0.0	0.0	0.0	56.1	2194.5	516.5	107.7	44.0	21.9	2.0	0.0	
	Total	0.0	0.0	0.0	0.0	57.8	59721.9	15893.0	4069.9	2205.8	706.8	6.0	0.0	

Date Processed: February 14, 2018 17:04

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Fish Creek

Units: ft³/s
Filter: None

Year: 2008	Aggr:	120.1	Min:	0.0	Max:	2271.4	Total (Acre-ft):	87182.0				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.0	856.9	395.7	141.6	88.5	37.6	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	940.2	378.3	140.4	85.4	34.2	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	775.9	359.4	134.5	83.8	31.7	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	658.1	334.9	140.0	81.7	29.7	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	1296.5	321.6	143.5	77.3	28.2	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	2202.2	304.7	139.3	76.0	26.9	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	1897.7	288.0	130.8	76.2	25.8	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	1703.4	273.5	127.6	73.2	24.8	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	1545.8	257.3	123.9	74.3	23.9	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	1325.0	250.7	125.2	73.8	22.9	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	1171.8	238.0	123.0	74.1	22.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	1080.5	218.0	125.0	76.4	21.1	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	991.4	207.5	129.0	76.6	20.2	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	929.9	195.3	121.6	81.7	19.3	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	874.1	184.4	117.9	78.7	18.3	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	819.4	176.9	114.3	77.6	17.4	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	771.3	183.8	113.7	76.5	16.4	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	746.8	185.6	104.6	71.2	15.5	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	719.6	186.5	101.6	66.6	14.5	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	689.1	179.8	100.9	62.9	13.5	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	652.3	178.2	99.5	62.8	12.5	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	622.2	179.3	98.0	65.1	11.5	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	585.2	186.6	95.6	69.1	10.4	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	568.2	186.1	93.6	71.9	9.3	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	530.2	185.1	90.6	71.0	8.2	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	490.5	174.2	89.6	71.1	7.1	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	331.3	164.4	88.4	72.2	5.9	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	428.2	155.4	87.5	66.3	4.6	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	678.6	144.8	86.1	53.1	3.4	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	581.9	139.0	89.2	43.7	2.1	0.0	0.0
31	0.0	0.0	0.0	0.0	0.0	713.4	137.5	88.1	43.7	0.7	0.0	0.0
Aggr	0.0	0.0	0.0	0.0	111.6	910.7	224.2	113.0	72.6	17.4	0.0	0.0
Min	0.0	0.0	0.0	0.0	0.0	410.1	131.1	84.2	39.9	0.0	0.0	0.0
Max	0.0	0.0	0.0	0.0	822.6	2271.4	410.1	145.0	89.8	39.9	0.0	0.0
Total	0.0	0.0	0.0	0.0	6859.7	54193.2	13786.2	6951.1	4321.5	1070.3	0.0	0.0

Date Processed: February 14, 2018 17:04
Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Fish Creek

Units: ft³/s
Filter: None

Year: 2009	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):
	1	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2615.0 UN	687.7 UN	217.5 UN	209.4 UN	132.0 UN	17.3 UN	0.0 UN	178441.2
	2	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2898.8 UN	659.6 UN	213.0 UN	219.3 UN	125.6 UN	15.7 UN	0.0 UN	
	3	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	3175.7 UN	626.4 UN	203.7 UN	227.2 UN	119.2 UN	14.3 UN	0.0 UN	
	4	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	3118.4 UN	597.2 UN	196.8 UN	230.0 UN	112.8 UN	12.9 UN	0.0 UN	
	5	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2898.3 UN	561.5 UN	188.8 UN	228.0 UN	106.2 UN	11.6 UN	0.0 UN	
	6	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2570.2 UN	540.7 UN	184.6 UN	230.7 UN	99.5 UN	10.5 UN	0.0 UN	
	7	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2418.2 UN	516.3 UN	173.0 UN	229.8 UN	92.8 UN	9.4 UN	0.0 UN	
	8	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2310.2 UN	498.8 UN	169.7 UN	234.3 UN	87.1 UN	8.5 UN	0.0 UN	
	9	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2199.0 UN	476.5 UN	175.3 UN	230.9 UN	83.0 UN	7.6 UN	0.0 UN	
	10	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2079.5 UN	468.0 UN	186.2 UN	222.1 UN	78.9 UN	6.8 UN	0.0 UN	
	11	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1963.8 UN	465.6 UN	186.8 UN	223.1 UN	74.8 UN	6.2 UN	0.0 UN	
	12	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1823.0 UN	458.5 UN	183.2 UN	220.3 UN	70.8 UN	5.6 UN	0.0 UN	
	13	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1710.8 UN	441.3 UN	182.9 UN	212.0 UN	66.9 UN	5.0 UN	0.0 UN	
	14	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1604.4 UN	432.4 UN	181.1 UN	208.9 UN	63.2 UN	4.5 UN	0.0 UN	
	15	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1512.4 UN	417.8 UN	174.4 UN	209.6 UN	59.6 UN	4.0 UN	0.0 UN	
	16	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1437.6 UN	378.4 UN	170.5 UN	210.5 UN	56.2 UN	3.5 UN	0.0 UN	
	17	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1360.8 UN	374.0 UN	170.7 UN	210.1 UN	52.9 UN	3.0 UN	0.0 UN	
	18	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1300.9 UN	358.9 UN	171.5 UN	208.7 UN	49.8 UN	2.4 UN	0.0 UN	
	19	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1220.8 UN	337.6 UN	175.9 UN	206.1 UN	46.8 UN	1.8 UN	0.0 UN	
	20	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1160.9 UN	331.1 UN	178.6 UN	205.7 UN	43.8 UN	1.2 UN	0.0 UN	
	21	0.0 UN	0.0 UN	0.0 UN	0.0 UN	33.9 UN	1098.9 UN	317.8 UN	172.8 UN	207.5 UN	41.1 UN	0.4 UN	0.0 UN	
	22	0.0 UN	0.0 UN	0.0 UN	0.0 UN	102.7 UN	1035.6 UN	300.2 UN	164.1 UN	147.8 UN	38.4 UN	0.0 UN	0.0 UN	
	23	0.0 UN	0.0 UN	0.0 UN	0.0 UN	216.6 UN	1001.8 UN	292.1 UN	162.7 UN	122.0 UN	35.8 UN	0.0 UN	0.0 UN	
	24	0.0 UN	0.0 UN	0.0 UN	0.0 UN	377.1 UN	960.5 UN	281.0 UN	160.4 UN	171.2 UN	33.3 UN	0.0 UN	0.0 UN	
	25	0.0 UN	0.0 UN	0.0 UN	0.0 UN	665.9 UN	923.2 UN	267.0 UN	160.3 UN	139.7 UN	31.0 UN	0.0 UN	0.0 UN	
	26	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1321.7 UN	917.1 UN	264.5 UN	164.7 UN	131.8 UN	28.7 UN	0.0 UN	0.0 UN	
	27	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2164.6 UN	875.3 UN	252.9 UN	166.1 UN	143.7 UN	26.6 UN	0.0 UN	0.0 UN	
	28	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2012.4 UN	820.8 UN	244.2 UN	165.2 UN	147.3 UN	24.5 UN	0.0 UN	0.0 UN	
	29	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2015.4 UN	770.4 UN	242.0 UN	167.9 UN	144.4 UN	22.5 UN	0.0 UN	0.0 UN	
	30	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2263.4 UN	722.7 UN	236.9 UN	186.9 UN	138.4 UN	20.7 UN	0.0 UN	0.0 UN	
	31	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2211.0 UN	722.7 UN	224.5 UN	201.5 UN	18.9 UN	18.9 UN	0.0 UN	0.0 UN	
	Aggr	0.0	0.0	0.0	0.0	431.8	1683.5	404.9	179.3	195.7	62.7	5.1	0.0	
	Min	0.0	0.0	0.0	0.0	0.0	701.1	219.1	153.2	99.8	18.1	0.0	0.0	
	Max	0.0	0.0	0.0	0.0	2406.1	3239.0	705.2	221.4	239.8	135.2	18.1	0.0	
	Total	0.0	0.0	0.0	0.0	26548.2	100174.7	24895.6	11021.9	11644.4	3854.7	301.6	0.0	

Date Processed: February 14, 2018 17:04



Daily mean flows record grades: BI - Ice Conditions affect record
 EF - Estimated Data with fair confidence
 F - Fair Data
 G - Good Data
 P - Poor Data
 UN - Unspecified

Daily Mean by Year

Identifier: Fish Creek

Units: ft³/s
Filter: None

Year: 2010	Aggr:	234.8	Min:	0.0	Max:	3726.1	Total (Acre-ft):	169994.8				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.0	17.0	870.0	459.8	229.6	136.3	17.1	0.0
2	0.0	0.0	0.0	0.0	0.0	74.3	826.7	442.8	227.0	122.5	15.2	0.0
3	0.0	0.0	0.0	0.0	0.0	174.3	778.9	427.2	225.3	111.5	13.3	0.0
4	0.0	0.0	0.0	0.0	0.0	301.9	743.8	405.7	218.9	103.1	11.5	0.0
5	0.0	0.0	0.0	0.0	0.0	423.5	700.5	379.0	215.1	96.3	9.7	0.0
6	0.0	0.0	0.0	0.0	0.0	1355.7	658.0	369.1	210.4	90.5	8.1	0.0
7	0.0	0.0	0.0	0.0	0.0	1836.0	626.9	371.8	205.5	85.3	6.6	0.0
8	0.0	0.0	0.0	0.0	0.0	3032.0	599.2	368.8	198.8	80.5	5.3	0.0
9	0.0	0.0	0.0	0.0	0.0	3601.6	576.9	357.1	197.4	76.3	4.3	0.0
10	0.0	0.0	0.0	0.0	0.0	3098.5	545.7	353.8	196.1	72.3	3.4	0.0
11	0.0	0.0	0.0	0.0	0.0	3118.7	509.7	353.1	193.7	68.6	2.7	0.0
12	0.0	0.0	0.0	0.0	0.0	3421.1	489.2	344.9	189.7	65.2	2.1	0.0
13	0.0	0.0	0.0	0.0	0.0	3450.4	477.6	341.0	191.1	61.8	1.4	0.0
14	0.0	0.0	0.0	0.0	0.0	3029.7	455.9	339.1	189.0	58.6	0.5	0.0
15	0.0	0.0	0.0	0.0	0.0	2640.5	441.2	329.1	181.3	55.6	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	2296.1	426.9	314.2	179.0	52.7	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	2057.6	419.8	306.7	181.1	49.9	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	1911.0	422.5	299.7	176.2	47.2	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	1773.5	450.2	290.3	171.9	44.7	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	1675.4	490.7	282.2	172.1	42.2	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	1583.8	475.6	278.2	172.7	39.8	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	1503.0	466.7	272.4	169.6	37.5	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	1424.3	482.2	271.5	165.6	35.3	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	1330.8	495.7	269.6	162.3	33.1	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	1253.9	479.1	265.5	153.2	31.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	1161.8	460.0	259.2	201.5	29.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	1096.0	443.4	250.0	210.9	26.9	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	1042.7	418.7	244.7	220.7	24.9	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	983.7	408.0	239.9	175.5	23.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	914.4	411.4	235.1	151.9	21.0	0.0	0.0
31	0.0	0.0	0.0	0.0	0.0	1719.4	444.2	230.3	191.1	19.1	3.4	0.0
Aggr	0.0	0.0	0.0	0.0	0.0	1719.4	532.1	321.0	191.1	59.4	3.4	0.0
Min	0.0	0.0	0.0	0.0	0.0	0.0	402.6	228.7	144.0	18.1	0.0	0.0
Max	0.0	0.0	0.0	0.0	0.0	3726.1	892.4	463.2	251.0	144.0	18.1	0.0
Total	0.0	0.0	0.0	0.0	0.0	102313.8	32717.5	19738.7	11371.1	3653.2	200.5	0.0

Date Processed: February 14, 2018 17:04
 Daily mean flows record grades: BI - Ice Conditions affect record
 EF - Estimated Data with fair confidence
 F - Fair Data
 G - Good Data
 P - Poor Data
 UN - Unspecified



Daily Mean by Year

Identifier: Fish Creek

Units: ft³/s
Filter: None

Year: 2011	Aggr:	217.2	Min:	0.0	Max:	2608.3	Total (Acre-ft):	157234.7				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.0	1943.6	722.8	263.0	147.7	200.6	53.2	9.4
2	0.0	0.0	0.0	0.0	0.0	1998.6	690.8	268.7	146.5	171.1	51.2	8.7
3	0.0	0.0	0.0	0.0	0.0	2204.5	665.3	271.0	146.7	179.5	49.2	7.9
4	0.0	0.0	0.0	0.0	0.0	2062.3	618.6	261.6	145.9	165.5	47.2	7.2
5	0.0	0.0	0.0	0.0	0.0	1877.1	605.1	251.6	147.8	163.1	45.1	6.4
6	0.0	0.0	0.0	0.0	0.0	2338.6	591.9	254.9	145.7	165.6	43.2	5.6
7	0.0	0.0	0.0	0.0	0.0	2422.9	568.0	254.9	144.2	171.0	41.2	4.8
8	0.0	0.0	0.0	0.0	0.0	2540.2	531.1	248.1	143.5	175.0	39.2	3.9
9	0.0	0.0	0.0	0.0	0.0	2480.8	494.0	251.1	145.2	175.4	37.3	2.9
10	0.0	0.0	0.0	0.0	0.0	2315.3	473.5	240.8	152.4	172.3	35.4	1.8
11	0.0	0.0	0.0	0.0	0.0	2173.6	456.5	231.2	160.3	166.5	33.6	0.7
12	0.0	0.0	0.0	0.0	0.0	2084.4	444.3	228.3	167.3	158.5	31.8	0.0
13	0.0	0.0	0.0	0.0	0.0	1792.4	431.3	220.6	167.4	149.0	30.0	0.0
14	0.0	0.0	0.0	0.0	0.0	1646.5	429.2	213.6	165.2	138.8	28.3	0.0
15	0.0	0.0	0.0	0.0	0.0	1541.2	418.3	205.3	169.0	128.3	26.6	0.0
16	0.0	0.0	0.0	0.0	0.0	1581.4	408.9	200.7	173.1	118.3	25.0	0.0
17	0.0	0.0	0.0	0.0	0.0	1461.2	394.5	193.8	180.4	109.4	23.5	0.0
18	0.0	0.0	0.0	0.0	0.0	1358.1	389.6	188.8	182.9	101.4	22.0	0.0
19	0.0	0.0	0.0	0.0	0.0	1301.5	378.9	186.0	180.6	94.5	20.6	0.0
20	0.0	0.0	0.0	0.0	0.0	1242.5	365.0	178.7	187.2	88.4	19.3	0.0
21	0.0	0.0	0.0	0.0	0.0	1178.5	353.7	171.0	195.2	83.1	18.1	0.0
22	0.0	0.0	0.0	0.0	0.0	1123.5	343.6	171.2	203.1	78.6	16.9	0.0
23	0.0	0.0	0.0	0.0	0.0	1078.5	340.2	171.4	211.6	74.6	15.9	0.0
24	0.0	0.0	0.0	0.0	0.0	1033.8	337.3	165.7	227.9	71.2	14.9	0.0
25	0.0	0.0	0.0	0.0	0.0	981.2	325.5	165.1	242.9	68.3	14.0	0.0
26	0.0	0.0	0.0	0.0	0.0	937.9	313.4	163.7	246.6	65.7	13.1	0.0
27	0.0	0.0	0.0	0.0	0.0	890.8	306.0	159.8	251.5	63.3	12.3	0.0
28	0.0	0.0	0.0	0.0	3.2	861.2	300.3	155.3	265.6	61.2	11.6	0.0
29	0.0	0.0	0.0	0.0	50.1	783.4	288.2	152.4	262.3	59.2	10.8	0.0
30	0.0	0.0	0.0	0.0	127.1	764.3	278.7	151.8	252.9	57.2	10.1	0.0
31	0.0	0.0	0.0	0.0	979.7	764.3	268.4	150.7	252.9	55.2	10.1	0.0
Aggr	0.0	0.0	0.0	0.0	37.4	1600.0	436.5	206.2	185.3	120.3	28.0	1.9
Min	0.0	0.0	0.0	0.0	0.0	735.2	264.5	148.0	140.9	54.2	9.7	0.0
Max	0.0	0.0	0.0	0.0	1692.8	2608.3	739.7	284.9	275.9	258.0	54.2	9.7
Total	0.0	0.0	0.0	0.0	2301.2	95206.0	26842.2	12676.3	11025.9	7398.3	1667.3	117.5

Date Processed: February 14, 2018 17:04
Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Fish Creek

Units: ft³/s
Filter: None

Year: 2012	Aggr:	242.5	Min:	0.0	Max:	3511.6	Total (Acre-ft):	176067.4												
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec								
1	0.0	UN	0.0	UN	0.0	UN	117.2	UN	823.2	UN	276.7	UN	211.6	UN	317.2	UN	73.0	UN	0.0	UN
2	0.0	UN	0.0	UN	0.0	UN	193.3	UN	782.8	UN	273.9	UN	207.8	UN	290.4	UN	67.9	UN	0.0	UN
3	0.0	UN	0.0	UN	0.0	UN	391.8	UN	733.1	UN	269.8	UN	213.4	UN	250.4	UN	62.8	UN	0.0	UN
4	0.0	UN	0.0	UN	0.0	UN	828.7	UN	696.0	UN	273.4	UN	209.4	UN	255.2	UN	57.7	UN	0.0	UN
5	0.0	UN	0.0	UN	0.0	UN	1828.1	UN	659.1	UN	270.0	UN	217.5	UN	266.5	UN	52.7	UN	0.0	UN
6	0.0	UN	0.0	UN	0.0	UN	2738.5	UN	620.2	UN	266.4	UN	221.7	UN	266.9	UN	48.0	UN	0.0	UN
7	0.0	UN	0.0	UN	0.0	UN	2595.5	UN	584.9	UN	260.8	UN	226.1	UN	265.1	UN	43.5	UN	0.0	UN
8	0.0	UN	0.0	UN	0.0	UN	2817.4	UN	550.4	UN	261.2	UN	230.0	UN	260.2	UN	39.4	UN	0.0	UN
9	0.0	UN	0.0	UN	0.0	UN	3000.5	UN	524.6	UN	255.4	UN	239.0	UN	225.5	UN	35.7	UN	0.0	UN
10	0.0	UN	0.0	UN	0.0	UN	3305.5	UN	513.4	UN	254.7	UN	246.8	UN	181.3	UN	32.5	UN	0.0	UN
11	0.0	UN	0.0	UN	0.0	UN	3471.4	UN	489.5	UN	252.2	UN	254.3	UN	182.5	UN	29.7	UN	0.0	UN
12	0.0	UN	0.0	UN	0.0	UN	3212.0	UN	468.2	UN	246.8	UN	252.1	UN	204.8	UN	27.2	UN	0.0	UN
13	0.0	UN	0.0	UN	0.0	UN	2782.9	UN	450.2	UN	239.6	UN	247.9	UN	189.7	UN	25.0	UN	0.0	UN
14	0.0	UN	0.0	UN	0.0	UN	2497.7	UN	434.5	UN	229.8	UN	245.0	UN	199.3	UN	22.9	UN	0.0	UN
15	0.0	UN	0.0	UN	0.0	UN	2276.8	UN	434.3	UN	228.9	UN	243.0	UN	191.0	UN	21.0	UN	0.0	UN
16	0.0	UN	0.0	UN	0.0	UN	2084.9	UN	419.2	UN	236.6	UN	248.9	UN	190.5	UN	19.1	UN	0.0	UN
17	0.0	UN	0.0	UN	0.0	UN	1916.1	UN	411.1	UN	238.5	UN	240.9	UN	210.7	UN	17.3	UN	0.0	UN
18	0.0	UN	0.0	UN	0.0	UN	1804.8	UN	402.8	UN	230.8	UN	251.2	UN	227.8	UN	15.4	UN	0.0	UN
19	0.0	UN	0.0	UN	0.0	UN	1695.8	UN	390.7	UN	225.7	UN	257.4	UN	214.5	UN	13.5	UN	0.0	UN
20	0.0	UN	0.0	UN	0.0	UN	1592.1	UN	380.4	UN	219.1	UN	257.1	UN	184.2	UN	11.5	UN	0.0	UN
21	0.0	UN	0.0	UN	0.0	UN	1495.0	UN	366.8	UN	228.1	UN	259.1	UN	159.5	UN	9.7	UN	0.0	UN
22	0.0	UN	0.0	UN	0.0	UN	1388.5	UN	353.8	UN	238.1	UN	273.5	UN	138.0	UN	8.0	UN	0.0	UN
23	0.0	UN	0.0	UN	0.0	UN	1290.7	UN	344.7	UN	241.0	UN	279.6	UN	122.7	UN	6.5	UN	0.0	UN
24	0.0	UN	0.0	UN	0.0	UN	1202.2	UN	331.9	UN	231.7	UN	286.6	UN	112.7	UN	5.3	UN	0.0	UN
25	0.0	UN	0.0	UN	0.0	UN	1113.1	UN	320.8	UN	224.6	UN	290.7	UN	104.8	UN	4.3	UN	0.0	UN
26	0.0	UN	0.0	UN	0.0	UN	1065.2	UN	310.2	UN	216.8	UN	297.1	UN	98.5	UN	3.6	UN	0.0	UN
27	0.0	UN	0.0	UN	0.0	UN	1011.2	UN	300.7	UN	211.8	UN	306.2	UN	92.3	UN	2.9	UN	0.0	UN
28	0.0	UN	0.0	UN	0.0	UN	959.2	UN	290.9	UN	209.6	UN	317.5	UN	89.9	UN	2.2	UN	0.0	UN
29	0.0	UN	0.0	UN	0.0	UN	909.6	UN	281.8	UN	211.3	UN	324.0	UN	85.8	UN	1.4	UN	0.0	UN
30	0.0	UN	0.0	UN	0.0	UN	866.4	UN	274.3	UN	211.8	UN	320.2	UN	82.6	UN	0.5	UN	0.0	UN
31	0.0	UN	0.0	UN	0.0	UN	99.4	UN	273.0	UN	212.8	UN	77.9	UN	77.9	UN	0.0	UN	0.0	UN
Aggr	0.0	0.0	0.0	0.0	15.3	1748.4	458.6	240.3	255.9	185.1	253	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Min	0.0	0.0	0.0	0.0	0.0	102.9	268.0	204.6	204.0	75.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max	0.0	0.0	0.0	0.0	133.3	3511.6	847.9	283.7	324.4	321.5	75.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	0.0	0.0	0.0	942.7	104037.7	28200.2	14772.7	15224.6	11381.6	1507.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Date Processed: February 14, 2018 17:04
Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Fish Creek

Units: ft³/s
Filter: None

Year: 2013	Aggr:	379.4	Min:	0.0	Max:	5403.2	Total (Acre-ft):	274645.1										
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec						
1	0.0	UN	0.0	UN	0.0	UN	1468.5	UN	491.8	UN	378.4	UN	395.9	UN	92.8	UN	0.0	UN
2	0.0	UN	0.0	UN	0.0	UN	1403.9	UN	488.9	UN	386.1	UN	388.1	UN	93.4	UN	0.0	UN
3	0.0	UN	0.0	UN	0.0	UN	1338.9	UN	483.0	UN	386.5	UN	347.5	UN	91.2	UN	0.0	UN
4	0.0	UN	0.0	UN	0.0	UN	1701.1	UN	478.9	UN	376.5	UN	363.3	UN	83.4	UN	0.0	UN
5	0.0	UN	0.0	UN	0.0	UN	2055.2	UN	487.3	UN	386.4	UN	380.1	UN	72.6	UN	0.0	UN
6	0.0	UN	0.0	UN	0.0	UN	2139.9	UN	481.9	UN	384.0	UN	422.7	UN	61.6	UN	0.0	UN
7	0.0	UN	0.0	UN	0.0	UN	1827.7	UN	462.9	UN	384.9	UN	395.3	UN	55.1	UN	0.0	UN
8	0.0	UN	0.0	UN	0.0	UN	2201.5	UN	463.0	UN	390.1	UN	414.8	UN	47.9	UN	0.0	UN
9	0.0	UN	0.0	UN	0.0	UN	3253.0	UN	455.9	UN	385.4	UN	415.2	UN	40.6	UN	0.0	UN
10	0.0	UN	0.0	UN	0.0	UN	4030.1	UN	443.4	UN	388.3	UN	404.9	UN	34.3	UN	0.0	UN
11	0.0	UN	0.0	UN	0.0	UN	4867.2	UN	450.3	UN	389.5	UN	413.3	UN	28.0	UN	0.0	UN
12	0.0	UN	0.0	UN	0.0	UN	5345.2	UN	447.9	UN	394.6	UN	399.3	UN	22.6	UN	0.0	UN
13	0.0	UN	0.0	UN	0.0	UN	5024.3	UN	433.5	UN	404.0	UN	397.8	UN	18.2	UN	0.0	UN
14	0.0	UN	0.0	UN	0.0	UN	4554.1	UN	429.3	UN	400.3	UN	360.1	UN	14.5	UN	0.0	UN
15	0.0	UN	0.0	UN	0.0	UN	4171.2	UN	441.2	UN	402.5	UN	357.8	UN	11.5	UN	0.0	UN
16	0.0	UN	0.0	UN	0.0	UN	3857.6	UN	455.3	UN	408.5	UN	357.3	UN	9.0	UN	0.0	UN
17	0.0	UN	0.0	UN	0.0	UN	3599.3	UN	452.0	UN	392.3	UN	357.0	UN	7.1	UN	0.0	UN
18	0.0	UN	0.0	UN	0.0	UN	3280.9	UN	449.7	UN	371.9	UN	310.9	UN	5.5	UN	0.0	UN
19	0.0	UN	0.0	UN	0.0	UN	2953.3	UN	446.9	UN	395.4	UN	288.2	UN	4.4	UN	0.0	UN
20	0.0	UN	0.0	UN	0.0	UN	2666.2	UN	433.5	UN	387.5	UN	264.7	UN	3.5	UN	0.0	UN
21	0.0	UN	0.0	UN	0.0	UN	2498.5	UN	435.0	UN	418.3	UN	253.3	UN	2.9	UN	0.0	UN
22	0.0	UN	0.0	UN	0.0	UN	2337.4	UN	432.8	UN	404.5	UN	228.6	UN	2.5	UN	0.0	UN
23	0.0	UN	0.0	UN	0.0	UN	2205.9	UN	427.8	UN	375.8	UN	198.2	UN	2.2	UN	0.0	UN
24	0.0	UN	0.0	UN	0.0	UN	2102.9	UN	415.2	UN	266.3	UN	172.6	UN	1.9	UN	0.0	UN
25	0.0	UN	0.0	UN	0.0	UN	1993.3	UN	409.1	UN	266.0	UN	151.0	UN	1.6	UN	0.0	UN
26	0.0	UN	0.0	UN	0.0	UN	1880.5	UN	403.2	UN	298.8	UN	136.5	UN	1.1	UN	0.0	UN
27	0.0	UN	0.0	UN	0.0	UN	1812.6	UN	393.7	UN	426.2	UN	120.6	UN	0.5	UN	0.0	UN
28	0.0	UN	0.0	UN	0.0	UN	1730.0	UN	382.8	UN	477.3	UN	100.3	UN	0.0	UN	0.0	UN
29	0.0	UN	0.0	UN	0.0	UN	1633.3	UN	376.6	UN	435.6	UN	97.9	UN	0.0	UN	0.0	UN
30	0.0	UN	0.0	UN	0.0	UN	1552.8	UN	375.3	UN	406.0	UN	91.6	UN	0.0	UN	0.0	UN
31	0.0	UN	0.0	UN	18.8	UN	493.5	UN	375.1	UN	95.6	UN	95.6	UN	0.0	UN	0.0	UN
Aggr	0.0	0.0	0.0	0.0	0.6	2616.5	803.0	438.8	385.6	292.9	27.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Min	0.0	0.0	0.0	0.0	0.0	34.8	485.9	369.8	214.8	89.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max	0.0	0.0	0.0	0.0	34.8	5403.2	1517.3	498.9	488.4	439.9	96.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	0.0	0.0	0.0	37.3	155692.4	49372.4	26981.4	22944.4	18010.8	1606.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Date Processed: February 14, 2018 17:04
Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence
F - Fair Data
G - Good Data
P - Poor Data
UN - Unspecified



Daily Mean by Year

Identifier: Fish Creek

Units: ft³/s
Filter: None

Year: 2014	Aggr:	375.8	Min:	0.0	Max:	3375.2	Total (Acre-ft):	272098.7				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.0	1765.6	1515.3	491.8	259.3	469.6	65.5	5.7
2	0.0	0.0	0.0	0.0	0.0	1359.3	1443.9	483.9	271.3	369.9	61.8	4.7
3	0.0	0.0	0.0	0.0	0.0	1229.4	1380.9	470.0	274.0	335.3	58.4	3.7
4	0.0	0.0	0.0	0.0	0.0	1458.2	1331.2	457.5	275.0	279.9	55.1	2.8
5	0.0	0.0	0.0	0.0	0.0	1967.2	1269.7	449.0	295.6	275.0	52.1	1.9
6	0.0	0.0	0.0	0.0	0.0	2624.6	1211.5	437.6	314.0	294.5	49.2	1.1
7	0.0	0.0	0.0	0.0	0.0	3162.7	1153.3	436.4	319.3	280.2	46.5	0.4
8	0.0	0.0	0.0	0.0	0.0	3301.2	1094.1	427.1	319.6	266.1	43.9	0.0
9	0.0	0.0	0.0	0.0	0.0	3126.7	1053.8	406.6	313.8	252.5	41.4	0.0
10	0.0	0.0	0.0	0.0	0.0	2630.3	1006.6	405.9	302.9	239.3	39.1	0.0
11	0.0	0.0	0.0	0.0	0.0	2443.0	972.3	395.5	293.4	226.6	36.9	0.0
12	0.0	0.0	0.0	0.0	0.0	2406.1	925.0	380.8	292.8	214.4	34.8	0.0
13	0.0	0.0	0.0	0.0	0.0	2373.9	884.0	375.0	293.1	202.6	32.8	0.0
14	0.0	0.0	0.0	0.0	0.0	2229.9	869.2	366.9	274.2	191.4	30.8	0.0
15	0.0	0.0	0.0	0.0	13.5	2109.4	829.2	362.8	264.2	180.7	28.9	0.0
16	0.0	0.0	0.0	0.0	237.3	2036.5	803.7	342.6	260.8	170.4	27.1	0.0
17	0.0	0.0	0.0	0.0	939.3	1953.6	775.6	338.7	250.5	160.7	25.4	0.0
18	0.0	0.0	0.0	0.0	1618.2	1882.4	739.4	327.7	248.3	151.4	23.7	0.0
19	0.0	0.0	0.0	0.0	2204.4	1820.6	711.7	310.9	257.8	142.6	22.0	0.0
20	0.0	0.0	0.0	0.0	2233.9	1768.8	683.0	307.3	246.4	134.3	20.4	0.0
21	0.0	0.0	0.0	0.0	2110.1	1704.7	669.8	301.8	254.2	126.5	18.9	0.0
22	0.0	0.0	0.0	0.0	2042.9	1643.2	657.0	294.8	260.5	119.1	17.4	0.0
23	0.0	0.0	0.0	0.0	1572.4	1611.0	644.0	286.9	263.7	112.1	15.9	0.0
24	0.0	0.0	0.0	0.0	1157.7	1674.8	621.3	277.3	280.8	105.5	14.4	0.0
25	0.0	0.0	0.0	0.0	908.4	1731.4	611.0	273.0	307.8	99.3	13.1	0.0
26	0.0	0.0	0.0	0.0	727.3	1747.1	593.4	261.8	318.9	93.5	11.7	0.0
27	0.0	0.0	0.0	0.0	1118.7	1727.7	581.9	258.1	201.9	88.0	10.4	0.0
28	0.0	0.0	0.0	0.0	1269.1	1693.6	563.8	257.6	211.7	82.9	9.2	0.0
29	0.0	0.0	0.0	0.0	1391.3	1645.9	550.9	256.2	276.0	78.2	8.0	0.0
30	0.0	0.0	0.0	0.0	2055.2	1577.4	538.3	255.0	452.1	73.7	6.8	0.0
31	0.0	0.0	0.0	0.0	1751.5	1577.4	513.7	249.3	452.1	69.5	6.8	0.0
Aggr	0.0	0.0	0.0	0.0	753.3	2013.5	877.4	353.1	281.8	189.9	30.7	0.7
Min	0.0	0.0	0.0	0.0	0.0	1179.0	499.6	242.7	133.9	67.5	6.3	0.0
Max	0.0	0.0	0.0	0.0	2369.4	3375.2	1546.2	499.6	531.1	531.1	67.5	6.3
Total	0.0	0.0	0.0	0.0	46316.9	119813.9	53947.6	21710.5	16767.8	11673.5	1828.0	40.5

Date Processed: February 14, 2018 17:04
Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Fish Creek

Units: ft³/s
Filter: None

Year: 2015	Aggr:	327.3	Min:	0.0	Max:	4834.5	Total (Acre-ft):	236977.9				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	UN	0.0	UN	0.0	UN	735.5	UN	212.4	UN	34.7	UN
2	0.0	UN	0.0	UN	0.0	UN	692.8	UN	207.2	UN	33.4	UN
3	0.0	UN	0.0	UN	0.0	UN	644.1	UN	202.6	UN	32.1	UN
4	0.0	UN	0.0	UN	0.0	UN	613.9	UN	199.0	UN	30.9	UN
5	0.0	UN	0.0	UN	0.0	UN	592.7	UN	184.4	UN	29.7	UN
6	0.0	UN	0.0	UN	0.0	UN	565.2	UN	179.5	UN	28.5	UN
7	0.0	UN	0.0	UN	0.0	UN	550.8	UN	177.4	UN	27.4	UN
8	0.0	UN	0.0	UN	0.0	UN	512.1	UN	170.8	UN	26.2	UN
9	0.0	UN	0.0	UN	0.0	UN	483.1	UN	170.8	UN	25.1	UN
10	0.0	UN	0.0	UN	0.0	UN	468.9	UN	178.6	UN	24.0	UN
11	0.0	UN	0.0	UN	0.0	UN	445.1	UN	183.6	UN	23.0	UN
12	0.0	UN	0.0	UN	0.0	UN	422.4	UN	176.0	UN	21.9	UN
13	0.0	UN	0.0	UN	0.0	UN	405.3	UN	190.0	UN	20.9	UN
14	0.0	UN	0.0	UN	0.0	UN	385.7	UN	191.7	UN	19.9	UN
15	0.0	UN	0.0	UN	0.0	UN	375.7	UN	197.1	UN	19.0	UN
16	0.0	UN	0.0	UN	0.0	UN	364.7	UN	193.8	UN	18.0	UN
17	0.0	UN	0.0	UN	0.0	UN	345.1	UN	184.2	UN	17.1	UN
18	0.0	UN	0.0	UN	0.0	UN	339.0	UN	176.2	UN	16.2	UN
19	0.0	UN	0.0	UN	0.0	UN	324.6	UN	158.1	UN	15.4	UN
20	0.0	UN	0.0	UN	0.0	UN	314.6	UN	141.8	UN	14.6	UN
21	0.0	UN	0.0	UN	0.0	UN	310.5	UN	157.9	UN	13.7	UN
22	0.0	UN	0.0	UN	0.0	UN	311.2	UN	142.3	UN	12.9	UN
23	0.0	UN	0.0	UN	0.0	UN	289.6	UN	137.2	UN	12.1	UN
24	0.0	UN	0.0	UN	0.0	UN	280.1	UN	132.1	UN	11.4	UN
25	0.0	UN	0.0	UN	0.0	UN	270.8	UN	127.0	UN	10.6	UN
26	0.0	UN	0.0	UN	0.0	UN	259.6	UN	122.1	UN	9.8	UN
27	0.0	UN	0.0	UN	0.0	UN	248.4	UN	117.5	UN	9.0	UN
28	0.0	UN	0.0	UN	0.0	UN	238.6	UN	113.0	UN	8.2	UN
29	0.0	UN	0.0	UN	0.0	UN	231.5	UN	108.7	UN	7.3	UN
30	0.0	UN	0.0	UN	0.0	UN	224.3	UN	104.6	UN	6.5	UN
31	0.0	UN	0.0	UN	0.0	UN	214.9	UN	36.0	UN	0.0	UN
Aggr	0.0	0.0	0.0	0.0	1424.4	1637.0	402.0	202.5	164.6	62.4	19.3	0.6
Min	0.0	0.0	0.0	0.0	0.0	737.4	203.8	177.7	102.1	35.3	6.1	0.0
Max	0.0	0.0	0.0	0.0	4834.5	3316.0	771.3	228.6	214.7	102.6	35.3	6.1
Total	0.0	0.0	0.0	0.0	87583.3	97410.4	24715.8	12453.8	9793.1	3833.9	1149.9	37.7

Date Processed: February 14, 2018 17:04

Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Daily Mean by Year

Identifier: Fish Creek

Units: ft³/s
Filter: None

Year: 2016	Aggr:	244.7	Min:	0.0	Max:	2043.5	Total (Acre-ft):	177631.3				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.0	1950.7	632.1	186.4	522.5	721.3	98.9	7.5
2	0.0	0.0	0.0	0.0	0.0	1891.9	617.2	186.6	503.4	697.4	93.8	6.7
3	0.0	0.0	0.0	0.0	0.0	1811.8	592.2	184.3	485.7	679.3	89.0	6.0
4	0.0	0.0	0.0	0.0	0.0	1672.2	553.6	182.8	477.4	624.2	84.4	5.2
5	0.0	0.0	0.0	0.0	0.0	1535.4	528.0	179.3	463.7	636.7	80.0	4.5
6	0.0	0.0	0.0	0.0	0.0	1450.3	523.6	168.5	448.2	655.7	75.7	3.8
7	0.0	0.0	0.0	0.0	0.0	1369.4	493.7	164.0	449.6	637.9	71.6	2.9
8	0.0	0.0	0.0	0.0	0.0	1278.6	479.3	147.9	460.9	588.2	67.7	1.9
9	0.0	0.0	0.0	0.0	0.0	1177.7	467.0	136.8	473.7	557.0	63.8	0.7
10	0.0	0.0	0.0	0.0	0.0	1169.6	456.4	130.2	481.9	542.2	59.9	0.0
11	0.0	0.0	0.0	0.0	0.0	1069.6	449.3	133.7	490.8	450.3	56.2	0.0
12	0.0	0.0	0.0	0.0	2.5	999.9	432.0	135.4	508.1	383.7	52.6	0.0
13	0.0	0.0	0.0	0.0	16.4	962.6	413.3	133.4	488.4	344.5	49.0	0.0
14	0.0	0.0	0.0	0.0	41.6	937.1	380.3	133.3	485.6	319.8	45.5	0.0
15	0.0	0.0	0.0	0.0	111.8	911.3	352.5	132.4	480.7	296.9	42.1	0.0
16	0.0	0.0	0.0	0.0	147.5	875.0	341.9	126.1	449.0	275.7	38.8	0.0
17	0.0	0.0	0.0	0.0	142.1	840.3	316.9	123.1	424.5	256.0	35.6	0.0
18	0.0	0.0	0.0	0.0	157.4	832.6	297.6	122.2	420.0	237.9	32.5	0.0
19	0.0	0.0	0.0	0.0	283.2	815.4	290.5	134.1	414.4	221.3	29.5	0.0
20	0.0	0.0	0.0	0.0	197.6	811.5	283.4	164.7	415.7	206.0	26.7	0.0
21	0.0	0.0	0.0	0.0	142.5	838.5	266.6	208.7	412.7	192.1	24.1	0.0
22	0.0	0.0	0.0	0.0	152.4	843.9	253.1	237.6	411.0	179.3	21.6	0.0
23	0.0	0.0	0.0	0.0	276.6	838.8	239.9	285.7	449.1	167.7	19.3	0.0
24	0.0	0.0	0.0	0.0	344.6	823.3	223.3	329.6	532.1	157.1	17.2	0.0
25	0.0	0.0	0.0	0.0	471.6	786.8	209.4	386.8	655.8	147.5	15.3	0.0
26	0.0	0.0	0.0	0.0	737.6	751.8	205.6	455.6	774.8	138.7	13.6	0.0
27	0.0	0.0	0.0	0.0	1424.8	727.2	204.4	518.8	787.9	130.6	12.0	0.0
28	0.0	0.0	0.0	0.0	1229.5	697.4	198.7	551.9	755.0	123.2	10.7	0.0
29	0.0	0.0	0.0	0.0	899.2	671.4	190.6	554.0	683.4	116.4	9.5	0.0
30	0.0	0.0	0.0	0.0	1282.5	671.4	184.8	539.2	723.6	110.1	8.4	0.0
31	0.0	0.0	0.0	0.0	2004.2	1085.0	371.8	527.8	517.6	104.3	0.0	0.0
Aggr	0.0	0.0	0.0	0.0	324.7	1085.0	371.8	245.2	517.6	351.6	44.8	1.3
Min	0.0	0.0	0.0	0.0	0.0	652.0	180.7	118.7	405.2	101.6	8.0	0.0
Max	0.0	0.0	0.0	0.0	2043.5	1988.8	652.0	561.6	815.4	753.5	101.6	8.0
Total	0.0	0.0	0.0	0.0	19965.1	64561.7	22863.4	15075.2	30802.1	21618.1	2667.9	77.8

Date Processed: February 14, 2018 17:04 Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Daily Mean by Year

Identifier: Fish Creek

Units: ft³/s
Filter: None

Year: 2017	Aggr:	390.1	Min:	0.0	Max:	2736.1	Total (Acre-ft):	282399.7				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.0	1205.7	754.8	358.6	795.7	525.6	559.9	63.5
2	0.0	0.0	0.0	0.0	0.0	1466.8	718.4	360.5	798.7	650.0	515.7	56.1
3	0.0	0.0	0.0	0.0	0.0	1362.5	692.3	361.2	789.2	804.1	475.8	47.9
4	0.0	0.0	0.0	0.0	0.0	1814.9	657.0	360.2	785.4	812.1	443.5	42.9
5	0.0	0.0	0.0	0.0	0.0	2029.2	626.4	363.8	758.4	804.0	417.9	39.6
6	0.0	0.0	0.0	0.0	0.0	2530.0	612.0	369.0	755.2	790.6	396.6	36.5
7	0.0	0.0	0.0	0.0	0.0	2707.9	584.8	374.0	778.9	767.4	378.6	31.7
8	0.0	0.0	0.0	0.0	0.0	2630.1	563.4	386.6	877.9	729.0	364.0	24.4
9	0.0	0.0	0.0	0.0	0.0	2543.0	547.6	411.3	932.4	729.0	353.1	19.5
10	0.0	0.0	0.0	0.0	0.0	2384.0	512.4	431.2	971.6	720.6	339.5	15.4
11	0.0	0.0	0.0	0.0	0.0	2144.0	497.2	447.7	983.4	722.6	325.3	12.7
12	0.0	0.0	0.0	0.0	0.0	1981.3	487.1	467.7	993.1	735.5	309.6	10.6
13	0.0	0.0	0.0	0.0	0.0	1821.1	474.7	492.3	988.9	750.5	293.0	8.1
14	0.0	0.0	0.0	0.0	0.0	1695.2	473.6	544.6	973.9	768.3	278.8	5.5
15	0.0	0.0	0.0	0.0	0.0	1591.6	461.1	632.9	946.1	794.7	258.2	3.3
16	0.0	0.0	0.0	0.0	0.0	1502.0	436.6	720.2	922.0	832.0	230.9	1.3
17	0.0	0.0	0.0	0.0	0.0	1433.8	412.6	780.3	896.6	861.6	214.7	0.0
18	0.0	0.0	0.0	0.0	0.0	1361.7	404.5	806.8	870.6	895.5	199.1	0.0
19	0.0	0.0	0.0	0.0	0.0	1306.3	398.2	836.6	863.6	926.4	181.5	0.0
20	0.0	0.0	0.0	0.0	0.0	1236.0	388.2	823.9	864.8	954.0	166.4	0.0
21	0.0	0.0	0.0	0.0	0.0	1190.4	376.6	807.3	865.6	989.6	153.4	0.0
22	0.0	0.0	0.0	0.0	0.0	1149.2	369.6	800.5	845.1	1010.5	144.9	0.0
23	0.0	0.0	0.0	0.0	0.0	1093.5	383.0	798.7	845.5	1011.4	137.3	0.0
24	0.0	0.0	0.0	0.0	0.0	1041.0	399.6	799.7	830.0	980.8	129.7	0.0
25	0.0	0.0	0.0	0.0	0.0	996.3	415.8	810.1	807.3	935.3	125.6	0.0
26	0.0	0.0	0.0	0.0	0.0	965.4	416.7	812.9	786.1	875.6	115.0	0.0
27	0.0	0.0	0.0	0.0	47.5	926.4	412.2	806.7	767.3	821.2	103.1	0.0
28	0.0	0.0	0.0	0.0	408.1	894.3	422.1	809.7	717.2	772.1	91.0	0.0
29	0.0	0.0	0.0	0.0	502.1	840.0	413.5	800.9	695.3	714.0	80.9	0.0
30	0.0	0.0	0.0	0.0	719.4	810.6	388.6	812.0	681.4	660.8	72.9	0.0
31	0.0	0.0	0.0	0.0	1157.1	810.6	364.3	799.3	610.2	610.2	0.0	0.0
Aggr	0.0	0.0	0.0	0.0	91.4	1555.1	486.0	618.9	846.2	805.6	261.9	13.5
Min	0.0	0.0	0.0	0.0	0.0	780.3	353.7	346.7	586.3	499.4	68.0	0.0
Max	0.0	0.0	0.0	0.0	1397.3	2736.1	794.2	852.4	1009.1	1012.9	585.8	68.0
Total	0.0	0.0	0.0	0.0	5621.6	92537.4	29881.1	38057.4	50354.9	49534.2	15581.9	831.3

Date Processed: February 14, 2018 17:04 Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Summary of Daily Mean Flows

Ikpikpuk River, Alaska

Daily Mean by Year

Identifier: Ikpikpuk River

Units: ft³/s
Filter: None

Year: 2002	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Max:	10239.3	Oct	Nov	Total (Acre-ft):	*
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Max:	10239.3	Oct	Nov	Total (Acre-ft):	*
1	* UN	* UN	* UN	* UN	* UN	* UN	2311.5 G	97.8 G	1123.5 G	1123.5 G	752.0 EF	24.4 EF	24.4 EF	0.0 EF
2	* UN	* UN	* UN	* UN	* UN	* UN	1839.1 G	88.8 G	1336.3 G	1336.3 G	877.9 EF	21.2 EF	21.2 EF	0.0 EF
3	* UN	* UN	* UN	* UN	* UN	* UN	6292.3 G	80.9 G	1355.4 G	1355.4 G	1010.9 EF	18.2 EF	18.2 EF	0.0 EF
4	* UN	* UN	* UN	* UN	* UN	* UN	8192.4 G	79.8 G	1231.7 G	1231.7 G	1097.9 EF	15.7 EF	15.7 EF	0.0 EF
5	* UN	* UN	* UN	* UN	* UN	* UN	4441.8 G	82.7 G	1073.2 G	1073.2 G	1144.8 EF	13.6 EF	13.6 EF	0.0 EF
6	* UN	* UN	* UN	* UN	* UN	* UN	2622.6 G	76.8 G	840.3 G	840.3 G	1120.8 EF	11.7 EF	11.7 EF	0.0 EF
7	* UN	* UN	* UN	* UN	* UN	* UN	1751.1 G	66.3 G	686.1 G	686.1 G	1038.2 EF	9.7 EF	9.7 EF	0.0 EF
8	* UN	* UN	* UN	* UN	* UN	* UN	1285.0 G	63.6 G	712.5 G	712.5 G	908.5 EF	8.0 EF	8.0 EF	0.0 EF
9	* UN	* UN	* UN	* UN	* UN	* UN	1030.6 G	63.0 G	1007.3 G	1007.3 G	810.0 EF	6.7 EF	6.7 EF	0.0 EF
10	* UN	* UN	* UN	* UN	* UN	* UN	870.7 G	65.4 G	1362.3 G	1362.3 G	706.9 EF	5.7 EF	5.7 EF	0.0 EF
11	* UN	* UN	* UN	* UN	* UN	* UN	859.4 G	68.4 G	1531.8 EF	1531.8 EF	610.0 EF	4.6 EF	4.6 EF	0.0 EF
12	* UN	* UN	* UN	* UN	* UN	* UN	950.5 G	69.9 G	1513.4 EF	1513.4 EF	518.6 EF	3.5 EF	3.5 EF	0.0 EF
13	* UN	* UN	* UN	* UN	* UN	* UN	762.4 G	72.3 G	1411.3 EF	1411.3 EF	450.8 EF	2.5 EF	2.5 EF	0.0 EF
14	* UN	* UN	* UN	* UN	* UN	1072.7 G	630.2 G	80.3 G	1280.6 EF	1280.6 EF	407.1 EF	1.7 EF	1.7 EF	0.0 EF
15	* UN	* UN	* UN	* UN	* UN	1063.5 G	542.4 G	94.8 G	1165.6 EF	1165.6 EF	367.0 EF	1.1 EF	1.1 EF	0.0 EF
16	* UN	* UN	* UN	* UN	* UN	2271.1 G	537.6 G	116.5 G	1252.9 EF	1252.9 EF	326.5 EF	0.4 EF	0.4 EF	0.0 EF
17	* UN	* UN	* UN	* UN	* UN	2178.1 G	524.7 G	184.7 G	1589.3 EF	1589.3 EF	290.3 EF	0.1 EF	0.1 EF	0.0 EF
18	* UN	* UN	* UN	* UN	* UN	1532.4 G	429.7 G	1336.3 G	1730.2 EF	1730.2 EF	257.0 EF	0.0 EF	0.0 EF	0.0 EF
19	* UN	* UN	* UN	* UN	* UN	1141.1 G	340.3 G	1860.4 G	1731.9 EF	1731.9 EF	231.4 EF	0.0 EF	0.0 EF	0.0 EF
20	* UN	* UN	* UN	* UN	* UN	903.6 G	281.5 G	1750.0 G	1678.1 EF	1678.1 EF	208.3 EF	0.0 EF	0.0 EF	0.0 EF
21	* UN	* UN	* UN	* UN	* UN	1497.1 G	238.4 G	1494.9 G	1562.7 EF	1562.7 EF	185.1 EF	0.0 EF	0.0 EF	0.0 EF
22	* UN	* UN	* UN	* UN	* UN	1799.3 G	210.2 G	1186.8 G	1353.4 EF	1353.4 EF	162.0 EF	0.0 EF	0.0 EF	0.0 EF
23	* UN	* UN	* UN	* UN	* UN	1473.0 G	177.6 G	941.2 G	1035.6 EF	1035.6 EF	143.8 EF	0.0 EF	0.0 EF	0.0 EF
24	* UN	* UN	* UN	* UN	* UN	3009.2 G	170.0 G	740.5 G	796.0 EF	796.0 EF	127.4 EF	0.0 EF	0.0 EF	0.0 EF
25	* UN	* UN	* UN	* UN	* UN	6027.5 G	193.2 G	604.0 G	722.7 EF	722.7 EF	110.1 EF	0.0 EF	0.0 EF	0.0 EF
26	* UN	* UN	* UN	* UN	* UN	3879.2 G	189.5 G	531.2 G	658.0 EF	658.0 EF	94.4 EF	0.0 EF	0.0 EF	0.0 EF
27	* UN	* UN	* UN	* UN	* UN	2210.7 G	181.7 G	447.1 G	610.5 EF	610.5 EF	78.6 EF	0.0 EF	0.0 EF	0.0 EF
28	* UN	* UN	* UN	* UN	* UN	1483.0 G	166.3 G	387.2 G	585.0 EF	585.0 EF	61.7 EF	0.0 EF	0.0 EF	0.0 EF
29	* UN	* UN	* UN	* UN	* UN	1546.0 G	144.6 G	362.6 G	593.8 EF	593.8 EF	51.9 EF	0.0 EF	0.0 EF	0.0 EF
30	* UN	* UN	* UN	* UN	* UN	2595.6 G	124.8 G	393.0 G	648.0 EF	648.0 EF	40.8 EF	0.0 EF	0.0 EF	0.0 EF
31	* UN	* UN	* UN	* UN	* UN	109.3 G	109.3 G	672.2 G			29.5 EF			0.0 EF
Aggr						2143.6	1238.8	456.8	1139.3	1139.3	458.7	5.0	5.0	0.0
Min						829.5	102.0	62.7	581.3	581.3	26.3	0.0	0.0	0.0
Max						6452.4	10239.3	1921.0	1739.0	1739.0	1146.5	26.3	26.3	0.0
Total						*	76168.0	28085.0	67793.6	67793.6	28204.8	295.2	295.2	0.0

Date Processed: March 3, 2018 04:41

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Ipkipuk River

Units: ft³/s
Filter: None

Year: 2003	Aggr:	795.6	Min:	0.0	Max:	25858.6	Total (Acre-ft):	576002.9				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2842.1 EF	305.4 G	724.5 G	971.5 G	174.7 EF	9.4 EF	0.0 EF
2	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	6065.4 EF	386.6 G	687.3 G	827.6 G	148.8 EF	7.8 EF	0.0 EF
3	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	9190.7 EF	348.9 G	701.8 G	852.7 G	135.5 EF	6.4 EF	0.0 EF
4	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	15136.1 EF	1685.1 G	725.6 G	1236.4 G	129.4 EF	5.1 EF	0.0 EF
5	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	22034.6 G	9756.1 G	670.9 G	3367.6 G	134.7 EF	3.9 EF	0.0 EF
6	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	25246.1 G	6060.1 G	622.0 G	3731.5 G	148.5 EF	2.9 EF	0.0 EF
7	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	23905.8 G	3396.6 G	672.0 G	3027.2 G	157.8 EF	2.1 EF	0.0 EF
8	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	20793.6 G	2731.8 G	763.1 G	2590.5 G	150.4 EF	1.4 EF	0.0 EF
9	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	14064.2 G	2086.0 G	669.2 G	2071.8 G	128.6 EF	0.9 EF	0.0 EF
10	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	9928.0 G	1547.2 G	535.3 G	2281.2 G	102.8 EF	0.6 EF	0.0 EF
11	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	6233.7 G	1119.7 G	426.6 G	2569.2 G	82.4 EF	0.3 EF	0.0 EF
12	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	3838.3 G	862.8 G	355.5 G	2247.2 G	69.5 EF	0.2 EF	0.0 EF
13	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2499.3 G	690.2 G	302.7 G	2093.7 G	61.5 EF	0.2 EF	0.0 EF
14	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1772.5 G	575.7 G	293.1 G	1691.2 G	55.7 EF	0.1 EF	0.0 EF
15	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1308.9 G	477.4 G	309.2 G	1294.3 G	50.7 EF	0.0 EF	0.0 EF
16	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	988.9 G	439.1 G	301.5 G	1063.5 G	46.2 EF	0.0 EF	0.0 EF
17	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	773.9 G	417.5 G	290.5 G	921.6 G	42.2 EF	0.0 EF	0.0 EF
18	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	623.0 G	470.2 G	308.9 G	1069.5 G	38.6 EF	0.0 EF	0.0 EF
19	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	519.2 G	835.6 G	369.0 G	1145.8 G	35.4 EF	0.0 EF	0.0 EF
20	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	427.9 G	748.8 G	1703.7 G	949.7 G	32.4 EF	0.0 EF	0.0 EF
21	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	359.0 G	537.9 G	2065.6 G	755.8 G	29.7 EF	0.0 EF	0.0 EF
22	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	305.3 G	381.6 G	1503.5 G	588.9 EF	27.1 EF	0.0 EF	0.0 EF
23	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	263.0 G	299.5 G	1092.3 G	476.3 EF	24.8 EF	0.0 EF	0.0 EF
24	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	232.0 G	260.9 G	940.1 G	418.8 EF	22.7 EF	0.0 EF	0.0 EF
25	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	211.5 G	243.9 G	1082.4 G	388.8 EF	20.7 EF	0.0 EF	0.0 EF
26	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	198.7 G	261.6 G	1822.3 G	363.6 EF	19.0 EF	0.0 EF	0.0 EF
27	0.0 EF	0.0 EF	0.0 EF	0.0 EF	91.6 EF	195.8 G	789.6 G	1843.4 G	341.0 EF	17.4 EF	0.0 EF	0.0 EF
28	0.0 EF	0.0 EF	0.0 EF	0.0 EF	289.9 EF	202.6 G	2679.9 G	1633.5 G	298.6 EF	16.0 EF	0.0 EF	0.0 EF
29	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1078.3 EF	214.5 G	1924.7 G	1537.4 G	276.0 EF	14.4 EF	0.0 EF	0.0 EF
30	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1834.8 EF	239.0 G	1232.5 G	1418.0 G	230.9 EF	12.7 EF	0.0 EF	0.0 EF
31	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2161.1 EF	880.3 G	1203.6 G	1203.6 G	11.0 EF	11.0 EF	0.0 EF	0.0 EF
Aggr	0.0	0.0	0.0	0.0	176.0	5687.1	1433.3	889.5	1338.1	69.1	1.4	0.0
Min	0.0	0.0	0.0	0.0	0.0	191.5	234.2	281.1	202.5	10.2	0.0	0.0
Max	0.0	0.0	0.0	0.0	2315.0	25858.6	10759.4	2320.9	4227.6	202.5	10.2	0.0
Total	0.0	0.0	0.0	0.0	10821.2	338407.1	88131.6	54692.7	79621.1	4247.0	82.1	0.0

Date Processed: March 3, 2018 04:41

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Ikpikpuk River

Units: ft³/s
Filter: None

Year: 2004	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):
	1	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	12819.7 G	571.9 G	205.8 G	1302.5 G	225.0 EF	30.8 EF	0.0 EF	747495.3
	2	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	11089.1 G	419.7 G	740.0 G	4961.3 G	220.0 EF	26.5 EF	0.0 EF	
	3	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	9591.1 G	320.9 G	1831.7 G	9886.2 G	215.0 EF	23.8 EF	0.0 EF	
	4	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	7054.6 G	257.5 G	1451.6 G	7336.2 G	209.4 EF	21.5 EF	0.0 EF	
	5	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	5273.1 G	225.2 G	1156.5 G	5296.0 G	200.6 EF	19.4 EF	0.0 EF	
	6	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	3905.5 G	216.1 G	1035.8 G	3945.5 G	195.0 EF	17.2 EF	0.0 EF	
	7	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2779.5 G	202.7 G	854.0 G	2882.2 G	190.0 EF	15.4 EF	0.0 EF	
	8	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2224.6 G	195.3 G	704.4 G	2144.3 G	185.0 EF	13.3 EF	0.0 EF	
	9	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1859.3 G	195.2 G	603.4 G	1643.6 G	180.0 EF	11.5 EF	0.0 EF	
	10	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1573.2 G	671.0 G	614.9 G	1355.1 G	175.0 EF	10.0 EF	0.0 EF	
	11	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1288.0 G	956.3 G	821.6 G	1246.2 G	169.4 EF	8.9 EF	0.0 EF	
	12	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1059.9 G	823.6 G	927.9 G	1302.0 G	160.0 EF	7.1 EF	0.0 EF	
	13	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	892.3 G	861.7 G	934.9 G	1661.0 G	150.0 EF	6.0 EF	0.0 EF	
	14	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	793.8 G	774.8 G	1997.2 G	1896.9 G	140.0 EF	5.0 EF	0.0 EF	
	15	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	740.5 G	579.8 G	8837.3 G	1715.3 G	130.0 EF	4.1 EF	0.0 EF	
	16	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	706.8 G	428.2 G	6787.9 G	1356.3 G	120.0 EF	3.5 EF	0.0 EF	
	17	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	695.3 G	332.5 G	4118.1 G	1074.9 G	110.0 EF	3.0 EF	0.0 EF	
	18	0.0 EF	0.0 EF	0.0 EF	0.0 EF	189.4 EF	666.8 G	278.4 G	2807.1 G	873.1 G	100.6 EF	2.5 EF	0.0 EF	
	19	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1460.3 EF	591.8 G	280.0 G	2128.6 G	704.5 G	94.4 EF	2.0 EF	0.0 EF	
	20	0.0 EF	0.0 EF	0.0 EF	0.0 EF	5550.1 EF	541.7 G	283.3 G	1768.5 G	566.1 G	85.6 EF	1.5 EF	0.0 EF	
	21	0.0 EF	0.0 EF	0.0 EF	0.0 EF	6163.0 EF	513.4 G	284.7 G	1558.0 G	485.5 G	80.0 EF	1.1 EF	0.0 EF	
	22	0.0 EF	0.0 EF	0.0 EF	0.0 EF	6417.3 EF	514.1 G	539.1 G	1481.5 G	435.3 G	75.0 EF	0.6 EF	0.0 EF	
	23	0.0 EF	0.0 EF	0.0 EF	0.0 EF	15428.7 EF	490.2 G	703.2 G	1452.3 G	375.2 EF	70.0 EF	0.1 EF	0.0 EF	
	24	0.0 EF	0.0 EF	0.0 EF	0.0 EF	26640.9 G	485.5 G	583.7 G	1381.7 G	354.3 EF	65.0 EF	0.0 EF	0.0 EF	
	25	0.0 EF	0.0 EF	0.0 EF	0.0 EF	25586.9 G	587.6 G	428.8 G	1300.4 G	319.6 EF	60.0 EF	0.0 EF	0.0 EF	
	26	0.0 EF	0.0 EF	0.0 EF	0.0 EF	24001.3 G	859.9 G	321.3 G	1255.6 G	282.5 EF	55.0 EF	0.0 EF	0.0 EF	
	27	0.0 EF	0.0 EF	0.0 EF	0.0 EF	17086.9 G	1513.6 G	251.4 G	1187.8 G	261.3 EF	50.0 EF	0.0 EF	0.0 EF	
	28	0.0 EF	0.0 EF	0.0 EF	0.0 EF	10937.0 G	1601.9 G	205.5 G	1075.8 G	250.0 EF	45.1 EF	0.0 EF	0.0 EF	
	29	0.0 EF	0.0 EF	0.0 EF	0.0 EF	10940.2 G	1148.8 G	172.5 G	954.7 G	240.0 EF	40.9 EF	0.0 EF	0.0 EF	
	30	0.0 EF	0.0 EF	0.0 EF	0.0 EF	12004.5 G	802.6 G	159.6 G	827.7 G	230.6 EF	37.7 EF	0.0 EF	0.0 EF	
	31	0.0 EF	0.0 EF	0.0 EF	0.0 EF	12973.6 G	172.3 G	172.3 G	832.7 G	34.4 EF	34.4 EF	0.0 EF	0.0 EF	
	Aggr	0.0	0.0	0.0	0.0	5657.4	2488.8	409.6	1730.2	1879.4	124.8	7.8	0.0	
	Min	0.0	0.0	0.0	0.0	0.0	477.7	154.2	165.0	227.5	32.9	0.0	0.0	
	Max	0.0	0.0	0.0	0.0	27593.2	13040.3	1042.6	9644.7	10552.8	227.5	32.9	0.0	
	Total	0.0	0.0	0.0	0.0	347861.4	148094.4	25182.4	106384.5	111834.9	7672.2	465.6	0.0	

Date Processed: March 3, 2018 04:41

Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Daily Mean by Year

Identifier: Ikipikuk River

Units: ft³/s
Filter: None

Year: 2005	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):
	1	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2371.6 EF	410.4 G	41.1 G	23.6 G	7.0 EF	0.0 EF	0.0 EF	573407.8
	2	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	7114.6 EF	376.4 G	35.3 G	29.5 G	7.0 EF	0.0 EF	0.0 EF	
	3	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	9705.4 EF	393.4 G	32.1 G	32.6 G	6.9 EF	0.0 EF	0.0 EF	
	4	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	11460.1 EF	419.5 G	28.6 G	31.6 G	6.1 EF	0.0 EF	0.0 EF	
	5	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	16369.0 EF	371.9 G	25.5 G	28.3 G	6.0 EF	0.0 EF	0.0 EF	
	6	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	21061.8 EF	331.3 G	23.0 G	25.5 G	6.0 EF	0.0 EF	0.0 EF	
	7	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	23092.4 EF	294.1 G	29.2 G	25.5 G	5.9 EF	0.0 EF	0.0 EF	
	8	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	22542.3 G	290.3 G	34.0 G	23.7 G	5.1 EF	0.0 EF	0.0 EF	
	9	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	20445.5 G	273.9 G	37.0 G	20.0 G	5.0 EF	0.0 EF	0.0 EF	
	10	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	19738.2 G	327.0 G	31.0 G	19.3 G	4.9 EF	0.0 EF	0.0 EF	
	11	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	17246.1 G	425.9 G	28.3 G	17.1 G	4.1 EF	0.0 EF	0.0 EF	
	12	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	13355.6 G	2067.7 G	23.7 G	16.4 G	4.0 EF	0.0 EF	0.0 EF	
	13	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	13108.4 G	3947.3 G	20.9 G	17.3 G	3.9 EF	0.0 EF	0.0 EF	
	14	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	12118.3 G	2268.1 G	18.2 G	17.3 G	3.1 EF	0.0 EF	0.0 EF	
	15	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	11550.9 G	1357.7 G	16.3 G	16.1 G	3.0 EF	0.0 EF	0.0 EF	
	16	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	10496.0 G	896.6 G	14.1 G	16.2 G	2.9 EF	0.0 EF	0.0 EF	
	17	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	9167.5 G	667.1 G	12.7 G	16.6 G	2.1 EF	0.0 EF	0.0 EF	
	18	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	7746.0 G	506.3 G	10.9 G	17.6 G	2.0 EF	0.0 EF	0.0 EF	
	19	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	5407.3 G	392.7 G	10.9 G	17.6 G	1.9 EF	0.0 EF	0.0 EF	
	20	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	4085.5 G	306.0 G	10.4 G	18.8 G	1.1 EF	0.0 EF	0.0 EF	
	21	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2679.1 G	251.5 G	10.2 G	18.3 G	0.9 EF	0.0 EF	0.0 EF	
	22	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1803.4 G	209.1 G	9.5 G	16.8 G	0.1 EF	0.0 EF	0.0 EF	
	23	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1454.9 G	176.3 G	8.8 G	16.6 G	0.0 EF	0.0 EF	0.0 EF	
	24	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1250.7 G	148.9 G	10.0 G	15.8 G	0.0 EF	0.0 EF	0.0 EF	
	25	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	988.9 G	128.1 G	12.9 G	15.1 G	0.0 EF	0.0 EF	0.0 EF	
	26	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	797.9 G	111.3 G	18.0 G	13.8 EF	0.0 EF	0.0 EF	0.0 EF	
	27	0.0 EF	0.0 EF	0.0 EF	0.0 EF	3.2 EF	676.1 G	92.6 G	19.8 G	10.3 EF	0.0 EF	0.0 EF	0.0 EF	
	28	0.0 EF	0.0 EF	0.0 EF	0.0 EF	11.6 EF	585.0 G	75.4 G	20.6 G	8.2 EF	0.0 EF	0.0 EF	0.0 EF	
	29	0.0 EF	0.0 EF	0.0 EF	0.0 EF	36.2 EF	513.2 G	66.9 G	26.3 G	7.9 EF	0.0 EF	0.0 EF	0.0 EF	
	30	0.0 EF	0.0 EF	0.0 EF	0.0 EF	129.7 EF	456.1 G	54.9 G	27.2 G	7.1 EF	0.0 EF	0.0 EF	0.0 EF	
	31	0.0 EF	0.0 EF	0.0 EF	0.0 EF	517.8 EF	47.6 G	47.6 G	25.0 G	7.1 EF	0.0 EF	0.0 EF	0.0 EF	
	Aggr	0.0	0.0	0.0	0.0	22.5	8979.6	570.5	21.7	18.7	2.9	0.0	0.0	
	Min	0.0	0.0	0.0	0.0	0.0	439.1	43.1	8.2	7.0	0.0	0.0	0.0	
	Max	0.0	0.0	0.0	0.0	953.0	23652.2	4502.2	45.3	35.1	7.0	0.0	0.0	
	Total	0.0	0.0	0.0	0.0	1385.6	534322.7	35079.6	1331.7	1111.6	176.5	0.0	0.0	

Date Processed: March 3, 2018 04:41

Daily mean flows record grades: Bl - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Ikpikpuk River

Units: ft³/s
Filter: None

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):
Year: 2006	690.8												500141.1
Aggr:	0.0												23938.9
Min:	0.0												Max:
1	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	9800.9 G	220.1 G	558.4 G	660.6 G	371.0 G	2.5 EF	0.0 EF	371.0 G
2	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	7277.0 G	239.7 G	633.4 G	610.8 G	346.3 EF	1.9 EF	0.0 EF	346.3 EF
3	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	5949.0 G	348.7 G	1351.4 G	562.4 G	324.5 EF	1.4 EF	0.0 EF	324.5 EF
4	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	6008.5 G	762.8 G	1109.4 G	510.0 G	297.9 EF	0.8 EF	0.0 EF	297.9 EF
5	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	4384.3 G	1209.7 G	2172.3 G	461.5 G	261.2 EF	0.3 EF	0.0 EF	261.2 EF
6	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2597.4 G	898.7 G	2825.9 G	418.3 G	230.0 EF	0.0 EF	0.0 EF	230.0 EF
7	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2603.0 G	630.1 G	1903.6 G	376.1 G	201.2 EF	0.0 EF	0.0 EF	201.2 EF
8	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	3899.1 G	494.1 G	1610.8 G	342.9 G	180.0 EF	0.0 EF	0.0 EF	180.0 EF
9	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	5406.9 G	442.9 G	1683.9 G	322.1 G	160.0 EF	0.0 EF	0.0 EF	160.0 EF
10	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	6123.2 G	381.4 G	2363.9 G	299.4 G	143.8 EF	0.0 EF	0.0 EF	143.8 EF
11	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	5935.2 G	317.7 G	1809.0 G	279.9 G	153.8 EF	0.0 EF	0.0 EF	153.8 EF
12	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	6216.1 G	275.7 G	1411.4 G	270.0 G	187.5 EF	0.0 EF	0.0 EF	187.5 EF
13	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	5664.7 G	239.6 G	4411.3 G	261.0 G	203.8 EF	0.0 EF	0.0 EF	203.8 EF
14	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	3478.4 G	214.8 G	5637.6 G	252.3 G	181.2 EF	0.0 EF	0.0 EF	181.2 EF
15	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2587.9 G	202.9 G	5789.2 G	249.2 G	161.2 EF	0.0 EF	0.0 EF	161.2 EF
16	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	4020.4 G	192.2 G	4068.0 G	245.6 G	148.8 EF	0.0 EF	0.0 EF	148.8 EF
17	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	3392.7 G	205.8 G	2554.5 G	241.0 G	128.8 EF	0.0 EF	0.0 EF	128.8 EF
18	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2256.3 G	334.8 G	1908.4 G	237.1 G	100.0 EF	0.0 EF	0.0 EF	100.0 EF
19	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1645.7 G	287.3 G	1597.0 G	241.9 G	71.2 EF	0.0 EF	0.0 EF	71.2 EF
20	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.9 EF	1336.4 G	268.5 G	1363.6 G	252.9 G	50.6 EF	0.0 EF	0.0 EF	50.6 EF
21	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2.0 EF	1078.4 G	301.6 G	1310.7 G	285.4 G	35.6 EF	0.0 EF	0.0 EF	35.6 EF
22	0.0 EF	0.0 EF	0.0 EF	0.0 EF	3.0 EF	1060.8 G	320.7 G	2793.6 G	322.0 G	25.6 EF	0.0 EF	0.0 EF	25.6 EF
23	0.0 EF	0.0 EF	0.0 EF	0.0 EF	4.1 EF	1019.4 G	722.2 G	6400.7 G	375.5 G	20.0 EF	0.0 EF	0.0 EF	20.0 EF
24	0.0 EF	0.0 EF	0.0 EF	0.0 EF	6.2 EF	755.5 G	1737.3 G	4324.0 G	477.5 G	15.0 EF	0.0 EF	0.0 EF	15.0 EF
25	0.0 EF	0.0 EF	0.0 EF	0.0 EF	13.2 EF	591.6 G	1565.4 G	2752.0 G	567.3 G	10.4 EF	0.0 EF	0.0 EF	10.4 EF
26	0.0 EF	0.0 EF	0.0 EF	0.0 EF	56.2 EF	470.6 G	1541.8 G	2096.4 G	628.3 G	8.1 EF	0.0 EF	0.0 EF	8.1 EF
27	0.0 EF	0.0 EF	0.0 EF	0.0 EF	267.5 EF	381.1 G	1032.2 G	1647.4 G	609.2 G	7.0 EF	0.0 EF	0.0 EF	7.0 EF
28	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1200.0 EF	323.9 G	1220.3 G	1318.8 G	545.5 G	6.0 EF	0.0 EF	0.0 EF	6.0 EF
29	0.0 EF	0.0 EF	0.0 EF	0.0 EF	8177.4 EF	275.7 G	1286.9 G	1066.4 G	482.1 G	5.0 EF	0.0 EF	0.0 EF	5.0 EF
30	0.0 EF	0.0 EF	0.0 EF	0.0 EF	23070.9 EF	232.6 G	808.3 G	894.1 G	422.3 G	4.0 EF	0.0 EF	0.0 EF	4.0 EF
31	0.0 EF	0.0 EF	0.0 EF	0.0 EF	15349.3 G	546.3 G	753.7 G	753.7 G	3.1 EF	3.1 EF	0.0 EF	0.0 EF	3.1 EF
Aggr	0.0	0.0	0.0	0.0	1553.3	3225.8	621.0	2326.5	393.7	130.4	0.2	0.0	130.4
Min	0.0	0.0	0.0	0.0	0.0	214.7	179.5	453.8	233.5	2.7	0.0	0.0	2.7
Max	0.0	0.0	0.0	0.0	23938.9	11518.6	1847.9	6832.5	702.5	394.0	2.7	0.0	394.0
Total	0.0	0.0	0.0	0.0	95505.9	191946.1	38182.3	143049.8	23425.1	8018.5	13.6	0.0	8018.5

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence
F - Fair Data
G - Good Data
P - Poor Data
UN - Unspecified

Date Processed: March 3, 2018 04:41



Daily Mean by Year

Identifier: Ikipikuk River

Units: ft³/s
Filter: None

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):
Year: 2007	391.2												283249.5
Aggr:	0.0												27069.9
Min:	0.0												Max:
1	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	256.6 EF	1193.2 G	3.1 G	1.5 G	0.8 EF	0.0 EF	0.0 EF	0.0 EF
2	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1140.4 EF	814.0 G	3.0 G	1.6 G	0.7 EF	0.0 EF	0.0 EF	0.0 EF
3	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	11628.5 EF	563.5 G	2.8 G	1.9 G	0.6 EF	0.0 EF	0.0 EF	0.0 EF
4	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	22934.6 G	422.9 G	2.7 G	2.2 G	0.5 EF	0.0 EF	0.0 EF	0.0 EF
5	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	26498.9 G	333.8 G	2.6 G	2.4 G	0.4 EF	0.0 EF	0.0 EF	0.0 EF
6	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	22303.9 G	268.1 G	3.0 G	2.3 G	0.3 EF	0.0 EF	0.0 EF	0.0 EF
7	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	12924.3 G	214.8 G	7.3 G	2.1 G	0.2 EF	0.0 EF	0.0 EF	0.0 EF
8	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	10652.1 G	167.3 G	8.1 G	1.8 G	0.1 EF	0.0 EF	0.0 EF	0.0 EF
9	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	6309.1 G	131.9 G	6.4 G	2.0 G	0.0 EF	0.0 EF	0.0 EF	0.0 EF
10	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	4274.3 G	107.5 G	6.2 G	2.3 G	0.0 EF	0.0 EF	0.0 EF	0.0 EF
11	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	3228.0 G	88.1 G	7.6 G	2.5 G	0.0 EF	0.0 EF	0.0 EF	0.0 EF
12	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2315.7 G	71.7 G	8.1 G	2.1 G	0.0 EF	0.0 EF	0.0 EF	0.0 EF
13	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1535.2 G	59.0 G	9.0 G	1.9 G	0.0 EF	0.0 EF	0.0 EF	0.0 EF
14	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1060.9 G	46.1 G	9.2 G	1.7 G	0.0 EF	0.0 EF	0.0 EF	0.0 EF
15	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	795.0 G	37.8 G	9.8 G	1.8 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF
16	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	597.0 G	33.5 G	9.4 G	1.7 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF
17	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	478.4 G	29.3 G	7.7 G	1.7 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF
18	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	400.7 G	24.0 G	6.0 G	1.6 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF
19	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	361.5 G	18.4 G	4.1 G	1.6 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF
20	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	381.6 G	16.1 G	3.5 G	1.5 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF
21	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.1 EF	1127.9 G	13.0 G	3.7 G	1.5 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF
22	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.5 EF	877.9 G	10.9 G	3.5 G	1.4 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF
23	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1.0 EF	610.9 G	9.5 G	3.1 G	1.4 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF
24	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1.5 EF	452.7 G	8.0 G	3.0 G	1.3 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF
25	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2.0 EF	377.2 G	7.5 G	3.2 G	1.3 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF
26	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2.6 EF	410.4 G	7.8 G	2.8 G	1.2 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF
27	0.0 EF	0.0 EF	0.0 EF	0.0 EF	3.6 EF	649.9 G	7.2 G	2.4 G	1.2 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF
28	0.0 EF	0.0 EF	0.0 EF	0.0 EF	6.1 EF	818.2 G	5.8 G	2.2 G	1.1 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF
29	0.0 EF	0.0 EF	0.0 EF	0.0 EF	16.9 EF	1018.5 G	4.8 G	2.0 G	1.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF
30	0.0 EF	0.0 EF	0.0 EF	0.0 EF	44.4 EF	1274.2 G	4.1 G	1.9 G	0.9 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF
31	0.0 EF	0.0 EF	0.0 EF	0.0 EF	105.6 EF		3.4 G	1.8 G	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF
Aggr	0.0	0.0	0.0	0.0	5.9	4589.8	152.4	4.8	1.7	0.1	0.0	0.0	0.0
Min	0.0	0.0	0.0	0.0	0.0	152.5	3.1	1.6	0.8	0.0	0.0	0.0	0.0
Max	0.0	0.0	0.0	0.0	152.5	27069.9	1346.5	10.4	2.7	0.8	0.0	0.0	0.0
Total	0.0	0.0	0.0	0.0	365.2	273112.7	9367.9	296.0	100.4	7.1	0.0	0.0	0.0

Date Processed: March 3, 2018 04:41

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Ikpikpuk River

Units: ft³/s
Filter: None

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):
Year: 2008	624.2												453151.1
Aggr:	0.0												21558.1
Min:	0.0												Max:
1	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	10567.6 G	1785.6 G	1793.6 G	168.9 G	44.2 EF	2.5 EF	0.0 EF	44.2 EF
2	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	8439.7 G	1190.5 G	1865.6 G	162.1 G	39.1 EF	2.0 EF	0.0 EF	39.1 EF
3	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	7362.8 G	890.5 G	2195.6 G	156.0 G	34.1 EF	1.5 EF	0.0 EF	34.1 EF
4	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	7791.8 G	861.3 G	240.8 G	149.1 G	30.1 EF	1.0 EF	0.0 EF	30.1 EF
5	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	8211.1 G	861.3 G	262.0 G	143.8 G	34.6 EF	0.4 EF	0.0 EF	34.6 EF
6	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	7033.7 G	562.3 G	340.2 G	137.7 G	38.9 EF	0.0 EF	0.0 EF	38.9 EF
7	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	4179.3 G	403.9 G	559.1 G	130.4 G	39.9 EF	0.0 EF	0.0 EF	39.9 EF
8	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2606.3 G	320.9 G	1644.0 G	126.8 G	38.2 EF	0.0 EF	0.0 EF	38.2 EF
9	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2877.0 G	242.9 G	1839.6 G	124.6 G	34.6 EF	0.0 EF	0.0 EF	34.6 EF
10	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	6771.1 G	197.0 G	1353.8 G	122.8 G	31.0 EF	0.0 EF	0.0 EF	31.0 EF
11	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	7796.4 G	162.6 G	1007.5 G	119.4 G	27.9 EF	0.0 EF	0.0 EF	27.9 EF
12	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	4622.8 G	152.6 G	783.0 G	115.4 G	25.9 EF	0.0 EF	0.0 EF	25.9 EF
13	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2842.2 G	409.7 G	644.2 G	110.2 G	24.0 EF	0.0 EF	0.0 EF	24.0 EF
14	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1911.3 G	1416.6 G	582.1 G	103.3 G	22.0 EF	0.0 EF	0.0 EF	22.0 EF
15	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1375.1 G	1011.6 G	597.3 G	105.4 G	20.0 EF	0.0 EF	0.0 EF	20.0 EF
16	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	999.3 G	1232.0 G	745.5 G	101.4 G	18.0 EF	0.0 EF	0.0 EF	18.0 EF
17	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	762.9 G	914.5 G	848.4 G	107.0 G	16.0 EF	0.0 EF	0.0 EF	16.0 EF
18	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	645.9 G	567.1 G	793.8 G	106.7 G	14.1 EF	0.0 EF	0.0 EF	14.1 EF
19	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.4 EF	779.0 G	499.6 G	693.4 G	103.0 G	13.0 EF	0.0 EF	0.0 EF	13.0 EF
20	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1.1 EF	3024.1 G	630.1 G	590.1 G	96.1 G	12.0 EF	0.0 EF	0.0 EF	12.0 EF
21	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2.0 EF	2590.5 G	573.0 G	515.5 G	89.5 G	11.0 EF	0.0 EF	0.0 EF	11.0 EF
22	0.0 EF	0.0 EF	0.0 EF	0.0 EF	3.1 EF	1759.5 G	471.1 G	459.2 G	82.1 G	10.0 EF	0.0 EF	0.0 EF	10.0 EF
23	0.0 EF	0.0 EF	0.0 EF	0.0 EF	5.1 EF	1669.8 G	407.6 G	405.7 G	77.6 G	9.0 EF	0.0 EF	0.0 EF	9.0 EF
24	0.0 EF	0.0 EF	0.0 EF	0.0 EF	16.6 EF	1410.5 G	512.0 G	363.5 G	75.1 G	8.0 EF	0.0 EF	0.0 EF	8.0 EF
25	0.0 EF	0.0 EF	0.0 EF	0.0 EF	123.5 EF	1092.6 G	707.1 G	320.0 G	74.8 EF	7.0 EF	0.0 EF	0.0 EF	7.0 EF
26	0.0 EF	0.0 EF	0.0 EF	0.0 EF	760.0 EF	1674.5 G	597.1 G	286.5 G	69.9 EF	6.0 EF	0.0 EF	0.0 EF	6.0 EF
27	0.0 EF	0.0 EF	0.0 EF	0.0 EF	6141.7 EF	1727.6 G	468.9 G	257.5 G	65.9 EF	5.1 EF	0.0 EF	0.0 EF	5.1 EF
28	0.0 EF	0.0 EF	0.0 EF	0.0 EF	19317.0 EF	1878.0 G	369.9 G	233.6 G	60.5 EF	4.5 EF	0.0 EF	0.0 EF	4.5 EF
29	0.0 EF	0.0 EF	0.0 EF	0.0 EF	20724.8 G	3337.1 G	304.8 G	209.1 G	54.0 EF	4.0 EF	0.0 EF	0.0 EF	4.0 EF
30	0.0 EF	0.0 EF	0.0 EF	0.0 EF	16653.1 G	2820.1 G	254.6 G	191.0 G	48.5 EF	3.5 EF	0.0 EF	0.0 EF	3.5 EF
31	0.0 EF	0.0 EF	0.0 EF	0.0 EF	13607.1 G	214.4 G	179.3 G	179.3 G	3.0 EF	3.0 EF	0.0 EF	0.0 EF	3.0 EF
Aggr	0.0	0.0	0.0	0.0	2495.3	3685.3	619.1	565.5	106.3	20.3	0.2	0.0	20.3
Min	0.0	0.0	0.0	0.0	0.0	616.4	138.6	172.0	46.3	2.8	0.0	0.0	2.8
Max	0.0	0.0	0.0	0.0	21558.1	12043.1	2210.9	2009.8	176.5	46.3	2.8	0.0	46.3
Total	0.0	0.0	0.0	0.0	153432.8	219291.6	38069.4	34772.6	6323.4	1246.6	14.8	0.0	1246.6

Date Processed: March 3, 2018 04:41

Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Daily Mean by Year

Identifier: Ikpikpuk River

Units: ft³/s
Filter: None

Year: 2009	Aggr:	1010.9	Min:	0.0	Max:	25645.0	Total (Acre-ft):	731844.6				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.0	4972.0	169.8	52.4	4223.6	255.9	0.6	0.0
2	0.0	0.0	0.0	0.0	0.0	5626.9	149.8	47.2	5890.6	219.0	0.3	0.0
3	0.0	0.0	0.0	0.0	0.0	9591.0	125.9	40.0	4737.5	190.6	0.1	0.0
4	0.0	0.0	0.0	0.0	0.0	10204.8	112.8	36.6	3125.8	165.9	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	9599.3	104.0	39.5	2279.1	146.9	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	9882.6	95.0	49.4	1776.3	130.6	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	12150.8	84.2	52.5	1462.7	115.7	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	15817.7	76.4	60.5	1364.0	105.9	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	7832.4	92.6	70.9	1700.7	100.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	4503.8	110.7	63.7	1955.0	94.4	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	4415.0	118.2	62.0	1812.8	85.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	4853.3	634.3	69.1	1567.3	75.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	3341.4	850.3	120.2	1320.9	65.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	2356.0	630.8	220.9	1201.4	55.6	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	1789.5	452.2	283.8	1198.6	50.0	0.0	0.0
16	0.0	0.0	0.0	0.0	2.5	1575.5	348.9	265.1	1123.4	45.0	0.0	0.0
17	0.0	0.0	0.0	0.0	15.2	1905.3	391.1	337.8	1037.1	40.0	0.0	0.0
18	0.0	0.0	0.0	0.0	83.8	1681.8	530.9	775.7	922.9	34.4	0.0	0.0
19	0.0	0.0	0.0	0.0	357.5	1245.6	319.9	1471.9	823.9	25.6	0.0	0.0
20	0.0	0.0	0.0	0.0	1643.1	907.0	274.2	3481.2	834.6	20.0	0.0	0.0
21	0.0	0.0	0.0	0.0	8264.7	680.5	229.7	3721.4	1026.4	15.4	0.0	0.0
22	0.0	0.0	0.0	0.0	15404.7	526.1	174.6	2717.9	1058.2	13.0	0.0	0.0
23	0.0	0.0	0.0	0.0	22013.3	424.4	137.0	1875.0	927.1	11.0	0.0	0.0
24	0.0	0.0	0.0	0.0	25088.0	351.3	110.6	1382.0	800.0	9.1	0.0	0.0
25	0.0	0.0	0.0	0.0	20000.9	302.6	96.7	1139.4	700.0	7.9	0.0	0.0
26	0.0	0.0	0.0	0.0	21641.1	265.0	79.9	1667.9	600.0	6.1	0.0	0.0
27	0.0	0.0	0.0	0.0	22182.7	238.1	67.7	2260.1	502.3	5.0	0.0	0.0
28	0.0	0.0	0.0	0.0	11893.6	216.0	62.5	2009.9	421.4	4.0	0.0	0.0
29	0.0	0.0	0.0	0.0	6570.2	278.8	55.5	1692.1	360.2	3.0	0.0	0.0
30	0.0	0.0	0.0	0.0	5320.9	189.6	54.5	1490.4	301.7	2.0	0.0	0.0
31	0.0	0.0	0.0	0.0	5377.3	189.6	51.1	1885.0	301.7	1.2	0.0	0.0
Aggr	0.0	0.0	0.0	0.0	5350.3	3924.1	219.1	949.7	1568.5	67.7	0.0	0.0
Min	0.0	0.0	0.0	0.0	0.0	176.4	47.9	34.7	275.6	0.8	0.0	0.0
Max	0.0	0.0	0.0	0.0	25645.0	17865.1	993.1	4107.4	6120.5	275.6	0.8	0.0
Total	0.0	0.0	0.0	0.0	328977.8	233502.5	13470.9	58397.0	93332.9	4161.7	1.9	0.0

Date Processed: March 3, 2018 04:41

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Ikpikpuk River

Units: ft³/s
Filter: None

Year: 2010	Aggr:	632.0	Min:	0.0	Max:	26282.1	Total (Acre-ft):	457540.0				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	18646.5 EF	169.2 G	153.1 G	146.9 G	63.6 EF	2.1 EF	0.0 EF
2	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	14667.7 G	148.0 G	178.9 G	133.7 G	56.3 EF	2.0 EF	0.0 EF
3	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	9936.3 G	136.1 F	188.0 G	123.8 G	47.6 EF	1.9 EF	0.0 EF
4	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	11175.2 G	119.0 F	140.6 G	118.8 G	39.1 EF	1.8 EF	0.0 EF
5	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	14295.4 G	104.3 F	113.4 G	114.3 G	32.0 EF	1.7 EF	0.0 EF
6	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	20446.9 G	93.3 F	94.8 G	109.6 G	27.1 EF	1.6 EF	0.0 EF
7	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	25239.9 G	85.4 F	83.5 G	104.9 G	24.1 EF	1.5 EF	0.0 EF
8	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	23676.7 G	78.4 F	81.2 G	102.8 G	22.1 EF	1.4 EF	0.0 EF
9	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	14079.2 G	71.5 F	1971.3 G	99.5 G	20.6 EF	1.3 EF	0.0 EF
10	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	8645.1 G	62.6 G	4281.1 G	96.0 G	18.9 EF	1.2 EF	0.0 EF
11	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	7595.7 G	61.5 G	2456.8 G	94.4 G	16.9 EF	1.1 EF	0.0 EF
12	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	5692.7 G	58.4 G	1627.6 G	93.9 G	14.7 EF	1.0 EF	0.0 EF
13	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	3703.6 G	53.5 G	1340.0 G	92.1 G	12.6 EF	0.9 EF	0.0 EF
14	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2659.7 G	47.9 G	1202.4 G	94.5 G	10.9 EF	0.8 EF	0.0 EF
15	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2097.8 G	43.4 G	1141.5 G	96.8 G	9.3 EF	0.7 EF	0.0 EF
16	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1679.2 G	43.6 G	978.9 G	98.3 G	7.8 EF	0.6 EF	0.0 EF
17	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1278.7 F	49.1 G	738.1 G	97.3 G	6.7 EF	0.5 EF	0.0 EF
18	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	953.5 F	49.1 G	521.9 G	98.3 G	5.8 EF	0.3 EF	0.0 EF
19	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	885.2 F	54.7 G	388.4 G	99.3 G	5.2 EF	0.2 EF	0.0 EF
20	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	960.3 F	50.0 G	321.9 G	99.3 G	4.7 EF	0.1 EF	0.0 EF
21	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	999.7 F	49.1 G	289.0 G	107.6 G	4.2 EF	0.1 EF	0.0 EF
22	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	862.1 F	384.4 G	356.8 G	111.9 G	3.8 EF	0.0 EF	0.0 EF
23	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	668.7 F	502.1 G	532.9 G	112.3 G	3.5 EF	0.0 EF	0.0 EF
24	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	598.5 F	363.0 G	472.2 G	115.1 G	3.3 EF	0.0 EF	0.0 EF
25	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	514.8 F	571.4 G	382.1 G	113.6 EF	3.1 EF	0.0 EF	0.0 EF
26	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	423.4 F	886.4 G	319.9 G	84.7 EF	2.9 EF	0.0 EF	0.0 EF
27	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	356.9 G	631.2 G	273.1 G	62.1 EF	2.8 EF	0.0 EF	0.0 EF
28	0.0 EF	0.0 EF	0.0 EF	0.0 EF	15.4 EF	298.4 G	400.0 G	235.3 G	63.8 EF	2.6 EF	0.0 EF	0.0 EF
29	0.0 EF	0.0 EF	0.0 EF	0.0 EF	180.5 EF	243.8 G	302.7 G	205.5 G	68.5 EF	2.5 EF	0.0 EF	0.0 EF
30	0.0 EF	0.0 EF	0.0 EF	0.0 EF	966.1 EF	200.1 G	241.6 G	181.3 G	68.1 EF	2.4 EF	0.0 EF	0.0 EF
31	0.0 EF	0.0 EF	0.0 EF	0.0 EF	4992.0 EF	192.5 G	192.5 G	160.9 G	68.1 EF	2.3 EF	0.0 EF	0.0 EF
Aggr	0.0	0.0	0.0	0.0	198.5	6449.4	196.9	690.7	100.7	15.5	0.8	0.0
Min	0.0	0.0	0.0	0.0	0.0	184.0	41.5	75.7	60.3	2.2	0.0	0.0
Max	0.0	0.0	0.0	0.0	13103.8	26282.1	921.3	4919.7	153.6	66.4	2.2	0.0
Total	0.0	0.0	0.0	0.0	12206.5	383764.9	12106.0	42471.5	5994.5	950.7	46.0	0.0

Date Processed: March 3, 2018 04:41

Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Daily Mean by Year

Identifier: Ikipikuk River

Units: ft³/s
Filter: None

Year: 2011	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Max:	33131.7	Oct	Nov	Dec	Total (Acre-ft):
	1	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	22479.4 G	635.2 G	126.6 G	68.2 G	650.6 EF	20.1 EF	0.0 EF	0.0 EF	569504.0
	2	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	17787.1 G	558.1 G	131.4 G	68.0 G	531.2 EF	19.1 EF	0.0 EF	0.0 EF	
	3	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	9969.5 G	470.2 G	133.3 G	66.6 G	507.7 EF	17.5 EF	0.0 EF	0.0 EF	
	4	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	5564.8 G	394.1 G	267.6 G	67.6 G	499.4 EF	15.9 EF	0.0 EF	0.0 EF	
	5	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	4883.8 G	356.7 G	559.1 G	74.4 G	440.4 EF	14.2 EF	0.0 EF	0.0 EF	
	6	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	5846.1 G	315.4 G	549.1 G	85.5 G	360.9 EF	12.6 EF	0.0 EF	0.0 EF	
	7	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	6617.0 G	284.6 G	485.4 G	112.0 G	293.7 EF	10.2 EF	0.0 EF	0.0 EF	
	8	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	6226.5 G	294.6 G	353.6 G	136.2 G	248.1 EF	8.7 EF	0.0 EF	0.0 EF	
	9	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	5137.2 G	333.8 G	265.7 G	162.0 G	206.8 EF	7.8 EF	0.0 EF	0.0 EF	
	10	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	3348.4 G	299.1 G	212.7 G	244.1 G	166.8 EF	6.7 EF	0.0 EF	0.0 EF	
	11	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2123.3 G	243.0 G	176.5 G	372.6 G	135.3 EF	6.1 EF	0.0 EF	0.0 EF	
	12	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1802.1 G	205.7 G	152.4 G	1259.6 G	112.4 EF	5.9 EF	0.0 EF	0.0 EF	
	13	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1913.7 G	185.9 G	137.2 G	2404.9 G	95.7 EF	4.7 EF	0.0 EF	0.0 EF	
	14	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1789.8 G	176.9 G	118.5 G	2000.0 G	87.3 EF	3.7 EF	0.0 EF	0.0 EF	
	15	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1335.6 G	170.3 G	109.3 G	1442.3 G	81.9 EF	3.1 EF	0.0 EF	0.0 EF	
	16	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1437.5 G	318.0 G	101.4 G	1122.0 G	77.3 EF	2.3 EF	0.0 EF	0.0 EF	
	17	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2062.1 G	660.3 G	96.7 G	934.7 G	72.8 EF	1.8 EF	0.0 EF	0.0 EF	
	18	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2152.8 G	560.1 G	92.1 G	827.5 G	68.4 EF	1.3 EF	0.0 EF	0.0 EF	
	19	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1925.6 G	805.7 G	87.4 G	856.2 G	63.7 EF	1.0 EF	0.0 EF	0.0 EF	
	20	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2105.7 G	1061.1 G	86.6 G	1163.0 G	58.4 EF	0.5 EF	0.0 EF	0.0 EF	
	21	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1855.3 G	791.4 G	92.3 G	1748.7 G	53.5 EF	0.1 EF	0.0 EF	0.0 EF	
	22	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1499.4 G	508.4 G	98.0 G	2554.1 G	48.4 EF	0.0 EF	0.0 EF	0.0 EF	
	23	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1222.7 G	365.1 G	95.3 G	3954.9 G	45.3 EF	0.0 EF	0.0 EF	0.0 EF	
	24	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	970.4 G	285.3 G	93.0 G	3958.4 G	41.5 EF	0.0 EF	0.0 EF	0.0 EF	
	25	0.0 EF	0.0 EF	0.0 EF	0.0 EF	32.8 EF	868.8 G	239.7 G	88.0 G	2906.1 G	37.7 EF	0.0 EF	0.0 EF	0.0 EF	
	26	0.0 EF	0.0 EF	0.0 EF	0.0 EF	625.0 EF	765.1 G	218.7 G	82.6 G	2027.9 G	34.1 EF	0.0 EF	0.0 EF	0.0 EF	
	27	0.0 EF	0.0 EF	0.0 EF	0.0 EF	6006.2 EF	808.3 G	214.1 G	77.4 G	1448.8 G	31.5 EF	0.0 EF	0.0 EF	0.0 EF	
	28	0.0 EF	0.0 EF	0.0 EF	0.0 EF	17651.8 EF	835.1 G	199.6 G	75.0 G	1079.3 G	29.9 EF	0.0 EF	0.0 EF	0.0 EF	
	29	0.0 EF	0.0 EF	0.0 EF	0.0 EF	26940.5 G	723.7 G	181.6 G	70.6 G	869.0 G	27.1 EF	0.0 EF	0.0 EF	0.0 EF	
	30	0.0 EF	0.0 EF	0.0 EF	0.0 EF	32396.9 G	655.1 G	156.9 G	67.9 G	677.5 EF	24.2 EF	0.0 EF	0.0 EF	0.0 EF	
	31	0.0 EF	0.0 EF	0.0 EF	0.0 EF	29973.1 G	137.1 G	137.1 G	68.8 G	677.5 EF	21.7 EF	0.0 EF	0.0 EF	0.0 EF	
	Aggr	0.0	0.0	0.0	0.0	3665.4	3890.4	375.0	166.2	1156.4	166.2	5.4	0.0	0.0	
	Min	0.0	0.0	0.0	0.0	0.0	628.7	134.0	66.5	64.5	20.7	0.0	0.0	0.0	
	Max	0.0	0.0	0.0	0.0	33131.7	26169.0	1105.8	581.1	4310.8	662.6	20.7	0.0	0.0	
	Total	0.0	0.0	0.0	0.0	225374.6	231495.0	23060.9	10217.2	68810.5	10222.0	323.8	0.0	0.0	

Date Processed: March 3, 2018 04:41

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Ikpikpuk River

Units: ft³/s
Filter: None

Year: 2012	Aggr:	869.2	Min:	0.0	Max:	24420.6	Total (Acre-ft):	630989.7				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	19301.1 G	175.5 G	163.4 G	5277.6 G	991.3 G	66.8 EF	0.8 EF
2	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	23829.6 G	165.6 G	175.1 G	12933.7 G	741.0 G	62.2 EF	0.5 EF
3	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	20087.5 G	160.8 G	318.6 G	8151.1 G	591.6 G	58.0 EF	0.3 EF
4	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	11623.2 G	159.4 G	411.8 G	5688.6 G	485.6 G	54.1 EF	0.1 EF
5	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	10484.6 G	191.5 G	392.9 G	4947.4 G	514.4 G	50.4 EF	0.0 EF
6	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	10567.7 G	284.0 G	401.9 G	4220.9 G	485.1 G	47.1 EF	0.0 EF
7	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	6577.0 G	285.5 G	413.9 G	3311.9 G	536.4 G	43.9 EF	0.0 EF
8	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	4218.1 G	224.2 G	456.5 G	2659.4 G	638.2 EF	40.9 EF	0.0 EF
9	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2949.3 G	189.8 G	875.4 G	2203.8 G	723.4 EF	38.1 EF	0.0 EF
10	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2378.4 G	163.4 G	1246.8 G	1858.0 G	701.0 EF	35.5 EF	0.0 EF
11	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2037.4 G	138.5 G	923.4 G	1587.8 G	671.4 EF	32.9 EF	0.0 EF
12	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1927.3 G	120.3 G	619.9 G	1373.1 G	637.5 EF	30.5 EF	0.0 EF
13	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1752.7 G	107.3 G	442.0 G	1192.5 G	598.7 EF	27.5 EF	0.0 EF
14	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1404.6 G	109.8 G	350.3 G	1007.8 G	555.8 EF	24.6 EF	0.0 EF
15	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1172.1 G	96.7 G	297.4 G	840.4 G	509.9 EF	21.4 EF	0.0 EF
16	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1014.7 G	90.1 G	279.4 G	670.2 G	462.2 EF	19.1 EF	0.0 EF
17	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	874.3 G	91.5 G	281.6 G	787.1 G	413.9 EF	17.5 EF	0.0 EF
18	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.2 EF	761.9 G	282.1 G	697.7 G	1381.4 G	366.1 EF	15.6 EF	0.0 EF
19	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2.3 EF	740.7 G	305.3 G	1605.8 G	3455.0 G	320.0 EF	13.5 EF	0.0 EF
20	0.0 EF	0.0 EF	0.0 EF	0.0 EF	9.4 EF	696.6 G	305.4 G	1629.6 G	3182.0 G	276.8 EF	11.5 EF	0.0 EF
21	0.0 EF	0.0 EF	0.0 EF	0.0 EF	25.0 EF	669.1 G	962.0 G	1406.4 G	2246.2 G	237.6 EF	9.8 EF	0.0 EF
22	0.0 EF	0.0 EF	0.0 EF	0.0 EF	60.5 EF	604.1 G	904.7 G	1256.8 G	1855.7 G	203.5 EF	8.0 EF	0.0 EF
23	0.0 EF	0.0 EF	0.0 EF	0.0 EF	367.8 EF	481.9 G	566.5 G	1319.4 G	1702.0 G	174.7 EF	6.5 EF	0.0 EF
24	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1920.4 EF	375.6 G	387.9 G	1367.8 G	2250.7 G	150.7 EF	5.1 EF	0.0 EF
25	0.0 EF	0.0 EF	0.0 EF	0.0 EF	7421.8 EF	313.3 G	288.0 G	1221.0 G	4713.3 G	131.0 EF	4.1 EF	0.0 EF
26	0.0 EF	0.0 EF	0.0 EF	0.0 EF	9396.8 G	266.2 G	225.2 G	1018.1 G	4392.3 G	115.0 EF	3.3 EF	0.0 EF
27	0.0 EF	0.0 EF	0.0 EF	0.0 EF	8499.8 G	233.8 G	182.7 G	834.7 G	2802.3 G	102.2 EF	2.5 EF	0.0 EF
28	0.0 EF	0.0 EF	0.0 EF	0.0 EF	7074.0 G	209.6 G	167.3 G	1330.8 G	1987.8 G	92.0 EF	1.9 EF	0.0 EF
29	0.0 EF	0.0 EF	0.0 EF	0.0 EF	5552.0 G	191.3 G	177.2 G	1268.0 G	1522.2 G	77.9 EF	1.6 EF	0.0 EF
30	0.0 EF	0.0 EF	0.0 EF	0.0 EF	4539.3 G	183.0 G	167.2 G	1081.9 G	1230.9 G	83.4 EF	1.2 EF	0.0 EF
31	0.0 EF	0.0 EF	0.0 EF	0.0 EF	7419.0 G	161.0 G	161.0 G	1134.6 G	71.8 EF	71.8 EF	0.0 EF	0.0 EF
Aggr	0.0	0.0	0.0	0.0	1686.7	4264.2	252.8	813.6	3047.8	408.4	25.2	0.1
Min	0.0	0.0	0.0	0.0	0.0	179.0	83.7	159.2	599.7	69.3	1.0	0.0
Max	0.0	0.0	0.0	0.0	12404.7	24420.6	1116.7	1749.8	13964.2	1113.5	69.3	1.0
Total	0.0	0.0	0.0	0.0	103712.0	253738.9	15543.3	50028.5	181355.2	25110.4	1498.0	3.4

Date Processed: March 3, 2018 04:41

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Ipkipuk River

Units: ft³/s
Filter: None

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):					
Year: 2013													826082.3					
Aggr:	1141.0												0.0	Max:	37998.9	266.7	28.6	0.0
Min:	0.0												739.8	817.7	266.7	28.6	0.0	
1	0.0	0.0	0.0	0.0	0.0	18037.3	6	1045.3	817.7	266.7	28.6	0.0	EF					
2	0.0	0.0	0.0	0.0	0.0	18321.8	6	816.3	1109.3	244.9	26.2	0.0	EF					
3	0.0	0.0	0.0	0.0	0.0	29776.1	6	792.0	1326.8	229.2	22.6	0.0	EF					
4	0.0	0.0	0.0	0.0	0.0	34737.2	6	934.8	1305.9	212.8	19.4	0.0	EF					
5	0.0	0.0	0.0	0.0	0.0	22969.7	6	1299.1	1305.0	195.8	16.9	0.0	EF					
6	0.0	0.0	0.0	0.0	0.0	7341.7	6	1336.6	1496.5	181.8	14.6	0.0	EF					
7	0.0	0.0	0.0	0.0	0.0	3226.9	6	1262.7	2009.3	173.7	12.6	0.0	EF					
8	0.0	0.0	0.0	0.0	0.0	5043.2	6	1177.3	2696.8	163.8	10.8	0.0	EF					
9	0.0	0.0	0.0	0.0	0.0	15086.7	6	1018.2	2173.5	151.6	9.2	0.0	EF					
10	0.0	0.0	0.0	0.0	0.0	19694.1	6	873.2	1734.7	140.5	7.9	0.0	EF					
11	0.0	0.0	0.0	0.0	0.0	20533.4	6	793.8	1485.9	134.4	6.6	0.0	EF					
12	0.0	0.0	0.0	0.0	0.0	13564.2	6	1126.0	1290.2	127.2	5.4	0.0	EF					
13	0.0	0.0	0.0	0.0	0.0	8361.1	6	1668.5	1135.5	117.2	4.4	0.0	EF					
14	0.0	0.0	0.0	0.0	0.0	5795.7	6	1522.2	1122.9	108.5	3.5	0.0	EF					
15	0.0	0.0	0.0	0.0	0.0	4268.4	6	1276.1	1514.8	102.0	2.4	0.0	EF					
16	0.0	0.0	0.0	0.0	0.0	3578.0	6	1256.0	1656.2	96.3	1.6	0.0	EF					
17	0.0	0.0	0.0	0.0	0.0	4069.0	6	1278.7	1945.1	89.7	1.0	0.0	EF					
18	0.0	0.0	0.0	0.0	0.0	4134.7	6	1272.3	1854.4	85.4	0.5	0.0	EF					
19	0.0	0.0	0.0	0.0	0.0	3023.0	6	1256.7	1412.1	81.6	0.3	0.0	EF					
20	0.0	0.0	0.0	0.0	0.0	2154.0	6	1264.7	1112.1	73.4	0.1	0.0	EF					
21	0.0	0.0	0.0	0.0	0.0	1755.2	6	1730.4	930.1	65.8	0.0	0.0	EF					
22	0.0	0.0	0.0	0.0	0.0	2779.0	6	2621.4	802.1	60.7	0.0	0.0	EF					
23	0.0	0.0	0.0	0.0	0.0	2058.6	6	2345.9	725.6	58.1	0.0	0.0	EF					
24	0.0	0.0	0.0	0.0	0.0	3246.3	6	1795.0	573.9	53.9	0.0	0.0	EF					
25	0.0	0.0	0.0	0.0	0.0	4736.4	6	1405.8	491.7	51.9	0.0	0.0	EF					
26	0.0	0.0	0.0	0.0	0.0	289.8	6	1169.0	511.1	48.6	0.0	0.0	EF					
27	0.0	0.0	0.0	0.0	0.0	646.4	6	1024.7	524.6	45.0	0.0	0.0	EF					
28	0.0	0.0	0.0	0.0	0.0	1613.5	6	911.6	483.8	41.8	0.0	0.0	EF					
29	0.0	0.0	0.0	0.0	0.0	7755.8	6	785.6	395.8	38.5	0.0	0.0	EF					
30	0.0	0.0	0.0	0.0	0.0	14209.9	6	693.6	314.7	35.0	0.0	0.0	EF					
31	0.0	0.0	0.0	0.0	0.0	17544.7	6	696.9	31.7	31.7	0.0	0.0	EF					
Aggr	0.0	0.0	0.0	0.0	1358.6	8884.2	949.4	1240.3	1208.6	113.1	6.5	0.0	0.0					
Min	0.0	0.0	0.0	0.0	0.0	813.6	142.3	672.5	283.5	29.9	0.0	0.0	0.0					
Max	0.0	0.0	0.0	0.0	18011.4	37998.9	3163.1	2716.0	2806.2	283.5	29.9	0.0	0.0					
Total	0.0	0.0	0.0	0.0	83535.7	528647.2	58374.2	76265.5	71917.0	6956.6	386.1	0.0	0.0					

Date Processed: March 3, 2018 04:41

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Ikpikpuk River

Units: ft³/s
Filter: None

Year: 2014	Aggr:	1155.0	Min:	0.0	Max:	20548.9	Total (Acre-ft):	836189.0				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	14117.1 G	1361.3 G	367.0 G	1298.5 G	704.0 G	151.1 EF	0.0 EF
2	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	8944.6 G	1187.0 G	289.9 G	1507.1 G	975.2 G	125.6 EF	0.0 EF
3	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	9336.3 G	1075.4 G	238.5 G	1774.1 G	1968.7 G	103.3 EF	0.0 EF
4	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	16290.7 G	970.6 G	205.0 G	2906.0 G	3008.8 G	84.1 EF	0.0 EF
5	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	20066.6 G	851.2 G	179.8 G	2102.3 G	2418.4 G	67.7 EF	0.0 EF
6	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	19498.7 G	872.1 G	163.8 G	1669.6 G	1710.2 G	54.0 EF	0.0 EF
7	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	13643.4 G	1014.1 G	150.7 G	1480.6 G	1913.8 G	42.5 EF	0.0 EF
8	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	8451.6 G	785.4 G	140.8 G	1177.5 G	1563.1 EF	33.2 EF	0.0 EF
9	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	7123.1 G	564.1 G	134.5 G	882.4 G	1380.1 EF	25.8 EF	0.0 EF
10	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	6970.7 G	439.8 G	122.6 G	643.6 G	1266.9 EF	20.1 EF	0.0 EF
11	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1.3 EF	5650.0 G	359.9 G	111.1 G	486.5 G	1159.7 EF	15.8 EF	0.0 EF
12	0.0 EF	0.0 EF	0.0 EF	0.0 EF	15.4 EF	5211.6 G	302.8 G	102.0 G	392.4 G	1066.2 EF	12.6 EF	0.0 EF
13	0.0 EF	0.0 EF	0.0 EF	0.0 EF	48.8 EF	4871.4 G	286.2 G	94.9 G	323.5 G	989.8 EF	10.4 EF	0.0 EF
14	0.0 EF	0.0 EF	0.0 EF	0.0 EF	550.3 EF	5696.8 G	269.6 G	93.9 G	287.0 G	928.4 EF	8.9 EF	0.0 EF
15	0.0 EF	0.0 EF	0.0 EF	0.0 EF	4245.6 EF	5406.2 G	338.6 G	93.9 G	256.6 G	878.8 EF	7.9 EF	0.0 EF
16	0.0 EF	0.0 EF	0.0 EF	0.0 EF	11048.9 EF	3828.4 G	1500.8 G	95.0 G	233.6 G	837.6 EF	7.1 EF	0.0 EF
17	0.0 EF	0.0 EF	0.0 EF	0.0 EF	14910.0 EF	2940.2 G	1693.5 G	95.0 G	218.0 G	801.8 EF	6.3 EF	0.0 EF
18	0.0 EF	0.0 EF	0.0 EF	0.0 EF	16160.7 EF	2659.4 G	1295.3 G	93.8 G	212.5 G	768.0 EF	5.5 EF	0.0 EF
19	0.0 EF	0.0 EF	0.0 EF	0.0 EF	13293.1 EF	2781.7 G	1031.5 G	97.0 G	224.4 G	733.1 EF	4.9 EF	0.0 EF
20	0.0 EF	0.0 EF	0.0 EF	0.0 EF	8740.3 EF	2407.8 G	1036.8 G	96.9 G	279.2 G	694.0 EF	4.2 EF	0.0 EF
21	0.0 EF	0.0 EF	0.0 EF	0.0 EF	5371.4 EF	1977.2 G	1002.6 G	92.7 G	319.4 G	649.1 EF	3.5 EF	0.0 EF
22	0.0 EF	0.0 EF	0.0 EF	0.0 EF	3305.4 EF	1765.3 G	791.8 G	97.5 G	459.6 G	599.6 EF	2.8 EF	0.0 EF
23	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2249.7 EF	1602.1 G	617.4 G	107.9 G	923.7 G	547.0 EF	2.3 EF	0.0 EF
24	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1775.3 EF	1736.3 G	1400.1 G	129.2 G	980.0 G	492.8 EF	1.8 EF	0.0 EF
25	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1456.4 G	4630.0 G	2457.3 G	196.6 G	1167.6 G	438.6 EF	1.3 EF	0.0 EF
26	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1249.2 G	4826.0 G	1906.0 G	335.2 G	1304.0 G	385.9 EF	0.7 EF	0.0 EF
27	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1665.9 G	2975.3 G	1470.1 G	466.3 G	1179.7 G	336.2 EF	0.2 EF	0.0 EF
28	0.0 EF	0.0 EF	0.0 EF	0.0 EF	5921.8 G	2167.8 G	1162.6 G	501.3 G	1019.9 G	290.7 EF	0.0 EF	0.0 EF
29	0.0 EF	0.0 EF	0.0 EF	0.0 EF	10803.1 G	1798.8 G	903.5 G	465.2 G	848.5 G	249.7 EF	0.0 EF	0.0 EF
30	0.0 EF	0.0 EF	0.0 EF	0.0 EF	16037.0 G	1600.7 G	628.5 G	422.9 G	705.2 G	213.0 EF	0.0 EF	0.0 EF
31	0.0 EF	0.0 EF	0.0 EF	0.0 EF	17126.8 G	458.9 G	458.9 G	595.2 G	180.2 EF	180.2 EF	0.0 EF	0.0 EF
Aggr	0.0	0.0	0.0	0.0	4386.3	6365.9	968.9	205.7	908.8	972.6	26.8	0.0
Min	0.0	0.0	0.0	0.0	0.0	1482.9	250.4	88.4	210.9	165.0	0.0	0.0
Max	0.0	0.0	0.0	0.0	17482.0	20548.9	2593.4	916.0	3096.8	3202.6	165.0	0.0
Total	0.0	0.0	0.0	0.0	269705.3	378794.7	59573.2	12646.6	54075.2	59800.3	1593.8	0.0

Date Processed: March 3, 2018 04:41

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Ikpikpuk River

Units: ft³/s
Filter: None

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):
Year: 2015													558923.7
Aggr:	772.0												39057.5
Min:	0.0												Max:
1	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	5589.3 G	120.5 G	29.1 G	2112.9 G	94.9 EF	4.3 EF	0.0 EF	94.9 EF
2	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	3053.8 G	113.9 G	30.3 G	1694.3 G	85.8 EF	3.9 EF	0.0 EF	85.8 EF
3	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1952.0 G	108.8 G	30.5 G	1347.3 G	77.7 EF	3.5 EF	0.0 EF	77.7 EF
4	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1380.4 G	101.2 G	31.8 G	1069.3 G	70.3 EF	3.2 EF	0.0 EF	70.3 EF
5	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1086.9 G	93.3 G	29.2 G	866.8 G	63.6 EF	2.9 EF	0.0 EF	63.6 EF
6	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	904.7 G	84.5 G	26.3 G	680.4 G	57.5 EF	2.6 EF	0.0 EF	57.5 EF
7	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	767.6 G	69.7 G	26.4 G	549.2 G	52.1 EF	2.3 EF	0.0 EF	52.1 EF
8	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	733.2 G	72.1 G	36.9 G	461.0 G	47.1 EF	2.1 EF	0.0 EF	47.1 EF
9	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	856.5 G	68.0 G	42.1 G	397.5 G	42.6 EF	1.9 EF	0.0 EF	42.6 EF
10	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	931.9 G	65.6 G	45.2 G	371.9 G	38.6 EF	1.7 EF	0.0 EF	38.6 EF
11	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1010.3 G	61.1 G	46.7 G	392.6 G	34.9 EF	1.5 EF	0.0 EF	34.9 EF
12	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1268.1 G	56.8 G	47.1 G	421.6 G	31.6 EF	1.3 EF	0.0 EF	31.6 EF
13	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1711.7 G	54.1 G	48.9 G	388.0 G	28.6 EF	1.0 EF	0.0 EF	28.6 EF
14	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1434.4 G	51.7 G	50.0 G	356.0 G	25.9 EF	0.8 EF	0.0 EF	25.9 EF
15	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1074.6 G	47.4 G	47.0 G	342.4 G	23.4 EF	0.6 EF	0.0 EF	23.4 EF
16	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.7 EF	841.0 G	46.1 G	43.1 G	351.7 G	21.2 EF	0.3 EF	0.0 EF	21.2 EF
17	0.0 EF	0.0 EF	0.0 EF	0.0 EF	27.7 EF	656.7 G	42.6 G	41.5 G	375.6 G	19.2 EF	0.1 EF	0.0 EF	19.2 EF
18	0.0 EF	0.0 EF	0.0 EF	0.0 EF	144.3 EF	522.6 G	46.0 G	44.0 G	369.5 G	17.3 EF	0.0 EF	0.0 EF	17.3 EF
19	0.0 EF	0.0 EF	0.0 EF	0.0 EF	3773.8 EF	427.3 G	47.6 G	46.8 G	316.1 EF	15.7 EF	0.0 EF	0.0 EF	15.7 EF
20	0.0 EF	0.0 EF	0.0 EF	0.0 EF	26072.7 EF	362.8 G	44.9 G	48.9 G	285.0 EF	14.2 EF	0.0 EF	0.0 EF	14.2 EF
21	0.0 EF	0.0 EF	0.0 EF	0.0 EF	35759.8 G	310.3 G	41.1 G	53.3 G	257.9 EF	12.8 EF	0.0 EF	0.0 EF	12.8 EF
22	0.0 EF	0.0 EF	0.0 EF	0.0 EF	38657.9 G	269.8 G	38.1 G	59.2 G	233.3 EF	11.6 EF	0.0 EF	0.0 EF	11.6 EF
23	0.0 EF	0.0 EF	0.0 EF	0.0 EF	35668.0 G	227.1 G	35.6 G	60.7 G	211.1 EF	10.5 EF	0.0 EF	0.0 EF	10.5 EF
24	0.0 EF	0.0 EF	0.0 EF	0.0 EF	25601.5 G	195.2 G	33.8 G	60.1 G	191.0 EF	9.5 EF	0.0 EF	0.0 EF	9.5 EF
25	0.0 EF	0.0 EF	0.0 EF	0.0 EF	16116.7 G	172.8 G	32.4 G	63.6 G	172.9 EF	8.6 EF	0.0 EF	0.0 EF	8.6 EF
26	0.0 EF	0.0 EF	0.0 EF	0.0 EF	9663.9 G	162.9 G	31.1 G	76.1 G	156.4 EF	7.8 EF	0.0 EF	0.0 EF	7.8 EF
27	0.0 EF	0.0 EF	0.0 EF	0.0 EF	6477.3 G	160.0 G	30.6 G	94.8 G	141.5 EF	7.0 EF	0.0 EF	0.0 EF	7.0 EF
28	0.0 EF	0.0 EF	0.0 EF	0.0 EF	5573.2 G	146.9 G	29.6 G	577.9 G	128.1 EF	6.4 EF	0.0 EF	0.0 EF	6.4 EF
29	0.0 EF	0.0 EF	0.0 EF	0.0 EF	4599.6 G	126.9 G	27.3 G	2527.1 G	115.9 EF	5.8 EF	0.0 EF	0.0 EF	5.8 EF
30	0.0 EF	0.0 EF	0.0 EF	0.0 EF	7155.5 G	127.2 G	27.0 G	2539.3 G	104.8 EF	5.2 EF	0.0 EF	0.0 EF	5.2 EF
31	0.0 EF	0.0 EF	0.0 EF	0.0 EF	11025.2 G	94.8 G	29.1 G	2504.4 G	4.7 EF	0.0 EF	0.0 EF	0.0 EF	4.7 EF
Aggr	0.0	0.0	0.0	0.0	7300.6	948.8	56.5	303.5	495.4	30.7	1.1	0.0	30.7
Min	0.0	0.0	0.0	0.0	0.0	119.3	25.6	23.3	99.7	4.5	0.0	0.0	4.5
Max	0.0	0.0	0.0	0.0	39057.5	7840.4	122.8	2696.0	2379.9	99.7	4.5	0.0	99.7
Total	0.0	0.0	0.0	0.0	448894.8	56459.8	3474.4	18661.3	29477.9	1888.2	67.3	0.0	1888.2

Date Processed: March 3, 2018 04:41

Daily mean flows record grades: Bl - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Ikpikpuk River

Units: ft³/s
Filter: None

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):	
Year: 2016													682469.0	
Aggr:	940.1	0.0						0.0	Max:	25052.6				
Min:														
1	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	2086.5 G	861.2 G	26.3 G	2632.5 G	1103.5 G	86.5 EF	0.3 EF		
2	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1512.2 G	579.3 G	27.5 G	2120.6 G	2989.7 G	78.6 EF	0.1 EF		
3	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	1130.3 G	408.6 G	25.6 G	1788.7 G	3310.2 G	69.4 EF	0.0 EF		
4	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	859.4 G	316.0 G	22.9 G	1575.1 G	2569.1 G	60.0 EF	0.0 EF		
5	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	683.9 G	250.9 G	20.0 G	1396.2 G	1964.9 G	51.5 EF	0.0 EF		
6	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	537.3 G	199.6 G	19.6 G	1232.2 G	1537.7 G	41.9 EF	0.0 EF		
7	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	489.1 G	170.6 G	18.8 G	1138.9 G	1236.0 G	31.0 EF	0.0 EF		
8	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	459.7 G	139.2 G	17.2 G	1141.1 G	974.0 G	24.8 EF	0.0 EF		
9	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	480.6 G	117.7 G	16.5 G	1252.8 G	760.1 EF	19.7 EF	0.0 EF		
10	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.0 EF	537.9 G	104.7 G	17.6 G	1551.0 G	660.0 EF	15.3 EF	0.0 EF		
11	0.0 EF	0.0 EF	0.0 EF	0.0 EF	0.2 EF	720.7 G	92.4 G	17.9 G	1553.7 G	656.3 EF	13.3 EF	0.0 EF		
12	0.0 EF	0.0 EF	0.0 EF	0.0 EF	5.4 EF	1704.2 G	83.5 G	17.8 G	1320.2 G	648.4 EF	11.0 EF	0.0 EF		
13	0.0 EF	0.0 EF	0.0 EF	0.0 EF	27.8 EF	1939.6 G	125.5 G	17.4 G	1190.4 G	638.5 EF	9.2 EF	0.0 EF		
14	0.0 EF	0.0 EF	0.0 EF	0.0 EF	127.1 EF	1322.7 G	146.1 G	17.4 G	1070.1 G	627.5 EF	7.6 EF	0.0 EF		
15	0.0 EF	0.0 EF	0.0 EF	0.0 EF	502.7 EF	998.9 G	111.2 G	17.7 G	918.5 G	617.5 EF	6.6 EF	0.0 EF		
16	0.0 EF	0.0 EF	0.0 EF	0.0 EF	8065.9 EF	800.3 G	92.3 G	26.0 G	736.6 G	598.0 EF	5.6 EF	0.0 EF		
17	0.0 EF	0.0 EF	0.0 EF	0.0 EF	9427.4 EF	663.5 G	81.0 G	51.1 G	615.1 G	572.7 EF	4.6 EF	0.0 EF		
18	0.0 EF	0.0 EF	0.0 EF	0.0 EF	7457.0 EF	591.3 G	70.1 G	52.4 G	509.0 G	544.6 EF	3.6 EF	0.0 EF		
19	0.0 EF	0.0 EF	0.0 EF	0.0 EF	6013.5 EF	563.5 G	61.9 G	61.7 G	454.7 G	515.0 EF	2.8 EF	0.0 EF		
20	0.0 EF	0.0 EF	0.0 EF	0.0 EF	5570.9 EF	931.6 G	54.1 G	90.1 G	429.9 G	478.3 EF	2.3 EF	0.0 EF		
21	0.0 EF	0.0 EF	0.0 EF	0.0 EF	9370.7 EF	1446.7 G	49.8 G	162.9 G	466.0 G	431.5 EF	1.9 EF	0.0 EF		
22	0.0 EF	0.0 EF	0.0 EF	0.0 EF	19851.3 EF	2686.7 G	46.1 G	5532.7 G	475.5 G	374.4 EF	1.4 EF	0.0 EF		
23	0.0 EF	0.0 EF	0.0 EF	0.0 EF	22614.6 G	5458.3 G	41.7 G	8236.2 G	563.8 G	320.6 EF	1.2 EF	0.0 EF		
24	0.0 EF	0.0 EF	0.0 EF	0.0 EF	24588.4 G	3829.4 G	38.4 G	10848.0 G	651.3 G	271.2 EF	1.1 EF	0.0 EF		
25	0.0 EF	0.0 EF	0.0 EF	0.0 EF	22772.9 G	2097.9 G	34.8 G	8917.9 G	662.4 G	230.1 EF	0.9 EF	0.0 EF		
26	0.0 EF	0.0 EF	0.0 EF	0.0 EF	16762.1 G	1863.5 G	33.5 G	6097.9 G	646.2 G	189.3 EF	0.8 EF	0.0 EF		
27	0.0 EF	0.0 EF	0.0 EF	0.0 EF	8938.9 G	3206.8 G	31.8 G	5003.9 G	571.6 G	160.0 EF	0.7 EF	0.0 EF		
28	0.0 EF	0.0 EF	0.0 EF	0.0 EF	6332.0 G	2192.7 G	32.4 G	3566.4 G	530.5 G	134.6 EF	0.6 EF	0.0 EF		
29	0.0 EF	0.0 EF	0.0 EF	0.0 EF	5375.8 G	1572.8 G	31.2 G	2678.8 G	467.6 G	119.5 EF	0.6 EF	0.0 EF		
30	0.0 EF	0.0 EF	0.0 EF	0.0 EF	4555.3 G	1218.9 G	28.8 G	2641.2 G	496.8 G	107.3 EF	0.5 EF	0.0 EF		
31	0.0 EF	0.0 EF	0.0 EF	0.0 EF	3160.5 G		26.7 G	3092.4 G		95.1 EF	0.0 EF	0.0 EF		
Aggr	0.0	0.0	0.0	0.0	5855.5	1486.2	143.9	1850.3	1005.3	820.5	18.5	0.0		
Min	0.0	0.0	0.0	0.0	0.0	446.1	25.3	15.7	414.1	90.0	0.4	0.0		
Max	0.0	0.0	0.0	0.0	25052.6	5771.5	1027.5	11592.0	2921.2	3679.1	90.0	0.4		
Total	0.0	0.0	0.0	0.0	360040.8	88436.4	8848.0	113771.7	59819.8	50450.4	1101.2	0.7		

Date Processed: March 3, 2018 04:41

Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Daily Mean by Year

Identifier: Ikpikpuk River

Units: ft³/s
Filter: None

Year: 2017	Aggr:	834.3	Min:	0.0	Max:	17026.8	Total (Acre-ft):	604039.2				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.0	9472.0	192.4	349.9	2921.1	837.7	69.3	0.1
2	0.0	0.0	0.0	0.0	0.0	9066.2	173.8	271.9	2502.6	853.5	62.7	0.0
3	0.0	0.0	0.0	0.0	0.0	8449.6	172.2	233.3	2254.9	915.8	57.4	0.0
4	0.0	0.0	0.0	0.0	0.0	6680.3	148.6	220.1	1931.7	1238.3	52.1	0.0
5	0.0	0.0	0.0	0.0	0.0	4810.9	131.4	311.1	1671.2	1198.7	45.2	0.0
6	0.0	0.0	0.0	0.0	0.0	3400.4	120.8	838.0	1484.6	1070.4	39.1	0.0
7	0.0	0.0	0.0	0.0	0.0	2485.9	118.0	998.7	1379.3	958.7	32.2	0.0
8	0.0	0.0	0.0	0.0	0.0	1873.7	110.3	996.9	1575.9	939.4	26.1	0.0
9	0.0	0.0	0.0	0.0	0.0	1459.2	95.5	1033.2	2838.2	1003.6	22.4	0.0
10	0.0	0.0	0.0	0.0	0.0	1228.1	86.1	1074.5	3496.0	884.8	20.2	0.0
11	0.0	0.0	0.0	0.0	0.0	1055.3	78.2	1114.8	3224.1	727.8	17.5	0.0
12	0.0	0.0	0.0	0.0	0.0	863.9	73.0	1392.8	2681.7	539.8	15.3	0.0
13	0.0	0.0	0.0	0.0	0.0	705.3	73.1	8018.8	2420.4	487.6	12.9	0.0
14	0.0	0.0	0.0	0.0	0.0	693.0	75.8	13057.0	2362.1	451.8	10.6	0.0
15	0.0	0.0	0.0	0.0	0.0	738.5	76.8	9585.4	1990.1	436.9	9.0	0.0
16	0.0	0.0	0.0	0.0	0.0	636.1	70.1	7111.6	1641.6	437.1	7.6	0.0
17	0.0	0.0	0.0	0.0	0.0	547.4	65.0	6483.9	1451.5	452.4	6.2	0.0
18	0.0	0.0	0.0	0.0	0.0	480.0	61.2	5601.8	1398.0	512.6	5.2	0.0
19	0.0	0.0	0.0	0.0	0.0	435.3	58.2	4929.2	1315.2	546.0	4.6	0.0
20	0.0	0.0	0.0	0.0	0.0	444.4	59.3	5608.9	1261.9	538.9	3.9	0.0
21	0.0	0.0	0.0	0.0	0.0	1618.9	70.0	4708.9	1619.2	482.9	3.2	0.0
22	0.0	0.0	0.0	0.0	0.0	1472.1	142.2	3397.2	2179.1	406.2	2.8	0.0
23	0.0	0.0	0.0	0.0	0.0	1242.6	168.7	2537.0	1961.3	328.5	2.2	0.0
24	0.0	0.0	0.0	0.0	1.5	927.7	427.8	2098.2	1627.7	257.9	1.7	0.0
25	0.0	0.0	0.0	0.0	15.1	660.5	1497.9	2031.0	1420.4	206.2	1.3	0.0
26	0.0	0.0	0.0	0.0	14.1	468.8	3702.8	2226.6	1367.5	162.6	0.8	0.0
27	0.0	0.0	0.0	0.0	229.5	363.4	2632.1	2302.0	1465.7	138.6	0.5	0.0
28	0.0	0.0	0.0	0.0	6987.8	285.3	1636.9	2755.0	1353.1	120.3	0.3	0.0
29	0.0	0.0	0.0	0.0	14445.9	252.4	1119.1	3347.4	1069.0	104.6	0.2	0.0
30	0.0	0.0	0.0	0.0	16373.3	216.7	759.7	3528.5	904.1	89.7	0.1	0.0
31	0.0	0.0	0.0	0.0	12303.5	490.5	490.5	3569.5	80.1	80.1	0.0	0.0
Aggr	0.0	0.0	0.0	0.0	1624.9	2101.1	473.8	3281.7	1892.3	561.6	17.8	0.0
Min	0.0	0.0	0.0	0.0	0.0	200.9	55.1	213.5	805.7	74.8	0.1	0.0
Max	0.0	0.0	0.0	0.0	17026.8	10354.3	3915.6	13777.5	3550.8	1303.0	74.8	0.1
Total	0.0	0.0	0.0	0.0	99908.8	125025.6	29132.4	201784.4	112600.0	34531.2	1056.5	0.2

Date Processed: March 3, 2018 04:41

Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Summary of Daily Mean Flows

Judy Creek, Alaska

Daily Mean by Year

Identifier: Judy Creek

Units: ft³/s
Filter: None

Year: 2001	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Max:	5011.5	Oct	Nov	Total (Acre-ft): *
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	323.7	113.2	P	212.6	154.5	102.2	51.5
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	299.5	113.7	P	212.7	152.8	100.5	49.8
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	270.9	109.9	P	187.9	151.1	98.8	48.2
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	239.2	109.8	P	161.2	149.4	97.1	46.5
5	0.0	0.0	0.0	0.0	0.0	91.8	239.2	239.2	109.8	P	157.4	147.7	95.4	44.8
6	0.0	0.0	0.0	0.0	0.0	1960.9	248.1	248.1	112.9	P	158.9	146.0	93.7	43.1
7	0.0	0.0	0.0	0.0	0.0	2843.4	243.6	243.6	118.4	P	171.9	144.3	92.0	41.4
8	0.0	0.0	0.0	0.0	0.0	3932.8	228.0	228.0	110.8	P	189.3	142.7	90.3	39.7
9	0.0	0.0	0.0	0.0	0.0	4412.7	222.1	222.1	110.3	P	191.6	141.0	88.7	38.0
10	0.0	0.0	0.0	0.0	0.0	4321.2	227.4	227.4	109.2	P	189.9	139.3	87.0	36.3
11	0.0	0.0	0.0	0.0	0.0	3770.2	223.6	223.6	102.6	P	188.2	137.6	85.3	34.7
12	0.0	0.0	0.0	0.0	0.0	3337.5	209.9	209.9	107.1	P	186.5	135.9	83.6	33.0
13	0.0	0.0	0.0	0.0	0.0	2653.1	191.3	191.3	115.2	P	184.8	134.2	81.9	31.3
14	0.0	0.0	0.0	0.0	0.0	2276.0	178.3	178.3	137.0	P	183.2	132.5	80.2	29.6
15	0.0	0.0	0.0	0.0	0.0	2106.7	164.5	164.5	173.2	P	181.5	130.8	78.5	27.9
16	0.0	0.0	0.0	0.0	0.0	1650.9	159.4	159.4	201.5	P	179.8	129.2	76.8	26.2
17	0.0	0.0	0.0	0.0	0.0	1453.2	154.7	154.7	449.6	P	178.1	127.5	75.2	24.5
18	0.0	0.0	0.0	0.0	0.0	1227.6	145.7	145.7	526.5	P	176.4	125.8	73.5	22.9
19	0.0	0.0	0.0	0.0	0.0	1040.0	138.6	138.6	415.5	P	174.7	124.1	71.8	21.2
20	0.0	0.0	0.0	0.0	0.0	884.3	131.5	131.5	339.3	P	173.0	122.4	70.1	19.5
21	0.0	0.0	0.0	0.0	0.0	779.2	127.4	127.4	288.1	P	171.3	120.7	68.4	17.8
22	0.0	0.0	0.0	0.0	0.0	714.9	125.9	125.9	248.5	P	169.7	119.0	66.7	16.1
23	0.0	0.0	0.0	0.0	0.0	665.2	118.8	118.8	224.7	P	168.0	117.3	65.0	14.4
24	0.0	0.0	0.0	0.0	0.0	588.2	108.1	108.1	208.0	P	166.3	115.7	63.3	12.7
25	0.0	0.0	0.0	0.0	0.0	548.7	97.7	97.7	191.2	P	164.6	114.0	61.7	11.0
26	0.0	0.0	0.0	0.0	0.0	518.3	92.3	92.3	154.1	P	162.9	112.3	60.0	9.4
27	0.0	0.0	0.0	0.0	0.0	484.1	87.7	87.7	105.9	P	161.2	110.6	58.3	7.7
28	0.0	0.0	0.0	0.0	0.0	432.8	84.7	84.7	54.6	P	159.5	108.9	56.6	6.0
29	0.0	0.0	0.0	0.0	0.0	389.6	81.7	81.7	55.6	P	157.8	107.2	54.9	4.3
30	0.0	0.0	0.0	0.0	0.0	347.5	78.7	78.7	58.9	P	156.2	105.5	53.2	2.6
31	0.0	0.0	0.0	0.0	0.0	1447.7	107.7	107.7	146.8	P	146.8	103.8	51.5	0.9
Aggr	0.0	0.0	0.0	0.0	0.0	1447.7	174.6	174.6	174.9		175.9	129.2	77.7	26.2
Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.6	45.0		155.0	103.0	52.4	0.1
Max	0.0	0.0	0.0	0.0	0.0	5011.5	336.3	336.3	607.3		217.5	155.3	103.0	52.4
Total	0.0	0.0	0.0	0.0	0.0	86144.0	10734.2	10734.2	10752.3		*	*	*	*

Date Processed: February 14, 2018 19:30
 Daily mean flows record grades: BI - Ice Conditions affect record
 EF - Estimated Data with fair confidence
 F - Fair Data
 G - Good Data
 P - Poor Data
 UN - Unspecified



Daily Mean by Year

Identifier: Judy Creek

Units: ft³/s
Filter: None

Year: 2002	Aggr:	216.2	Min:	0.0	Max:	7148.9	Total (Acre-ft):	*				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	891.0 EF	387.0 F	164.5 F	189.6 F	131.3 BI	86.8 BI	43.8 BI
2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	828.2 EF	389.8 F	170.2 F	183.8 F	129.8 BI	85.4 BI	42.4 BI
3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	781.2 EF	406.2 F	177.6 F	181.0 F	128.4 BI	84.0 BI	40.9 BI
4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	726.6 EF	445.8 F	170.8 F	176.2 F	127.0 BI	82.5 BI	39.5 BI
5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	681.4 EF	612.3 F	150.9 EF	171.2 F	125.5 BI	81.1 BI	38.1 BI
6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	633.7 EF	482.0 F	134.4 EF	168.8 F	124.1 BI	79.7 BI	36.6 BI
7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	594.9 EF	406.3 F	122.7 EF	165.9 BI	122.7 BI	78.2 BI	35.2 BI
8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	563.2 EF	391.7 F	112.5 EF	164.3 BI	121.2 BI	76.8 BI	33.8 BI
9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	520.5 EF	382.9 F	104.1 EF	162.8 BI	119.8 BI	75.3 BI	32.3 BI
10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	494.5 EF	374.6 F	99.0 EF	161.4 BI	118.4 BI	73.9 BI	30.9 BI
11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	467.1 EF	329.7 F	94.9 EF	160.0 BI	116.9 BI	72.5 BI	29.5 BI
12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	444.1 EF	290.1 F	91.3 EF	158.5 BI	115.5 BI	71.0 BI	28.0 BI
13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	424.2 F	275.1 F	90.1 EF	157.1 BI	114.1 BI	69.6 BI	26.6 BI
14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	414.6 F	277.8 F	89.4 EF	155.7 BI	112.6 BI	68.2 BI	25.2 BI
15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	411.4 F	290.7 F	89.8 EF	154.2 BI	111.2 BI	66.7 BI	23.7 BI
16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	409.2 F	288.4 F	92.7 EF	152.8 BI	109.8 BI	65.3 BI	22.3 BI
17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	402.6 F	274.7 F	98.0 EF	151.4 BI	108.3 BI	63.9 BI	20.9 BI
18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	9.5 BI	400.5 F	257.0 F	105.9 EF	149.9 BI	106.9 BI	62.4 BI	19.4 BI
19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	220.2 BI	395.2 F	244.2 F	127.5 EF	148.5 BI	105.5 BI	61.0 BI	18.0 BI
20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	770.8 BI	382.6 F	227.8 F	129.7 EF	147.1 BI	104.0 BI	59.6 BI	16.6 BI
21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1625.1 BI	361.7 F	212.9 F	280.3 F	145.6 BI	102.6 BI	58.1 BI	15.1 BI
22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3196.2 EF	352.1 F	195.1 F	273.2 F	144.2 BI	101.2 BI	56.7 BI	13.7 BI
23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	5196.9 EF	355.1 F	179.4 F	264.1 F	142.8 BI	99.7 BI	55.3 BI	12.2 BI
24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	7116.9 EF	372.1 F	165.8 F	256.1 F	141.3 BI	98.3 BI	53.8 BI	10.8 BI
25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	8862.5 EF	386.2 F	149.0 F	247.9 F	139.9 BI	96.9 BI	52.4 BI	9.4 BI
26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	6166.7 EF	404.2 F	143.4 F	240.5 F	138.4 BI	95.4 BI	51.0 BI	7.9 BI
27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3412.3 EF	460.6 F	144.2 F	232.5 F	137.0 BI	94.0 BI	49.5 BI	6.5 BI
28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1568.9 EF	404.4 F	146.8 F	224.7 F	135.6 BI	92.6 BI	48.1 BI	5.1 BI
29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1270.3 EF	396.1 F	148.5 F	217.0 F	134.1 BI	91.1 BI	46.7 BI	3.6 BI
30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1105.5 EF	391.6 F	150.4 F	207.7 F	132.7 BI	89.7 BI	45.2 BI	2.2 BI
31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	986.8 EF	491.7 F	153.8 F	198.4 F	132.7 BI	88.3 BI	44.5 BI	0.8 BI
Aggr	0.0	0.0	0.0	0.0	1272.9	491.7	284.6	166.1	155.1	109.8	66.0	22.3
Min	0.0	0.0	0.0	0.0	0.0	348.3	143.2	89.1	132.0	87.5	44.5	0.1
Max	0.1	0.0	0.0	0.0	7148.9	934.3	635.7	281.4	193.3	132.0	87.5	44.5
Total	0.0	0.0	0.0	0.0	78266.4	29257.8	17500.6	10211.2	*	*	*	*

Date Processed: February 14, 2018 19:30

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Judy Creek

Units: ft³/s
Filter: None

Year: 2003	Aggr:	170.9	Min:	0.0	Max:	4718.6	Total (Acre-ft):	123709.8				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	274.5 BI	266.4 G	189.9 G	166.8 G	101.4 BI	6.3 BI	0.0 BI
2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	708.3 BI	258.6 G	190.1 G	163.2 G	99.6 BI	5.1 BI	0.0 BI
3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1385.9 BI	279.3 G	186.2 G	160.1 G	98.4 BI	4.0 BI	0.0 BI
4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2040.0 BI	350.0 G	182.1 G	168.0 G	98.3 BI	3.2 BI	0.0 BI
5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3965.6 BI	391.0 G	176.9 G	182.1 G	98.6 BI	2.5 BI	0.0 BI
6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	4471.3 BI	615.8 G	177.5 G	191.2 F	102.3 BI	1.9 BI	0.0 BI
7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3724.3 G	701.9 G	176.1 G	277.6 F	106.1 BI	1.4 BI	0.0 BI
8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3238.3 G	588.3 G	176.2 G	342.7 F	106.4 BI	1.0 BI	0.0 BI
9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2605.2 G	546.6 G	168.3 G	305.6 F	101.2 BI	0.6 BI	0.0 BI
10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2195.9 G	483.5 G	171.8 G	287.2 F	95.2 BI	0.3 BI	0.0 BI
11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1906.0 G	424.6 G	175.7 G	276.3 F	89.2 BI	0.0 BI	0.0 BI
12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1625.0 G	383.7 G	175.1 G	297.8 F	83.2 BI	0.0 BI	0.0 BI
13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1390.3 G	362.7 G	168.4 G	308.9 F	77.4 BI	0.0 BI	0.0 BI
14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1182.4 G	329.9 G	166.0 G	299.7 F	71.6 BI	0.0 BI	0.0 BI
15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1017.8 G	300.9 G	159.8 G	291.0 F	66.0 BI	0.0 BI	0.0 BI
16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	898.5 G	285.3 G	153.6 G	267.9 BI	60.5 BI	0.0 BI	0.0 BI
17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	799.2 G	264.2 G	151.8 G	252.7 BI	55.3 BI	0.0 BI	0.0 BI
18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	708.6 G	239.9 G	163.6 G	239.9 BI	50.2 BI	0.0 BI	0.0 BI
19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	649.6 G	221.7 G	170.3 G	228.0 BI	45.4 BI	0.0 BI	0.0 BI
20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	588.7 G	205.0 G	171.2 G	220.8 BI	40.8 BI	0.0 BI	0.0 BI
21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	533.0 G	186.2 G	164.4 G	212.9 BI	36.4 BI	0.0 BI	0.0 BI
22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	485.7 G	173.0 G	160.2 G	199.5 BI	32.4 BI	0.0 BI	0.0 BI
23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	448.0 G	163.2 G	157.7 G	189.5 BI	28.5 BI	0.0 BI	0.0 BI
24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	413.7 G	165.1 G	172.5 G	174.3 BI	25.0 BI	0.0 BI	0.0 BI
25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	379.9 G	173.2 G	179.9 G	154.6 BI	21.7 BI	0.0 BI	0.0 BI
26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	350.5 G	189.7 G	178.1 G	135.7 BI	18.7 BI	0.0 BI	0.0 BI
27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	326.9 G	195.8 G	171.1 G	119.0 BI	16.0 BI	0.0 BI	0.0 BI
28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	308.1 G	199.7 G	163.8 G	110.2 BI	13.6 BI	0.0 BI	0.0 BI
29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	289.8 G	193.9 G	163.0 G	106.5 BI	11.4 BI	0.0 BI	0.0 BI
30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	273.6 G	191.0 G	174.3 G	103.6 BI	9.5 BI	0.0 BI	0.0 BI
31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	31.7 BI	189.4 G	189.4 G	171.1 G	7.8 BI	7.8 BI	0.0 BI	0.0 BI
Aggr	0.0	0.0	0.0	0.0	1.0	1306.2	307.1	171.2	214.4	60.3	0.9	0.0
Min	0.0	0.0	0.0	0.0	0.0	107.9	159.2	149.3	102.5	7.0	0.0	0.0
Max	0.1	0.0	0.0	0.0	107.9	4718.6	750.1	191.9	360.7	107.1	7.0	0.0
Total	0.0	0.0	0.0	0.0	62.8	77721.8	18881.7	10525.8	12760.2	3705.1	52.4	0.0

Date Processed: February 14, 2018 19:30

Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Daily Mean by Year

Identifier: Judy Creek

Units: ft³/s
Filter: None

Year: 2004	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):
	1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2014.5 BI	411.7 G	135.1 G	149.4 G	88.2 BI	12.7 BI	0.0 BI	178697.2
	2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2371.6 BI	373.7 G	142.9 G	158.0 G	84.9 BI	10.8 BI	0.0 BI	0.0 BI
	3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2984.5 BI	343.3 G	145.3 G	177.5 G	80.8 BI	9.3 BI	0.0 BI	0.0 BI
	4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3662.7 BI	331.2 G	140.2 G	223.1 G	77.5 BI	8.4 BI	0.0 BI	0.0 BI
	5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	4359.1 BI	326.5 G	130.8 G	450.1 G	75.4 BI	7.4 BI	0.0 BI	0.0 BI
	6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	4440.5 G	337.5 G	125.8 G	442.9 G	73.2 BI	6.4 BI	0.0 BI	0.0 BI
	7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3821.1 G	362.7 G	133.8 G	395.7 G	71.1 BI	5.5 BI	0.0 BI	0.0 BI
	8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3373.7 G	375.0 G	143.8 G	348.7 G	69.4 BI	4.4 BI	0.0 BI	0.0 BI
	9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3053.5 G	361.4 G	145.3 G	311.0 G	68.0 BI	3.2 BI	0.0 BI	0.0 BI
	10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2708.9 G	346.3 G	142.0 G	278.5 G	66.6 BI	2.5 BI	0.0 BI	0.0 BI
	11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2357.0 G	346.5 G	134.0 G	258.9 G	64.9 BI	2.1 BI	0.0 BI	0.0 BI
	12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2004.8 G	343.6 G	128.1 G	247.3 G	62.9 BI	1.8 BI	0.0 BI	0.0 BI
	13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1767.9 G	337.5 G	127.8 G	238.6 G	60.4 BI	1.4 BI	0.0 BI	0.0 BI
	14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1573.2 G	309.1 G	132.1 G	239.2 G	57.6 BI	1.1 BI	0.0 BI	0.0 BI
	15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1397.7 G	291.7 G	138.8 G	241.1 G	55.2 BI	0.7 BI	0.0 BI	0.0 BI
	16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1250.7 G	288.1 G	142.7 G	258.1 G	52.7 BI	0.2 BI	0.0 BI	0.0 BI
	17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1141.9 G	267.8 G	144.5 G	255.8 G	50.4 BI	0.0 BI	0.0 BI	0.0 BI
	18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.3 BI	1060.2 G	241.4 G	275.5 G	235.9 G	48.0 BI	0.0 BI	0.0 BI	0.0 BI
	19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	23.9 BI	997.2 G	224.0 G	258.3 G	204.6 BI	45.2 BI	0.0 BI	0.0 BI	0.0 BI
	20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	73.3 BI	931.8 G	213.7 G	213.7 G	178.7 BI	42.2 BI	0.0 BI	0.0 BI	0.0 BI
	21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	116.7 BI	862.4 G	206.0 G	189.9 G	183.1 BI	38.8 BI	0.0 BI	0.0 BI	0.0 BI
	22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	159.6 BI	786.5 G	194.3 G	174.7 G	172.1 G	35.3 BI	0.0 BI	0.0 BI	0.0 BI
	23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	207.6 BI	717.8 G	181.3 G	170.8 G	159.0 BI	32.5 BI	0.0 BI	0.0 BI	0.0 BI
	24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	248.8 BI	662.8 G	169.8 G	162.4 G	148.5 BI	30.1 BI	0.0 BI	0.0 BI	0.0 BI
	25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	312.3 BI	624.8 G	159.2 G	155.0 G	135.9 BI	27.5 BI	0.0 BI	0.0 BI	0.0 BI
	26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2630.8 BI	608.4 G	149.4 G	151.6 G	121.1 BI	25.0 BI	0.0 BI	0.0 BI	0.0 BI
	27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3200.5 BI	578.9 G	140.8 G	146.8 G	108.9 BI	22.6 BI	0.0 BI	0.0 BI	0.0 BI
	28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2631.8 BI	525.9 G	139.0 G	142.3 G	101.6 BI	20.3 BI	0.0 BI	0.0 BI	0.0 BI
	29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2090.5 BI	485.8 G	134.2 G	142.8 G	98.6 BI	18.0 BI	0.0 BI	0.0 BI	0.0 BI
	30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1799.8 BI	447.6 G	128.2 G	143.9 G	92.5 BI	15.8 BI	0.0 BI	0.0 BI	0.0 BI
	31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1791.0 BI	427.8 G	127.8 G	142.3 G	92.5 BI	14.1 BI	0.0 BI	0.0 BI	0.0 BI
	Aggr	0.0	0.0	0.0	0.0	493.1	1785.8	263.3	154.9	220.5	50.8	2.6	0.0	0.0
	Min	0.0	0.0	0.0	0.0	0.0	427.8	125.2	124.3	89.6	13.5	0.0	0.0	0.0
	Max	0.0	0.0	0.0	0.0	3395.5	4763.3	427.8	302.4	489.8	89.6	13.5	0.0	0.0
	Total	0.0	0.0	0.0	0.0	30321.4	106261.5	16190.8	9526.6	13119.5	3123.0	154.3	0.0	0.0

Date Processed: February 14, 2018 19:30

Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Daily Mean by Year

Identifier: Judy Creek

Units: ft³/s
Filter: None

Year: 2005	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Max:	4396.2	Oct	Nov	Total (Acre-ft):	127737.1
	1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	450.1 G	83.8 G	83.8 G	64.6 G	46.1 BI	0.0 BI	0.0 BI	0.0 BI
	2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.9 BI	422.9 G	78.5 G	78.5 G	63.7 G	42.7 BI	0.0 BI	0.0 BI	0.0 BI
	3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3.8 BI	390.8 G	75.4 G	75.4 G	66.7 G	39.5 BI	0.0 BI	0.0 BI	0.0 BI
	4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	10.9 BI	375.7 G	71.5 G	71.5 G	68.3 G	34.7 BI	0.0 BI	0.0 BI	0.0 BI
	5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	299.8 BI	381.5 G	70.6 G	70.6 G	68.4 G	29.6 BI	0.0 BI	0.0 BI	0.0 BI
	6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1472.5 BI	372.5 G	68.7 G	68.7 G	69.2 G	25.7 BI	0.0 BI	0.0 BI	0.0 BI
	7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2580.8 BI	353.5 G	71.4 G	71.4 G	67.8 G	23.6 BI	0.0 BI	0.0 BI	0.0 BI
	8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3482.6 BI	331.6 G	74.1 G	74.1 G	66.0 G	21.9 BI	0.0 BI	0.0 BI	0.0 BI
	9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	4064.2 BI	313.0 G	85.6 G	85.6 G	68.8 G	19.6 BI	0.0 BI	0.0 BI	0.0 BI
	10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	4369.5 BI	308.2 G	92.2 G	92.2 G	67.6 G	17.1 BI	0.0 BI	0.0 BI	0.0 BI
	11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	4006.0 BI	324.8 G	91.3 G	91.3 G	68.4 G	14.0 BI	0.0 BI	0.0 BI	0.0 BI
	12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3457.1 G	342.8 G	89.4 G	89.4 G	67.6 G	11.4 BI	0.0 BI	0.0 BI	0.0 BI
	13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3125.2 G	357.4 G	85.4 G	85.4 G	60.4 G	9.7 BI	0.0 BI	0.0 BI	0.0 BI
	14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2867.1 G	429.9 G	79.3 G	79.3 G	59.5 G	8.9 BI	0.0 BI	0.0 BI	0.0 BI
	15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2829.2 G	489.9 G	73.0 G	73.0 G	63.5 G	7.9 BI	0.0 BI	0.0 BI	0.0 BI
	16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2537.5 G	361.3 G	71.9 G	71.9 G	64.3 G	6.9 BI	0.0 BI	0.0 BI	0.0 BI
	17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2385.8 G	299.4 G	70.2 G	70.2 G	60.6 G	5.9 BI	0.0 BI	0.0 BI	0.0 BI
	18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2223.5 G	261.1 G	69.5 G	69.5 G	62.6 G	5.3 BI	0.0 BI	0.0 BI	0.0 BI
	19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1859.4 G	231.4 G	67.6 G	67.6 G	66.4 G	4.6 BI	0.0 BI	0.0 BI	0.0 BI
	20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1595.8 G	209.3 G	66.0 G	66.0 G	58.8 G	4.2 BI	0.0 BI	0.0 BI	0.0 BI
	21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1406.9 G	183.6 G	63.0 G	63.0 G	58.7 G	3.7 BI	0.0 BI	0.0 BI	0.0 BI
	22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1199.2 G	165.6 G	61.7 G	61.7 G	69.4 G	3.4 BI	0.0 BI	0.0 BI	0.0 BI
	23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1026.4 G	150.6 G	62.4 G	62.4 G	67.1 G	3.0 BI	0.0 BI	0.0 BI	0.0 BI
	24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	907.8 G	137.3 G	60.8 G	60.8 G	63.8 G	2.7 BI	0.0 BI	0.0 BI	0.0 BI
	25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	807.7 G	128.3 G	60.2 G	60.2 G	60.1 BI	2.3 BI	0.0 BI	0.0 BI	0.0 BI
	26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	717.5 G	121.0 G	62.0 G	62.0 G	57.6 BI	2.0 BI	0.0 BI	0.0 BI	0.0 BI
	27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	645.2 G	112.1 G	63.1 G	63.1 G	55.2 BI	1.6 BI	0.0 BI	0.0 BI	0.0 BI
	28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	587.0 G	104.4 G	67.3 G	67.3 G	53.7 BI	1.3 BI	0.0 BI	0.0 BI	0.0 BI
	29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	534.1 G	96.0 G	65.5 G	65.5 G	51.2 BI	1.0 BI	0.0 BI	0.0 BI	0.0 BI
	30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	490.3 G	92.4 G	64.6 G	64.6 G	48.5 BI	0.6 BI	0.0 BI	0.0 BI	0.0 BI
	31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	88.2 G	88.2 G	65.0 G	65.0 G	0.2 BI	0.2 BI	0.0 BI	0.0 BI	0.0 BI
	Aggr	0.0	0.0	0.0	0.0	0.0	1716.5	270.5	72.0	72.0	63.0	12.9	0.0	0.0	0.0
	Min	0.0	0.0	0.0	0.0	0.0	0.0	86.0	60.0	60.0	47.5	0.0	0.0	0.0	0.0
	Max	0.0	0.0	0.0	0.0	0.0	4396.2	528.0	93.0	93.0	77.0	47.5	0.0	0.0	0.0
	Total	0.0	0.0	0.0	0.0	0.0	102136.4	16634.3	4425.1	4425.1	3745.9	795.3	0.0	0.0	0.0

Date Processed: February 14, 2018 19:30

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Judy Creek

Units: ft³/s
Filter: None

Year: 2006	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):
	1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1639.6 BI	284.4 G	112.9 G	138.9 G	71.7 BI	16.8 BI	0.0 BI	124323.2
	2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1672.3 BI	273.8 G	104.3 G	128.4 G	68.2 BI	15.6 BI	0.0 BI	
	3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1546.6 BI	273.0 G	97.4 G	118.4 G	65.8 BI	14.7 BI	0.0 BI	
	4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1796.5 BI	262.2 G	94.4 G	112.2 G	62.0 BI	13.9 BI	0.0 BI	
	5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2072.4 BI	242.5 G	87.6 G	106.5 G	57.8 BI	11.9 BI	0.0 BI	
	6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2668.2 G	218.4 G	82.2 G	101.3 G	52.4 BI	10.0 BI	0.0 BI	
	7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3410.8 G	199.8 G	81.6 G	99.0 G	49.8 BI	8.7 BI	0.0 BI	
	8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3765.6 G	196.3 G	83.3 G	94.7 G	47.9 BI	7.9 BI	0.0 BI	
	9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3245.0 G	181.1 G	89.6 G	87.1 G	46.0 BI	7.1 BI	0.0 BI	
	10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2760.4 G	166.8 G	90.6 G	82.7 G	44.8 BI	5.9 BI	0.0 BI	
	11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2630.6 G	152.2 G	91.8 G	81.0 G	43.7 BI	4.8 BI	0.0 BI	
	12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2512.3 G	139.9 G	95.1 G	79.3 G	41.9 BI	4.0 BI	0.0 BI	
	13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2259.8 G	129.9 G	93.3 G	77.8 G	39.6 BI	2.9 BI	0.0 BI	
	14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1942.5 G	120.2 G	90.9 G	76.9 G	37.8 BI	1.9 BI	0.0 BI	
	15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1684.0 G	115.5 G	95.1 G	76.0 G	36.8 BI	0.8 BI	0.0 BI	
	16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1505.4 G	108.9 G	97.8 G	74.5 G	35.8 BI	0.0 BI	0.0 BI	
	17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1346.5 G	107.5 G	98.4 G	70.7 G	34.1 BI	0.0 BI	0.0 BI	
	18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1202.5 G	106.6 G	141.7 G	71.4 G	31.8 BI	0.0 BI	0.0 BI	
	19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1050.2 G	101.5 G	162.5 G	71.6 G	29.9 BI	0.0 BI	0.0 BI	
	20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	916.0 G	105.7 G	151.2 G	68.4 G	28.6 BI	0.0 BI	0.0 BI	
	21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	821.0 G	115.8 G	149.9 G	68.9 G	27.9 BI	0.0 BI	0.0 BI	
	22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	721.9 G	123.1 G	153.1 G	71.7 G	26.9 BI	0.0 BI	0.0 BI	
	23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	638.8 G	135.8 G	156.7 G	70.3 G	25.9 BI	0.0 BI	0.0 BI	
	24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	575.0 G	144.9 G	158.7 G	70.4 G	24.9 BI	0.0 BI	0.0 BI	
	25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	518.3 G	139.2 G	244.2 G	71.3 G	24.0 BI	0.0 BI	0.0 BI	
	26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.3 BI	458.4 G	182.0 G	287.9 G	73.7 G	22.8 BI	0.0 BI	0.0 BI	
	27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2.7 BI	405.4 G	182.8 G	234.8 G	73.9 G	21.8 BI	0.0 BI	0.0 BI	
	28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	32.7 BI	367.6 G	162.0 G	203.0 G	72.7 G	20.9 BI	0.0 BI	0.0 BI	
	29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	117.2 BI	332.3 G	145.4 G	180.9 G	74.0 G	19.9 BI	0.0 BI	0.0 BI	
	30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	718.7 BI	306.8 G	133.5 G	162.7 G	74.6 BI	18.9 BI	0.0 BI	0.0 BI	
	31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1998.0 BI	121.7 G	148.1 G	148.1 G	17.9 BI	17.9 BI	4.2	0.0	
	Aggr	0.0	0.0	0.0	0.0	92.6	1559.1	163.6	133.0	84.6	38.0	4.2	0.0	
	Min	0.0	0.0	0.0	0.0	0.0	292.0	99.0	79.0	68.0	17.1	0.0	0.0	
	Max	0.0	0.0	0.0	0.0	2277.2	3920.0	292.0	321.0	143.0	73.2	17.1	0.0	
	Total	0.0	0.0	0.0	0.0	5691.7	92772.2	10061.2	8175.7	5034.1	2336.6	251.8	0.0	



Date Processed: February 14, 2018 19:30
 Daily mean flows record grades: BI - Ice Conditions affect record
 EF - Estimated Data with fair confidence
 F - Fair Data
 G - Good Data
 P - Poor Data
 UN - Unspecified

Daily Mean by Year

Identifier: Judy Creek

Units: ft³/s
Filter: None

Year: 2007	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Max:	4551.4	Oct	Nov	58579.7
Aggr:										0.0				
	1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	43.7 BI	162.9 G	25.7 G	17.5 G	6.8 BI	0.0 BI	0.0 BI	0.0 BI
	2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	87.3 BI	166.3 G	24.9 G	16.6 G	6.3 BI	0.0 BI	0.0 BI	0.0 BI
	3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	229.5 BI	147.1 G	24.0 G	16.0 G	5.8 BI	0.0 BI	0.0 BI	0.0 BI
	4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1319.7 BI	129.0 G	23.4 G	16.0 G	5.3 BI	0.0 BI	0.0 BI	0.0 BI
	5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3962.6 BI	116.5 G	23.2 G	15.1 G	4.7 BI	0.0 BI	0.0 BI	0.0 BI
	6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	4180.0 G	105.5 G	23.6 G	15.1 G	4.3 BI	0.0 BI	0.0 BI	0.0 BI
	7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3178.8 G	94.5 G	23.8 G	15.9 G	3.8 BI	0.0 BI	0.0 BI	0.0 BI
	8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2445.2 G	84.3 G	24.0 G	16.1 G	3.2 BI	0.0 BI	0.0 BI	0.0 BI
	9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1867.8 G	77.6 G	22.9 G	15.3 G	2.8 BI	0.0 BI	0.0 BI	0.0 BI
	10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1435.8 G	72.8 G	22.0 G	15.7 G	2.3 BI	0.0 BI	0.0 BI	0.0 BI
	11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1126.0 G	67.7 G	21.3 G	15.8 G	1.8 BI	0.0 BI	0.0 BI	0.0 BI
	12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	895.6 G	64.8 G	21.0 G	15.5 G	1.2 BI	0.0 BI	0.0 BI	0.0 BI
	13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	739.7 G	62.9 G	20.6 G	14.7 G	0.5 BI	0.0 BI	0.0 BI	0.0 BI
	14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	627.7 G	60.2 G	20.8 G	15.2 G	0.0 BI	0.0 BI	0.0 BI	0.0 BI
	15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	537.0 G	53.3 G	22.0 G	15.8 G	0.0 BI	0.0 BI	0.0 BI	0.0 BI
	16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	464.4 G	48.4 G	22.0 G	14.4 G	0.0 BI	0.0 BI	0.0 BI	0.0 BI
	17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	404.6 G	45.9 G	22.0 G	15.0 G	0.0 BI	0.0 BI	0.0 BI	0.0 BI
	18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	356.1 G	44.8 G	22.0 G	15.2 G	0.0 BI	0.0 BI	0.0 BI	0.0 BI
	19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	312.5 G	41.2 G	23.2 G	15.1 G	0.0 BI	0.0 BI	0.0 BI	0.0 BI
	20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	277.6 G	39.0 G	22.2 G	15.8 G	0.0 BI	0.0 BI	0.0 BI	0.0 BI
	21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	247.3 G	37.0 G	20.1 G	14.1 G	0.0 BI	0.0 BI	0.0 BI	0.0 BI
	22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	219.0 G	36.0 G	18.9 G	13.0 G	0.0 BI	0.0 BI	0.0 BI	0.0 BI
	23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	199.7 G	34.2 G	17.9 G	10.6 G	0.0 BI	0.0 BI	0.0 BI	0.0 BI
	24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	184.1 G	32.7 G	17.2 G	10.4 G	0.0 BI	0.0 BI	0.0 BI	0.0 BI
	25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	170.2 G	30.8 G	17.2 G	10.4 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI
	26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.8 BI	168.7 G	29.6 G	17.2 G	9.4 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI
	27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2.0 BI	170.7 G	29.3 G	17.0 G	8.8 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI
	28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3.1 BI	176.1 G	29.0 G	16.6 G	8.3 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI
	29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	5.3 BI	172.4 G	28.2 G	16.0 G	7.8 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI
	30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	10.3 BI	159.8 G	27.3 G	16.0 G	7.4 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI
	31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	21.2 BI		26.9 G	16.4 G		0.0 BI	0.0 BI	0.0 BI	0.0 BI
	Aggr	0.0	0.0	0.0	0.0	1.4	878.7	65.3	20.8	13.7	1.6	0.0	0.0	0.0
	Min	0.0	0.0	0.0	0.0	0.0	31.2	26.0	16.0	6.4	0.0	0.0	0.0	0.0
	Max	0.0	0.0	0.0	0.0	31.2	4551.4	179.0	26.0	18.0	7.1	0.0	0.0	0.0
	Total	0.0	0.0	0.0	0.0	84.6	52283.5	4017.9	1279.7	817.0	96.9	0.0	0.0	0.0

Date Processed: February 14, 2018 19:30 Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Daily Mean by Year

Identifier: Judy Creek

Units: ft³/s
Filter: None

Year: 2008	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Max:	3820.4	Oct	Nov	Dec	Total (Acre-ft):
	1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1983.3 G	206.1 G	62.6 G	49.4 G	21.5 BI	0.0 BI	0.0 BI	0.0 BI	78956.4
	2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1798.1 G	188.4 G	62.6 G	48.0 G	17.7 BI	0.0 BI	0.0 BI	0.0 BI	
	3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1775.8 G	171.2 G	60.4 G	46.6 G	14.2 BI	0.0 BI	0.0 BI	0.0 BI	
	4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1818.1 G	153.4 G	63.0 G	45.6 G	11.9 BI	0.0 BI	0.0 BI	0.0 BI	
	5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1827.3 G	138.8 G	65.0 G	45.5 G	10.1 BI	0.0 BI	0.0 BI	0.0 BI	
	6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1587.3 G	122.5 G	67.0 G	45.3 G	9.0 BI	0.0 BI	0.0 BI	0.0 BI	
	7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1345.1 G	112.3 G	68.1 G	44.7 G	7.9 BI	0.0 BI	0.0 BI	0.0 BI	
	8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1137.8 G	103.3 G	69.3 G	43.8 G	6.9 BI	0.0 BI	0.0 BI	0.0 BI	
	9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1003.1 G	94.5 G	69.3 G	42.9 G	5.9 BI	0.0 BI	0.0 BI	0.0 BI	
	10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	887.2 G	88.8 G	69.2 G	42.8 G	4.9 BI	0.0 BI	0.0 BI	0.0 BI	
	11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	787.3 G	79.9 G	71.6 G	42.7 G	3.9 BI	0.0 BI	0.0 BI	0.0 BI	
	12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	718.4 G	74.8 G	78.2 G	43.4 G	3.0 BI	0.0 BI	0.0 BI	0.0 BI	
	13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	672.2 G	71.4 G	80.4 G	44.7 G	2.0 BI	0.0 BI	0.0 BI	0.0 BI	
	14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	598.0 G	68.4 G	77.5 G	45.3 G	0.8 BI	0.0 BI	0.0 BI	0.0 BI	
	15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	536.4 G	65.6 G	74.5 G	43.1 G	0.0 BI	0.0 BI	0.0 BI	0.0 BI	
	16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	474.8 G	64.3 G	71.3 G	44.3 G	0.0 BI	0.0 BI	0.0 BI	0.0 BI	
	17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	431.8 G	68.8 G	69.2 G	39.4 G	0.0 BI	0.0 BI	0.0 BI	0.0 BI	
	18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	400.0 G	69.5 G	68.0 G	37.1 G	0.0 BI	0.0 BI	0.0 BI	0.0 BI	
	19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	382.7 G	69.8 G	67.7 G	36.2 G	0.0 BI	0.0 BI	0.0 BI	0.0 BI	
	20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	363.2 G	70.0 G	68.2 G	38.4 G	0.0 BI	0.0 BI	0.0 BI	0.0 BI	
	21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	334.8 G	69.7 G	67.5 G	41.3 G	0.0 BI	0.0 BI	0.0 BI	0.0 BI	
	22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	313.2 G	70.8 G	65.9 G	42.6 G	0.0 BI	0.0 BI	0.0 BI	0.0 BI	
	23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	308.8 G	72.7 G	62.8 G	43.4 G	0.0 BI	0.0 BI	0.0 BI	0.0 BI	
	24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	284.1 G	73.9 G	59.8 G	43.7 G	0.0 BI	0.0 BI	0.0 BI	0.0 BI	
	25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	261.2 G	74.0 G	56.6 G	43.5 G	0.0 BI	0.0 BI	0.0 BI	0.0 BI	
	26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	247.1 G	71.8 G	55.6 G	43.0 G	0.0 BI	0.0 BI	0.0 BI	0.0 BI	
	27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	236.7 G	68.4 G	54.4 G	41.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	
	28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1009.0 BI	65.0 G	53.0 G	34.9 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	
	29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3419.6 G	61.3 G	52.1 G	29.8 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	
	30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3359.5 G	61.4 G	51.5 G	25.5 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	
	31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2406.0 G	59.7 G	50.1 G	25.5 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	
	Aggr	0.0	0.0	0.0	0.0	0.0	774.5	91.3	64.9	41.9	3.9	0.0	0.0	0.0	
	Min	0.0	0.0	0.0	0.0	0.0	212.0	57.2	48.9	23.3	0.0	0.0	0.0	0.0	
	Max	0.0	0.0	0.0	0.0	0.0	2092.4	212.0	82.3	49.8	23.3	0.0	0.0	0.0	
	Total	0.0	0.0	0.0	0.0	0.0	46086.1	5614.3	3991.1	2494.8	237.3	0.0	0.0	0.0	



Date Processed: February 14, 2018 19:30
 Daily mean flows record grades: BI - Ice Conditions affect record
 EF - Estimated Data with fair confidence
 F - Fair Data
 G - Good Data
 P - Poor Data
 UN - Unspecified

Daily Mean by Year

Identifier: Judy Creek

Units: ft³/s
Filter: None

Year: 2009	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):
	1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2163.9 G	189.3 G	69.2 G	197.3 G	59.5 BI	11.1 BI	0.0 BI	109574.4
	2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2095.0 G	176.4 G	68.7 G	206.0 G	58.1 BI	10.0 BI	0.0 BI	
	3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1978.9 G	164.7 G	68.4 G	249.5 G	57.4 BI	9.1 BI	0.0 BI	
	4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1861.1 G	153.6 G	67.3 G	331.1 G	56.4 BI	8.4 BI	0.0 BI	
	5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1765.4 G	138.1 G	66.2 G	313.9 G	56.0 BI	7.4 BI	0.0 BI	
	6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1575.4 G	126.8 G	65.6 G	253.3 G	54.7 BI	6.4 BI	0.0 BI	
	7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1546.7 G	119.0 G	64.5 G	230.8 G	53.1 BI	5.5 BI	0.0 BI	
	8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1480.9 G	115.5 G	64.3 G	211.2 G	52.4 BI	4.6 BI	0.0 BI	
	9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1538.2 G	110.1 G	69.8 G	199.2 G	51.4 BI	3.9 BI	0.0 BI	
	10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1368.9 G	108.4 G	74.8 G	181.6 G	50.3 BI	3.4 BI	0.0 BI	
	11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1195.8 G	110.1 G	78.4 G	175.5 G	49.3 BI	2.9 BI	0.0 BI	
	12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1008.5 G	111.6 G	80.6 G	183.4 G	47.9 BI	2.4 BI	0.0 BI	
	13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	860.7 G	109.5 G	80.9 G	179.9 G	46.1 BI	2.0 BI	0.0 BI	
	14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	753.0 G	108.1 G	80.6 G	173.4 G	44.9 BI	1.6 BI	0.0 BI	
	15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	672.5 G	105.3 G	80.5 G	164.8 G	43.4 BI	1.1 BI	0.0 BI	
	16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	612.1 G	93.4 G	80.4 G	159.4 G	41.7 BI	0.8 BI	0.0 BI	
	17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	550.1 G	89.6 G	81.8 G	155.5 G	40.0 BI	0.6 BI	0.0 BI	
	18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.9 BI	498.1 G	85.7 G	85.5 G	153.2 G	38.3 BI	0.4 BI	0.0 BI	
	19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2.2 BI	444.1 G	83.6 G	88.0 G	151.1 G	35.9 BI	0.3 BI	0.0 BI	
	20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	5.9 BI	400.2 G	81.4 G	88.9 G	149.2 G	33.2 BI	0.2 BI	0.0 BI	
	21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	419.1 BI	363.5 G	78.7 G	89.0 G	144.9 G	30.1 BI	0.1 BI	0.0 BI	
	22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	866.6 BI	331.7 G	75.4 G	87.2 G	125.2 BI	27.2 BI	0.0 BI	0.0 BI	
	23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	921.7 BI	307.2 G	73.5 G	85.1 G	109.3 BI	24.8 BI	0.0 BI	0.0 BI	
	24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	869.6 BI	282.7 G	73.2 G	85.9 G	100.2 BI	22.8 BI	0.0 BI	0.0 BI	
	25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	859.3 BI	263.7 G	72.6 G	107.2 G	94.7 BI	21.0 BI	0.0 BI	0.0 BI	
	26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1402.4 BI	267.9 G	72.0 G	118.6 G	89.2 BI	19.2 BI	0.0 BI	0.0 BI	
	27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2108.1 BI	263.5 G	69.9 G	119.2 G	79.8 BI	17.4 BI	0.0 BI	0.0 BI	
	28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2158.6 BI	239.5 G	69.6 G	117.2 G	74.1 BI	16.1 BI	0.0 BI	0.0 BI	
	29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2130.0 G	222.2 G	71.0 G	118.8 G	70.0 BI	14.8 BI	0.0 BI	0.0 BI	
	30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2032.0 G	204.5 G	70.4 G	171.9 G	64.5 BI	13.6 BI	0.0 BI	0.0 BI	
	31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2122.0 G	70.1 G	70.1 G	193.1 G	12.2 BI	0.0 BI	0.0 BI	0.0 BI	
	Aggr	0.0	0.0	0.0	0.0	512.9	903.9	102.5	90.3	166.1	38.4	2.7	0.0	
	Min	0.0	0.0	0.0	0.0	0.0	196.3	68.4	62.5	60.9	11.7	0.0	0.0	
	Max	0.0	0.0	0.0	0.0	2245.1	2192.0	196.3	197.0	341.0	60.9	11.7	0.0	
	Total	0.0	0.0	0.0	0.0	31534.4	53783.5	6300.7	5549.9	9884.3	2358.3	163.3	0.0	

Date Processed: February 14, 2018 19:30
 Daily mean flows record grades: BI - Ice Conditions affect record
 EF - Estimated Data with fair confidence
 F - Fair Data
 G - Good Data
 P - Poor Data
 UN - Unspecified



Daily Mean by Year

Identifier: Judy Creek

Units: ft³/s
Filter: None

Year: 2010	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Max:	9214.3	Oct	Nov	Total (Acre-ft):	132726.2
	1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	235.9 G	158.5 G	0.0	154.1 G	55.1 BI	2.5 BI		0.0 BI
	2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	77.8 BI	221.4 G	143.7 G	0.0	150.2 G	49.9 BI	2.2 BI		0.0 BI
	3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	87.5 BI	202.8 G	128.5 G	0.0	147.3 G	45.2 BI	1.9 BI		0.0 BI
	4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1317.0 BI	188.3 G	117.5 G	0.0	140.8 G	40.9 BI	1.7 BI		0.0 BI
	5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1358.9 BI	171.7 G	107.6 G	0.0	134.9 G	37.0 BI	1.4 BI		0.0 BI
	6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1672.4 BI	157.2 G	106.8 G	0.0	130.3 G	33.5 BI	1.2 BI		0.0 BI
	7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	4787.6 BI	147.5 G	112.6 G	0.0	127.9 G	30.4 BI	1.0 BI		0.0 BI
	8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	8720.8 BI	138.9 G	124.7 G	0.0	123.3 G	27.5 BI	0.8 BI		0.0 BI
	9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	7084.5 EF	130.3 G	137.5 G	0.0	121.0 G	24.9 BI	0.6 BI		0.0 BI
	10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	4810.3 G	122.4 G	236.1 G	0.0	119.6 G	22.5 BI	0.5 BI		0.0 BI
	11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3735.1 G	113.2 G	534.0 G	0.0	117.8 G	20.4 BI	0.3 BI		0.0 BI
	12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3070.9 G	106.6 G	429.8 G	0.0	115.5 G	18.5 BI	0.2 BI		0.0 BI
	13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2368.3 G	104.2 G	365.1 G	0.0	115.5 G	16.7 BI	0.2 BI		0.0 BI
	14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1868.6 G	100.9 G	332.9 G	0.0	116.5 G	15.2 BI	0.1 BI		0.0 BI
	15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1528.2 G	96.6 G	316.9 G	0.0	111.8 G	13.7 BI	0.1 BI		0.0 BI
	16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1283.4 G	93.0 G	301.4 G	0.0	110.5 G	12.4 BI	0.0 BI		0.0 BI
	17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1099.4 G	91.6 G	287.9 G	0.0	111.3 G	11.2 BI	0.0 BI		0.0 BI
	18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	950.3 G	93.9 G	279.3 G	0.0	111.3 G	10.2 BI	0.0 BI		0.0 BI
	19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	823.0 G	110.3 G	252.5 G	0.0	110.7 G	9.2 BI	0.0 BI		0.0 BI
	20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	725.2 G	125.2 G	227.6 G	0.0	111.0 G	8.3 BI	0.0 BI		0.0 BI
	21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	646.7 G	129.1 G	212.1 G	0.0	111.1 G	7.6 BI	0.0 BI		0.0 BI
	22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	574.4 G	136.7 G	198.7 G	0.0	110.4 G	6.8 BI	0.0 BI		0.0 BI
	23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	514.6 G	158.4 G	194.7 G	0.0	109.2 G	6.2 BI	0.0 BI		0.0 BI
	24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	457.5 G	176.8 G	211.5 G	0.0	105.7 G	5.6 BI	0.0 BI		0.0 BI
	25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	418.1 G	188.3 G	219.4 G	0.0	101.2 G	5.1 BI	0.0 BI		0.0 BI
	26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	371.0 G	178.7 G	207.1 G	0.0	90.7 BI	4.6 BI	0.0 BI		0.0 BI
	27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	336.7 G	199.7 G	190.5 G	0.0	81.9 BI	4.2 BI	0.0 BI		0.0 BI
	28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	309.4 G	195.7 G	177.7 G	0.0	74.2 BI	3.8 BI	0.0 BI		0.0 BI
	29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	287.0 G	171.6 G	168.2 G	0.0	67.2 BI	3.4 BI	0.0 BI		0.0 BI
	30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	258.0 G	161.1 G	163.4 G	0.0	60.8 BI	3.1 BI	0.0 BI		0.0 BI
	31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	157.7 G	157.7 G	159.8 G	0.0	2.8 BI	2.8 BI	0.0 BI		0.0 BI
	Aggr	0.0	0.0	0.0	0.0	0.0	1718.1	148.6	219.5		113.1	17.9	0.5		0.0
	Min	0.0	0.0	0.0	0.0	0.0	0.0	90.1	104.8		57.9	2.7	0.0		0.0
	Max	0.0	0.0	0.0	0.0	0.0	9214.3	244.4	559.0		157.7	57.9	2.7		0.0
	Total	0.0	0.0	0.0	0.0	0.0	102232.9	9135.2	13495.0		6731.5	1102.7	29.0		0.0

Date Processed: February 14, 2018 19:30

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Judy Creek

Units: ft³/s
Filter: None

Year: 2011	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):
	1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	5080.6 BI	290.5 G	96.7 G	63.6 G	126.7 BI	13.3 BI	0.0 BI	131423.0
	2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	4518.1 BI	273.0 G	99.3 G	63.6 G	92.6 BI	11.5 BI	0.0 BI	
	3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3662.3 G	257.5 G	102.0 G	63.6 G	107.7 BI	9.9 BI	0.0 BI	
	4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3087.6 G	232.6 G	101.3 G	63.7 G	112.0 BI	8.5 BI	0.0 BI	
	5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2738.5 G	220.5 G	95.1 G	64.6 G	112.2 BI	7.2 BI	0.0 BI	
	6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2640.2 G	218.4 G	92.3 G	64.4 G	111.2 BI	6.0 BI	0.0 BI	
	7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2598.8 G	211.3 G	88.8 G	63.0 G	108.4 BI	5.0 BI	0.0 BI	
	8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2382.5 G	196.1 G	86.7 G	63.0 G	105.1 BI	4.1 BI	0.0 BI	
	9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2003.4 G	174.9 G	95.2 G	65.3 G	100.0 BI	3.4 BI	0.0 BI	
	10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1656.3 G	163.6 G	94.1 G	71.6 G	93.4 BI	2.7 BI	0.0 BI	
	11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1337.3 G	156.0 G	92.6 G	81.3 G	86.4 BI	2.2 BI	0.0 BI	
	12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1131.4 G	150.6 G	92.9 G	88.7 G	81.1 BI	1.7 BI	0.0 BI	
	13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1004.5 G	145.0 G	87.0 G	92.7 G	73.5 BI	1.4 BI	0.0 BI	
	14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	940.6 G	145.4 G	85.4 G	100.2 G	69.5 BI	1.0 BI	0.0 BI	
	15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	894.5 G	148.7 G	80.4 G	133.9 G	65.6 BI	0.8 BI	0.0 BI	
	16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	832.2 G	149.9 G	79.3 G	186.4 G	61.8 BI	0.5 BI	0.0 BI	
	17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	804.0 G	146.7 G	76.4 G	180.8 G	57.9 BI	0.2 BI	0.0 BI	
	18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	793.8 G	146.2 G	74.9 G	176.2 G	54.1 BI	0.0 BI	0.0 BI	
	19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	766.7 G	142.8 G	74.8 G	159.2 G	50.4 BI	0.0 BI	0.0 BI	
	20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	705.2 G	141.2 G	73.4 G	157.3 G	46.8 BI	0.0 BI	0.0 BI	
	21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	639.2 G	142.8 G	69.5 G	160.4 G	43.2 BI	0.0 BI	0.0 BI	
	22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	604.6 G	169.3 G	70.5 G	178.6 G	39.8 BI	0.0 BI	0.0 BI	
	23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	556.8 G	171.0 G	72.4 G	213.4 G	36.5 BI	0.0 BI	0.0 BI	
	24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	506.9 G	158.9 G	71.4 G	272.1 G	33.3 BI	0.0 BI	0.0 BI	
	25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	464.4 G	144.0 G	69.6 G	360.6 G	30.3 BI	0.0 BI	0.0 BI	
	26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	427.9 G	131.7 G	68.3 G	337.6 G	27.4 BI	0.0 BI	0.0 BI	
	27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	386.3 G	124.8 G	67.9 G	287.7 G	24.6 BI	0.0 BI	0.0 BI	
	28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	367.3 G	117.7 G	66.4 G	260.3 G	22.0 BI	0.0 BI	0.0 BI	
	29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	332.4 G	106.9 G	65.1 G	236.7 G	19.6 BI	0.0 BI	0.0 BI	
	30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2357.2 BI	310.2 G	103.0 G	64.3 G	208.2 G	17.3 BI	0.0 BI	0.0 BI	
	31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	5404.8 BI	100.4 G	63.6 G	63.6 G	15.2 BI	15.2 BI	0.0 BI	0.0 BI	
	Aggr	0.0	0.0	0.0	0.0	250.4	1472.5	167.1	81.2	150.6	65.3	2.6	0.0	
	Min	0.0	0.0	0.0	0.0	0.0	297.0	97.8	62.4	62.4	14.2	0.0	0.0	
	Max	0.0	0.0	0.0	0.0	5481.5	5352.1	297.1	105.2	376.8	220.4	14.2	0.0	
	Total	0.0	0.0	0.0	0.0	15395.8	87618.7	10277.1	4993.6	8962.4	4017.9	157.5	0.0	

Date Processed: February 14, 2018 19:30
 Daily mean flows record grades: BI - Ice Conditions affect record
 EF - Estimated Data with fair confidence
 F - Fair Data
 G - Good Data
 P - Poor Data
 UN - Unspecified



Daily Mean by Year

Identifier: Judy Creek

Units: ft³/s
Filter: None

Year:	2012	Aggr:	190.5	Min:	0.0	Max:	6888.4	Total (Acre-ft):	138323.3			
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	290.7 BI	285.8 G	72.9 G	83.4 G	152.9 G	15.2 BI	0.0 BI
2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1304.4 BI	263.5 G	74.9 G	87.8 G	224.3 G	13.0 BI	0.0 BI
3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2699.3 G	244.6 G	74.8 G	109.7 G	130.6 G	11.1 BI	0.0 BI
4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	4448.8 G	229.1 G	75.3 G	348.7 G	108.3 G	9.6 BI	0.0 BI
5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	6302.1 G	210.7 G	73.2 G	312.9 G	121.6 G	8.4 BI	0.0 BI
6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	6284.2 G	191.9 G	100.3 G	241.8 G	120.9 G	7.3 BI	0.0 BI
7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	4824.4 G	178.9 G	103.4 G	207.2 G	120.6 G	6.3 BI	0.0 BI
8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3754.2 G	169.3 G	96.1 G	186.9 G	115.1 BI	5.3 BI	0.0 BI
9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3379.6 G	156.6 G	90.7 G	171.4 G	98.2 BI	4.2 BI	0.0 BI
10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3124.9 G	147.0 G	88.8 G	163.2 G	82.7 BI	3.0 BI	0.0 BI
11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2529.1 G	135.8 G	85.0 G	157.6 G	84.4 BI	1.6 BI	0.0 BI
12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1899.8 G	125.9 G	87.0 G	156.2 G	85.3 BI	0.2 BI	0.0 BI
13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1619.7 G	118.0 G	97.6 G	145.9 G	86.7 BI	0.0 BI	0.0 BI
14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1417.6 G	115.1 G	89.1 G	134.7 G	92.0 BI	0.0 BI	0.0 BI
15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1219.9 G	113.7 G	80.6 G	123.4 G	95.7 BI	0.0 BI	0.0 BI
16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1067.3 G	113.7 G	80.6 G	123.4 G	95.7 BI	0.0 BI	0.0 BI
17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	926.3 G	109.3 G	78.1 G	115.9 G	99.8 BI	0.0 BI	0.0 BI
18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	828.1 G	105.1 G	76.0 G	111.1 G	97.9 BI	0.0 BI	0.0 BI
19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	748.3 G	100.9 G	73.7 G	108.6 G	91.9 BI	0.0 BI	0.0 BI
20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	668.8 G	97.8 G	69.1 G	108.5 G	85.4 BI	0.0 BI	0.0 BI
21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	602.7 G	94.6 G	74.6 G	136.4 G	76.6 BI	0.0 BI	0.0 BI
22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	546.9 G	91.6 G	81.5 G	208.4 G	68.3 BI	0.0 BI	0.0 BI
23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	490.0 G	87.0 G	85.9 G	178.1 G	60.4 BI	0.0 BI	0.0 BI
24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	449.9 G	83.2 G	88.6 G	157.4 G	53.0 BI	0.0 BI	0.0 BI
25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	411.3 G	80.7 G	86.1 G	144.9 G	46.2 BI	0.0 BI	0.0 BI
26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1.6 BI	384.2 G	79.1 G	78.8 G	138.1 G	39.9 BI	0.0 BI	0.0 BI
27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	472.0 BI	364.8 G	75.0 G	74.6 G	142.5 G	34.3 BI	0.0 BI	0.0 BI
28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	752.1 BI	344.3 G	74.0 G	75.5 G	171.7 G	29.3 BI	0.0 BI	0.0 BI
29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	296.1 BI	326.0 G	71.1 G	78.7 G	172.3 G	24.9 BI	0.0 BI	0.0 BI
30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	186.9 BI	304.8 G	67.7 G	80.0 G	164.7 G	21.1 BI	0.0 BI	0.0 BI
31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	262.3 BI		69.4 G	82.2 G		17.9 BI		0.0 BI
Aggr	0.0	0.0	0.0	0.0	63.6	1785.4	131.9	82.4	160.5	85.8	2.8	0.0
Min	0.0	0.0	0.0	0.0	0.0	225.5	65.3	66.7	80.3	16.5	0.0	0.0
Max	0.0	0.0	0.0	0.0	1304.8	6888.4	295.5	108.9	371.6	318.9	16.5	0.0
Total	0.0	0.0	0.0	0.0	3909.3	106239.4	8111.6	5068.1	9551.1	5275.1	168.8	0.0

Date Processed: February 14, 2018 19:30 Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Daily Mean by Year

Identifier: Judy Creek

Units: ft³/s
Filter: None

Year: 2013	Aggr:	269.7	Min:	0.0	Max:	6234.3	Total (Acre-ft):	195238.3				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2741.3 BI	476.7 G	206.0 G	151.3 G	152.4 BI	31.7 BI	0.0 BI
2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3269.0 BI	442.2 G	249.3 G	157.9 G	148.7 BI	28.7 BI	0.0 BI
3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3646.5 BI	421.1 G	232.5 G	165.7 G	145.0 BI	25.9 BI	0.0 BI
4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3953.6 BI	414.7 G	219.0 G	165.4 G	141.2 BI	23.3 BI	0.0 BI
5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3398.1 BI	390.8 G	210.9 G	193.4 G	137.3 BI	20.7 BI	0.0 BI
6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3082.0 BI	366.9 G	206.8 G	220.1 G	133.4 BI	18.4 BI	0.0 BI
7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3008.7 BI	345.6 G	194.6 G	223.6 G	129.4 BI	16.1 BI	0.0 BI
8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3379.1 BI	324.8 G	185.8 G	226.0 G	125.4 BI	14.0 BI	0.0 BI
9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	5265.0 G	308.2 G	178.0 G	221.6 G	121.3 BI	12.1 BI	0.0 BI
10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	6132.4 G	296.2 G	174.0 G	217.9 G	117.1 BI	10.3 BI	0.0 BI
11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	5792.9 G	281.9 G	173.4 G	212.4 G	113.0 BI	8.7 BI	0.0 BI
12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	4647.6 G	266.3 G	173.4 G	210.9 G	108.8 BI	7.3 BI	0.0 BI
13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3806.8 G	249.6 G	165.8 G	212.6 G	104.6 BI	5.9 BI	0.0 BI
14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3279.7 G	235.1 G	157.9 G	209.9 G	100.4 BI	4.8 BI	0.0 BI
15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2771.1 G	220.7 G	154.8 G	214.1 G	96.2 BI	3.7 BI	0.0 BI
16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2364.8 G	210.2 G	153.5 G	213.7 G	91.9 BI	2.9 BI	0.0 BI
17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2122.7 G	217.3 G	151.5 G	189.8 G	87.7 BI	2.1 BI	0.0 BI
18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1917.1 G	212.3 G	149.9 G	180.2 G	83.6 BI	1.5 BI	0.0 BI
19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1676.7 G	207.4 G	149.5 G	172.9 BI	79.4 BI	1.0 BI	0.0 BI
20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1389.5 G	201.6 G	145.0 G	164.8 BI	75.3 BI	0.6 BI	0.0 BI
21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1192.8 G	192.8 G	143.8 G	169.0 BI	71.2 BI	0.4 BI	0.0 BI
22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1039.5 G	183.0 G	142.8 G	170.8 BI	67.2 BI	0.2 BI	0.0 BI
23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1023.2 G	178.6 G	143.7 G	171.4 BI	63.3 BI	0.1 BI	0.0 BI
24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1124.1 G	182.9 G	143.1 G	171.3 BI	59.4 BI	0.1 BI	0.0 BI
25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	912.6 G	184.1 G	155.4 G	170.8 BI	55.6 BI	0.1 BI	0.0 BI
26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	782.2 G	187.0 G	165.6 G	169.4 BI	51.9 BI	0.1 BI	0.0 BI
27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	692.4 G	187.4 G	159.5 G	166.7 BI	48.2 BI	0.0 BI	0.0 BI
28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	612.2 G	192.7 G	149.7 G	163.7 BI	44.7 BI	0.0 BI	0.0 BI
29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	556.0 G	191.8 G	142.9 G	159.8 BI	41.3 BI	0.0 BI	0.0 BI
30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	520.3 G	196.4 G	143.7 G	155.9 BI	38.0 BI	0.0 BI	0.0 BI
31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	196.0 BI	200.9 G	200.9 G	146.8 G	34.8 BI	34.8 BI	0.0 BI	0.0 BI
Aggr	0.0	0.0	0.0	0.0	6.3	2536.7	263.5	169.9	186.4	92.5	8.0	0.0
Min	0.0	0.0	0.0	0.0	0.0	496.7	175.6	141.0	149.5	33.2	0.0	0.0
Max	0.0	0.0	0.0	0.0	2140.6	6234.3	496.7	256.7	228.9	154.1	33.2	0.0
Total	0.0	0.0	0.0	0.0	388.8	150942.1	16199.5	10449.6	11093.2	5687.5	477.6	0.0

Date Processed: February 14, 2018 19:30
Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Judy Creek

Units: ft³/s
Filter: None

Year: 2014	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):
	1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2273.4 BI	688.5 G	181.2 G	150.0 G	155.6 BI	26.8 BI	0.0 BI	194461.9
	2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1745.6 BI	632.9 G	173.1 G	152.6 G	150.4 BI	24.5 BI	0.0 BI	
	3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1619.5 G	581.7 G	167.6 G	162.8 G	145.2 BI	22.4 BI	0.0 BI	
	4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1955.9 G	548.8 G	163.9 G	208.8 G	139.9 BI	20.4 BI	0.0 BI	
	5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3251.6 G	507.7 G	158.3 G	251.6 G	134.7 BI	18.5 BI	0.0 BI	
	6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3733.2 G	464.4 G	151.6 G	302.5 G	129.6 BI	16.8 BI	0.0 BI	
	7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3115.9 G	424.4 G	150.6 G	296.3 G	124.4 BI	15.2 BI	0.0 BI	
	8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2287.6 G	392.4 G	149.1 G	298.7 G	119.3 BI	13.7 BI	0.0 BI	
	9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2089.7 G	371.5 G	140.5 G	261.3 G	114.3 BI	12.3 BI	0.0 BI	
	10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1904.4 G	343.5 G	137.6 G	220.1 G	109.3 BI	11.0 BI	0.0 BI	
	11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1649.5 G	310.6 G	135.4 G	189.0 G	104.4 BI	9.8 BI	0.0 BI	
	12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1473.6 G	280.6 G	131.1 G	170.6 G	99.5 BI	8.7 BI	0.0 BI	
	13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1344.9 G	257.8 G	128.7 G	160.4 G	94.8 BI	7.7 BI	0.0 BI	
	14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	5.2 BI	1234.3 G	246.5 G	126.8 G	143.9 G	90.1 BI	6.8 BI	0.0 BI	
	15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	29.1 BI	1139.1 G	240.7 G	125.2 G	126.6 G	85.6 BI	6.0 BI	0.0 BI	
	16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	188.7 BI	1068.4 G	233.5 G	116.6 G	117.5 G	81.1 BI	5.2 BI	0.0 BI	
	17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1841.9 BI	976.3 G	221.4 G	112.8 G	111.8 G	76.8 BI	4.5 BI	0.0 BI	
	18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3395.9 BI	905.4 G	213.2 G	110.3 G	110.9 G	72.5 BI	3.9 BI	0.0 BI	
	19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3077.7 BI	852.8 G	206.7 G	108.8 G	114.4 G	68.4 BI	3.3 BI	0.0 BI	
	20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3077.6 BI	802.0 G	201.2 G	110.3 G	107.9 G	64.4 BI	2.7 BI	0.0 BI	
	21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2858.8 BI	747.6 G	200.7 G	113.7 G	107.1 G	60.5 BI	2.2 BI	0.0 BI	
	22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2165.2 BI	696.6 G	210.0 G	114.3 G	107.7 G	56.8 BI	1.7 BI	0.0 BI	
	23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2007.0 BI	698.5 G	194.2 G	112.1 G	108.7 G	53.2 BI	1.1 BI	0.0 BI	
	24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1614.3 BI	817.4 G	195.1 G	110.5 G	111.1 G	49.7 BI	0.6 BI	0.0 BI	
	25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1735.3 BI	906.3 G	199.2 G	115.3 G	116.1 G	46.4 BI	0.1 BI	0.0 BI	
	26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1286.0 BI	1151.9 G	198.7 G	126.9 G	130.3 BI	43.1 BI	0.0 BI	0.0 BI	
	27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1248.2 BI	1119.7 G	197.8 G	130.9 G	148.5 BI	40.1 BI	0.0 BI	0.0 BI	
	28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1274.0 BI	933.9 G	207.2 G	130.7 G	157.5 BI	37.1 BI	0.0 BI	0.0 BI	
	29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1715.3 BI	827.7 G	217.2 G	135.2 G	161.3 BI	34.3 BI	0.0 BI	0.0 BI	
	30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2231.9 BI	750.6 G	211.5 G	140.9 G	160.6 BI	31.7 BI	0.0 BI	0.0 BI	
	31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2611.6 BI	194.9 G	145.0 G	145.0 G	29.1 BI	29.1 BI	8.2	0.0 BI	
	Aggr	0.0	0.0	0.0	0.0	1044.0	1469.1	309.5	134.0	165.5	85.2	8.2	0.0	
	Min	0.0	0.0	0.0	0.0	0.0	674.2	188.6	108.5	105.6	27.9	0.0	0.0	
	Max	0.0	0.0	0.0	0.0	3707.8	3751.6	712.8	188.7	312.2	158.2	27.9	0.0	
	Total	0.0	0.0	0.0	0.0	64192.0	87418.1	19030.7	8241.5	9850.7	5241.2	487.7	0.0	



Date Processed: February 14, 2018 19:30
Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence
F - Fair Data
G - Good Data
P - Poor Data
UN - Unspecified

Daily Mean by Year

Identifier: Judy Creek

Units: ft³/s
Filter: None

Year: 2015	Aggr:	189.5	Min:	0.0	Max:	5993.8	Total (Acre-ft):	137219.9				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	14821.6	224.0 G	81.0 G	157.5 G	38.7 BI	0.0 BI	0.0 BI
2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	12925.6	209.4 G	81.2 G	197.0 G	35.0 BI	0.0 BI	0.0 BI
3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	11293.6	198.6 G	84.3 G	198.5 G	32.1 BI	0.0 BI	0.0 BI
4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1004.4 G	190.5 G	87.8 G	183.7 G	29.8 BI	0.0 BI	0.0 BI
5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	900.8 G	182.8 G	86.8 G	158.9 G	27.5 BI	0.0 BI	0.0 BI
6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	834.5 G	173.7 G	85.2 G	141.3 G	25.1 BI	0.0 BI	0.0 BI
7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	803.9 G	168.2 G	81.2 G	129.8 G	22.5 BI	0.0 BI	0.0 BI
8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	761.4 G	158.1 G	84.6 G	122.2 G	20.3 BI	0.0 BI	0.0 BI
9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	744.8 G	144.9 G	89.5 G	121.5 G	18.1 BI	0.0 BI	0.0 BI
10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	760.6 G	137.8 G	93.6 G	120.5 G	16.3 BI	0.0 BI	0.0 BI
11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	783.8 G	133.7 G	95.4 G	120.5 G	14.6 BI	0.0 BI	0.0 BI
12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	792.2 G	128.8 G	96.9 G	108.7 G	13.1 BI	0.0 BI	0.0 BI
13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	802.7 G	124.4 G	94.3 G	112.1 G	11.6 BI	0.0 BI	0.0 BI
14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	775.4 G	118.3 G	92.4 G	122.4 G	10.4 BI	0.0 BI	0.0 BI
15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	726.1 G	117.0 G	90.1 G	136.1 G	9.1 BI	0.0 BI	0.0 BI
16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	651.1 G	116.0 G	90.9 G	128.8 G	8.0 BI	0.0 BI	0.0 BI
17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	595.1 G	110.9 G	89.8 G	117.4 G	7.1 BI	0.0 BI	0.0 BI
18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1.4 BI	544.5 G	107.3 G	88.1 G	118.2 G	6.3 BI	0.0 BI	0.0 BI
19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	22.1 BI	498.6 G	103.5 G	86.9 G	102.5 G	5.6 BI	0.0 BI	0.0 BI
20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1110.5 BI	460.2 G	102.5 G	86.9 G	87.5 BI	4.7 BI	0.0 BI	0.0 BI
21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	5146.9 BI	423.5 G	103.8 G	87.5 G	78.4 BI	3.7 BI	0.0 BI	0.0 BI
22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	5890.7 G	385.3 G	105.3 G	86.2 G	75.1 BI	2.8 BI	0.0 BI	0.0 BI
23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	5105.9 G	355.3 G	98.8 G	84.2 G	71.9 BI	2.2 BI	0.0 BI	0.0 BI
24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	4166.1 G	326.4 G	94.6 G	83.2 G	68.4 BI	1.5 BI	0.0 BI	0.0 BI
25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3391.5 G	303.3 G	91.9 G	82.5 G	64.6 BI	1.0 BI	0.0 BI	0.0 BI
26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2961.7 G	284.0 G	90.1 G	86.0 G	60.3 BI	0.5 BI	0.0 BI	0.0 BI
27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2805.6 G	284.2 G	88.4 G	86.4 G	55.5 BI	0.1 BI	0.0 BI	0.0 BI
28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2620.2 G	281.1 G	87.1 G	91.9 G	51.4 BI	0.0 BI	0.0 BI	0.0 BI
29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2327.9 G	260.0 G	86.2 G	100.0 G	47.2 BI	0.0 BI	0.0 BI	0.0 BI
30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2026.1 G	240.3 G	85.6 G	105.7 G	42.8 BI	0.0 BI	0.0 BI	0.0 BI
31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1719.8 G	219.8 G	82.5 G	104.3 G	42.8 BI	0.0 BI	0.0 BI	0.0 BI
Aggr	0.0	0.0	0.0	0.0	1267.6	649.6	127.9	89.2	110.0	11.9	0.0	0.0
Min	0.0	0.0	0.0	0.0	0.0	231.9	80.3	79.1	40.7	0.0	0.0	0.0
Max	0.0	0.0	0.0	0.0	5993.8	1570.3	231.9	109.9	204.1	40.7	0.0	0.0
Total	0.0	0.0	0.0	0.0	77943.3	38652.7	7864.2	5483.9	6546.8	729.1	0.0	0.0

Date Processed: February 14, 2018 19:30

Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Daily Mean by Year

Identifier: Judy Creek

Units: ft³/s
Filter: None

Year: 2016	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Max:	3996.2	Oct	Nov	Dec	Total (Acre-ft):
	1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1124.1 G	288.2 G	36.7 G	0.0	311.7 G	570.4 G	105.1 BI	0.0 BI	151811.1
	2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	942.9 G	257.8 G	38.1 G	0.0	294.2 G	539.0 G	99.7 BI	0.0 BI	
	3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	828.6 G	232.0 G	39.6 G	0.0	276.1 G	510.7 G	94.4 BI	0.0 BI	
	4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	744.4 G	205.4 G	40.2 G	0.0	261.5 G	668.1 G	89.3 BI	0.0 BI	
	5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	693.2 G	184.4 G	41.8 G	0.0	251.1 G	638.9 G	84.3 BI	0.0 BI	
	6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	660.1 G	172.9 G	35.9 G	0.0	242.1 G	586.2 G	79.5 BI	0.0 BI	
	7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	637.1 G	158.1 G	33.5 G	0.0	246.0 G	501.1 G	74.7 BI	0.0 BI	
	8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	601.6 G	145.6 G	30.7 G	0.0	264.5 G	455.4 G	69.9 BI	0.0 BI	
	9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	579.7 G	136.2 G	31.7 G	0.0	278.6 G	384.5 G	65.2 BI	0.0 BI	
	10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	602.7 G	126.2 G	33.2 G	0.0	296.2 G	357.3 BI	60.6 BI	0.0 BI	
	11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.6 BI	619.8 G	120.7 G	35.8 G	0.0	312.9 G	353.7 BI	56.0 BI	0.0 BI	
	12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	4.4 BI	606.1 G	120.8 G	38.0 G	0.0	349.1 G	333.1 BI	51.4 BI	0.0 BI	
	13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	9.9 BI	580.0 G	115.4 G	38.3 G	0.0	353.2 G	313.4 BI	46.9 BI	0.0 BI	
	14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	15.8 BI	633.4 G	107.6 G	38.2 G	0.0	318.9 G	294.8 BI	42.4 BI	0.0 BI	
	15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	22.5 BI	614.4 G	87.0 G	36.7 G	0.0	311.0 G	277.1 BI	38.0 BI	0.0 BI	
	16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	32.8 BI	526.3 G	78.0 G	35.3 G	0.0	299.6 G	260.5 BI	33.8 BI	0.0 BI	
	17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	50.0 BI	472.1 G	69.1 G	35.3 G	0.0	278.4 G	244.9 BI	29.6 BI	0.0 BI	
	18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	296.2 BI	425.9 G	62.2 G	32.4 G	0.0	254.8 G	230.3 BI	25.6 BI	0.0 BI	
	19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1743.2 BI	409.5 G	59.3 G	39.5 G	0.0	238.1 G	216.7 BI	21.8 BI	0.0 BI	
	20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2003.6 BI	404.9 G	59.2 G	63.1 G	0.0	240.3 G	204.0 BI	18.2 BI	0.0 BI	
	21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2221.1 BI	413.3 G	58.8 G	93.0 G	0.0	246.8 G	192.1 BI	14.8 BI	0.0 BI	
	22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3453.0 G	435.8 G	54.0 G	126.9 G	0.0	239.4 G	181.2 BI	11.7 BI	0.0 BI	
	23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3122.1 G	471.3 G	52.6 G	162.8 G	0.0	275.2 G	171.0 BI	9.0 BI	0.0 BI	
	24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2995.9 G	525.0 G	51.4 G	178.5 G	0.0	417.8 G	161.5 BI	6.5 BI	0.0 BI	
	25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2896.7 G	609.4 G	47.0 G	332.3 G	0.0	587.8 G	152.7 BI	4.4 BI	0.0 BI	
	26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2652.9 G	510.6 G	41.8 G	501.2 G	0.0	710.8 G	144.5 BI	2.7 BI	0.0 BI	
	27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2338.1 G	414.0 G	38.1 G	551.6 G	0.0	726.0 G	136.9 BI	1.4 BI	0.0 BI	
	28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1924.8 G	363.1 G	39.4 G	480.6 G	0.0	660.8 G	129.8 BI	0.5 BI	0.0 BI	
	29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1709.9 G	337.8 G	39.3 G	425.6 G	0.0	602.8 G	123.1 BI	0.1 BI	0.0 BI	
	30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1473.3 G	321.7 G	38.2 G	374.1 G	0.0	587.1 G	116.8 BI	0.0 BI	0.0 BI	
	31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1331.6 G	37.5 G	37.5 G	335.6 G	0.0	110.8 BI	110.8 BI	0.0 BI	0.0 BI	
	Aggr	0.0	0.0	0.0	0.0	977.4	570.3	105.9	139.2	0.0	357.8	308.4	41.3	0.0	
	Min	0.0	0.0	0.0	0.0	0.0	307.1	35.2	28.8	0.0	233.0	107.9	0.0	0.0	
	Max	0.0	0.0	0.0	0.0	3996.2	1218.5	307.1	568.7	0.0	758.8	698.9	107.9	0.0	
	Total	0.0	0.0	0.0	0.0	60096.1	33934.4	6513.7	8561.4	0.0	21288.0	18962.7	2454.7	0.0	

Date Processed: February 14, 2018 19:30
 Daily mean flows record grades: BI - Ice Conditions affect record
 EF - Estimated Data with fair confidence
 F - Fair Data
 G - Good Data
 P - Poor Data
 UN - Unspecified



Daily Mean by Year

Identifier: Judy Creek

Units: ft³/s
Filter: None

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):
Year: 2017													229191.2
Aggr:	336.7												4067.3
Min:	0.0												Max:
1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3278.5 G	368.3 EF	105.1 EF	761.4 G	1366.0 G	200.8 BI	5.5 BI	
2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3782.5 G	329.3 EF	87.9 EF	704.8 G	1419.9 G	183.5 BI	4.4 BI	
3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	4000.4 G	296.3 EF	81.1 EF	657.7 G	1129.6 G	167.2 BI	4.0 BI	
4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3908.3 G	265.8 EF	81.5 EF	626.3 G	885.0 G	153.7 BI	3.4 BI	
5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3325.2 G	239.6 EF	92.9 EF	589.1 G	801.8 G	143.4 BI	2.6 BI	
6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2933.8 G	214.8 EF	112.0 EF	590.1 G	639.2 G	132.2 BI	1.7 BI	
7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2790.4 G	194.1 EF	133.4 EF	701.9 G	620.3 G	121.8 BI	1.2 BI	
8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2437.9 G	177.9 EF	160.6 EF	817.7 G	595.7 G	113.6 BI	0.7 BI	
9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2102.9 G	161.7 EF	189.8 EF	888.5 G	570.7 G	105.4 BI	0.6 BI	
10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1845.9 G	144.8 EF	223.0 EF	938.5 G	549.3 G	97.1 BI	0.5 BI	
11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1634.6 G	124.8 EF	272.8 EF	975.3 G	556.4 BI	91.1 BI	* UN	
12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1461.0 G	100.6 EF	344.5 EF	961.4 G	563.8 BI	84.3 BI	* UN	
13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1291.6 G	84.2 EF	436.0 EF	914.2 G	567.3 BI	75.9 BI	* UN	
14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1168.1 G	75.9 EF	513.5 EF	862.1 G	559.3 BI	66.8 BI	* UN	
15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1066.7 G	68.3 EF	619.6 EF	817.6 G	547.0 BI	59.0 BI	* UN	
16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	963.3 G	60.9 EF	906.7 G	779.7 G	545.7 BI	53.4 BI	* UN	
17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	876.2 G	59.2 EF	1096.7 G	744.3 G	555.3 BI	49.1 BI	* UN	
18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	809.7 G	59.2 EF	1068.5 G	711.9 G	593.0 BI	44.8 BI	* UN	
19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	742.9 EF	57.6 EF	920.8 G	701.3 G	633.6 BI	39.6 BI	* UN	
20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	712.1 EF	56.5 EF	786.8 G	724.5 G	637.0 BI	34.6 BI	* UN	
21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	690.1 EF	66.6 EF	725.3 G	737.0 G	616.7 BI	30.4 BI	* UN	
22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	668.7 EF	78.7 EF	726.5 G	729.8 G	573.1 BI	27.6 BI	* UN	
23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	644.2 EF	101.8 EF	732.4 G	727.5 G	517.4 BI	25.0 BI	* UN	
24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	606.2 EF	124.9 EF	709.8 G	723.4 G	453.5 BI	21.3 BI	* UN	
25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	580.0 EF	138.5 EF	666.3 G	695.1 G	400.3 BI	17.5 BI	* UN	
26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	30.0 BI	557.3 EF	143.1 EF	643.3 G	661.5 G	357.4 BI	14.3 BI	* UN	
27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	129.1 BI	523.6 EF	143.4 EF	621.4 G	638.7 G	322.3 BI	11.7 BI	* UN	
28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	381.5 BI	476.9 EF	143.4 EF	618.8 G	572.7 G	290.6 BI	9.5 BI	* UN	
29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	853.3 BI	437.0 EF	136.0 EF	671.1 G	598.4 G	264.6 BI	8.6 BI	* UN	
30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1329.3 BI	399.1 EF	126.0 EF	756.1 G	1043.2 G	237.4 BI	7.3 BI	* UN	
31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2389.3 BI		115.8 EF	766.0 G		215.4 BI		* UN	
Aggr	0.0	0.0	0.0	0.0	164.9	1557.2	143.8	511.9	753.2	599.5	73.0	2.6	
Min	0.0	0.0	0.0	0.0	0.0	383.8	56.0	81.1	528.5	206.5	6.6	0.4	
Max	0.0	0.0	0.0	0.0	2895.8	4067.3	383.8	1118.0	1157.7	1668.6	206.5	6.6	
Total	0.0	0.0	0.0	0.0	10140.4	92658.2	8842.3	31477.6	44818.1	36862.2	4344.6	*	

Date Processed: February 14, 2018 19:30 Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Summary of Daily Mean Flows

Otuk Creek, Alaska

Daily Mean by Year

Identifier: Otuk Creek

Units: ft³/s
Filter: None

Year: 2000	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Aggr:		*	*	*	*	*	*	*	*	*	*	*	*
Min:		*	*	*	*	*	*	*	*	*	*	*	*
Max:		*	*	*	*	*	*	*	*	*	*	*	*
Total (Acre-ft):		*	*	*	*	*	*	*	*	*	*	*	*
1		* UN	* UN	* UN	* UN	* UN	* UN	* UN	37.0 UN	35.3 UN	* UN	* UN	* UN
2		* UN	* UN	* UN	* UN	* UN	* UN	* UN	21.9 UN	26.5 UN	* UN	* UN	* UN
3		* UN	* UN	* UN	* UN	* UN	* UN	* UN	15.9 UN	18.0 UN	* UN	* UN	* UN
4		* UN	* UN	* UN	* UN	* UN	* UN	* UN	12.9 UN	15.0 UN	* UN	* UN	* UN
5		* UN	* UN	* UN	* UN	* UN	* UN	* UN	12.4 UN	11.3 UN	* UN	* UN	* UN
6		* UN	* UN	* UN	* UN	* UN	* UN	* UN	15.9 UN	9.6 UN	* UN	* UN	* UN
7		* UN	* UN	* UN	* UN	* UN	* UN	* UN	32.4 UN	18.5 UN	* UN	* UN	* UN
8		* UN	* UN	* UN	* UN	* UN	681.7 UN	* UN	40.5 UN	89.9 UN	* UN	* UN	* UN
9		* UN	* UN	* UN	* UN	* UN	417.9 UN	* UN	53.6 UN	87.5 UN	* UN	* UN	* UN
10		* UN	* UN	* UN	* UN	* UN	296.2 UN	* UN	28.5 UN	83.0 UN	* UN	* UN	* UN
11		* UN	* UN	* UN	* UN	* UN	238.6 UN	* UN	46.5 UN	70.7 UN	* UN	* UN	* UN
12		* UN	* UN	* UN	* UN	* UN	194.7 UN	* UN	97.9 UN	54.5 UN	* UN	* UN	* UN
13		* UN	* UN	* UN	* UN	* UN	* UN	* UN	271.3 UN	38.4 UN	* UN	* UN	* UN
14		* UN	* UN	* UN	* UN	* UN	* UN	* UN	349.3 UN	29.9 UN	* UN	* UN	* UN
15		* UN	* UN	* UN	* UN	* UN	* UN	7.1 UN	166.4 UN	24.6 UN	* UN	* UN	* UN
16		* UN	* UN	* UN	* UN	* UN	* UN	6.6 UN	85.1 UN	22.1 UN	* UN	* UN	* UN
17		* UN	* UN	* UN	* UN	* UN	* UN	384.5 UN	51.1 UN	23.0 UN	* UN	* UN	* UN
18		* UN	* UN	* UN	* UN	* UN	* UN	201.0 UN	79.5 UN	21.6 UN	* UN	* UN	* UN
19		* UN	* UN	* UN	* UN	* UN	* UN	94.1 UN	156.4 UN	21.3 UN	* UN	* UN	* UN
20		* UN	* UN	* UN	* UN	* UN	* UN	75.1 UN	313.8 UN	21.6 UN	* UN	* UN	* UN
21		* UN	* UN	* UN	* UN	* UN	* UN	53.5 UN	384.1 UN	* UN	* UN	* UN	* UN
22		* UN	* UN	* UN	* UN	* UN	* UN	36.0 UN	275.7 UN	* UN	* UN	* UN	* UN
23		* UN	* UN	* UN	* UN	* UN	* UN	28.6 UN	160.8 UN	* UN	* UN	* UN	* UN
24		* UN	* UN	* UN	* UN	* UN	* UN	195.5 UN	120.5 UN	* UN	* UN	* UN	* UN
25		* UN	* UN	* UN	* UN	* UN	* UN	123.8 UN	85.5 UN	* UN	* UN	* UN	* UN
26		* UN	* UN	* UN	* UN	* UN	* UN	81.7 UN	63.8 UN	* UN	* UN	* UN	* UN
27		* UN	* UN	* UN	* UN	* UN	* UN	105.9 UN	57.2 UN	* UN	* UN	* UN	* UN
28		* UN	* UN	* UN	* UN	* UN	* UN	172.9 UN	60.9 UN	* UN	* UN	* UN	* UN
29		* UN	* UN	* UN	* UN	* UN	* UN	99.2 UN	58.7 UN	* UN	* UN	* UN	* UN
30		* UN	* UN	* UN	* UN	* UN	* UN	84.0 UN	40.9 UN	* UN	* UN	* UN	* UN
31		* UN	* UN	* UN	* UN	* UN	* UN	56.0 UN	44.4 UN	* UN	* UN	* UN	* UN
Aggr		*	*	*	*	*	*	*	104.5	*	*	*	*
Min		*	*	*	*	*	*	*	10.5	*	*	*	*
Max		*	*	*	*	*	*	*	463.3	*	*	*	*
Total		*	*	*	*	*	*	*	6427.8	*	*	*	*

Date Processed: May 18, 2018 08:55

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Otuk Creek

Units: ft^3/s
Filter: None

Year: 2001	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Aggr:	*	*	*	*	*	*	*	*	*	*	*	*
	Min:	*	*	*	*	*	*	*	*	*	*	*	*
	Max:	*	*	*	*	*	*	*	*	*	*	*	*
	Total (Acre-ft):	*	*	*	*	*	*	*	*	*	*	*	*
1		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
2		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
3		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
4		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
5		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
6		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
7		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
8		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
9		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
10		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
11		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
12		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
13		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
14		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
15		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
16		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
17		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
18		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
19		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
20		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
21		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
22		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
23		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
24		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
25		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
26		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
27		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
28		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
29		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
30		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
31		* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN
Aggr		*	*	*	*	*	*	*	*	*	*	*	*
Min		*	*	*	*	*	*	*	*	*	*	*	*
Max		*	*	*	*	*	*	*	*	*	*	*	*
Total		*	*	*	*	*	*	*	*	*	*	*	*

Date Processed: May 18, 2018 08:55
 Daily mean flows record grades: BI - Ice Conditions affect record
 EF - Estimated Data with fair confidence
 F - Fair Data
 G - Good Data
 P - Poor Data
 UN - Unspecified



Daily Mean by Year

Identifier: Otuk Creek

Units: ft^3/s
Filter: None

Year: 2002	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Aggr:	Min:	Max:	Total (Acre-ft): *											
1	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
2	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
3	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
4	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
5	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
6	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
7	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
8	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
9	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
10	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
11	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
12	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
13	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
14	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
15	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
16	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
17	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
18	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
19	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
20	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
21	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
22	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
23	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
24	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
25	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
26	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
27	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
28	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
29	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
30	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
31	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	* UN	
Aggr	*	*	*	*	*	*	*	*	*	*	*	*	*	
Min	*	*	*	*	*	*	*	*	*	*	*	*	*	
Max	*	*	*	*	*	*	*	*	*	*	*	*	*	
Total	*	*	*	*	*	*	*	*	*	*	*	*	*	

Date Processed: May 18, 2018 08:55
 Daily mean flows record grades: BI - Ice Conditions affect record
 EF - Estimated Data with fair confidence
 F - Fair Data
 G - Good Data
 P - Poor Data
 UN - Unspecified



Daily Mean by Year

Identifier: Otuk Creek

Units: ft³/s
Filter: None

Year: 2003	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Aggr:		*	*	*	*	*	*	*	*	*	*	*	*
Min:		*	*	*	*	*	*	*	*	*	*	*	*
Max:		*	*	*	*	*	*	*	*	*	*	*	*
Total (Acre-ft):		*	*	*	*	*	*	*	*	*	*	*	*
1		* UN	* UN	* UN	* UN	* UN	* UN	* UN	142.1 UN	* UN	* UN	* UN	* UN
2		* UN	* UN	* UN	* UN	* UN	* UN	* UN	98.8 UN	* UN	* UN	* UN	* UN
3		* UN	* UN	* UN	* UN	* UN	* UN	* UN	195.1 UN	* UN	* UN	* UN	* UN
4		* UN	* UN	* UN	* UN	* UN	* UN	* UN	151.3 UN	* UN	* UN	* UN	* UN
5		* UN	* UN	* UN	* UN	* UN	* UN	* UN	242.2 UN	* UN	* UN	* UN	* UN
6		* UN	* UN	* UN	* UN	* UN	* UN	* UN	132.0 UN	* UN	* UN	* UN	* UN
7		* UN	* UN	* UN	* UN	* UN	* UN	* UN	70.1 UN	* UN	* UN	* UN	* UN
8		* UN	* UN	* UN	* UN	* UN	* UN	* UN	51.8 UN	* UN	* UN	* UN	* UN
9		* UN	* UN	* UN	* UN	* UN	* UN	* UN	44.7 UN	* UN	* UN	* UN	* UN
10		* UN	* UN	* UN	* UN	* UN	* UN	* UN	42.3 UN	* UN	* UN	* UN	* UN
11		* UN	* UN	* UN	* UN	* UN	* UN	* UN	357.5 UN	* UN	* UN	* UN	* UN
12		* UN	* UN	* UN	* UN	* UN	* UN	27.9 UN	461.0 UN	* UN	* UN	* UN	* UN
13		* UN	* UN	* UN	* UN	* UN	* UN	28.9 UN	345.5 UN	* UN	* UN	* UN	* UN
14		* UN	* UN	* UN	* UN	* UN	* UN	33.8 UN	295.2 UN	* UN	* UN	* UN	* UN
15		* UN	* UN	* UN	* UN	* UN	* UN	51.2 UN	175.2 UN	* UN	* UN	* UN	* UN
16		* UN	* UN	* UN	* UN	* UN	* UN	86.5 UN	128.7 UN	* UN	* UN	* UN	* UN
17		* UN	* UN	* UN	* UN	* UN	* UN	136.0 UN	472.4 UN	* UN	* UN	* UN	* UN
18		* UN	* UN	* UN	* UN	* UN	* UN	93.2 UN	415.3 UN	* UN	* UN	* UN	* UN
19		* UN	* UN	* UN	* UN	* UN	* UN	66.7 UN	186.4 UN	* UN	* UN	* UN	* UN
20		* UN	* UN	* UN	* UN	* UN	* UN	48.4 UN	239.6 UN	* UN	* UN	* UN	* UN
21		* UN	* UN	* UN	* UN	* UN	* UN	37.9 UN	145.8 UN	* UN	* UN	* UN	* UN
22		* UN	* UN	* UN	* UN	* UN	* UN	32.1 UN	131.1 UN	* UN	* UN	* UN	* UN
23		* UN	* UN	* UN	* UN	* UN	* UN	29.9 UN	196.2 UN	* UN	* UN	* UN	* UN
24		* UN	* UN	* UN	* UN	* UN	* UN	32.1 UN	379.8 UN	* UN	* UN	* UN	* UN
25		* UN	* UN	* UN	* UN	* UN	* UN	278.1 UN	237.3 UN	* UN	* UN	* UN	* UN
26		* UN	* UN	* UN	* UN	* UN	* UN	456.0 UN	200.9 UN	* UN	* UN	* UN	* UN
27		* UN	* UN	* UN	* UN	* UN	* UN	209.9 UN	140.0 UN	* UN	* UN	* UN	* UN
28		* UN	* UN	* UN	* UN	* UN	* UN	128.1 UN	99.2 UN	* UN	* UN	* UN	* UN
29		* UN	* UN	* UN	* UN	* UN	* UN	73.3 UN	* UN	* UN	* UN	* UN	* UN
30		* UN	* UN	* UN	* UN	* UN	* UN	88.9 UN	* UN	* UN	* UN	* UN	* UN
31		* UN	* UN	* UN	* UN	* UN	* UN	137.6 UN	* UN	* UN	* UN	* UN	* UN
Aggr		*	*	*	*	*	*	*	203.4	*	*	*	*
Min		*	*	*	*	*	*	*	39.8	*	*	*	*
Max		*	*	*	*	*	*	*	675.2	*	*	*	*
Total		*	*	*	*	*	*	*	11562.6	*	*	*	*

Date Processed: May 18, 2018 08:55

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Otuk Creek

Units: ft³/s
Filter: None

Year: 2004	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Aggr:	Min:	Max:	Aggr:	Min:	Max:	Aggr:	Min:	Max:	Aggr:	Min:	Max:	Aggr:	Min:
Total (Acre-ft):	*												
1	* UN	* UN	* UN	* UN	* UN	* UN	444.3 UN	22.9 UN	569.2 UN	86.3 UN	6.9 UN	0.8 UN	0.1 UN
2	* UN	* UN	* UN	* UN	* UN	* UN	382.5 UN	21.8 UN	183.2 UN	128.8 UN	6.5 UN	0.7 UN	0.1 UN
3	* UN	* UN	* UN	* UN	* UN	* UN	301.3 UN	39.5 UN	98.2 UN	124.9 UN	6.0 UN	0.7 UN	0.1 UN
4	* UN	* UN	* UN	* UN	* UN	* UN	238.8 UN	32.9 UN	69.6 UN	117.5 UN	5.6 UN	0.6 UN	0.1 UN
5	* UN	* UN	* UN	* UN	* UN	* UN	202.7 UN	36.2 UN	131.0 UN	100.2 UN	5.2 UN	0.6 UN	0.1 UN
6	* UN	* UN	* UN	* UN	* UN	* UN	168.9 UN	63.5 UN	93.5 UN	78.1 UN	4.9 UN	0.6 UN	0.1 UN
7	* UN	* UN	* UN	* UN	* UN	* UN	127.9 UN	85.3 UN	64.9 UN	65.0 UN	4.5 UN	0.5 UN	0.1 UN
8	* UN	* UN	* UN	* UN	* UN	* UN	93.1 UN	133.6 UN	50.3 UN	54.1 UN	4.2 UN	0.5 UN	0.1 UN
9	* UN	* UN	* UN	* UN	* UN	* UN	73.8 UN	83.5 UN	42.4 UN	48.3 UN	4.0 UN	0.4 UN	0.1 UN
10	* UN	* UN	* UN	* UN	* UN	* UN	51.4 UN	144.1 UN	39.5 UN	47.0 UN	3.7 UN	0.4 UN	0.0 UN
11	* UN	* UN	* UN	* UN	* UN	* UN	33.8 UN	57.9 UN	37.9 UN	44.0 UN	3.4 UN	0.4 UN	0.0 UN
12	* UN	* UN	* UN	* UN	* UN	* UN	29.3 UN	36.2 UN	37.1 UN	44.7 UN	3.2 UN	0.4 UN	0.0 UN
13	* UN	* UN	* UN	* UN	* UN	* UN	29.7 UN	29.4 UN	244.4 UN	42.8 UN	3.0 UN	0.3 UN	0.0 UN
14	* UN	* UN	* UN	* UN	* UN	* UN	41.0 UN	26.0 UN	393.7 UN	34.6 UN	2.8 UN	0.3 UN	0.0 UN
15	* UN	* UN	* UN	* UN	* UN	* UN	39.4 UN	24.4 UN	178.8 UN	29.6 UN	2.6 UN	0.3 UN	0.0 UN
16	* UN	* UN	* UN	* UN	* UN	* UN	34.2 UN	34.1 UN	118.7 UN	25.8 UN	2.4 UN	0.3 UN	0.0 UN
17	* UN	* UN	* UN	* UN	* UN	* UN	31.5 UN	38.7 UN	88.3 UN	22.2 UN	2.3 UN	0.3 UN	0.0 UN
18	* UN	* UN	* UN	* UN	* UN	* UN	28.2 UN	128.1 UN	75.2 UN	20.6 UN	2.1 UN	0.2 UN	0.0 UN
19	* UN	* UN	* UN	* UN	* UN	* UN	24.7 UN	1140.3 UN	64.3 UN	21.1 UN	2.0 UN	0.2 UN	0.0 UN
20	* UN	* UN	* UN	* UN	* UN	* UN	21.7 UN	557.8 UN	57.9 UN	19.9 UN	1.8 UN	0.2 UN	0.0 UN
21	* UN	* UN	* UN	* UN	* UN	* UN	21.1 UN	265.1 UN	55.1 UN	18.0 UN	1.7 UN	0.2 UN	0.0 UN
22	* UN	* UN	* UN	* UN	* UN	* UN	21.8 UN	154.5 UN	52.7 UN	15.3 UN	1.6 UN	0.2 UN	0.0 UN
23	* UN	* UN	* UN	* UN	* UN	* UN	21.2 UN	83.8 UN	52.3 UN	13.3 UN	1.5 UN	0.2 UN	0.0 UN
24	* UN	* UN	* UN	* UN	* UN	* UN	23.1 UN	54.3 UN	53.5 UN	11.9 UN	1.4 UN	0.2 UN	0.0 UN
25	* UN	* UN	* UN	* UN	* UN	* UN	77.7 UN	43.9 UN	53.3 UN	10.9 UN	1.3 UN	0.1 UN	0.0 UN
26	* UN	* UN	* UN	* UN	* UN	* UN	68.9 UN	90.9 UN	53.3 UN	9.8 UN	1.2 UN	0.1 UN	0.0 UN
27	* UN	* UN	* UN	* UN	* UN	* UN	39.7 UN	63.2 UN	50.9 UN	9.2 UN	1.1 UN	0.1 UN	0.0 UN
28	* UN	* UN	* UN	* UN	* UN	* UN	30.8 UN	56.5 UN	44.4 UN	8.5 UN	1.0 UN	0.1 UN	0.0 UN
29	* UN	* UN	* UN	* UN	* UN	* UN	26.2 UN	50.3 UN	56.4 UN	8.0 UN	1.0 UN	0.1 UN	0.0 UN
30	* UN	* UN	* UN	* UN	* UN	* UN	24.7 UN	44.5 UN	101.4 UN	7.4 UN	0.9 UN	0.1 UN	0.0 UN
31	* UN	* UN	* UN	* UN	* UN	* UN	506.8 UN	864.2 UN	66.7 UN	42.3 UN	0.8 UN	0.3 UN	0.0 UN
Aggr							91.8	145.5	105.7	42.3	2.9	0.3	0.0
Min							18.6	20.5	36.1	7.2	0.8	0.1	0.0
Max							470.6	1731.0	952.2	160.2	7.2	0.8	0.1
Total							5460.7	8939.9	6502.2	2514.6	179.8	20.2	2.3

Date Processed: May 18, 2018 08:55

Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Daily Mean by Year

Identifier: Otuk Creek

Units: ft³/s
Filter: None

Year: 2005	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Max:	1218.0	Oct	Nov	Dec	Total (Acre-ft):
	1	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	324.1 UN	72.1 UN	19.9 UN	0.0	24.7 UN	19.5 UN	2.4 UN	0.3 UN	24180.0
	2	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	288.2 UN	46.3 UN	19.4 UN	0.0	38.0 UN	19.0 UN	2.2 UN	0.2 UN	
	3	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	263.9 UN	36.8 UN	19.1 UN	0.0	41.8 UN	17.8 UN	2.0 UN	0.2 UN	
	4	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	465.4 UN	32.6 UN	19.5 UN	0.0	33.4 UN	16.3 UN	1.9 UN	0.2 UN	
	5	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	510.0 UN	29.4 UN	20.4 UN	0.0	30.7 UN	16.0 UN	1.8 UN	0.2 UN	
	6	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	482.9 UN	36.1 UN	20.5 UN	0.0	28.4 UN	14.9 UN	1.6 UN	0.2 UN	
	7	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	391.6 UN	48.3 UN	19.6 UN	0.0	28.8 UN	13.9 UN	1.5 UN	0.2 UN	
	8	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	272.6 UN	51.6 UN	18.4 UN	0.0	31.4 UN	13.0 UN	1.4 UN	0.2 UN	
	9	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	364.3 UN	68.7 UN	18.3 UN	0.0	28.8 UN	12.1 UN	1.3 UN	0.1 UN	
	10	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	262.1 UN	173.1 UN	18.4 UN	0.0	28.9 UN	11.3 UN	1.2 UN	0.1 UN	
	11	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	164.1 UN	263.7 UN	18.5 UN	0.0	28.0 UN	10.5 UN	1.2 UN	0.1 UN	
	12	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	167.9 UN	114.8 UN	19.0 UN	0.0	29.3 UN	9.8 UN	1.1 UN	0.1 UN	
	13	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	165.9 UN	71.1 UN	19.4 UN	0.0	30.9 UN	9.1 UN	1.0 UN	0.1 UN	
	14	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	169.7 UN	47.0 UN	19.7 UN	0.0	33.4 UN	8.5 UN	0.9 UN	0.1 UN	
	15	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	153.1 UN	35.6 UN	19.5 UN	0.0	34.8 UN	7.9 UN	0.9 UN	0.1 UN	
	16	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	165.6 UN	32.2 UN	19.0 UN	0.0	34.1 UN	7.3 UN	0.8 UN	0.1 UN	
	17	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	210.5 UN	166.3 UN	18.5 UN	0.0	33.9 UN	6.8 UN	0.7 UN	0.1 UN	
	18	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	113.1 UN	476.3 UN	18.3 UN	0.0	33.2 UN	6.4 UN	0.7 UN	0.1 UN	
	19	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	65.9 UN	145.6 UN	18.3 UN	0.0	31.9 UN	5.9 UN	0.6 UN	0.1 UN	
	20	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	47.1 UN	70.4 UN	18.2 UN	0.0	40.8 UN	5.5 UN	0.6 UN	0.1 UN	
	21	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	40.5 UN	44.5 UN	18.2 UN	0.0	39.3 UN	5.1 UN	0.6 UN	0.1 UN	
	22	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	37.9 UN	35.2 UN	18.6 UN	0.0	35.6 UN	4.8 UN	0.5 UN	0.0 UN	
	23	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	33.4 UN	32.2 UN	21.0 UN	0.0	33.0 UN	4.5 UN	0.5 UN	0.0 UN	
	24	0.0 UN	0.0 UN	0.0 UN	0.0 UN	30.8 UN	32.5 UN	29.8 UN	25.8 UN	0.0	30.1 UN	4.2 UN	0.5 UN	0.0 UN	
	25	0.0 UN	0.0 UN	0.0 UN	0.0 UN	169.8 UN	32.7 UN	27.5 UN	32.8 UN	0.0	28.7 UN	3.9 UN	0.4 UN	0.0 UN	
	26	0.0 UN	0.0 UN	0.0 UN	0.0 UN	258.4 UN	32.5 UN	26.0 UN	32.7 UN	0.0	27.5 UN	3.6 UN	0.4 UN	0.0 UN	
	27	0.0 UN	0.0 UN	0.0 UN	0.0 UN	348.5 UN	31.5 UN	24.9 UN	32.1 UN	0.0	25.2 UN	3.4 UN	0.4 UN	0.0 UN	
	28	0.0 UN	0.0 UN	0.0 UN	0.0 UN	395.5 UN	33.2 UN	24.0 UN	30.5 UN	0.0	17.1 UN	3.1 UN	0.3 UN	0.0 UN	
	29	0.0 UN	0.0 UN	0.0 UN	0.0 UN	476.0 UN	70.5 UN	22.8 UN	30.0 UN	0.0	16.9 UN	2.9 UN	0.3 UN	0.0 UN	
	30	0.0 UN	0.0 UN	0.0 UN	0.0 UN	420.9 UN	132.2 UN	21.6 UN	28.3 UN	0.0	15.8 UN	2.7 UN	0.3 UN	0.0 UN	
	31	0.0 UN	0.0 UN	0.0 UN	0.0 UN	339.8 UN	184.2 UN	20.6 UN	26.7 UN	0.0	30.5 UN	2.5 UN	1.0 UN	0.0 UN	
	Aggr	0.0	0.0	0.0	0.0	78.7	184.2	75.1	21.9		30.5	8.8	1.0	0.1	
	Min	0.0	0.0	0.0	0.0	0.0	30.6	20.2	18.1		12.8	2.4	0.3	0.0	
	Max	0.0	0.0	0.0	0.0	548.8	741.2	1218.0	34.2		59.3	22.2	2.4	0.3	
	Total	0.1	0.0	0.0	0.0	4839.1	10958.7	4615.9	1346.6		1813.6	540.0	59.7	6.3	

Date Processed: May 18, 2018 08:55

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Otuk Creek

Units: ft³/s
Filter: None

Year: 2006	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	919.1	Oct	Nov	Dec	Total (Acre-ft):
	1	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	75.7 UN	62.9 UN	72.6 UN	64.7 UN	9.8 UN	3.1 UN	0.5 UN	29697.1
	2	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	85.1 UN	53.5 UN	59.5 UN	50.7 UN	8.9 UN	2.9 UN	0.4 UN	
	3	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	48.6 UN	34.9 UN	118.9 UN	42.9 UN	8.3 UN	2.7 UN	0.4 UN	
	4	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	32.0 UN	27.1 UN	101.9 UN	37.8 UN	8.1 UN	2.6 UN	0.4 UN	
	5	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	32.1 UN	33.3 UN	434.6 UN	33.5 UN	8.0 UN	2.4 UN	0.4 UN	
	6	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	52.5 UN	41.7 UN	178.2 UN	30.5 UN	8.0 UN	2.3 UN	0.3 UN	
	7	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	113.7 UN	27.6 UN	118.9 UN	27.7 UN	8.1 UN	2.1 UN	0.3 UN	
	8	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	184.1 UN	20.4 UN	215.2 UN	26.4 UN	8.1 UN	2.0 UN	0.3 UN	
	9	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	253.4 UN	16.5 UN	121.3 UN	23.9 UN	8.3 UN	1.9 UN	0.3 UN	
	10	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	255.7 UN	14.9 UN	80.9 UN	21.8 UN	91.3 UN	1.8 UN	0.3 UN	
	11	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	256.3 UN	14.8 UN	459.1 UN	20.8 UN	63.0 UN	1.7 UN	0.2 UN	
	12	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	146.1 UN	20.1 UN	323.3 UN	19.3 UN	29.1 UN	1.6 UN	0.2 UN	
	13	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	136.9 UN	74.4 UN	472.7 UN	18.1 UN	31.5 UN	1.5 UN	0.2 UN	
	14	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	351.0 UN	182.0 UN	220.2 UN	16.7 UN	44.0 UN	1.4 UN	0.2 UN	
	15	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	204.7 UN	76.1 UN	127.1 UN	16.0 UN	31.8 UN	1.3 UN	0.2 UN	
	16	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	105.8 UN	53.1 UN	286.5 UN	16.8 UN	19.4 UN	1.2 UN	0.2 UN	
	17	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	63.3 UN	48.1 UN	157.1 UN	16.6 UN	8.7 UN	1.1 UN	0.2 UN	
	18	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	82.5 UN	42.8 UN	102.8 UN	16.9 UN	7.3 UN	1.1 UN	0.1 UN	
	19	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	212.8 UN	65.4 UN	75.6 UN	16.1 UN	6.8 UN	1.0 UN	0.1 UN	
	20	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	428.0 UN	153.8 UN	77.7 UN	18.7 UN	6.4 UN	1.0 UN	0.1 UN	
	21	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	153.7 UN	205.4 UN	187.9 UN	20.1 UN	6.0 UN	0.9 UN	0.1 UN	
	22	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	97.7 UN	181.9 UN	463.9 UN	20.5 UN	5.7 UN	0.8 UN	0.1 UN	
	23	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	76.1 UN	119.1 UN	338.4 UN	23.8 UN	5.3 UN	0.8 UN	0.1 UN	
	24	0.0 UN	0.0 UN	0.0 UN	0.0 UN	21.0 UN	59.7 UN	73.7 UN	178.8 UN	26.2 UN	5.0 UN	0.7 UN	0.1 UN	
	25	0.0 UN	0.0 UN	0.0 UN	0.0 UN	195.9 UN	48.0 UN	47.4 UN	125.0 UN	21.0 UN	4.7 UN	0.7 UN	0.1 UN	
	26	0.0 UN	0.0 UN	0.0 UN	0.0 UN	521.8 UN	38.8 UN	240.0 UN	90.6 UN	16.6 UN	4.5 UN	0.7 UN	0.1 UN	
	27	0.0 UN	0.0 UN	0.0 UN	0.0 UN	349.4 UN	36.2 UN	110.2 UN	66.2 UN	14.3 UN	4.2 UN	0.6 UN	0.1 UN	
	28	0.0 UN	0.0 UN	0.0 UN	0.0 UN	395.4 UN	54.5 UN	55.4 UN	51.7 UN	11.9 UN	3.9 UN	0.6 UN	0.1 UN	
	29	0.0 UN	0.0 UN	0.0 UN	0.0 UN	442.2 UN	45.2 UN	47.6 UN	50.4 UN	11.4 UN	3.7 UN	0.5 UN	0.0 UN	
	30	0.0 UN	0.0 UN	0.0 UN	0.0 UN	184.0 UN	44.4 UN	62.9 UN	56.4 UN	11.3 UN	3.5 UN	0.5 UN	0.0 UN	
	31	0.0 UN	0.0 UN	0.0 UN	0.0 UN	108.7 UN	58.6 UN	72.9 UN	72.9 UN	23.8 UN	15.0 UN	1.4 UN	0.2 UN	
	Aggr	0.0	0.0	0.0	0.0	71.6	125.8	73.1	177.0	23.8	15.0	1.4	0.2	
	Min	0.0	0.0	0.0	0.0	0.0	22.8	13.1	44.5	9.7	3.2	0.5	0.0	
	Max	0.0	0.0	0.0	0.0	919.1	674.4	396.5	609.8	72.5	152.7	3.2	0.5	
	Total	0.1	0.0	0.0	0.0	4400.3	7486.9	4493.9	10881.9	1413.9	922.1	86.0	12.1	

Date Processed: May 18, 2018 08:55

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Otuk Creek

Units: ft³/s
Filter: None

Year: 2007	Aggr:	41.4	Min:	0.0	Max:	827.8	Total (Acre-ft):	29980.4				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	UN	0.0	UN	0.0	UN	41.9	UN	29.4	UN	1.0	UN
2	0.0	UN	0.0	UN	0.0	UN	30.9	UN	32.7	UN	0.9	UN
3	0.0	UN	0.0	UN	0.0	UN	25.8	UN	38.9	UN	0.9	UN
4	0.0	UN	0.0	UN	0.0	UN	21.5	UN	78.0	UN	0.8	UN
5	0.0	UN	0.0	UN	0.0	UN	18.0	UN	87.4	UN	0.8	UN
6	0.0	UN	0.0	UN	0.0	UN	15.8	UN	66.3	UN	0.7	UN
7	0.0	UN	0.0	UN	0.0	UN	14.0	UN	55.3	UN	0.7	UN
8	0.0	UN	0.0	UN	0.0	UN	12.7	UN	53.6	UN	0.7	UN
9	0.0	UN	0.0	UN	0.0	UN	15.7	UN	48.9	UN	0.6	UN
10	0.0	UN	0.0	UN	0.0	UN	66.3	UN	39.0	UN	0.6	UN
11	0.0	UN	0.0	UN	0.0	UN	43.7	UN	32.6	UN	0.6	UN
12	0.0	UN	0.0	UN	0.0	UN	29.8	UN	31.3	UN	0.5	UN
13	0.0	UN	0.0	UN	0.0	UN	23.7	UN	34.4	UN	0.5	UN
14	0.0	UN	0.0	UN	0.0	UN	28.6	UN	30.1	UN	0.5	UN
15	0.0	UN	0.0	UN	0.0	UN	50.7	UN	78.9	UN	0.4	UN
16	0.0	UN	0.0	UN	0.0	UN	30.2	UN	118.4	UN	0.4	UN
17	0.0	UN	0.0	UN	0.0	UN	34.9	UN	73.5	UN	0.4	UN
18	0.0	UN	0.0	UN	0.0	UN	46.1	UN	49.9	UN	0.4	UN
19	0.0	UN	0.0	UN	0.0	UN	75.7	UN	41.0	UN	0.4	UN
20	0.0	UN	0.0	UN	0.0	UN	80.8	UN	33.1	UN	0.3	UN
21	0.0	UN	0.0	UN	0.0	UN	75.5	UN	26.1	UN	0.3	UN
22	0.0	UN	0.0	UN	0.0	UN	174.8	UN	19.8	UN	0.3	UN
23	0.0	UN	0.0	UN	0.0	UN	74.7	UN	15.2	UN	0.3	UN
24	0.0	UN	0.0	UN	0.0	UN	51.6	UN	8.3	UN	0.3	UN
25	0.0	UN	0.0	UN	0.0	UN	50.2	UN	7.2	UN	0.3	UN
26	0.0	UN	0.0	UN	0.0	UN	36.9	UN	6.8	UN	0.2	UN
27	0.0	UN	0.0	UN	0.0	UN	39.5	UN	6.5	UN	0.2	UN
28	0.0	UN	0.0	UN	0.0	UN	52.2	UN	6.1	UN	0.2	UN
29	0.0	UN	0.0	UN	0.0	UN	151.3	UN	5.8	UN	0.2	UN
30	0.0	UN	0.0	UN	0.0	UN	409.7	UN	5.5	UN	0.2	UN
31	0.0	UN	0.0	UN	0.0	UN	617.1	UN	30.2	UN	1.0	UN
Aggr	0.0	0.0	0.0	0.0	71.1	158.2	78.7	144.1	38.7	2.6	0.5	0.1
Min	0.0	0.0	0.0	0.0	0.0	18.8	10.7	26.9	5.3	1.0	0.2	0.0
Max	0.0	0.0	0.0	0.0	532.7	615.0	827.8	620.3	177.0	5.3	1.0	0.2
Total	0.3	0.0	0.0	0.0	4374.8	9412.6	4840.4	8857.6	2301.2	159.4	29.0	5.1

Date Processed: May 18, 2018 08:55

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Otuk Creek

Units: ft³/s
Filter: None

Year: 2008	Aggr:	30.0	Min:	0.0	Max:	804.1	Total (Acre-ft):	21788.7				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.0	71.6	38.9	74.9	5.9	0.5	0.1	0.0
2	0.0	0.0	0.0	0.0	0.0	105.5	36.8	122.0	4.5	0.5	0.1	0.0
3	0.0	0.0	0.0	0.0	0.0	105.0	28.2	143.8	3.7	0.5	0.1	0.0
4	0.0	0.0	0.0	0.0	0.0	191.5	21.7	95.3	3.1	0.5	0.1	0.0
5	0.0	0.0	0.0	0.0	0.0	360.9	16.6	105.5	2.7	0.4	0.1	0.0
6	0.0	0.0	0.0	0.0	0.0	146.3	12.7	206.4	2.5	0.4	0.1	0.0
7	0.0	0.0	0.0	0.0	0.0	115.5	12.3	145.5	2.3	0.4	0.1	0.0
8	0.0	0.0	0.0	0.0	0.0	115.2	8.3	88.6	2.2	0.4	0.1	0.0
9	0.0	0.0	0.0	0.0	0.0	194.4	5.2	68.8	2.0	0.3	0.1	0.0
10	0.0	0.0	0.0	0.0	0.0	283.9	6.3	54.2	1.9	0.3	0.1	0.0
11	0.0	0.0	0.0	0.0	0.0	161.3	14.2	39.7	1.8	0.3	0.1	0.0
12	0.0	0.0	0.0	0.0	0.0	242.5	31.3	75.3	1.7	0.3	0.1	0.0
13	0.0	0.0	0.0	0.0	0.0	183.3	22.2	176.8	1.6	0.3	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	100.4	52.7	120.2	1.2	0.3	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	73.4	31.7	85.0	1.1	0.2	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	55.2	24.8	61.9	1.1	0.2	0.0	0.0
17	0.0	0.0	0.0	0.0	8.2	43.0	56.6	47.0	1.0	0.2	0.0	0.0
18	0.0	0.0	0.0	0.0	60.4	113.1	88.2	35.7	1.1	0.2	0.0	0.0
19	0.0	0.0	0.0	0.0	127.7	130.1	60.8	28.8	1.3	0.2	0.0	0.0
20	0.0	0.0	0.0	0.0	239.8	95.1	33.4	23.4	1.4	0.2	0.0	0.0
21	0.0	0.0	0.0	0.0	343.9	81.5	114.2	18.8	1.9	0.2	0.0	0.0
22	0.0	0.0	0.0	0.0	411.9	77.9	171.4	14.9	1.8	0.2	0.0	0.0
23	0.0	0.0	0.0	0.0	505.5	145.5	128.3	11.9	1.5	0.2	0.0	0.0
24	0.0	0.0	0.0	0.0	485.7	139.8	80.1	9.6	1.3	0.1	0.0	0.0
25	0.0	0.0	0.0	0.0	354.5	225.9	54.6	8.3	1.1	0.1	0.0	0.0
26	0.0	0.0	0.0	0.0	381.2	187.4	37.5	7.5	0.7	0.1	0.0	0.0
27	0.0	0.0	0.0	0.0	237.5	108.5	28.5	6.6	0.7	0.1	0.0	0.0
28	0.0	0.0	0.0	0.0	96.9	66.2	23.8	5.6	0.6	0.1	0.0	0.0
29	0.0	0.0	0.0	0.0	69.8	51.2	26.0	5.1	0.6	0.1	0.0	0.0
30	0.0	0.0	0.0	0.0	56.8	31.1	200.3	5.7	0.6	0.1	0.0	0.0
31	0.0	0.0	0.0	0.0	57.7	113.4	113.4	7.6	0.6	0.1	0.0	0.0
Aggr	0.0	0.0	0.0	0.0	110.9	133.4	51.1	61.3	1.8	0.3	0.0	0.0
Min	0.0	0.0	0.0	0.0	0.0	25.0	4.1	5.0	0.2	0.1	0.0	0.0
Max	0.0	0.0	0.0	0.0	804.1	579.0	231.0	227.4	7.2	0.6	0.1	0.0
Total	0.2	0.0	0.0	0.0	6818.4	7938.7	3133.9	3769.3	108.6	16.3	2.8	0.5

Date Processed: May 18, 2018 08:55

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Otuk Creek

Units: ft³/s
Filter: None

Year:	2009												Aggr:	42.9	Min:	0.0	Max:	889.3	Total (Acre-ft):				31027.1
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec											
1	0.0	0.0	0.0	0.0	0.0	102.4	26.1	54.4	98.7	11.6	1.7	0.2	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
2	0.0	0.0	0.0	0.0	0.0	184.9	20.8	40.8	78.2	10.9	1.6	0.2	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
3	0.0	0.0	0.0	0.0	0.0	291.7	21.2	33.9	79.7	10.3	1.5	0.2	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
4	0.0	0.0	0.0	0.0	0.0	325.8	18.0	30.9	66.3	9.7	1.4	0.1	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
5	0.0	0.0	0.0	0.0	0.0	356.8	14.9	28.3	58.3	9.1	1.4	0.1	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
6	0.0	0.0	0.0	0.0	0.0	488.7	11.9	26.1	104.5	8.6	1.3	0.1	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
7	0.0	0.0	0.0	0.0	0.0	300.7	9.4	24.9	128.4	8.1	1.2	0.1	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
8	0.0	0.0	0.0	0.0	0.0	148.8	26.6	25.8	100.4	7.6	1.1	0.1	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
9	0.0	0.0	0.0	0.0	0.0	130.8	618.6	93.2	141.4	7.2	1.0	0.1	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
10	0.0	0.0	0.0	0.0	0.0	107.1	233.6	89.3	162.5	6.7	1.0	0.1	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
11	0.0	0.0	0.0	0.0	0.0	76.2	121.7	69.8	137.4	6.3	0.9	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
12	0.0	0.0	0.0	0.0	0.0	79.2	67.7	51.4	202.9	6.0	0.9	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
13	0.0	0.0	0.0	0.0	0.0	65.8	43.0	43.8	141.2	5.6	0.8	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
14	0.0	0.0	0.0	0.0	0.0	78.6	69.6	38.1	115.1	5.3	0.8	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
15	0.0	0.0	0.0	0.0	0.0	62.6	208.8	109.5	86.1	5.0	0.7	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
16	0.0	0.0	0.0	0.0	0.0	46.2	244.2	133.8	68.3	4.7	0.7	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
17	0.0	0.0	0.0	0.0	0.1	56.7	162.5	87.6	59.9	4.4	0.6	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
18	0.0	0.0	0.0	0.0	17.6	69.9	85.6	105.2	57.1	4.2	0.6	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
19	0.0	0.0	0.0	0.0	87.3	43.3	52.8	169.6	51.5	3.9	0.5	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
20	0.0	0.0	0.0	0.0	235.6	27.8	42.3	267.2	39.7	3.7	0.5	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
21	0.0	0.0	0.0	0.0	517.7	20.7	85.4	205.5	33.9	3.5	0.5	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
22	0.0	0.0	0.0	0.0	*	23.5	62.3	130.7	22.0	3.3	0.4	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
23	0.0	0.0	0.0	0.0	584.2	24.1	51.8	89.3	18.8	3.1	0.4	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
24	0.0	0.0	0.0	0.0	545.8	24.5	62.6	163.5	17.7	2.9	0.4	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
25	0.0	0.0	0.0	0.0	547.5	26.8	79.6	157.3	16.6	2.7	0.3	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
26	0.0	0.0	0.0	0.0	354.3	211.2	50.2	177.5	15.7	2.5	0.3	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
27	0.0	0.0	0.0	0.0	131.1	218.1	40.1	136.9	14.8	2.4	0.3	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
28	0.0	0.0	0.0	0.0	75.9	86.8	34.6	119.5	13.9	2.2	0.3	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
29	0.0	0.0	0.0	0.0	106.3	46.9	30.9	158.8	13.1	2.1	0.2	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
30	0.0	0.0	0.0	0.0	154.6	33.3	58.9	131.6	12.3	2.0	0.2	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
31	0.0	0.0	0.0	0.0	123.9		58.0	119.3		1.9	0.1	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
Aggr	0.0	0.0	0.0	0.0	122.0	125.3	87.7	100.4	71.9	5.4	0.8	0.0											
Min	0.0	0.0	0.0	0.0	0.0	16.9	7.0	23.6	12.0	1.8	0.2	0.0											
Max	0.0	0.0	0.0	0.0	727.9	553.1	889.3	345.9	222.0	12.0	1.8	0.2											
Total	0.0	0.0	0.0	0.0	7356.6	7457.4	5379.9	6175.3	4276.7	331.8	46.6	2.7											

Date Processed: May 18, 2018 08:55

Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Daily Mean by Year

Identifier: Otuk Creek

Units: ft³/s
Filter: None

Year:	2010												Aggr:	27.3	Min:	0.0	Max:	526.7	Total (Acre-ft):				19752.5
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec											
1	0.0	0.0	0.0	0.0	0.0	95.0	10.3	58.2	29.0	6.6	1.4	0.3	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
2	0.0	0.0	0.0	0.0	0.0	114.3	10.4	42.5	26.8	6.3	1.3	0.2	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
3	0.0	0.0	0.0	0.0	0.0	295.4	10.6	33.6	25.4	6.0	1.2	0.2	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
4	0.0	0.0	0.0	0.0	0.0	404.3	10.2	29.0	24.7	5.7	1.2	0.2	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
5	0.0	0.0	0.0	0.0	0.0	219.9	10.1	29.8	35.6	5.4	1.1	0.2	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
6	0.0	0.0	0.0	0.0	0.0	245.1	11.5	53.6	43.1	5.2	1.1	0.2	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
7	0.0	0.0	0.0	0.0	0.0	293.5	11.7	74.3	38.5	4.9	1.0	0.2	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
8	0.0	0.0	0.0	0.0	0.0	174.6	10.0	77.7	40.3	4.7	1.0	0.2	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
9	0.0	0.0	0.0	0.0	0.0	132.7	8.6	58.1	37.3	4.4	0.9	0.1	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
10	0.0	0.0	0.0	0.0	0.0	117.4	7.8	52.6	33.9	4.2	0.9	0.1	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
11	0.0	0.0	0.0	0.0	0.0	76.6	8.1	69.0	31.6	4.0	0.8	0.1	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
12	0.0	0.0	0.0	0.0	0.0	109.2	17.0	176.3	29.1	3.8	0.8	0.1	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
13	0.0	0.0	0.0	0.0	0.0	78.0	18.6	110.8	26.8	3.6	0.7	0.1	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
14	0.0	0.0	0.0	0.0	0.0	56.9	14.4	73.5	25.3	3.5	0.7	0.1	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
15	0.0	0.0	0.0	0.0	0.0	63.8	13.5	55.4	24.3	3.3	0.7	0.1	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
16	0.0	0.0	0.0	0.0	0.0	217.1	12.4	49.3	23.6	3.1	0.6	0.1	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
17	0.0	0.0	0.0	0.0	1.4	148.4	17.5	63.0	23.3	3.0	0.6	0.1	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
18	0.0	0.0	0.0	0.0	5.3	262.1	31.7	104.9	22.6	2.8	0.6	0.1	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
19	0.0	0.0	0.0	0.0	9.6	133.1	36.5	101.8	21.7	2.7	0.5	0.1	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
20	0.0	0.0	0.0	0.0	16.1	77.4	83.0	98.0	20.4	2.6	0.5	0.1	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
21	0.0	0.0	0.0	0.0	31.9	52.8	60.8	87.0	19.0	2.4	0.5	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
22	0.0	0.0	0.0	0.0	43.5	39.6	73.3	70.3	15.9	2.3	0.4	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
23	0.0	0.0	0.0	0.0	56.7	30.8	72.8	57.5	13.1	2.2	0.4	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
24	0.0	0.0	0.0	0.0	77.5	25.1	83.2	49.5	11.9	2.1	0.4	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
25	0.0	0.0	0.0	0.0	101.8	20.7	82.0	42.9	11.3	2.0	0.4	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
26	0.0	0.0	0.0	0.0	158.5	17.9	69.4	38.5	10.1	1.9	0.4	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
27	0.0	0.0	0.0	0.0	344.9	15.6	57.5	35.4	8.1	1.8	0.3	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
28	0.0	0.0	0.0	0.0	369.0	13.8	76.7	38.2	7.7	1.7	0.3	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
29	0.0	0.0	0.0	0.0	400.6	11.8	160.0	38.2	7.3	1.6	0.3	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
30	0.0	0.0	0.0	0.0	399.3	10.6	197.1	33.4	7.0	1.5	0.3	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
31	0.0	0.0	0.0	0.0	254.2	96.0	96.0	31.0	7.0	1.5	0.3	0.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
Aggr	0.0	0.0	0.0	0.0	72.9	118.4	44.7	62.4	23.2	3.4	0.7	0.1											
Min	0.0	0.0	0.0	0.0	0.0	10.4	7.6	27.5	6.8	1.4	0.3	0.0											
Max	0.0	0.0	0.0	0.0	526.7	491.2	255.9	214.7	48.1	6.8	1.4	0.3											
Total	0.0	0.0	0.0	0.0	4490.1	7048.2	2741.3	3834.9	1378.0	212.0	42.1	5.9											

Date Processed: May 18, 2018 08:55

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Otuk Creek

Units: ft³/s
Filter: None

Year:	2011												Aggr:	36.5	Min:	0.0	Max:	913.4	Total (Acre-ft):				26455.8
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec											
1	0.0	0.0	0.0	0.0	0.0	123.3	81.5	35.0	34.4	16.2	5.7	2.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
2	0.0	0.0	0.0	0.0	0.0	74.6	74.9	116.7	39.6	15.7	5.5	1.9	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
3	0.0	0.0	0.0	0.0	0.0	74.5	53.1	211.0	55.3	15.2	5.4	1.8	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
4	0.0	0.0	0.0	0.0	0.0	96.7	43.6	109.6	48.3	14.7	5.2	1.8	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
5	0.0	0.0	0.0	0.0	0.0	86.9	35.0	71.9	42.7	14.2	5.0	1.7	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
6	0.0	0.0	0.0	0.0	0.0	173.3	28.0	51.3	44.8	13.7	4.8	1.6	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
7	0.0	0.0	0.0	0.0	0.0	194.8	23.3	41.7	48.3	13.3	4.7	1.6	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
8	0.0	0.0	0.0	0.0	0.0	115.1	20.3	40.4	57.2	12.9	4.5	1.5	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
9	0.0	0.0	0.0	0.0	0.0	68.9	18.6	56.0	49.1	12.4	4.3	1.4	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
10	0.0	0.0	0.0	0.0	0.0	53.5	16.5	62.2	73.6	12.0	4.2	1.4	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
11	0.0	0.0	0.0	0.0	0.0	49.6	144.3	58.4	268.9	11.6	4.1	1.3	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
12	0.0	0.0	0.0	0.0	0.0	43.8	167.8	54.3	143.9	11.3	3.9	1.3	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
13	0.0	0.0	0.0	0.0	0.0	32.5	122.9	93.5	86.8	10.9	3.8	1.2	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
14	0.0	0.0	0.0	0.0	0.0	36.8	76.4	165.6	69.2	10.5	3.7	1.2	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
15	0.0	0.0	0.0	0.0	0.0	34.2	111.6	150.8	62.6	10.2	3.5	1.1	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
16	0.0	0.0	0.0	0.0	0.0	34.5	88.6	107.7	59.8	9.8	3.4	1.1	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
17	0.0	0.0	0.0	0.0	0.0	40.1	103.4	79.5	54.4	9.5	3.3	1.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
18	0.0	0.0	0.0	0.0	0.0	37.4	75.6	62.8	50.8	9.2	3.2	1.0	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
19	0.0	0.0	0.0	0.0	0.0	35.9	209.1	51.4	49.1	8.9	3.1	0.9	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
20	0.0	0.0	0.0	0.0	9.3	35.8	110.5	44.1	52.8	8.6	2.9	0.9	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
21	0.0	0.0	0.0	0.0	78.2	34.7	89.8	39.7	47.0	8.3	2.8	0.9	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
22	0.0	0.0	0.0	0.0	252.8	39.5	74.3	35.0	45.6	8.0	2.7	0.8	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
23	0.0	0.0	0.0	0.0	567.9	58.8	57.2	30.8	42.6	7.8	2.6	0.8	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
24	0.0	0.0	0.0	0.0	734.3	115.9	61.6	28.6	33.6	7.5	2.6	0.7	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
25	0.0	0.0	0.0	0.0	563.0	149.1	46.8	26.8	25.2	7.3	2.5	0.7	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
26	0.0	0.0	0.0	0.0	563.8	102.3	38.6	25.1	19.3	7.0	2.4	0.7	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
27	0.0	0.0	0.0	0.0	378.1	347.1	31.1	24.1	18.5	6.8	2.3	0.6	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
28	0.0	0.0	0.0	0.0	355.5	346.4	33.2	22.7	17.9	6.6	2.2	0.6	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
29	0.0	0.0	0.0	0.0	287.5	203.8	31.3	22.7	17.3	6.3	2.1	0.6	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
30	0.0	0.0	0.0	0.0	195.7	103.4	34.0	24.5	16.8	6.1	2.0	0.5	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
31	0.0	0.0	0.0	0.0	165.2		34.4	25.1		5.9			UN	UN	UN	UN	UN	UN	UN	UN	UN	UN	UN
Aggr	0.0	0.0	0.0	0.0	133.9	98.1	68.9	63.5	55.8	10.3	3.6	1.1											
Min	0.0	0.0	0.0	0.0	0.0	28.6	15.5	22.4	16.5	5.8	2.0	0.5											
Max	0.0	0.0	0.0	0.0	913.4	470.1	288.5	260.8	305.7	16.5	5.8	2.0											
Total	0.0	0.0	0.0	0.0	8233.8	5837.7	4239.1	3905.9	3322.8	632.0	215.0	69.5											

Date Processed: May 18, 2018 08:55

Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Daily Mean by Year

Identifier: Otuk Creek

Units: ft³/s
Filter: None

Year:	2012	Aggr:	27.5	Min:	0.0	Max:	549.3	Total (Acre-ft):	19969.7			
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.5 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	487.2 UN	168.3 UN	27.5 UN	180.4 UN	16.4 UN	3.7 UN	0.9 UN
2	0.5 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	357.6 UN	108.9 UN	24.8 UN	142.1 UN	15.6 UN	3.5 UN	0.8 UN
3	0.4 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	263.0 UN	127.0 UN	22.1 UN	123.1 UN	14.9 UN	3.3 UN	0.8 UN
4	0.4 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	274.1 UN	70.7 UN	20.5 UN	139.9 UN	14.2 UN	3.2 UN	0.7 UN
5	0.4 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	296.0 UN	90.8 UN	19.3 UN	106.3 UN	13.5 UN	3.0 UN	0.7 UN
6	0.3 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	248.4 UN	62.4 UN	20.0 UN	83.6 UN	12.9 UN	2.9 UN	0.7 UN
7	0.3 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	178.2 UN	48.4 UN	41.3 UN	146.8 UN	12.3 UN	2.8 UN	0.6 UN
8	0.3 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	141.4 UN	39.0 UN	34.7 UN	120.7 UN	11.7 UN	2.6 UN	0.6 UN
9	0.3 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	117.9 UN	32.3 UN	26.7 UN	81.0 UN	11.1 UN	2.5 UN	0.6 UN
10	0.3 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	163.3 UN	25.0 UN	21.1 UN	59.4 UN	10.6 UN	2.4 UN	0.5 UN
11	0.2 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	122.2 UN	21.0 UN	18.2 UN	45.7 UN	10.1 UN	2.3 UN	0.5 UN
12	0.2 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	72.1 UN	18.4 UN	16.6 UN	41.6 UN	9.7 UN	2.2 UN	0.5 UN
13	0.2 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	47.9 UN	19.2 UN	14.9 UN	36.2 UN	9.2 UN	2.1 UN	0.5 UN
14	0.2 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	49.1 UN	41.5 UN	13.6 UN	34.2 UN	8.8 UN	2.0 UN	0.4 UN
15	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	49.1 UN	35.3 UN	17.0 UN	29.5 UN	8.4 UN	1.9 UN	0.4 UN
16	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	52.4 UN	29.2 UN	26.1 UN	25.0 UN	8.0 UN	1.8 UN	0.4 UN
17	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	87.9 UN	37.7 UN	23.7 UN	29.7 UN	7.6 UN	1.7 UN	0.4 UN
18	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	55.6 UN	86.3 UN	20.5 UN	26.9 UN	7.2 UN	1.6 UN	0.4 UN
19	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.9 UN	51.3 UN	111.3 UN	18.0 UN	24.6 UN	6.9 UN	1.5 UN	0.3 UN
20	0.1 UN	0.0 UN	0.0 UN	0.0 UN	3.1 UN	44.4 UN	84.6 UN	16.3 UN	24.3 UN	6.6 UN	1.5 UN	0.3 UN
21	0.0 UN	0.0 UN	0.0 UN	0.0 UN	8.0 UN	32.9 UN	59.2 UN	17.0 UN	26.2 UN	6.3 UN	1.4 UN	0.3 UN
22	0.0 UN	0.0 UN	0.0 UN	0.0 UN	24.8 UN	24.0 UN	43.6 UN	15.8 UN	26.4 UN	6.0 UN	1.3 UN	0.3 UN
23	0.0 UN	0.0 UN	0.0 UN	0.0 UN	58.9 UN	18.4 UN	34.2 UN	14.6 UN	59.0 UN	5.7 UN	1.3 UN	0.3 UN
24	0.0 UN	0.0 UN	0.0 UN	0.0 UN	171.0 UN	18.0 UN	42.9 UN	13.2 UN	74.7 UN	5.4 UN	1.2 UN	0.3 UN
25	0.0 UN	0.0 UN	0.0 UN	0.0 UN	231.4 UN	23.4 UN	39.6 UN	12.2 UN	44.1 UN	5.2 UN	1.1 UN	0.2 UN
26	0.0 UN	0.0 UN	0.0 UN	0.0 UN	171.3 UN	21.5 UN	34.5 UN	15.1 UN	33.2 UN	4.9 UN	1.1 UN	0.2 UN
27	0.0 UN	0.0 UN	0.0 UN	0.0 UN	92.3 UN	18.2 UN	31.4 UN	25.7 UN	20.5 UN	4.7 UN	1.0 UN	0.2 UN
28	0.0 UN	0.0 UN	0.0 UN	0.0 UN	69.5 UN	19.3 UN	39.6 UN	35.7 UN	18.9 UN	4.5 UN	1.0 UN	0.2 UN
29	0.0 UN	0.0 UN	0.0 UN	0.0 UN	146.9 UN	25.7 UN	32.3 UN	35.2 UN	18.0 UN	4.3 UN	0.9 UN	0.2 UN
30	0.0 UN	0.0 UN	0.0 UN	0.0 UN	326.7 UN	132.2 UN	26.0 UN	76.9 UN	17.2 UN	4.1 UN	0.9 UN	0.2 UN
31	0.0 UN	0.0 UN	0.0 UN	0.0 UN	476.7 UN	25.9 UN	25.9 UN	238.5 UN	3.9 UN	3.9 UN	2.0 UN	0.4 UN
Aggr	0.2	0.0	0.0	0.0	57.4	116.4	53.8	30.4	61.3	8.7	2.0	0.4
Min	0.0	0.0	0.0	0.0	0.0	15.6	16.2	11.7	16.8	3.8	0.9	0.2
Max	0.5	0.0	0.0	0.0	549.3	544.0	202.5	273.8	208.9	16.8	3.8	0.9
Total	10.1	0.0	0.0	0.0	3526.7	6927.7	3305.7	1869.8	3648.3	536.0	118.4	27.0

Date Processed: May 18, 2018 08:55

Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Daily Mean by Year

Identifier: Otuk Creek

Units: ft³/s
Filter: None

Year: 2013	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):
1	0.2 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	332.5 UN	44.1 UN	19.2 UN	42.8 UN	9.5 UN	2.3 UN	0.6 UN	32433.3
2	0.2 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	629.4 UN	44.1 UN	19.3 UN	35.4 UN	9.1 UN	2.2 UN	0.5 UN	
3	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	769.1 UN	59.4 UN	22.9 UN	45.4 UN	8.7 UN	2.1 UN	0.5 UN	
4	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	254.1 UN	46.5 UN	23.7 UN	76.1 UN	8.3 UN	2.0 UN	0.5 UN	
5	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	71.5 UN	36.8 UN	27.2 UN	89.0 UN	7.9 UN	1.9 UN	0.5 UN	
6	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	156.5 UN	29.8 UN	30.5 UN	66.3 UN	7.6 UN	1.8 UN	0.4 UN	
7	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	493.1 UN	24.9 UN	27.3 UN	53.0 UN	7.2 UN	1.7 UN	0.4 UN	
8	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	811.6 UN	22.3 UN	23.7 UN	45.6 UN	6.9 UN	1.6 UN	0.4 UN	
9	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	852.5 UN	25.2 UN	24.0 UN	39.3 UN	6.6 UN	1.6 UN	0.4 UN	
10	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	863.6 UN	25.8 UN	120.0 UN	35.6 UN	6.3 UN	1.5 UN	0.4 UN	
11	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	758.0 UN	21.5 UN	75.3 UN	32.8 UN	6.0 UN	1.4 UN	0.4 UN	
12	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	615.8 UN	18.5 UN	55.3 UN	42.6 UN	5.7 UN	1.4 UN	0.3 UN	
13	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	570.4 UN	16.9 UN	47.1 UN	47.9 UN	5.5 UN	1.3 UN	0.3 UN	
14	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	483.1 UN	15.2 UN	41.6 UN	44.9 UN	5.2 UN	1.2 UN	0.3 UN	
15	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	402.5 UN	15.3 UN	39.8 UN	40.2 UN	5.0 UN	1.2 UN	0.3 UN	
16	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	421.8 UN	16.8 UN	51.9 UN	35.8 UN	4.8 UN	1.1 UN	0.3 UN	
17	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	292.2 UN	18.3 UN	80.2 UN	27.0 UN	4.6 UN	1.1 UN	0.3 UN	
18	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	231.2 UN	16.1 UN	65.7 UN	22.9 UN	4.3 UN	1.0 UN	0.3 UN	
19	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	181.1 UN	14.3 UN	54.4 UN	20.4 UN	4.2 UN	1.0 UN	0.2 UN	
20	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	150.8 UN	30.2 UN	58.9 UN	18.4 UN	4.0 UN	0.9 UN	0.2 UN	
21	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	198.4 UN	32.7 UN	57.1 UN	15.1 UN	3.8 UN	0.9 UN	0.2 UN	
22	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	727.4 UN	24.2 UN	50.8 UN	14.4 UN	3.6 UN	0.9 UN	0.2 UN	
23	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	375.7 UN	22.1 UN	42.0 UN	13.7 UN	3.5 UN	0.8 UN	0.2 UN	
24	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	146.4 UN	35.1 UN	41.7 UN	13.1 UN	3.3 UN	0.8 UN	0.2 UN	
25	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	95.5 UN	36.8 UN	40.2 UN	12.5 UN	3.1 UN	0.7 UN	0.2 UN	
26	0.0 UN	0.0 UN	0.0 UN	0.0 UN	5.0 UN	71.1 UN	27.0 UN	33.5 UN	12.0 UN	3.0 UN	0.7 UN	0.2 UN	
27	0.0 UN	0.0 UN	0.0 UN	0.0 UN	36.9 UN	62.5 UN	23.7 UN	29.8 UN	11.4 UN	2.9 UN	0.7 UN	0.2 UN	
28	0.0 UN	0.0 UN	0.0 UN	0.0 UN	436.1 UN	51.5 UN	21.0 UN	30.0 UN	10.9 UN	2.7 UN	0.7 UN	0.2 UN	
29	0.0 UN	0.0 UN	0.0 UN	0.0 UN	447.5 UN	49.4 UN	19.4 UN	62.2 UN	10.4 UN	2.6 UN	0.6 UN	0.1 UN	
30	0.0 UN	0.0 UN	0.0 UN	0.0 UN	417.1 UN	48.6 UN	21.7 UN	66.0 UN	10.0 UN	2.5 UN	0.6 UN	0.1 UN	
31	0.0 UN	0.0 UN	0.0 UN	0.0 UN	407.5 UN	20.2 UN	20.2 UN	52.3 UN	2.4 UN	2.4 UN	0.6 UN	0.1 UN	
Aggr	0.1	0.0	0.0	0.0	56.5	372.3	26.6	45.6	32.8	5.2	1.3	0.3	
Min	0.0	0.0	0.0	0.0	0.0	42.2	14.0	18.4	9.7	2.3	0.6	0.1	
Max	0.2	0.0	0.0	0.0	552.5	1213.3	64.8	167.8	108.3	9.7	2.3	0.6	
Total	4.2	0.0	0.0	0.0	3471.6	22150.6	1638.0	2803.3	1953.4	318.6	75.0	18.5	

Date Processed: May 18, 2018 08:55

Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Daily Mean by Year

Identifier: Otuk Creek

Units: ft³/s
Filter: None

Year:	2014												Aggr:	50.9	Min:	0.0	Max:	900.0	Total (Acre-ft):	36879.3				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec												
1	0.1	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	466.3	UN	88.8	UN	41.2	UN	70.3	UN	31.9	UN	9.0	UN	3.6	UN
2	0.1	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	377.3	UN	77.0	UN	44.6	UN	76.3	UN	25.7	UN	8.7	UN	3.5	UN
3	0.1	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	222.3	UN	76.3	UN	41.6	UN	53.3	UN	22.3	UN	8.5	UN	3.4	UN
4	0.1	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	170.8	UN	73.9	UN	37.1	UN	48.8	UN	21.1	UN	8.2	UN	3.3	UN
5	0.1	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	228.4	UN	65.5	UN	33.9	UN	41.6	UN	20.5	UN	8.0	UN	3.2	UN
6	0.1	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	199.1	UN	63.1	UN	30.6	UN	36.2	UN	19.9	UN	7.7	UN	3.1	UN
7	0.1	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	149.6	UN	70.0	UN	28.5	UN	33.4	UN	19.3	UN	7.5	UN	3.0	UN
8	0.1	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	146.8	UN	65.9	UN	29.8	UN	32.9	UN	18.7	UN	7.3	UN	2.9	UN
9	0.1	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	187.3	UN	58.6	UN	30.1	UN	33.4	UN	18.1	UN	7.1	UN	2.8	UN
10	0.1	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	224.9	UN	54.4	UN	29.4	UN	38.4	UN	17.6	UN	6.9	UN	2.7	UN
11	0.1	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	299.4	UN	61.3	UN	28.1	UN	64.0	UN	17.1	UN	6.6	UN	2.6	UN
12	0.1	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	501.0	UN	166.1	UN	26.8	UN	106.7	UN	16.6	UN	6.4	UN	2.5	UN
13	0.1	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	288.0	UN	92.0	UN	26.5	UN	120.8	UN	16.1	UN	6.3	UN	2.5	UN
14	0.1	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	138.7	UN	410.5	UN	25.7	UN	123.5	UN	15.6	UN	6.1	UN	2.4	UN
15	0.1	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	105.0	UN	225.1	UN	25.3	UN	93.1	UN	15.1	UN	5.9	UN	2.3	UN
16	0.1	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	100.1	UN	96.9	UN	24.9	UN	81.8	UN	14.7	UN	5.7	UN	2.2	UN
17	0.0	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	122.5	UN	68.6	UN	26.7	UN	78.3	UN	14.2	UN	5.5	UN	2.2	UN
18	0.0	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	238.1	UN	59.8	UN	39.8	UN	62.8	UN	13.8	UN	5.4	UN	2.1	UN
19	0.0	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	162.5	UN	49.3	UN	39.1	UN	57.2	UN	13.4	UN	5.2	UN	2.0	UN
20	0.0	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	157.6	UN	44.4	UN	47.8	UN	62.7	UN	13.0	UN	5.0	UN	2.0	UN
21	0.0	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	138.6	UN	41.3	UN	53.3	UN	52.5	UN	12.6	UN	4.9	UN	1.9	UN
22	0.0	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	148.0	UN	220.5	UN	56.9	UN	44.9	UN	12.2	UN	4.7	UN	1.9	UN
23	0.0	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	216.8	UN	284.1	UN	48.4	UN	43.7	UN	11.9	UN	4.6	UN	1.8	UN
24	0.0	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	196.1	UN	180.0	UN	41.9	UN	38.7	UN	11.5	UN	4.5	UN	1.7	UN
25	0.0	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	115.5	UN	240.6	UN	40.0	UN	35.0	UN	11.2	UN	4.3	UN	1.7	UN
26	0.0	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	391.5	UN	271.5	UN	42.3	UN	33.2	UN	10.8	UN	4.2	UN	1.6	UN
27	0.0	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	84.5	UN	103.7	UN	40.6	UN	42.6	UN	10.5	UN	4.1	UN	1.6	UN
28	0.0	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	78.9	UN	78.7	UN	42.3	UN	32.7	UN	10.2	UN	3.9	UN	1.5	UN
29	0.0	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	79.5	UN	67.9	UN	61.9	UN	27.8	UN	9.9	UN	3.8	UN	1.5	UN
30	0.0	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	107.2	UN	54.1	UN	68.6	UN	32.8	UN	9.6	UN	3.7	UN	1.4	UN
31	0.0	UN	0.0	UN	0.0	UN	0.0	UN	0.0	UN	528.5	UN	44.9	UN	56.0	UN	9.3	UN	9.3	UN	3.7	UN	1.4	UN
Aggr	0.1	0.0	0.0	0.0	0.0	192.4	114.7	39.0	56.6	15.6	60	2.3												
Min	0.0	0.0	0.0	0.0	0.0	71.5	39.8	24.1	24.7	9.2	3.6	1.4												
Max	0.1	0.0	0.0	0.0	900.0	529.4	586.2	76.5	168.8	38.4	9.2	3.6												
Total	3.6	0.2	0.0	0.0	11146.9	11447.1	7050.7	2400.0	3370.1	960.6	356.6	143.5												

Date Processed: May 18, 2018 08:55

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Otuk Creek

Units: ft³/s
Filter: None

Year:	2015												Aggr:	44.7	Min:	0.0	Max:	1560.6	Total (Acre-ft):	32365.3
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec								
1	1.3	0.5	0.1	0.0	0.0	58.9	12.7	27.4	88.8	3.0	0.8	0.2	UN	UN	UN	UN	UN	UN	UN	
2	1.3	0.4	0.1	0.0	0.0	44.7	10.9	25.6	99.0	2.9	0.8	0.2	UN	UN	UN	UN	UN	UN	UN	
3	1.3	0.4	0.1	0.0	0.0	36.8	10.1	22.3	102.3	2.7	0.7	0.2	UN	UN	UN	UN	UN	UN	UN	
4	1.2	0.4	0.1	0.0	0.0	24.2	8.5	21.0	82.5	2.6	0.7	0.2	UN	UN	UN	UN	UN	UN	UN	
5	1.2	0.4	0.1	0.0	0.0	17.1	8.4	27.1	64.8	2.5	0.7	0.2	UN	UN	UN	UN	UN	UN	UN	
6	1.1	0.4	0.1	0.0	0.0	34.8	9.1	30.2	55.0	2.4	0.6	0.2	UN	UN	UN	UN	UN	UN	UN	
7	1.1	0.4	0.1	0.0	0.0	54.6	11.6	25.2	50.5	2.3	0.6	0.2	UN	UN	UN	UN	UN	UN	UN	
8	1.1	0.3	0.1	0.0	0.0	52.9	52.0	43.5	49.0	2.2	0.6	0.1	UN	UN	UN	UN	UN	UN	UN	
9	1.0	0.3	0.1	0.0	0.0	57.8	48.2	54.9	49.0	2.1	0.6	0.1	UN	UN	UN	UN	UN	UN	UN	
10	1.0	0.3	0.0	0.0	10.3	175.2	38.5	246.5	37.4	2.0	0.5	0.1	UN	UN	UN	UN	UN	UN	UN	
11	1.0	0.3	0.0	0.0	21.5	296.8	27.8	383.4	34.3	2.0	0.5	0.1	UN	UN	UN	UN	UN	UN	UN	
12	0.9	0.3	0.0	0.0	43.0	100.4	19.8	221.4	33.7	1.9	0.5	0.1	UN	UN	UN	UN	UN	UN	UN	
13	0.9	0.3	0.0	0.0	98.1	59.9	15.9	242.7	25.5	1.8	0.5	0.1	UN	UN	UN	UN	UN	UN	UN	
14	0.9	0.3	0.0	0.0	209.9	82.4	13.4	152.0	19.5	1.7	0.5	0.1	UN	UN	UN	UN	UN	UN	UN	
15	0.8	0.2	0.0	0.0	446.7	85.6	12.3	89.2	14.8	1.6	0.4	0.1	UN	UN	UN	UN	UN	UN	UN	
16	0.8	0.2	0.0	0.0	572.0	59.5	15.1	65.3	9.7	1.6	0.4	0.1	UN	UN	UN	UN	UN	UN	UN	
17	0.8	0.2	0.0	0.0	617.1	51.8	29.6	64.3	5.8	1.5	0.4	0.1	UN	UN	UN	UN	UN	UN	UN	
18	0.8	0.2	0.0	0.0	627.8	56.6	34.0	63.2	5.1	1.4	0.4	0.1	UN	UN	UN	UN	UN	UN	UN	
19	0.7	0.2	0.0	0.0	581.4	57.9	422.8	59.6	4.9	1.4	0.4	0.1	UN	UN	UN	UN	UN	UN	UN	
20	0.7	0.2	0.0	0.0	520.2	52.4	440.4	63.2	4.7	1.3	0.3	0.1	UN	UN	UN	UN	UN	UN	UN	
21	0.7	0.2	0.0	0.0	499.1	50.8	147.9	99.9	4.5	1.3	0.3	0.1	UN	UN	UN	UN	UN	UN	UN	
22	0.7	0.2	0.0	0.0	383.0	47.2	79.8	261.2	4.3	1.2	0.3	0.1	UN	UN	UN	UN	UN	UN	UN	
23	0.6	0.2	0.0	0.0	230.4	42.9	56.9	345.3	4.2	1.2	0.3	0.1	UN	UN	UN	UN	UN	UN	UN	
24	0.6	0.2	0.0	0.0	221.0	41.4	48.6	193.7	4.0	1.1	0.3	0.1	UN	UN	UN	UN	UN	UN	UN	
25	0.6	0.1	0.0	0.0	189.4	37.9	43.4	114.3	3.8	1.1	0.3	0.1	UN	UN	UN	UN	UN	UN	UN	
26	0.6	0.1	0.0	0.0	99.8	31.0	39.5	284.4	3.7	1.0	0.3	0.0	UN	UN	UN	UN	UN	UN	UN	
27	0.5	0.1	0.0	0.0	99.5	23.2	37.4	570.0	3.5	1.0	0.2	0.0	UN	UN	UN	UN	UN	UN	UN	
28	0.5	0.1	0.0	0.0	251.1	15.8	35.2	272.1	3.4	0.9	0.2	0.0	UN	UN	UN	UN	UN	UN	UN	
29	0.5	0.1	0.0	0.0	1097.9	12.8	32.1	170.3	3.2	0.9	0.2	0.0	UN	UN	UN	UN	UN	UN	UN	
30	0.5	0.1	0.0	0.0	328.6	13.1	28.7	132.6	3.1	0.9	0.2	0.0	UN	UN	UN	UN	UN	UN	UN	
31	0.5	0.1	0.0	0.0	126.8	23.2	23.2	106.0	29.1	0.8	0.5	0.1	UN	UN	UN	UN	UN	UN	UN	
Aggr	0.8	0.3	0.0	0.0	234.7	59.2	58.5	144.4	3.0	1.7	0.5	0.1								
Min	0.5	0.1	0.0	0.0	0.0	10.8	6.5	19.6	3.0	0.8	0.2	0.0								
Max	1.4	0.5	0.1	0.0	1560.6	527.8	682.6	707.0	127.4	3.0	0.8	0.2								
Total	52.0	14.7	1.8	0.0	14423.3	3523.4	3597.2	8881.5	1734.3	104.1	26.9	6.3								

Date Processed: May 18, 2018 08:55

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence
F - Fair Data
G - Good Data
P - Poor Data
UN - Unspecified



Daily Mean by Year

Identifier: Otuk Creek

Units: ft³/s
Filter: None

Year: 2016	Aggr:	59.5	Min:	0.0	Max:	893.8	Total (Acre-ft):	43266.2				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.0	120.0	55.7	74.3	81.5	56.8	1.4	0.6
2	0.0	0.0	0.0	0.0	0.0	63.3	51.9	68.9	76.3	57.1	1.4	0.5
3	0.0	0.0	0.0	0.0	0.0	44.7	44.9	76.3	69.0	53.1	1.3	0.5
4	0.0	0.0	0.0	0.0	0.0	41.7	40.7	65.7	62.4	41.4	1.3	0.5
5	0.0	0.0	0.0	0.0	0.0	60.3	92.3	55.5	58.7	38.4	1.3	0.5
6	0.0	0.0	0.0	0.0	0.0	47.1	85.7	47.5	55.6	35.1	1.2	0.5
7	0.0	0.0	0.0	0.0	0.0	72.0	162.2	42.6	50.8	31.0	1.2	0.5
8	0.0	0.0	0.0	0.0	0.0	81.5	96.0	59.0	66.3	25.5	1.2	0.4
9	0.0	0.0	0.0	0.0	0.0	79.7	117.3	130.6	97.1	21.0	1.1	0.4
10	0.0	0.0	0.0	0.0	5.9	210.5	109.4	264.4	91.0	17.2	1.1	0.4
11	0.0	0.0	0.0	0.0	29.6	140.7	478.3	211.5	86.4	14.2	1.0	0.4
12	0.0	0.0	0.0	0.0	116.2	145.8	162.5	153.3	72.9	11.7	1.0	0.4
13	0.0	0.0	0.0	0.0	159.6	164.2	87.5	106.7	60.0	9.6	1.0	0.4
14	0.0	0.0	0.0	0.0	238.7	151.5	62.6	87.8	54.2	7.9	1.0	0.4
15	0.0	0.0	0.0	0.0	252.7	235.8	49.9	86.1	51.6	6.5	0.9	0.3
16	0.0	0.0	0.0	0.0	203.9	332.9	69.6	97.7	48.6	5.3	0.9	0.3
17	0.0	0.0	0.0	0.0	110.0	175.8	265.6	90.0	41.4	4.4	0.9	0.3
18	0.0	0.0	0.0	0.0	68.1	152.8	508.0	73.3	40.8	3.6	0.8	0.3
19	0.0	0.0	0.0	0.0	106.8	158.4	238.6	183.3	39.0	3.0	0.8	0.3
20	0.0	0.0	0.0	0.0	240.3	170.5	113.6	186.2	61.3	2.4	0.8	0.3
21	0.0	0.0	0.0	0.0	413.2	627.4	82.4	177.3	159.5	2.0	0.8	0.3
22	0.0	0.0	0.0	0.0	688.7	319.7	62.5	472.5	187.4	1.9	0.7	0.3
23	0.0	0.0	0.0	0.0	528.1	115.7	49.4	471.8	101.2	1.9	0.7	0.3
24	0.0	0.0	0.0	0.0	532.2	102.1	41.1	582.7	77.5	1.8	0.7	0.2
25	0.0	0.0	0.0	0.0	249.4	144.8	35.8	417.6	63.3	1.8	0.7	0.2
26	0.0	0.0	0.0	0.0	175.5	101.0	31.8	191.5	52.0	1.7	0.7	0.2
27	0.0	0.0	0.0	0.0	348.5	243.5	28.8	115.2	49.4	1.7	0.6	0.2
28	0.0	0.0	0.0	0.0	472.3	107.1	74.5	106.1	46.2	1.6	0.6	0.2
29	0.0	0.0	0.0	0.0	422.6	84.7	289.6	130.6	44.5	1.6	0.6	0.2
30	0.0	0.0	0.0	0.0	285.2	66.0	127.4	106.1	45.0	1.5	0.6	0.2
31	0.0	0.0	0.0	0.0	183.9	95.9	95.9	90.4	69.7	1.5	0.6	0.2
Aggr	0.0	0.0	0.0	0.0	187.5	152.0	123.0	162.0	69.7	15.0	0.9	0.3
Min	0.0	0.0	0.0	0.0	0.0	38.6	27.2	41.0	34.7	1.5	0.6	0.2
Max	0.0	0.0	0.0	0.0	796.3	893.8	653.6	624.2	270.4	72.3	1.5	0.6
Total	0.3	0.0	0.0	0.0	11551.3	9046.7	7560.3	9962.1	4147.4	920.8	56.1	21.1

Date Processed: May 18, 2018 08:55

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Otuk Creek

Units: ft³/s
Filter: None

Year: 2017	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):
1	0.2 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	319.3 UN	148.0 UN	28.0 UN	48.5 UN	54.5 UN	4.7 UN	0.5 UN	28658.4
2	0.2 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	259.4 UN	420.6 UN	39.6 UN	65.0 UN	92.9 UN	4.4 UN	0.5 UN	
3	0.2 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	249.1 UN	138.9 UN	146.3 UN	99.4 UN	39.2 UN	4.1 UN	0.5 UN	
4	0.2 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	275.8 UN	70.4 UN	297.9 UN	75.0 UN	52.3 UN	3.8 UN	0.4 UN	
5	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	211.6 UN	50.8 UN	115.7 UN	65.6 UN	49.4 UN	3.6 UN	0.4 UN	
6	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	128.7 UN	39.9 UN	72.0 UN	90.4 UN	41.2 UN	3.3 UN	0.4 UN	
7	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	97.2 UN	33.5 UN	54.5 UN	134.3 UN	30.1 UN	3.1 UN	0.3 UN	
8	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	101.0 UN	26.6 UN	44.8 UN	80.5 UN	26.1 UN	2.9 UN	0.3 UN	
9	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	99.6 UN	23.1 UN	39.9 UN	66.5 UN	24.3 UN	2.7 UN	0.3 UN	
10	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	185.8 UN	23.4 UN	39.2 UN	57.8 UN	22.7 UN	2.5 UN	0.3 UN	
11	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	246.5 UN	23.1 UN	36.5 UN	74.3 UN	21.1 UN	2.3 UN	0.3 UN	
12	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	169.1 UN	22.1 UN	53.0 UN	61.4 UN	19.7 UN	2.2 UN	0.2 UN	
13	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	101.7 UN	23.6 UN	69.3 UN	60.7 UN	18.3 UN	2.0 UN	0.2 UN	
14	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	87.9 UN	21.8 UN	83.1 UN	90.1 UN	17.1 UN	1.9 UN	0.2 UN	
15	0.1 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	78.2 UN	19.6 UN	95.9 UN	89.3 UN	15.9 UN	1.7 UN	0.2 UN	
16	0.1 UN	0.0 UN	0.0 UN	0.0 UN	8.6 UN	61.2 UN	18.5 UN	195.5 UN	68.3 UN	14.8 UN	1.6 UN	0.2 UN	
17	0.1 UN	0.0 UN	0.0 UN	0.0 UN	15.9 UN	50.3 UN	18.2 UN	554.6 UN	55.6 UN	13.8 UN	1.5 UN	0.2 UN	
18	0.1 UN	0.0 UN	0.0 UN	0.0 UN	18.1 UN	53.2 UN	16.9 UN	526.1 UN	49.9 UN	12.8 UN	1.4 UN	0.1 UN	
19	0.1 UN	0.0 UN	0.0 UN	0.0 UN	22.7 UN	63.1 UN	16.3 UN	261.9 UN	51.5 UN	12.0 UN	1.3 UN	0.1 UN	
20	0.1 UN	0.0 UN	0.0 UN	0.0 UN	34.0 UN	118.7 UN	345.6 UN	135.6 UN	46.2 UN	11.1 UN	1.2 UN	0.1 UN	
21	0.1 UN	0.0 UN	0.0 UN	0.0 UN	53.6 UN	82.3 UN	187.4 UN	85.8 UN	38.4 UN	10.4 UN	1.1 UN	0.1 UN	
22	0.1 UN	0.0 UN	0.0 UN	0.0 UN	79.8 UN	67.5 UN	75.8 UN	66.4 UN	32.6 UN	9.7 UN	1.1 UN	0.1 UN	
23	0.0 UN	0.0 UN	0.0 UN	0.0 UN	125.7 UN	53.4 UN	95.3 UN	59.2 UN	27.4 UN	9.0 UN	1.0 UN	0.1 UN	
24	0.0 UN	0.0 UN	0.0 UN	0.0 UN	179.4 UN	44.9 UN	132.0 UN	58.4 UN	25.8 UN	8.4 UN	0.9 UN	0.1 UN	
25	0.0 UN	0.0 UN	0.0 UN	0.0 UN	227.1 UN	38.9 UN	106.5 UN	100.5 UN	22.6 UN	7.8 UN	0.8 UN	0.1 UN	
26	0.0 UN	0.0 UN	0.0 UN	0.0 UN	217.1 UN	31.2 UN	88.6 UN	106.9 UN	21.4 UN	7.3 UN	0.8 UN	0.1 UN	
27	0.0 UN	0.0 UN	0.0 UN	0.0 UN	213.9 UN	30.6 UN	65.1 UN	98.0 UN	32.4 UN	6.8 UN	0.7 UN	0.1 UN	
28	0.0 UN	0.0 UN	0.0 UN	0.0 UN	202.9 UN	34.0 UN	49.0 UN	105.0 UN	42.9 UN	6.3 UN	0.7 UN	0.1 UN	
29	0.0 UN	0.0 UN	0.0 UN	0.0 UN	245.9 UN	35.4 UN	37.8 UN	82.8 UN	32.2 UN	5.9 UN	0.6 UN	0.0 UN	
30	0.0 UN	0.0 UN	0.0 UN	0.0 UN	345.6 UN	34.9 UN	33.3 UN	66.1 UN	24.5 UN	5.5 UN	0.6 UN	0.0 UN	
31	0.0 UN	0.0 UN	0.0 UN	0.0 UN	402.9 UN	29.7 UN	29.7 UN	53.4 UN	5.1 UN	5.1 UN	0.0 UN	0.0 UN	
Aggr	0.1	0.0	0.0	0.0	77.2	113.7	77.5	121.7	57.7	21.7	2.0	0.2	
Min	0.0	0.0	0.0	0.0	0.0	26.9	15.6	26.6	17.3	4.9	0.6	0.0	
Max	0.2	0.0	0.0	0.0	484.9	453.6	676.9	659.4	200.2	166.2	4.9	0.6	
Total	5.3	0.1	0.0	0.0	4747.1	6764.7	4762.8	7481.6	3432.0	1331.3	120.4	13.0	

Date Processed: May 18, 2018 08:55

Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Summary of Daily Mean Flows

Prince Creek, Alaska

Daily Mean by Year

Identifier: Prince Creek

Units: ft³/s
Filter: None

Year: 2009	Aggr:	141.5	Min:	0.0	Max:	4652.1	Total (Acre-ft):	102408.2				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	UN	0.0	UN	0.0	UN	16.1	UN	701.0	UN	86.0	UN
2	0.0	UN	0.0	UN	0.0	UN	13.2	UN	656.0	UN	79.4	UN
3	0.0	UN	0.0	UN	0.0	UN	11.2	UN	495.8	UN	73.2	UN
4	0.0	UN	0.0	UN	0.0	UN	9.4	UN	381.5	UN	67.5	UN
5	0.0	UN	0.0	UN	0.0	UN	7.6	UN	321.4	UN	62.3	UN
6	0.0	UN	0.0	UN	0.0	UN	6.7	UN	306.9	UN	57.4	UN
7	0.0	UN	0.0	UN	0.0	UN	5.7	UN	442.8	UN	53.0	UN
8	0.0	UN	0.0	UN	0.0	UN	4.9	UN	522.6	UN	48.8	UN
9	0.0	UN	0.0	UN	0.0	UN	7.4	UN	452.9	UN	45.0	UN
10	0.0	UN	0.0	UN	0.0	UN	10.6	UN	383.3	UN	41.5	UN
11	0.0	UN	0.0	UN	0.0	UN	12.0	UN	324.3	UN	38.2	UN
12	0.0	UN	0.0	UN	0.0	UN	11.1	UN	280.4	UN	35.2	UN
13	0.0	UN	0.0	UN	0.0	UN	9.7	UN	249.5	UN	32.4	UN
14	0.0	UN	0.0	UN	0.0	UN	8.4	UN	225.9	UN	29.8	UN
15	0.0	UN	0.0	UN	0.0	UN	7.4	UN	207.4	UN	27.4	UN
16	0.0	UN	0.0	UN	0.0	UN	6.6	UN	197.3	UN	25.2	UN
17	0.0	UN	0.0	UN	0.0	UN	5.6	UN	194.5	UN	23.2	UN
18	0.0	UN	0.0	UN	0.0	UN	3.9	UN	189.9	UN	21.3	UN
19	0.0	UN	0.0	UN	0.0	UN	2.7	UN	193.3	UN	19.6	UN
20	0.0	UN	0.0	UN	0.0	UN	2.1	UN	205.6	UN	18.0	UN
21	0.0	UN	0.0	UN	0.0	UN	1.6	UN	202.9	UN	16.5	UN
22	0.0	UN	0.0	UN	0.0	UN	1.4	UN	184.4	UN	15.1	UN
23	0.0	UN	0.0	UN	0.0	UN	1.4	UN	163.7	UN	13.8	UN
24	0.0	UN	0.0	UN	0.0	UN	1.6	UN	150.2	UN	12.6	UN
25	0.0	UN	0.0	UN	0.0	UN	1.7	UN	139.1	UN	11.5	UN
26	0.0	UN	0.0	UN	0.0	UN	1.9	UN	128.9	UN	10.5	UN
27	0.0	UN	0.0	UN	0.0	UN	1.9	UN	119.5	UN	9.6	UN
28	0.0	UN	0.0	UN	0.0	UN	1.9	UN	110.6	UN	8.7	UN
29	0.0	UN	0.0	UN	0.0	UN	1.8	UN	102.0	UN	7.9	UN
30	0.0	UN	0.0	UN	0.0	UN	1.6	UN	93.5	UN	7.1	UN
31	0.0	UN	0.0	UN	0.0	UN	1.4	UN	543.0	UN	6.5	UN
Aggr	0.0	0.0	0.0	0.0	750.3	503.9	5.8	119.4	277.6	32.4	1.3	0.0
Min	0.0	0.0	0.0	0.0	0.0	17.7	1.3	0.2	89.5	6.1	0.0	0.0
Max	0.0	0.0	0.0	0.0	4652.1	3018.1	17.7	647.6	734.9	89.5	6.1	0.0
Total	0.0	0.0	0.0	0.0	46137.2	29981.7	357.7	7343.6	16516.7	1991.8	79.4	0.0

Date Processed: March 11, 2018 10:50

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Prince Creek

Units: ft³/s
Filter: None

Year: 2010	Aggr:	128.1	Min:	0.0	Max:	6007.7	Total (Acre-ft):	92735.6				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.0	517.2	46.4	84.1	80.6	16.7	1.9	0.0
2	0.0	0.0	0.0	0.0	0.0	711.3	41.9	58.1	75.2	14.4	1.8	0.0
3	0.0	0.0	0.0	0.0	0.0	967.5	37.5	40.8	71.2	13.8	1.6	0.0
4	0.0	0.0	0.0	0.0	0.0	2144.2	32.6	30.8	65.2	13.5	1.4	0.0
5	0.0	0.0	0.0	0.0	0.0	3726.3	25.5	24.0	56.3	12.9	1.2	0.0
6	0.0	0.0	0.0	0.0	0.0	4892.8	18.2	24.8	52.3	12.0	1.0	0.0
7	0.0	0.0	0.0	0.0	0.0	5590.8	13.2	407.2	49.7	11.0	0.9	0.0
8	0.0	0.0	0.0	0.0	0.0	4765.8	9.3	1611.4	48.5	11.7	0.7	0.0
9	0.0	0.0	0.0	0.0	0.0	2319.6	7.9	944.1	47.5	11.0	0.6	0.0
10	0.0	0.0	0.0	0.0	0.0	2009.0	6.8	570.8	46.6	10.2	0.4	0.0
11	0.0	0.0	0.0	0.0	0.0	1501.4	6.0	416.5	46.1	9.2	0.3	0.0
12	0.0	0.0	0.0	0.0	0.0	869.5	5.7	341.1	45.8	8.9	0.1	0.0
13	0.0	0.0	0.0	0.0	0.0	596.8	5.3	319.9	45.1	8.5	0.1	0.0
14	0.0	0.0	0.0	0.0	0.0	426.6	5.0	321.3	44.6	8.7	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	333.4	4.6	295.7	43.2	8.5	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	273.5	4.3	232.4	43.7	8.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	246.3	4.7	187.6	45.3	7.7	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	241.2	5.0	163.0	46.6	7.4	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	238.4	6.7	158.2	46.8	7.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	216.9	8.5	244.3	45.7	6.5	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	174.7	18.7	342.3	43.9	6.2	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	144.9	50.1	310.1	41.2	5.7	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	123.2	395.7	245.6	38.4	5.3	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	109.5	634.8	206.1	35.2	4.8	0.0	0.0
25	0.0	0.0	0.0	0.0	0.4	100.2	368.3	174.8	32.5	4.4	0.0	0.0
26	0.0	0.0	0.0	0.0	1.2	89.6	219.1	148.8	29.2	4.0	0.0	0.0
27	0.0	0.0	0.0	0.0	2.4	78.4	141.9	130.1	24.9	3.6	0.0	0.0
28	0.0	0.0	0.0	0.0	4.8	69.7	119.2	116.5	23.9	3.1	0.0	0.0
29	0.0	0.0	0.0	0.0	16.2	60.3	138.5	105.1	26.0	2.7	0.0	0.0
30	0.0	0.0	0.0	0.0	97.9	53.3	161.0	95.9	21.7	2.3	0.0	0.0
31	0.0	0.0	0.0	0.0	316.9	113.8	113.8	88.0	21.1	2.1	0.0	0.0
Aggr	0.0	0.0	0.0	0.0	14.2	1119.7	85.7	272.2	45.4	8.1	0.4	0.0
Min	0.0	0.0	0.0	0.0	0.0	48.3	3.8	20.7	14.4	2.0	0.0	0.0
Max	0.0	0.0	0.0	0.0	477.2	6007.7	754.3	1853.4	83.7	19.5	2.0	0.0
Total	0.0	0.0	0.0	0.0	872.2	66629.3	5268.6	16739.2	2703.4	499.0	23.9	0.0

Date Processed: March 11, 2018 10:50

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Prince Creek

Units: ft³/s
Filter: None

Year: 2011	Aggr:	109.2	Min:	0.0	Max:	7338.6	Total (Acre-ft):	79079.7				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.0	3238.2	46.9	15.7	12.0	28.9	0.4	0.0
2	0.0	0.0	0.0	0.0	0.0	1348.1	43.7	17.1	16.1	21.7	0.3	0.0
3	0.0	0.0	0.0	0.0	0.0	835.6	38.2	17.8	23.8	18.2	0.3	0.0
4	0.0	0.0	0.0	0.0	0.0	765.6	32.7	19.3	28.4	14.9	0.2	0.0
5	0.0	0.0	0.0	0.0	0.0	759.0	31.6	27.1	29.7	11.4	0.2	0.0
6	0.0	0.0	0.0	0.0	0.0	806.1	29.2	25.3	29.9	9.2	0.1	0.0
7	0.0	0.0	0.0	0.0	0.0	659.6	30.7	20.5	32.3	8.1	0.1	0.0
8	0.0	0.0	0.0	0.0	0.0	516.4	33.1	16.9	45.8	7.3	0.1	0.0
9	0.0	0.0	0.0	0.0	0.0	352.4	30.7	14.3	70.9	6.5	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	266.3	26.5	11.7	127.4	5.8	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	235.9	21.8	10.4	277.7	5.2	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	256.1	20.8	11.4	323.1	4.7	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	221.1	20.7	12.5	235.5	4.2	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	178.5	25.5	11.5	180.6	3.7	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	209.1	65.1	10.2	142.8	3.3	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	250.4	97.5	10.0	118.9	3.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	236.6	207.1	9.6	116.6	2.6	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	204.9	392.7	10.1	153.7	2.4	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	216.3	277.1	12.0	184.4	2.1	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	182.5	175.8	14.8	218.9	1.9	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	155.2	114.9	15.9	287.4	1.7	0.0	0.0
22	0.0	0.0	0.0	0.0	0.7	116.3	75.9	14.6	363.2	1.5	0.0	0.0
23	0.0	0.0	0.0	0.0	4.6	87.7	55.4	12.7	294.2	1.3	0.0	0.0
24	0.0	0.0	0.0	0.0	12.1	68.8	45.2	11.6	216.5	1.2	0.0	0.0
25	0.0	0.0	0.0	0.0	23.3	55.0	34.8	10.9	156.7	1.0	0.0	0.0
26	0.0	0.0	0.0	0.0	43.0	49.2	28.2	10.3	111.5	0.9	0.0	0.0
27	0.0	0.0	0.0	0.0	431.6	44.7	23.4	9.7	85.0	0.8	0.0	0.0
28	0.0	0.0	0.0	0.0	2827.7	41.8	20.5	9.3	60.8	0.7	0.0	0.0
29	0.0	0.0	0.0	0.0	6222.8	38.2	18.8	8.8	46.9	0.6	0.0	0.0
30	0.0	0.0	0.0	0.0	6622.1	37.0	16.7	8.5	37.7	0.5	0.0	0.0
31	0.0	0.0	0.0	0.0	4526.2	15.8	15.8	9.2	0.4	0.4	0.0	0.0
Aggr	0.0	0.0	0.0	0.0	668.2	414.4	67.7	13.5	134.3	5.7	0.1	0.0
Min	0.0	0.0	0.0	0.0	0.0	34.8	14.8	8.2	9.2	0.4	0.0	0.0
Max	0.0	0.0	0.0	0.0	7338.6	4021.8	438.3	31.4	385.2	32.6	0.4	0.0
Total	0.0	0.0	0.0	0.0	41085.5	24659.4	4159.7	832.7	7990.3	348.7	3.4	0.0

Date Processed: March 11, 2018 10:50

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Prince Creek

Units: ft³/s
Filter: None

Year: 2012	Aggr:	119.3	Min:	0.0	Max:	4920.0	Total (Acre-ft):	86606.1				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.0	3519.6	14.8	235.7	1509.4	80.8	1.0	0.0
2	0.0	0.0	0.0	0.0	0.0	4746.7	14.7	237.5	1048.6	58.2	0.8	0.0
3	0.0	0.0	0.0	0.0	0.0	3357.8	14.0	194.2	750.3	63.1	0.7	0.0
4	0.0	0.0	0.0	0.0	0.0	4141.8	13.4	156.9	598.9	53.8	0.5	0.0
5	0.0	0.0	0.0	0.0	0.0	3556.8	12.7	134.7	509.4	48.8	0.4	0.0
6	0.0	0.0	0.0	0.0	0.0	1720.7	11.9	115.2	428.3	44.4	0.3	0.0
7	0.0	0.0	0.0	0.0	0.0	958.4	11.0	145.3	349.4	34.8	0.2	0.0
8	0.0	0.0	0.0	0.0	0.0	636.9	10.3	206.1	295.6	27.8	0.2	0.0
9	0.0	0.0	0.0	0.0	0.0	511.2	9.9	204.3	253.8	23.3	0.1	0.0
10	0.0	0.0	0.0	0.0	0.0	508.4	9.8	153.1	221.4	20.8	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	509.5	9.7	112.0	195.1	17.8	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	419.1	9.8	85.3	172.6	15.6	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	334.5	10.0	65.2	151.1	13.8	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	279.3	10.4	51.3	132.4	12.1	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	241.4	11.4	44.9	114.5	10.7	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	207.9	12.7	51.9	103.1	9.4	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	163.4	14.8	85.1	180.7	8.3	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	124.2	29.0	146.7	406.3	7.3	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	93.7	51.9	149.3	399.7	6.4	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	70.4	63.6	127.1	294.3	5.6	0.0	0.0
21	0.0	0.0	0.0	0.0	0.1	56.3	65.6	101.3	234.3	4.9	0.0	0.0
22	0.0	0.0	0.0	0.0	0.7	43.2	50.0	83.4	208.9	4.3	0.0	0.0
23	0.0	0.0	0.0	0.0	2.6	33.1	39.6	75.3	219.7	3.8	0.0	0.0
24	0.0	0.0	0.0	0.0	8.8	28.4	34.5	73.2	253.1	3.3	0.0	0.0
25	0.0	0.0	0.0	0.0	25.5	24.6	46.5	68.0	269.8	2.9	0.0	0.0
26	0.0	0.0	0.0	0.0	82.4	19.9	71.6	60.4	228.5	2.5	0.0	0.0
27	0.0	0.0	0.0	0.0	58.7	17.4	95.5	57.7	189.8	2.2	0.0	0.0
28	0.0	0.0	0.0	0.0	74.0	15.6	144.0	54.4	153.9	1.9	0.0	0.0
29	0.0	0.0	0.0	0.0	79.4	14.5	144.4	63.2	124.3	1.6	0.0	0.0
30	0.0	0.0	0.0	0.0	89.2	14.7	109.9	98.6	101.1	1.4	0.0	0.0
31	0.0	0.0	0.0	0.0	841.0	14.7	178.4	573.8	1.1	1.1	0.0	0.0
Aggr	0.0	0.0	0.0	0.0	40.7	879.0	42.8	129.4	336.6	19.1	0.1	0.0
Min	0.0	0.0	0.0	0.0	0.0	14.4	9.7	43.8	90.3	1.1	0.0	0.0
Max	0.0	0.0	0.0	0.0	2415.2	4920.0	253.4	1264.7	1627.2	90.3	1.1	0.0
Total	0.0	0.0	0.0	0.0	2504.1	52303.2	2629.4	7955.7	20029.7	1175.7	8.3	0.0

Date Processed: March 11, 2018 10:50

Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Daily Mean by Year

Identifier: Prince Creek

Units: ft³/s
Filter: None

Year: 2013	Aggr:	134.8	Min:	0.0	Max:	6545.2	Total (Acre-ft):	97594.4				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.0	2017.7	85.3	82.7	112.3	25.8	0.2	0.0
2	0.0	0.0	0.0	0.0	0.0	3797.0	72.5	74.5	122.0	21.9	0.2	0.0
3	0.0	0.0	0.0	0.0	0.0	6096.7	64.8	73.7	127.2	18.5	0.1	0.0
4	0.0	0.0	0.0	0.0	0.0	3672.3	57.7	73.1	128.0	15.7	0.1	0.0
5	0.0	0.0	0.0	0.0	0.0	1676.5	51.0	91.9	128.2	13.3	0.1	0.0
6	0.0	0.0	0.0	0.0	0.0	828.0	47.4	103.5	131.6	11.2	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	1106.9	44.5	105.2	133.7	9.5	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	2934.4	42.2	91.1	125.8	8.4	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	3503.9	37.4	76.2	116.5	7.5	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	4058.6	30.2	66.7	109.8	6.6	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	2602.0	25.7	58.9	103.6	5.8	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	1879.7	23.2	53.9	94.4	5.2	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	1272.9	22.0	51.1	85.4	4.6	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	806.6	20.7	47.3	79.5	4.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	598.4	19.3	44.1	91.2	3.6	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	535.7	20.0	44.9	121.8	3.1	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	556.7	22.7	47.8	128.0	2.8	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	412.5	25.2	54.2	114.8	2.4	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	285.8	30.0	59.8	101.1	2.1	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	201.4	30.9	67.0	90.4	1.9	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	149.7	47.1	89.5	85.4	1.6	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	141.5	50.3	100.3	75.1	1.4	0.0	0.0
23	0.0	0.0	0.0	0.0	0.5	267.7	44.6	87.7	61.0	1.2	0.0	0.0
24	0.0	0.0	0.0	0.0	1.8	375.6	51.1	71.4	44.6	1.1	0.0	0.0
25	0.0	0.0	0.0	0.0	3.6	273.7	69.1	60.1	49.0	0.9	0.0	0.0
26	0.0	0.0	0.0	0.0	9.0	196.1	70.1	55.9	45.4	0.8	0.0	0.0
27	0.0	0.0	0.0	0.0	32.0	145.4	71.3	54.2	41.2	0.7	0.0	0.0
28	0.0	0.0	0.0	0.0	73.8	122.3	86.5	51.7	38.2	0.6	0.0	0.0
29	0.0	0.0	0.0	0.0	140.3	109.2	126.9	54.4	34.0	0.5	0.0	0.0
30	0.0	0.0	0.0	0.0	383.1	99.5	121.4	67.4	30.5	0.4	0.0	0.0
31	0.0	0.0	0.0	0.0	1138.7	101.8	101.8	89.7	30.5	0.3	0.0	0.0
Aggr	0.0	0.0	0.0	0.0	57.5	1357.5	52.0	69.4	91.7	5.9	0.0	0.0
Min	0.0	0.0	0.0	0.0	0.0	93.9	19.2	43.7	28.0	0.3	0.0	0.0
Max	0.0	0.0	0.0	0.0	2148.4	6545.2	139.3	110.1	135.6	28.0	0.3	0.0
Total	0.0	0.0	0.0	0.0	3536.1	80775.2	3199.2	4264.2	5454.2	363.9	1.5	0.0

Date Processed: March 11, 2018 10:50

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Prince Creek

Units: ft³/s
Filter: None

Year: 2014	Aggr:	184.8	Min:	0.0	Max:	4802.3	Total (Acre-ft):	133764.8				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.0	2573.8	241.4	74.3	336.6	58.7	1.6	0.0
2	0.0	0.0	0.0	0.0	0.0	1786.6	201.6	64.3	938.6	76.2	1.2	0.0
3	0.0	0.0	0.0	0.0	0.0	1600.6	169.1	57.2	859.3	145.8	0.9	0.0
4	0.0	0.0	0.0	0.0	0.0	2932.2	281.5	53.9	617.5	181.4	0.7	0.0
5	0.0	0.0	0.0	0.0	0.0	4292.9	289.6	50.7	542.4	136.8	0.5	0.0
6	0.0	0.0	0.0	0.0	0.0	3976.2	216.5	46.5	416.2	127.5	0.3	0.0
7	0.0	0.0	0.0	0.0	0.0	2490.1	143.9	41.8	289.3	117.9	0.2	0.0
8	0.0	0.0	0.0	0.0	0.0	2196.8	108.2	37.9	204.3	95.4	0.1	0.0
9	0.0	0.0	0.0	0.0	0.0	1911.6	88.8	34.9	148.5	71.9	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	1252.2	73.3	32.8	115.8	51.7	0.0	0.0
11	0.0	0.0	0.0	0.0	0.4	1134.0	59.1	31.6	102.8	41.7	0.0	0.0
12	0.0	0.0	0.0	0.0	0.6	862.4	50.0	30.2	92.7	37.9	0.0	0.0
13	0.0	0.0	0.0	0.0	1.2	793.7	44.2	29.3	84.5	34.3	0.0	0.0
14	0.0	0.0	0.0	0.0	3.9	645.4	42.5	28.3	76.5	31.1	0.0	0.0
15	0.0	0.0	0.0	0.0	6.0	501.3	46.5	27.2	71.1	28.1	0.0	0.0
16	0.0	0.0	0.0	0.0	15.4	364.7	89.3	26.0	66.7	25.3	0.0	0.0
17	0.0	0.0	0.0	0.0	122.4	369.0	85.1	25.1	63.6	22.7	0.0	0.0
18	0.0	0.0	0.0	0.0	315.9	295.3	94.5	26.2	60.3	20.3	0.0	0.0
19	0.0	0.0	0.0	0.0	580.4	225.9	127.1	27.6	58.1	18.1	0.0	0.0
20	0.0	0.0	0.0	0.0	1271.4	190.3	135.3	33.5	57.8	16.1	0.0	0.0
21	0.0	0.0	0.0	0.0	846.2	165.0	113.8	39.5	62.3	14.2	0.0	0.0
22	0.0	0.0	0.0	0.0	779.2	145.9	152.9	54.8	71.4	12.5	0.0	0.0
23	0.0	0.0	0.0	0.0	675.5	424.5	361.1	56.2	74.6	10.9	0.0	0.0
24	0.0	0.0	0.0	0.0	605.3	1862.6	460.1	57.3	78.5	9.4	0.0	0.0
25	0.0	0.0	0.0	0.0	462.1	1153.7	429.2	56.0	85.6	8.0	0.0	0.0
26	0.0	0.0	0.0	0.0	358.9	630.4	315.0	56.2	86.9	6.8	0.0	0.0
27	0.0	0.0	0.0	0.0	669.2	441.4	219.3	55.9	77.2	5.6	0.0	0.0
28	0.0	0.0	0.0	0.0	985.4	380.0	156.3	55.3	72.3	4.6	0.0	0.0
29	0.0	0.0	0.0	0.0	2306.4	329.4	115.4	62.8	66.7	3.7	0.0	0.0
30	0.0	0.0	0.0	0.0	3525.0	273.9	98.4	94.9	58.7	2.8	0.0	0.0
31	0.0	0.0	0.0	0.0	3670.6	1206.7	83.8	214.1	197.9	2.1	0.2	0.0
Aggr	0.0	0.0	0.0	0.0	554.9	137.6	164.3	51.0	45.8	1.8	0.0	0.0
Min	0.0	0.0	0.0	0.0	0.0	4802.3	469.9	264.6	1152.0	207.7	1.8	0.0
Max	0.0	0.0	0.0	0.0	34118.5	71805.1	10101.3	3137.8	11775.5	2815.9	10.7	0.0
Total	0.0	0.0	0.0	0.0	34118.5	71805.1	10101.3	3137.8	11775.5	2815.9	10.7	0.0

Date Processed: March 11, 2018 10:50

Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Daily Mean by Year

Identifier: Prince Creek

Units: ft³/s
Filter: None

Year: 2015	Aggr:	117.3	Min:	0.0	Max:	6322.8	Total (Acre-ft):	84953.3				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.0	419.3	8.6	0.7	463.4	19.4	0.9	0.0
2	0.0	0.0	0.0	0.0	0.0	289.1	8.7	0.8	350.0	18.4	0.8	0.0
3	0.0	0.0	0.0	0.0	0.0	214.5	8.0	0.8	281.7	18.1	0.7	0.0
4	0.0	0.0	0.0	0.0	0.0	164.0	7.3	0.9	232.6	18.3	0.6	0.0
5	0.0	0.0	0.0	0.0	0.0	128.8	6.4	1.0	191.4	18.7	0.6	0.0
6	0.0	0.0	0.0	0.0	0.0	109.3	6.0	1.1	156.8	17.4	0.5	0.0
7	0.0	0.0	0.0	0.0	0.0	103.6	7.0	1.2	130.1	14.2	0.5	0.0
8	0.0	0.0	0.0	0.0	0.0	107.6	4.6	1.3	115.2	14.0	0.4	0.0
9	0.0	0.0	0.0	0.0	0.0	129.3	3.4	1.9	107.4	15.1	0.4	0.0
10	0.0	0.0	0.0	0.0	0.0	203.4	3.1	4.2	103.6	12.4	0.3	0.0
11	0.0	0.0	0.0	0.0	0.0	245.0	3.2	8.7	99.2	9.9	0.3	0.0
12	0.0	0.0	0.0	0.0	0.7	286.4	2.6	9.6	96.5	9.1	0.3	0.0
13	0.0	0.0	0.0	0.0	2.4	204.8	2.5	12.7	96.6	7.6	0.2	0.0
14	0.0	0.0	0.0	0.0	2.3	140.5	2.6	14.6	99.3	6.2	0.2	0.0
15	0.0	0.0	0.0	0.0	4.3	108.5	2.5	15.3	102.5	5.0	0.2	0.0
16	0.0	0.0	0.0	0.0	8.7	88.9	1.7	15.6	104.1	4.3	0.2	0.0
17	0.0	0.0	0.0	0.0	20.6	71.6	1.5	18.3	97.6	3.9	0.1	0.0
18	0.0	0.0	0.0	0.0	99.1	57.1	1.4	19.5	86.2	3.5	0.1	0.0
19	0.0	0.0	0.0	0.0	744.3	47.6	1.5	22.1	74.2	3.2	0.1	0.0
20	0.0	0.0	0.0	0.0	3649.2	40.9	2.1	26.5	62.3	2.9	0.1	0.0
21	0.0	0.0	0.0	0.0	5913.7	33.8	1.4	33.8	54.9	2.6	0.1	0.0
22	0.0	0.0	0.0	0.0	5790.2	27.5	1.2	40.9	48.1	2.4	0.1	0.0
23	0.0	0.0	0.0	0.0	4526.1	22.9	1.0	42.8	39.0	2.1	0.1	0.0
24	0.0	0.0	0.0	0.0	3132.7	19.0	0.9	41.7	32.9	1.9	0.0	0.0
25	0.0	0.0	0.0	0.0	1821.3	16.2	0.8	43.3	37.0	1.8	0.0	0.0
26	0.0	0.0	0.0	0.0	1200.7	14.0	0.8	173.7	29.1	1.6	0.0	0.0
27	0.0	0.0	0.0	0.0	1016.2	14.0	0.7	784.5	25.4	1.4	0.0	0.0
28	0.0	0.0	0.0	0.0	788.5	11.9	0.7	905.8	22.9	1.3	0.0	0.0
29	0.0	0.0	0.0	0.0	762.9	10.4	0.7	864.2	19.5	1.2	0.0	0.0
30	0.0	0.0	0.0	0.0	1031.7	9.3	0.7	836.4	23.7	1.1	0.0	0.0
31	0.0	0.0	0.0	0.0	673.2	673.2	0.7	633.1	0.9	0.9	0.0	0.0
Aggr	0.0	0.0	0.0	0.0	1006.1	111.3	3.0	147.6	112.8	7.7	0.3	0.0
Min	0.0	0.0	0.0	0.0	0.0	8.3	0.7	0.7	13.6	0.9	0.0	0.0
Max	0.0	0.0	0.0	0.0	6322.8	526.0	11.1	1055.6	534.1	21.2	0.9	0.0
Total	0.0	0.0	0.0	0.0	61862.4	6623.1	187.3	9078.3	6710.8	476.1	15.2	0.0

Date Processed: March 11, 2018 10:50

Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Daily Mean by Year

Identifier: Prince Creek

Units: ft³/s
Filter: None

Year: 2016	Aggr:	122.2	Min:	0.0	Max:	4950.1	Total (Acre-ft):	88743.0				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.0	281.1	112.7	3.6	173.0	46.1	0.5	0.0
2	0.0	0.0	0.0	0.0	0.0	194.4	83.2	3.4	151.3	83.7	0.4	0.0
3	0.0	0.0	0.0	0.0	0.0	136.7	61.0	3.2	135.3	121.6	0.3	0.0
4	0.0	0.0	0.0	0.0	0.0	104.6	46.3	3.1	119.6	118.3	0.1	0.0
5	0.0	0.0	0.0	0.0	0.0	91.0	36.3	3.1	105.6	85.9	0.1	0.0
6	0.0	0.0	0.0	0.0	0.0	116.7	29.0	2.9	98.2	75.4	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	147.8	23.4	2.7	103.2	53.7	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	213.3	19.5	2.6	110.3	43.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	217.9	16.4	2.9	155.0	39.3	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	389.4	14.4	2.9	148.7	35.2	0.0	0.0
11	0.0	0.0	0.0	0.0	0.1	863.5	13.4	2.8	125.1	28.8	0.0	0.0
12	0.0	0.0	0.0	0.0	2.2	628.8	11.9	2.6	114.6	20.1	0.0	0.0
13	0.0	0.0	0.0	0.0	5.4	385.4	10.8	2.6	98.5	12.2	0.0	0.0
14	0.0	0.0	0.0	0.0	6.5	280.0	9.7	2.5	77.2	8.3	0.0	0.0
15	0.0	0.0	0.0	0.0	31.3	220.1	8.4	2.3	60.1	6.5	0.0	0.0
16	0.0	0.0	0.0	0.0	49.4	189.9	7.9	2.2	46.4	5.6	0.0	0.0
17	0.0	0.0	0.0	0.0	36.1	170.6	7.6	2.1	37.8	4.8	0.0	0.0
18	0.0	0.0	0.0	0.0	58.8	150.5	7.1	2.0	32.5	4.0	0.0	0.0
19	0.0	0.0	0.0	0.0	100.7	143.5	6.8	3.8	30.5	3.3	0.0	0.0
20	0.0	0.0	0.0	0.0	278.4	212.1	6.6	4.2	28.8	2.6	0.0	0.0
21	0.0	0.0	0.0	0.0	1164.0	605.7	6.3	823.2	26.8	2.0	0.0	0.0
22	0.0	0.0	0.0	0.0	2345.4	974.2	5.9	966.6	27.2	1.6	0.0	0.0
23	0.0	0.0	0.0	0.0	4030.5	641.1	5.4	1301.5	45.4	1.4	0.0	0.0
24	0.0	0.0	0.0	0.0	4652.3	382.2	5.0	1034.2	59.7	1.3	0.0	0.0
25	0.0	0.0	0.0	0.0	4434.6	333.5	4.7	668.4	50.7	1.2	0.0	0.0
26	0.0	0.0	0.0	0.0	2453.9	439.6	4.3	487.5	48.3	1.2	0.0	0.0
27	0.0	0.0	0.0	0.0	1712.0	353.7	4.0	369.7	37.7	1.0	0.0	0.0
28	0.0	0.0	0.0	0.0	1417.9	291.4	4.3	290.1	26.8	0.7	0.0	0.0
29	0.0	0.0	0.0	0.0	1016.0	213.1	4.2	243.5	31.6	0.5	0.0	0.0
30	0.0	0.0	0.0	0.0	584.1	152.5	4.0	225.4	29.1	0.6	0.0	0.0
31	0.0	0.0	0.0	0.0	398.3	317.5	3.8	201.3	77.8	26.2	0.0	0.0
Aggr	0.0	0.0	0.0	0.0	799.3	87.7	18.9	216.4	18.6	0.5	0.0	0.0
Min	0.0	0.0	0.0	0.0	0.0	1083.0	129.8	1387.6	186.5	151.7	0.5	0.0
Max	0.0	0.0	0.0	0.0	4950.1	18891.0	1159.2	13304.0	4631.8	1608.1	2.6	0.0
Total	0.0	0.0	0.0	0.0	49146.3	18891.0	1159.2	13304.0	4631.8	1608.1	2.6	0.0

Date Processed: March 11, 2018 10:50

Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Daily Mean by Year

Identifier: Prince Creek

Units: ft³/s
Filter: None

Year: 2017	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):
	1	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2572.8 UN	28.3 UN	56.2 UN	347.5 UN	84.3 UN	3.4 UN	0.0 UN	93059.0
	2	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	3320.4 UN	24.4 UN	47.7 UN	316.2 UN	103.0 UN	2.9 UN	0.0 UN	
	3	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	3431.4 UN	21.3 UN	53.4 UN	288.9 UN	152.0 UN	2.4 UN	0.0 UN	
	4	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2838.2 UN	18.9 UN	99.6 UN	307.1 UN	130.7 UN	2.0 UN	0.0 UN	
	5	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2143.6 UN	17.3 UN	153.4 UN	251.0 UN	98.6 UN	1.7 UN	0.0 UN	
	6	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1479.8 UN	16.0 UN	171.8 UN	199.7 UN	81.3 UN	1.4 UN	0.0 UN	
	7	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1017.0 UN	14.8 UN	155.8 UN	238.1 UN	73.5 UN	1.1 UN	0.0 UN	
	8	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	777.3 UN	13.7 UN	135.7 UN	364.1 UN	63.5 UN	0.9 UN	0.0 UN	
	9	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	616.8 UN	12.8 UN	115.9 UN	392.3 UN	85.6 UN	0.7 UN	0.0 UN	
	10	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	467.8 UN	12.1 UN	100.8 UN	372.4 UN	92.0 UN	0.5 UN	0.0 UN	
	11	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	387.4 UN	11.6 UN	94.6 UN	296.1 UN	61.0 UN	0.4 UN	0.0 UN	
	12	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	517.4 UN	11.3 UN	101.7 UN	271.4 UN	53.6 UN	0.2 UN	0.0 UN	
	13	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	458.1 UN	10.9 UN	217.4 UN	263.3 UN	47.0 UN	0.1 UN	0.0 UN	
	14	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	372.0 UN	10.4 UN	456.1 UN	216.6 UN	41.3 UN	0.0 UN	0.0 UN	
	15	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	311.3 UN	9.9 UN	609.3 UN	176.6 UN	36.2 UN	0.0 UN	0.0 UN	
	16	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	255.0 UN	9.4 UN	521.5 UN	150.2 UN	31.7 UN	0.0 UN	0.0 UN	
	17	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.0 UN	186.7 UN	9.4 UN	408.4 UN	131.7 UN	27.8 UN	0.0 UN	0.0 UN	
	18	0.0 UN	0.0 UN	0.0 UN	0.0 UN	0.2 UN	151.5 UN	8.9 UN	313.1 UN	116.9 UN	24.4 UN	0.0 UN	0.0 UN	
	19	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1.3 UN	170.2 UN	9.2 UN	348.3 UN	120.1 UN	21.4 UN	0.0 UN	0.0 UN	
	20	0.0 UN	0.0 UN	0.0 UN	0.0 UN	2.5 UN	177.0 UN	10.8 UN	428.0 UN	164.7 UN	18.7 UN	0.0 UN	0.0 UN	
	21	0.0 UN	0.0 UN	0.0 UN	0.0 UN	3.8 UN	186.4 UN	13.6 UN	356.8 UN	224.5 UN	16.4 UN	0.0 UN	0.0 UN	
	22	0.0 UN	0.0 UN	0.0 UN	0.0 UN	5.1 UN	228.7 UN	27.3 UN	274.4 UN	207.3 UN	14.3 UN	0.0 UN	0.0 UN	
	23	0.0 UN	0.0 UN	0.0 UN	0.0 UN	9.7 UN	194.3 UN	73.6 UN	215.7 UN	177.2 UN	12.5 UN	0.0 UN	0.0 UN	
	24	0.0 UN	0.0 UN	0.0 UN	0.0 UN	23.1 UN	152.1 UN	369.8 UN	187.5 UN	166.7 UN	10.9 UN	0.0 UN	0.0 UN	
	25	0.0 UN	0.0 UN	0.0 UN	0.0 UN	50.0 UN	118.3 UN	699.3 UN	185.4 UN	181.4 UN	9.5 UN	0.0 UN	0.0 UN	
	26	0.0 UN	0.0 UN	0.0 UN	0.0 UN	95.0 UN	87.9 UN	480.6 UN	292.6 UN	194.3 UN	8.3 UN	0.0 UN	0.0 UN	
	27	0.0 UN	0.0 UN	0.0 UN	0.0 UN	162.5 UN	65.3 UN	303.6 UN	519.1 UN	163.0 UN	7.2 UN	0.0 UN	0.0 UN	
	28	0.0 UN	0.0 UN	0.0 UN	0.0 UN	309.4 UN	51.1 UN	199.2 UN	513.9 UN	132.1 UN	6.2 UN	0.0 UN	0.0 UN	
	29	0.0 UN	0.0 UN	0.0 UN	0.0 UN	850.6 UN	41.1 UN	135.7 UN	558.0 UN	97.9 UN	5.4 UN	0.0 UN	0.0 UN	
	30	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1334.0 UN	33.7 UN	97.8 UN	516.4 UN	84.7 UN	4.6 UN	0.0 UN	0.0 UN	
	31	0.0 UN	0.0 UN	0.0 UN	0.0 UN	1841.8 UN	73.1 UN	73.1 UN	395.0 UN	4.0 UN	4.0 UN	0.0 UN	0.0 UN	
	Aggr	0.0	0.0	0.0	0.0	151.3	760.4	88.9	277.5	220.5	46.0	0.6	0.0	
	Min	0.0	0.0	0.0	0.0	0.0	30.7	8.4	45.8	80.3	3.7	0.0	0.0	
	Max	0.0	0.0	0.0	0.0	2205.8	3591.4	745.2	623.2	400.3	168.6	3.7	0.0	
	Total	0.0	0.0	0.0	0.0	9300.6	45244.3	5464.3	17065.0	13119.0	2830.4	35.5	0.0	

Date Processed: March 11, 2018 10:50

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Summary of Daily Mean Flows

Seabee Creek, Alaska

Daily Mean by Year

Identifier: Seabee Creek

Units: ft³/s
Filter: None

Year: 2007	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):
	1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	7.0 F	0.2 F	0.2 F	0.1 BI	0.0 BI	0.0 BI	3941.1
	2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	13.2 BI	5.0 F	0.2 F	0.2 F	0.1 BI	0.0 BI	0.0 BI	
	3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	151.5 F	3.7 F	0.2 F	0.2 F	0.1 BI	0.0 BI	0.0 BI	
	4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	444.8 F	2.9 F	0.2 F	0.2 F	0.1 BI	0.0 BI	0.0 BI	
	5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	372.3 F	2.2 F	0.2 F	0.2 F	0.0 BI	0.0 BI	0.0 BI	
	6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	267.5 F	1.8 F	0.3 F	0.2 F	0.0 BI	0.0 BI	0.0 BI	
	7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	218.5 F	1.4 F	0.3 F	0.2 F	0.0 BI	0.0 BI	0.0 BI	
	8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	124.2 F	1.2 F	0.2 F	0.2 F	0.0 BI	0.0 BI	0.0 BI	
	9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	82.8 F	1.0 F	0.2 F	0.2 F	0.0 BI	0.0 BI	0.0 BI	
	10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	54.3 F	0.9 F	0.1 F	0.2 F	0.0 BI	0.0 BI	0.0 BI	
	11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	35.8 F	0.8 F	0.1 F	0.2 F	0.0 BI	0.0 BI	0.0 BI	
	12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	24.0 F	0.6 F	0.1 F	0.2 F	0.0 BI	0.0 BI	0.0 BI	
	13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	18.7 F	0.5 F	0.1 F	0.2 F	0.0 BI	0.0 BI	0.0 BI	
	14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	14.8 F	0.4 F	0.2 F	0.2 F	0.0 BI	0.0 BI	0.0 BI	
	15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	11.9 F	0.3 F	0.2 F	0.2 F	0.0 BI	0.0 BI	0.0 BI	
	16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	9.8 F	0.3 F	0.2 F	0.2 F	0.0 BI	0.0 BI	0.0 BI	
	17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	8.1 F	0.2 F	0.2 F	0.2 F	0.0 BI	0.0 BI	0.0 BI	
	18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	6.6 F	0.2 F	0.2 F	0.2 F	0.0 BI	0.0 BI	0.0 BI	
	19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	5.3 F	0.1 F	0.1 F	0.2 F	0.0 BI	0.0 BI	0.0 BI	
	20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	4.3 F	0.1 F	0.1 F	0.2 BI	0.0 BI	0.0 BI	0.0 BI	
	21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3.6 F	0.1 F	0.1 F	0.1 BI	0.0 BI	0.0 BI	0.0 BI	
	22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3.1 F	0.1 F	0.1 F	0.1 BI	0.0 BI	0.0 BI	0.0 BI	
	23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2.7 F	0.1 F	0.2 F	0.1 BI	0.0 BI	0.0 BI	0.0 BI	
	24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2.4 F	0.1 F	0.2 F	0.1 BI	0.0 BI	0.0 BI	0.0 BI	
	25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2.3 F	0.1 F	0.2 F	0.1 BI	0.0 BI	0.0 BI	0.0 BI	
	26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2.5 F	0.1 F	0.2 F	0.1 BI	0.0 BI	0.0 BI	0.0 BI	
	27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	10.0 F	0.1 F	0.2 F	0.1 BI	0.0 BI	0.0 BI	0.0 BI	
	28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	21.4 F	0.3 F	0.2 F	0.1 BI	0.0 BI	0.0 BI	0.0 BI	
	29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	17.0 F	0.4 F	0.2 F	0.1 BI	0.0 BI	0.0 BI	0.0 BI	
	30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	10.7 F	0.3 F	0.2 F	0.1 BI	0.0 BI	0.0 BI	0.0 BI	
	31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.2 F	0.2 F	0.2 F	0.0 BI	0.0 BI	0.0 BI	0.0 BI	
	Aggr	0.0	0.0	0.0	0.0	0.0	64.8	1.0	0.2	0.1	0.0	0.0	0.0	
	Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	
	Max	0.0	0.0	0.0	0.0	0.0	599.4	8.6	0.4	0.2	0.1	0.0	0.0	
	Total	0.0	0.0	0.0	0.0	0.0	3856.5	64.0	11.1	8.6	0.9	0.0	0.0	

Date Processed: March 31, 2018 07:34

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Seabee Creek

Units: ft³/s
Filter: None

Year: 2008	Aggr:	8.3	Min:	0.0	Max:	386.0	Total (Acre-ft):	6015.8				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	136.0 F	5.0 F	3.9 F	2.2 F	0.7 F	0.0 BI	0.0 BI
2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	124.8 F	6.1 F	4.6 F	2.1 F	0.6 F	0.0 BI	0.0 BI
3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	161.3 F	12.0 F	13.0 F	1.8 F	0.6 F	0.0 BI	0.0 BI
4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	175.6 F	11.1 F	23.1 F	1.6 F	0.7 F	0.0 BI	0.0 BI
5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	151.3 F	8.2 F	27.7 F	1.6 F	0.9 F	0.0 BI	0.0 BI
6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	92.9 F	5.8 F	28.3 F	1.5 F	0.9 F	0.0 BI	0.0 BI
7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	61.1 F	4.4 F	24.3 F	1.4 F	0.8 F	0.0 BI	0.0 BI
8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	47.6 F	3.3 F	20.1 F	1.4 F	0.7 F	0.0 BI	0.0 BI
9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	38.2 F	2.6 F	17.1 F	1.4 F	0.5 BI	0.0 BI	0.0 BI
10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	29.4 F	1.9 F	13.8 F	1.3 F	0.5 BI	0.0 BI	0.0 BI
11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	24.2 F	2.2 F	12.0 F	1.4 F	0.4 BI	0.0 BI	0.0 BI
12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	20.1 F	2.5 F	10.2 F	1.4 F	0.3 BI	0.0 BI	0.0 BI
13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	15.5 F	2.7 F	9.4 F	1.4 F	0.3 BI	0.0 BI	0.0 BI
14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	11.7 F	2.5 F	9.1 F	1.4 F	0.3 BI	0.0 BI	0.0 BI
15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	9.1 F	1.9 F	9.3 F	1.3 F	0.2 BI	0.0 BI	0.0 BI
16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	7.8 F	1.3 F	9.1 F	1.2 F	0.2 BI	0.0 BI	0.0 BI
17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	7.2 F	1.2 F	8.9 F	1.0 F	0.2 BI	0.0 BI	0.0 BI
18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	7.5 F	1.0 F	8.1 F	0.9 F	0.1 BI	0.0 BI	0.0 BI
19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	8.8 F	0.9 F	7.5 F	0.8 F	0.1 BI	0.0 BI	0.0 BI
20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	10.4 F	0.9 F	6.8 F	0.7 F	0.1 BI	0.0 BI	0.0 BI
21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	9.8 F	1.4 F	6.1 F	0.8 F	0.1 BI	0.0 BI	0.0 BI
22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	8.4 F	2.4 F	5.8 F	0.9 F	0.1 BI	0.0 BI	0.0 BI
23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	7.1 F	5.3 F	4.9 F	0.9 F	0.1 BI	0.0 BI	0.0 BI
24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	6.8 F	8.7 F	4.1 F	1.0 F	0.1 BI	0.0 BI	0.0 BI
25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	6.1 F	9.6 F	3.5 F	1.1 F	0.0 BI	0.0 BI	0.0 BI
26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.5 BI	7.3 F	8.0 F	3.4 F	1.1 F	0.0 BI	0.0 BI	0.0 BI
27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	280.8 BI	9.9 F	6.2 F	3.2 F	1.0 F	0.0 BI	0.0 BI	0.0 BI
28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	339.6 F	9.6 F	4.8 F	3.0 F	1.4 F	0.0 BI	0.0 BI	0.0 BI
29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	263.5 F	7.6 F	3.9 F	2.7 F	1.3 F	0.0 BI	0.0 BI	0.0 BI
30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	259.8 F	6.0 F	3.5 F	2.6 F	0.9 F	0.0 BI	0.0 BI	0.0 BI
31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	179.0 F	3.6 F	3.6 F	2.4 F	0.9 F	0.0 BI	0.0 BI	0.0 BI
Aggr	0.0	0.0	0.0	0.0	42.7	40.6	4.4	9.9	1.3	0.3	0.0	0.0
Min	0.0	0.0	0.0	0.0	0.0	5.2	0.8	2.1	0.7	0.0	0.0	0.0
Max	0.0	0.0	0.0	0.0	386.0	196.6	12.8	29.5	2.4	1.0	0.0	0.0
Total	0.0	0.0	0.0	0.0	2624.5	2417.9	267.7	611.1	75.4	19.2	0.0	0.0

Date Processed: March 31, 2018 07:34

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Seabee Creek

Units: ft³/s
Filter: None

Year: 2009	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):
	1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	64.4 F	1.8 F	0.6 F	60.7 F	8.6 F	0.3 BI	0.0 BI	11450.7
	2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	70.3 F	1.5 F	0.6 F	64.5 F	8.0 F	0.2 BI	0.0 BI	
	3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	79.7 F	1.3 F	0.5 F	58.5 F	7.2 F	0.2 BI	0.0 BI	
	4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	95.5 F	1.1 F	0.5 F	47.2 F	5.7 F	0.2 BI	0.0 BI	
	5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	112.6 F	0.9 F	0.5 F	35.6 F	4.6 F	0.1 BI	0.0 BI	
	6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	114.5 F	0.7 F	0.6 F	28.5 F	4.1 F	0.1 BI	0.0 BI	
	7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	290.9 F	0.6 F	0.6 F	39.6 F	4.0 F	0.1 BI	0.0 BI	
	8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	207.8 F	0.5 F	0.7 F	51.7 F	4.0 F	0.1 BI	0.0 BI	
	9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	105.6 F	0.9 F	1.4 F	44.0 F	3.1 F	0.0 BI	0.0 BI	
	10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	68.4 F	1.0 F	1.4 F	36.4 F	2.0 F	0.0 BI	0.0 BI	
	11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	49.9 F	1.0 F	3.0 F	29.7 F	1.1 F	0.0 BI	0.0 BI	
	12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	37.3 F	1.0 F	5.1 F	24.5 F	1.0 BI	0.0 BI	0.0 BI	
	13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	27.2 F	0.9 F	6.5 F	21.3 F	1.3 BI	0.0 BI	0.0 BI	
	14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	20.3 F	0.8 F	6.8 F	19.0 F	1.5 BI	0.0 BI	0.0 BI	
	15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	16.4 F	0.6 F	6.8 F	17.0 F	1.6 BI	0.0 BI	0.0 BI	
	16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	14.2 F	0.5 F	7.7 F	15.8 F	1.5 BI	0.0 BI	0.0 BI	
	17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3.3 BI	12.1 F	0.5 F	10.6 F	14.3 F	1.3 BI	0.0 BI	0.0 BI	
	18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	35.7 BI	10.1 F	0.4 F	25.3 F	14.0 F	1.2 BI	0.0 BI	0.0 BI	
	19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	121.6 BI	8.4 F	0.3 F	64.9 F	16.7 F	1.0 BI	0.0 BI	0.0 BI	
	20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	523.5 BI	6.8 F	0.3 F	52.4 F	22.5 F	0.8 BI	0.0 BI	0.0 BI	
	21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	459.0 F	5.6 F	0.3 F	34.8 F	22.3 F	0.7 BI	0.0 BI	0.0 BI	
	22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	396.1 F	4.7 F	0.2 F	23.9 F	18.4 F	0.6 BI	0.0 BI	0.0 BI	
	23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	333.9 F	4.0 F	0.2 F	17.8 F	15.2 F	0.5 BI	0.0 BI	0.0 BI	
	24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	179.3 F	3.5 F	0.4 F	15.5 F	19.5 F	0.7 BI	0.0 BI	0.0 BI	
	25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	196.7 F	3.2 F	0.4 F	19.6 F	17.2 F	1.1 BI	0.0 BI	0.0 BI	
	26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	252.3 F	3.0 F	0.5 F	24.7 F	13.9 F	1.0 BI	0.0 BI	0.0 BI	
	27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	134.6 F	2.7 F	0.5 F	25.9 F	13.1 F	0.8 BI	0.0 BI	0.0 BI	
	28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	87.4 F	2.6 F	0.6 F	23.8 F	12.2 F	0.6 BI	0.0 BI	0.0 BI	
	29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	84.5 F	2.3 F	0.5 F	19.8 F	11.3 F	0.5 BI	0.0 BI	0.0 BI	
	30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	79.9 F	2.1 F	0.5 F	22.1 F	9.8 F	0.4 BI	0.0 BI	0.0 BI	
	31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	66.1 F	0.6 F	0.6 F	41.3 F	0.4 BI	0.4 BI	0.0 BI	0.0 BI	
	Aggr	0.0	0.0	0.0	0.0	95.3	48.2	0.7	15.0	27.1	2.3	0.0	0.0	
	Min	0.0	0.0	0.0	0.0	0.0	1.8	0.2	0.5	9.2	0.3	0.0	0.0	
	Max	0.0	0.0	0.0	0.0	697.0	348.1	2.1	68.2	65.7	9.2	0.3	0.0	
	Total	0.0	0.0	0.0	0.0	5858.7	2868.1	41.9	923.3	1614.9	141.0	2.7	0.0	

Date Processed: March 31, 2018 07:34

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Seabee Creek

Units: ft³/s
Filter: None

Year:	2010												Aggr:	13.9	Min:	0.0	Max:	724.8	Total (Acre-ft):	10054.8
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec								
1	0.0	0.0	0.0	0.0	0.0	286.3	F	1.8	F	20.7	F	7.9	F	4.3	0.1	0.1	0.1	0.1	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	261.4	F	1.6	F	11.2	F	7.6	F	3.9	0.1	0.1	0.1	0.1	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	246.2	F	1.4	F	6.9	F	7.3	F	3.7	0.1	0.1	0.1	0.1	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	258.1	F	1.3	F	4.6	F	7.0	F	3.6	0.1	0.1	0.1	0.1	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	323.1	F	1.1	F	3.4	F	6.8	F	3.3	0.1	0.1	0.1	0.1	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	487.8	F	1.0	F	3.5	F	6.7	F	2.9	0.1	0.1	0.1	0.1	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	539.9	F	0.9	F	52.1	F	6.4	F	2.5	0.1	0.1	0.1	0.1	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	369.8	F	0.7	F	135.4	F	6.5	F	1.7	0.1	0.1	0.1	0.1	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	200.6	F	0.6	F	90.1	F	6.5	F	1.5	0.1	0.1	0.1	0.1	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	144.5	F	0.5	F	52.4	F	6.6	F	0.8	0.1	0.1	0.1	0.1	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	113.0	F	0.5	F	36.1	F	6.7	F	0.6	0.1	0.1	0.1	0.1	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	78.1	F	0.4	F	28.9	F	7.1	F	0.6	0.1	0.1	0.1	0.1	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	53.5	F	0.4	F	26.2	F	7.3	F	0.5	0.1	0.1	0.1	0.1	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	36.5	F	0.3	F	25.2	F	7.4	F	0.5	0.1	0.1	0.1	0.1	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	26.0	F	0.3	F	21.8	F	7.4	F	0.4	0.1	0.1	0.1	0.1	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	20.2	F	0.3	F	18.0	F	7.5	F	0.4	0.1	0.1	0.1	0.1	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	16.8	F	0.4	F	15.3	F	8.0	F	0.4	0.1	0.1	0.1	0.1	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	14.3	F	0.5	F	13.8	F	8.4	F	0.3	0.1	0.1	0.1	0.1	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	12.3	F	0.5	F	12.9	F	8.5	F	0.3	0.1	0.1	0.1	0.1	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	9.9	F	0.6	F	13.1	F	8.5	F	0.3	0.1	0.1	0.1	0.1	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	8.2	F	0.5	F	16.0	F	8.5	F	0.3	0.1	0.1	0.1	0.1	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	6.9	F	0.8	F	17.0	F	8.3	F	0.2	0.1	0.1	0.1	0.1	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	5.7	F	7.2	F	15.9	F	8.0	F	0.2	0.1	0.1	0.1	0.1	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	4.7	F	19.8	F	14.6	F	7.2	F	0.2	0.1	0.1	0.1	0.1	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	4.1	F	15.8	F	13.2	F	6.5	F	0.2	0.1	0.1	0.1	0.1	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	3.4	F	9.9	F	12.1	F	6.1	BI	0.2	0.1	0.1	0.1	0.1	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	3.0	F	6.6	F	11.0	F	6.0	BI	0.2	0.1	0.1	0.1	0.1	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	2.7	F	4.7	F	10.2	F	6.1	BI	0.2	0.1	0.1	0.1	0.1	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	2.4	F	40.3	F	9.4	F	5.6	BI	0.2	0.1	0.1	0.1	0.1	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	18.3	BI	70.3	F	8.8	F	5.0	BI	0.1	0.1	0.1	0.1	0.1	0.0	0.0
31	0.0	0.0	0.0	0.0	0.0	235.1	F	43.9	F	8.3	F	8.8	F	0.1	0.1	0.1	0.1	0.1	0.0	0.0
Aggr	0.0	0.0	0.0	0.0	0.0	118.1		7.6		23.5		7.1		1.1	0.1	0.1	0.1	0.1	0.0	0.0
Min	0.0	0.0	0.0	0.0	0.0	2.0		0.3		2.9		4.6		0.1	0.0	0.0	0.0	0.0	0.0	0.0
Max	0.0	0.0	0.0	0.0	0.0	724.8		75.9		152.1		8.8		4.7	0.1	0.1	0.1	0.1	0.0	0.0
Total	0.0	0.0	0.0	0.0	0.0	7024.9		466.1		1443.7		422.4		68.8	4.2	4.2	4.2	4.2	0.2	0.2

Date Processed: March 31, 2018 07:34

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Seabee Creek

Units: ft³/s
Filter: None

Year: 2011	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):
	1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	342.2 F	5.2 F	4.6 F	12.6 F	11.6 BI	0.2 BI	0.0 BI	11281.9
	2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	165.2 F	4.4 F	4.2 F	14.1 F	9.7 BI	0.2 BI	0.0 BI	
	3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	117.4 F	3.6 F	6.5 F	18.0 F	8.3 BI	0.2 BI	0.0 BI	
	4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	101.2 F	3.1 F	9.0 F	22.5 F	7.0 BI	0.1 BI	0.0 BI	
	5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	98.7 F	2.8 F	8.6 F	21.3 F	6.0 BI	0.1 BI	0.0 BI	
	6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	110.8 F	3.3 F	7.3 F	20.5 F	5.2 BI	0.1 BI	0.0 BI	
	7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	105.7 F	3.9 F	6.1 F	22.0 F	4.5 BI	0.1 BI	0.0 BI	
	8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	82.1 F	3.5 F	5.8 F	23.3 F	3.8 BI	0.1 BI	0.0 BI	
	9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	51.2 F	2.9 F	5.8 F	33.2 F	3.3 BI	0.1 BI	0.0 BI	
	10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	37.5 F	2.3 F	6.6 F	44.8 F	2.8 BI	0.1 BI	0.0 BI	
	11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	33.0 F	2.0 F	6.6 F	58.7 F	2.3 BI	0.1 BI	0.0 BI	
	12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	36.1 F	1.7 F	6.3 F	58.8 F	1.8 BI	0.0 BI	0.0 BI	
	13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	29.5 F	1.8 F	5.8 F	43.4 F	1.9 BI	0.0 BI	0.0 BI	
	14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	26.2 F	13.0 F	5.2 F	32.0 F	1.4 BI	0.0 BI	0.0 BI	
	15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	30.6 F	58.5 F	4.6 F	25.6 F	1.2 BI	0.0 BI	0.0 BI	
	16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	38.0 F	46.3 F	4.4 F	22.7 F	1.1 BI	0.0 BI	0.0 BI	
	17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	37.0 F	48.1 F	4.4 F	23.3 F	0.9 BI	0.0 BI	0.0 BI	
	18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	37.7 F	47.8 F	4.4 F	29.6 F	0.9 BI	0.0 BI	0.0 BI	
	19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	35.0 F	29.6 F	4.4 F	39.9 F	0.8 BI	0.0 BI	0.0 BI	
	20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	26.6 F	19.3 F	4.2 F	48.3 F	0.7 BI	0.0 BI	0.0 BI	
	21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	20.5 F	14.2 F	4.0 F	58.0 F	0.6 BI	0.0 BI	0.0 BI	
	22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	15.3 F	11.7 F	3.7 F	72.4 F	0.6 BI	0.0 BI	0.0 BI	
	23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	12.2 F	10.3 F	3.5 F	74.6 F	0.5 BI	0.0 BI	0.0 BI	
	24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	9.6 F	9.0 F	3.4 F	57.0 F	0.5 BI	0.0 BI	0.0 BI	
	25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	7.9 F	7.9 F	3.2 F	38.8 F	0.4 BI	0.0 BI	0.0 BI	
	26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	81.5 BI	6.6 F	7.1 F	3.0 F	27.2 F	0.4 BI	0.0 BI	0.0 BI	
	27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	350.1 F	5.7 F	6.4 F	2.9 F	21.2 F	0.3 BI	0.0 BI	0.0 BI	
	28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	513.3 F	5.4 F	5.9 F	2.7 F	17.8 F	0.3 BI	0.0 BI	0.0 BI	
	29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	638.6 F	6.1 F	5.7 F	2.6 F	15.4 F	0.3 BI	0.0 BI	0.0 BI	
	30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	492.3 F	6.0 F	5.2 F	2.5 F	13.4 BI	0.2 BI	0.0 BI	0.0 BI	
	31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	340.4 F	4.8 F	4.8 F	5.8 F	13.4 BI	0.2 BI	0.0 BI	0.0 BI	
	Aggr	0.0	0.0	0.0	0.0	77.9	54.6	12.6	4.9	33.7	2.6	0.0	0.0	
	Min	0.0	0.0	0.0	0.0	0.0	5.1	1.6	2.4	10.6	0.2	0.0	0.0	
	Max	0.0	0.0	0.0	0.0	715.2	433.6	63.8	10.6	79.0	12.6	0.2	0.0	
	Total	0.0	0.0	0.0	0.0	4792.4	3247.0	776.3	301.7	2004.1	157.5	2.9	0.0	

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence
F - Fair Data
G - Good Data
P - Poor Data
UN - Unspecified

Date Processed: March 31, 2018 07:34



Daily Mean by Year

Identifier: Seabee Creek

Units: ft³/s
Filter: None

Year:	2012												Aggr:	14.2	Min:	0.0	Max:	615.7	Total (Acre-ft):				10324.3
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec											
1	0.0	0.0	0.0	0.0	0.0	376.0	1.1	11.3	116.4	17.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2	0.0	0.0	0.0	0.0	0.0	446.3	0.9	12.0	103.2	15.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3	0.0	0.0	0.0	0.0	0.0	315.6	0.9	10.3	82.8	14.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
4	0.0	0.0	0.0	0.0	0.0	427.1	0.8	8.5	65.6	13.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5	0.0	0.0	0.0	0.0	0.0	397.0	0.7	7.3	50.8	12.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
6	0.0	0.0	0.0	0.0	0.0	214.4	0.5	6.5	41.9	11.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
7	0.0	0.0	0.0	0.0	0.0	138.1	0.4	6.5	35.5	10.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
8	0.0	0.0	0.0	0.0	0.0	100.3	0.3	10.7	30.1	9.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
9	0.0	0.0	0.0	0.0	0.0	73.1	0.2	11.3	25.8	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
10	0.0	0.0	0.0	0.0	0.0	67.0	0.3	9.1	23.0	7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
11	0.0	0.0	0.0	0.0	0.0	65.4	0.5	7.6	20.6	6.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
12	0.0	0.0	0.0	0.0	0.0	50.5	0.3	6.8	18.6	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
13	0.0	0.0	0.0	0.0	0.0	32.7	0.3	6.3	16.8	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
14	0.0	0.0	0.0	0.0	0.0	24.1	0.3	5.8	15.2	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
15	0.0	0.0	0.0	0.0	0.0	19.7	0.6	5.3	13.7	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
16	0.0	0.0	0.0	0.0	0.0	17.6	0.9	5.2	12.6	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
17	0.0	0.0	0.0	0.0	0.0	15.0	10.1	5.9	18.1	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
18	0.0	0.0	0.0	0.0	0.0	12.9	13.8	6.8	42.6	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
19	0.0	0.0	0.0	0.0	0.0	10.9	28.6	7.0	40.5	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
20	0.0	0.0	0.0	0.0	0.0	8.9	27.2	6.8	31.1	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
21	0.0	0.0	0.0	0.0	0.0	7.1	18.4	6.3	25.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
22	0.0	0.0	0.0	0.0	0.0	5.5	12.2	5.9	22.3	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
23	0.0	0.0	0.0	0.0	0.0	4.1	8.5	5.6	22.5	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
24	0.0	0.0	0.0	0.0	0.0	3.4	5.8	5.3	26.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
25	0.0	0.0	0.0	0.0	0.0	2.5	7.8	4.9	35.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
26	0.0	0.0	0.0	0.0	0.0	2.1	24.7	4.6	33.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
27	0.0	0.0	0.0	0.0	0.0	1.6	22.0	4.6	27.9	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
28	0.0	0.0	0.0	0.0	0.0	1.5	18.2	4.6	23.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
29	0.0	0.0	0.0	0.0	0.0	1.3	21.8	5.2	20.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
30	0.0	0.0	0.0	0.0	0.0	1.3	15.7	6.9	19.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
31	0.0	0.0	0.0	0.0	0.0	84.8	11.0	57.3	35.4	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Aggr	0.0	0.0	0.0	0.0	0.0	94.8	12.5	8.7	35.4	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Min	0.0	0.0	0.0	0.0	0.0	1.2	0.2	4.5	12.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Max	0.0	0.0	0.0	0.0	0.0	615.7	56.4	110.3	121.7	18.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total	0.0	0.0	0.0	0.0	0.0	5639.4	766.8	532.0	2104.7	332.3	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Date Processed: March 31, 2018 07:34

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Seabee Creek

Units: ft³/s
Filter: None

Year:	2013	Aggr:	14.6	Min:	0.0	Max:	908.8	Total (Acre-ft):	10582.3			
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	295.1 F	9.7 F	5.0 F	8.1 F	2.8 BI	0.1 BI	0.0 BI
2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	499.8 F	8.5 F	4.1 F	11.6 F	2.7 BI	0.1 BI	0.0 BI
3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	636.9 F	7.4 F	3.5 F	14.0 F	2.4 BI	0.1 BI	0.0 BI
4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	336.1 F	6.6 F	3.0 F	15.1 F	2.2 BI	0.1 BI	0.0 BI
5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	167.6 F	5.7 F	2.7 F	14.6 F	2.0 BI	0.1 BI	0.0 BI
6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	66.1 F	5.3 F	2.4 F	13.6 F	2.0 BI	0.1 BI	0.0 BI
7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	91.4 F	6.4 F	3.8 F	13.2 F	1.9 BI	0.1 BI	0.0 BI
8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	253.4 F	4.3 F	3.9 F	11.9 F	1.7 BI	0.1 BI	0.0 BI
9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	282.5 F	3.4 F	3.6 F	10.6 F	1.6 BI	0.1 BI	0.0 BI
10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	312.5 F	2.9 F	3.5 F	9.7 F	1.5 BI	0.0 BI	0.0 BI
11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	188.0 F	2.6 F	3.2 F	9.0 F	1.3 BI	0.0 BI	0.0 BI
12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	162.6 F	2.3 F	3.2 F	8.1 F	1.1 BI	0.0 BI	0.0 BI
13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	129.9 F	2.0 F	3.1 F	7.3 F	1.0 BI	0.0 BI	0.0 BI
14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	95.6 F	1.7 F	3.0 F	7.3 F	0.9 BI	0.0 BI	0.0 BI
15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	68.4 F	1.5 F	2.9 F	8.7 F	0.8 BI	0.0 BI	0.0 BI
16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	61.1 F	1.4 F	3.0 F	12.7 F	0.7 BI	0.0 BI	0.0 BI
17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	62.7 F	1.4 F	3.2 F	13.1 F	0.6 BI	0.0 BI	0.0 BI
18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	46.8 F	1.4 F	3.6 F	11.0 F	0.5 BI	0.0 BI	0.0 BI
19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	33.8 F	1.7 F	3.8 F	8.9 F	0.4 BI	0.0 BI	0.0 BI
20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	25.0 F	1.8 F	3.9 F	7.6 F	0.4 BI	0.0 BI	0.0 BI
21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	19.1 F	1.7 F	5.0 F	6.7 F	0.3 BI	0.0 BI	0.0 BI
22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	16.2 F	1.8 F	6.5 F	6.1 F	0.3 BI	0.0 BI	0.0 BI
23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	33.6 F	1.8 F	6.3 F	5.6 F	0.2 BI	0.0 BI	0.0 BI
24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	37.0 F	1.9 F	5.3 F	5.1 F	0.2 BI	0.0 BI	0.0 BI
25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	26.3 F	3.0 F	4.5 F	4.6 F	0.2 BI	0.0 BI	0.0 BI
26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.7 BI	19.7 F	4.8 F	4.0 F	4.4 BI	0.2 BI	0.0 BI	0.0 BI
27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	4.9 BI	15.5 F	4.8 F	3.5 F	3.8 BI	0.1 BI	0.0 BI	0.0 BI
28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	69.7 BI	12.9 F	6.1 F	3.1 F	3.5 BI	0.1 BI	0.0 BI	0.0 BI
29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	154.5 F	12.0 F	11.4 F	2.9 F	3.2 BI	0.1 BI	0.0 BI	0.0 BI
30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	244.9 F	10.8 F	9.8 F	3.2 F	3.0 BI	0.1 BI	0.0 BI	0.0 BI
31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	299.4 F	6.8 F	6.8 F	4.1 F	3.0 BI	0.1 BI	0.0 BI	0.0 BI
Aggr	0.0	0.0	0.0	0.0	25.0	134.0	4.3	3.8	8.7	1.0	0.0	0.0
Min	0.0	0.0	0.0	0.0	0.0	10.2	1.2	2.0	2.9	0.1	0.0	0.0
Max	0.0	0.0	0.0	0.0	339.6	908.8	12.3	6.8	15.3	3.0	0.1	0.0
Total	0.0	0.0	0.0	0.0	1535.6	7970.8	261.7	231.9	520.2	60.1	2.0	0.0

Date Processed: March 31, 2018 07:34

Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Daily Mean by Year

Identifier: Seabee Creek

Units: ft³/s
Filter: None

Year: 2014	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):
	1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	170.9 F	15.8 F	9.9 F	34.7 F	2.8 F	0.1 BI	0.0 BI	12748.0
	2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	152.8 F	15.4 F	8.5 F	81.2 F	3.2 F	0.1 BI	0.0 BI	
	3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	135.8 F	16.9 F	7.4 F	81.8 F	4.0 F	0.1 BI	0.0 BI	
	4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	223.6 F	68.9 F	6.6 F	62.8 F	5.4 F	0.1 BI	0.0 BI	
	5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	303.8 F	67.9 F	5.9 F	58.1 F	5.0 F	0.2 BI	0.0 BI	
	6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	243.8 F	42.6 F	5.2 F	44.7 F	4.3 F	0.2 BI	0.0 BI	
	7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	163.8 F	27.5 F	4.7 F	30.1 F	3.9 F	0.2 BI	0.0 BI	
	8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	138.9 F	19.1 F	4.2 F	19.7 F	3.5 BI	0.3 BI	0.0 BI	
	9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	119.4 F	14.2 F	3.7 F	13.4 F	3.1 BI	0.3 BI	0.0 BI	
	10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	95.2 F	10.8 F	3.3 F	9.8 F	2.7 BI	0.3 BI	0.0 BI	
	11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	85.6 F	8.5 F	3.1 F	7.7 F	2.3 BI	0.3 BI	0.0 BI	
	12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	68.9 F	7.0 F	2.8 F	6.3 F	2.0 BI	0.3 BI	0.0 BI	
	13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	64.3 F	6.0 F	2.6 F	5.5 F	1.7 BI	0.2 BI	0.0 BI	
	14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.4 BI	54.5 F	5.6 F	2.3 F	4.9 F	1.4 BI	0.2 BI	0.0 BI	
	15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.6 BI	43.6 F	5.5 F	2.1 F	4.4 F	1.2 BI	0.2 BI	0.0 BI	
	16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	42.7 BI	32.2 F	5.6 F	1.9 F	4.1 F	1.1 BI	0.2 BI	0.0 BI	
	17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	286.5 BI	30.4 F	5.6 F	1.8 F	3.8 F	0.9 BI	0.1 BI	0.0 BI	
	18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	359.0 F	27.1 F	9.8 F	1.7 F	3.5 F	0.8 BI	0.1 BI	0.0 BI	
	19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	220.2 F	21.1 F	35.9 F	1.7 F	3.3 F	0.7 BI	0.1 BI	0.0 BI	
	20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	152.4 F	16.7 F	32.4 F	1.7 F	3.3 F	0.6 BI	0.1 BI	0.0 BI	
	21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	128.6 F	13.7 F	22.6 F	1.8 F	3.8 F	0.6 BI	0.1 BI	0.0 BI	
	22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	117.2 F	11.5 F	25.1 F	1.8 F	4.3 F	0.5 BI	0.1 BI	0.0 BI	
	23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	74.1 F	17.5 F	66.5 F	1.8 F	4.6 F	0.4 BI	0.0 BI	0.0 BI	
	24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	49.1 F	49.2 F	70.1 F	1.8 F	4.6 F	0.4 BI	0.0 BI	0.0 BI	
	25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	30.5 F	50.2 F	59.3 F	1.6 F	4.6 F	0.3 BI	0.0 BI	0.0 BI	
	26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	27.6 F	33.5 F	41.4 F	1.6 F	4.3 F	0.3 BI	0.0 BI	0.0 BI	
	27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	79.4 F	26.2 F	30.7 F	1.7 F	4.0 F	0.3 BI	0.0 BI	0.0 BI	
	28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	129.5 F	23.9 F	23.9 F	1.8 F	3.5 F	0.2 BI	0.0 BI	0.0 BI	
	29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	262.4 F	22.5 F	18.5 F	2.3 F	3.0 F	0.2 BI	0.0 BI	0.0 BI	
	30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	270.0 F	18.7 F	14.8 F	5.1 F	2.7 F	0.2 BI	0.0 BI	0.0 BI	
	31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	229.0 F	11.9 F	11.9 F	19.5 F	0.2 BI	0.2 BI	0.0 BI	0.0 BI	
	Aggr	0.0	0.0	0.0	0.0	79.3	82.0	26.0	3.9	17.4	1.8	0.1	0.0	
	Min	0.0	0.0	0.0	0.0	0.0	11.1	5.4	1.6	2.7	0.1	0.0	0.0	
	Max	0.0	0.0	0.0	0.0	412.1	343.3	82.3	27.8	91.1	5.5	0.3	0.0	
	Total	0.0	0.0	0.0	0.0	4877.6	4878.0	1598.4	241.7	1036.2	107.8	8.3	0.0	

Date Processed: March 31, 2018 07:34

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Seabee Creek

Units: ft³/s
Filter: None

Year: 2015	Aggr:	13.9	Min:	0.0	Max:	897.7	Total (Acre-ft):	10094.8				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	45.2 F	0.7 F	0.2 F	40.8 F	4.0 BI	0.6 BI	0.0 BI
2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	32.5 F	0.7 F	0.1 F	31.2 F	3.8 BI	0.5 BI	0.0 BI
3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	25.9 F	0.7 F	0.1 F	24.7 F	3.5 BI	0.5 BI	0.0 BI
4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	21.9 F	0.6 F	0.1 F	21.4 F	3.4 BI	0.4 BI	0.0 BI
5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	18.6 F	0.6 F	0.1 F	19.1 F	3.4 BI	0.3 BI	0.0 BI
6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	17.0 F	0.6 F	0.1 F	16.9 F	3.2 BI	0.3 BI	0.0 BI
7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	17.8 F	0.6 F	0.1 F	15.0 F	3.1 BI	0.3 BI	0.0 BI
8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	17.0 F	0.5 F	0.2 F	13.6 F	3.1 BI	0.2 BI	0.0 BI
9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	15.2 F	0.4 F	0.2 F	12.4 F	2.9 BI	0.2 BI	0.0 BI
10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	14.8 F	0.4 F	0.3 F	11.5 F	2.9 BI	0.2 BI	0.0 BI
11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	14.8 F	0.3 F	0.4 F	11.1 F	2.8 BI	0.1 BI	0.0 BI
12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	15.4 F	0.3 F	0.6 F	11.5 F	2.5 BI	0.1 BI	0.0 BI
13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	14.4 F	0.2 F	1.3 F	12.4 F	2.3 BI	0.1 BI	0.0 BI
14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	12.7 F	0.2 F	1.9 F	13.5 F	2.2 BI	0.1 BI	0.0 BI
15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	11.3 F	0.2 F	2.1 F	15.2 F	2.0 BI	0.0 BI	0.0 BI
16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	9.5 F	0.2 F	2.2 F	17.1 F	1.9 BI	0.0 BI	0.0 BI
17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.7 BI	7.9 F	0.2 F	2.1 F	18.1 F	1.8 BI	0.0 BI	0.0 BI
18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	60.2 BI	6.5 F	0.2 F	2.1 F	16.2 F	1.9 BI	0.0 BI	0.0 BI
19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	566.5 F	5.4 F	0.2 F	2.5 F	13.9 F	2.0 BI	0.0 BI	0.0 BI
20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	695.5 F	4.5 F	0.3 F	3.6 F	11.8 F	2.1 BI	0.0 BI	0.0 BI
21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	798.9 F	3.7 F	0.3 F	4.3 F	10.0 F	2.1 BI	0.0 BI	0.0 BI
22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	565.7 F	3.0 F	0.2 F	4.2 F	8.6 BI	2.0 BI	0.0 BI	0.0 BI
23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	262.7 F	2.4 F	0.2 F	3.5 F	7.5 BI	2.0 BI	0.0 BI	0.0 BI
24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	183.1 F	1.9 F	0.2 F	3.0 F	6.4 BI	1.8 BI	0.0 BI	0.0 BI
25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	132.7 F	1.5 F	0.2 F	2.9 F	6.1 BI	1.6 BI	0.0 BI	0.0 BI
26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	113.7 F	1.2 F	0.2 F	14.8 F	5.7 BI	1.4 BI	0.0 BI	0.0 BI
27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	102.8 F	1.1 F	0.2 F	83.5 F	5.2 BI	1.2 BI	0.0 BI	0.0 BI
28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	84.7 F	0.9 F	0.2 F	94.6 F	4.9 BI	1.1 BI	0.0 BI	0.0 BI
29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	81.6 F	0.8 F	0.2 F	83.5 F	4.6 BI	0.9 BI	0.0 BI	0.0 BI
30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	90.2 F	0.7 F	0.2 F	72.4 F	4.3 BI	0.8 BI	0.0 BI	0.0 BI
31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	66.6 F	0.1 F	0.1 F	55.3 F	4.3 BI	0.7 BI	0.0 BI	0.0 BI
Aggr	0.0	0.0	0.0	0.0	122.8	11.5	0.3	14.3	13.7	2.3	0.1	0.0
Min	0.0	0.0	0.0	0.0	0.0	0.6	0.1	0.1	3.9	0.7	0.0	0.0
Max	0.0	0.0	0.0	0.0	897.7	54.4	0.8	100.0	47.4	4.1	0.7	0.0
Total	0.0	0.0	0.0	0.0	7548.1	686.4	20.8	877.6	814.6	139.7	7.8	0.0

Date Processed: March 31, 2018 07:34

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

F - Fair Data
G - Good Data
P - Poor Data
UN - Unspecified



Daily Mean by Year

Identifier: Seabee Creek

Units: ft³/s
Filter: None

Year: 2016	Aggr:	14.3	Min:	0.0	Max:	613.6	Total (Acre-ft):	10378.1				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	27.7 F	8.9 F	0.6 F	21.8 F	25.2 F	0.5 BI	0.0 BI
2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	20.4 F	6.7 F	0.6 F	19.8 F	36.0 F	0.4 BI	0.0 BI
3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	14.8 F	5.1 F	0.5 F	18.2 F	37.4 F	0.4 BI	0.0 BI
4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	10.9 F	4.1 F	0.5 F	16.7 F	29.8 F	0.3 BI	0.0 BI
5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	9.3 F	3.4 F	0.5 F	15.3 F	23.7 F	0.2 BI	0.0 BI
6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	20.4 F	2.9 F	0.4 F	15.1 F	18.9 F	0.2 BI	0.0 BI
7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	26.8 F	2.6 F	0.4 F	16.5 F	15.6 F	0.2 BI	0.0 BI
8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	22.6 F	2.3 F	0.4 F	20.5 F	14.0 F	0.1 BI	0.0 BI
9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	22.7 F	2.1 F	0.5 F	28.6 F	12.0 F	0.1 BI	0.0 BI
10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	37.8 F	1.9 F	0.5 F	27.9 F	10.2 F	0.1 BI	0.0 BI
11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	68.7 F	1.7 F	0.5 F	24.2 F	8.9 F	0.1 BI	0.0 BI
12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	49.5 F	1.6 F	0.4 F	21.1 F	7.9 F	0.1 BI	0.0 BI
13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	30.1 F	1.4 F	0.4 F	18.3 F	6.9 F	0.0 BI	0.0 BI
14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	15.8 BI	22.0 F	1.3 F	0.5 F	15.6 F	6.2 F	0.0 BI	0.0 BI
15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	37.5 F	16.7 F	1.1 F	0.5 F	13.5 F	5.8 F	0.0 BI	0.0 BI
16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	51.6 F	12.8 F	1.0 F	0.4 F	11.7 F	5.5 F	0.0 BI	0.0 BI
17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	42.5 F	10.1 F	0.9 F	0.4 F	10.4 F	5.3 F	0.0 BI	0.0 BI
18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	23.5 F	7.8 F	0.9 F	0.4 F	9.6 F	5.0 F	0.0 BI	0.0 BI
19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	23.4 F	6.4 F	0.8 F	0.9 F	8.7 F	4.7 BI	0.0 BI	0.0 BI
20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	71.9 F	12.2 F	0.8 F	5.7 F	8.2 F	4.1 BI	0.0 BI	0.0 BI
21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	313.9 F	132.0 F	0.7 F	46.3 F	7.7 F	3.4 BI	0.0 BI	0.0 BI
22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	333.7 F	183.3 F	0.6 F	61.3 F	7.6 F	2.9 BI	0.0 BI	0.0 BI
23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	454.1 F	97.1 F	0.6 F	100.0 F	12.6 F	2.4 BI	0.0 BI	0.0 BI
24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	326.8 F	48.8 F	0.6 F	102.6 F	37.7 F	2.0 BI	0.0 BI	0.0 BI
25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	277.8 F	36.9 F	0.6 F	76.8 F	38.3 F	1.7 BI	0.0 BI	0.0 BI
26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	167.2 F	67.3 F	0.5 F	55.8 F	32.3 F	1.5 BI	0.0 BI	0.0 BI
27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	127.7 F	50.7 F	0.6 F	42.1 F	26.8 F	1.2 BI	0.0 BI	0.0 BI
28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	108.9 F	38.4 F	0.7 F	34.1 F	21.8 F	1.0 BI	0.0 BI	0.0 BI
29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	83.9 F	22.5 F	0.7 F	29.8 F	18.9 F	0.9 BI	0.0 BI	0.0 BI
30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	54.0 F	13.2 F	0.7 F	27.2 F	18.3 F	0.7 BI	0.0 BI	0.0 BI
31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	36.3 F	0.6 F	0.6 F	24.6 F	0.6 BI	0.6 BI	0.0 BI	0.0 BI
Aggr	0.0	0.0	0.0	0.0	82.3	38.0	1.9	19.9	18.8	9.7	0.1	0.0
Min	0.0	0.0	0.0	0.0	0.0	6.0	0.5	0.4	7.4	0.6	0.0	0.0
Max	0.0	0.0	0.0	0.0	613.6	217.2	10.6	109.8	42.9	43.7	0.6	0.0
Total	0.0	0.0	0.0	0.0	5058.6	2261.4	115.4	1220.8	1118.6	597.8	5.5	0.0

Date Processed: March 31, 2018 07:34

Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Daily Mean by Year

Identifier: Seabee Creek

Units: ft³/s
Filter: None

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):
1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	253.0 F	5.3 F	8.9 F	48.5 F	12.5 F	2.3 BI	0.1 BI	11725.3
2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	250.8 F	4.7 F	8.1 F	43.9 F	13.6 F	2.4 BI	0.1 BI	
3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	227.3 F	4.2 F	8.1 F	42.9 F	15.2 F	2.4 BI	0.1 BI	
4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	162.7 F	3.7 F	13.2 F	46.9 F	14.8 F	2.4 BI	0.0 BI	
5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	125.6 F	3.5 F	27.2 F	37.8 F	13.2 F	2.4 BI	0.0 BI	
6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	103.0 F	3.2 F	25.5 F	29.3 F	12.5 F	2.3 BI	0.0 BI	
7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	82.2 F	3.0 F	21.0 F	43.1 F	12.2 F	2.3 BI	0.0 BI	
8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	69.1 F	2.9 F	17.6 F	64.3 F	11.9 F	2.2 BI	0.0 BI	
9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	58.6 F	2.8 F	14.7 F	67.7 F	11.2 F	2.1 BI	0.0 BI	
10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	46.8 F	2.7 F	12.6 F	66.9 F	9.6 F	2.0 BI	0.0 BI	
11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	38.8 F	2.6 F	11.3 F	56.0 F	8.6 F	1.8 BI	0.0 BI	
12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	49.3 F	2.5 F	10.5 F	43.3 F	7.3 F	1.7 BI	0.0 BI	
13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	44.5 F	2.5 F	16.7 F	33.9 F	7.0 F	1.5 BI	0.0 BI	
14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	38.7 F	2.5 F	65.7 F	27.5 F	7.0 F	1.2 BI	0.0 BI	
15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	34.7 F	2.6 F	106.7 F	22.9 F	6.5 F	1.1 BI	0.0 BI	
16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	30.1 F	2.6 F	97.7 F	20.3 F	6.0 F	1.0 BI	0.0 BI	
17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	23.9 F	2.7 F	74.3 F	17.7 F	6.0 F	0.8 BI	0.0 BI	
18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	19.4 F	2.8 F	51.0 F	16.2 F	5.9 BI	0.7 BI	0.0 BI	
19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	20.6 F	2.9 F	34.0 F	16.9 F	5.1 BI	0.6 BI	0.0 BI	
20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	20.4 F	3.6 F	26.9 F	31.3 F	4.5 BI	0.5 BI	0.0 BI	
21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	23.0 F	10.7 F	23.6 F	43.6 F	3.9 BI	0.4 BI	0.0 BI	
22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	37.3 F	18.8 F	20.4 F	38.1 F	3.4 BI	0.4 BI	0.0 BI	
23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	33.9 F	20.7 F	17.3 F	33.1 F	3.0 BI	0.3 BI	0.0 BI	
24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	25.5 F	62.3 F	15.7 F	32.7 F	2.8 BI	0.3 BI	0.0 BI	
25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	18.9 F	91.7 F	16.9 F	33.1 F	2.6 BI	0.2 BI	0.0 BI	
26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1.9 BI	14.0 F	64.7 F	31.6 F	34.4 F	2.5 BI	0.2 BI	0.0 BI	
27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	8.4 BI	10.7 F	39.6 F	65.1 F	29.2 F	2.4 BI	0.2 BI	0.0 BI	
28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	122.1 BI	8.5 F	24.5 F	72.3 F	23.2 F	2.3 BI	0.1 BI	0.0 BI	
29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	426.3 BI	7.0 F	16.7 F	83.2 F	17.8 F	2.3 BI	0.1 BI	0.0 BI	
30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	311.8 F	6.1 F	12.5 F	75.0 F	13.9 F	2.3 BI	0.1 BI	0.0 BI	
31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	259.1 F	10.2 F	56.3 F	56.3 F	2.3 BI	2.3 BI	0.0 BI	0.0 BI	
Aggr	0.0	0.0	0.0	0.0	36.4	62.8	14.1	36.4	35.9	7.1	1.2	0.0	
Min	0.0	0.0	0.0	0.0	0.0	5.8	2.4	7.8	12.5	2.3	0.1	0.0	
Max	0.0	0.0	0.0	0.0	527.8	280.2	97.7	110.0	70.9	15.2	2.4	0.1	
Total	0.0	0.0	0.0	0.0	2240.6	3737.3	864.2	2239.5	2135.2	437.0	71.2	0.6	

Date Processed: March 31, 2018 07:34

Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

F - Fair Data
G - Good Data
P - Poor Data
UN - Unspecified



Summary of Daily Mean Flows

Ublutuoch River, Alaska

Daily Mean by Year

Identifier: Ublutuoch River

Units: ft³/s
Filter: None

Year: 2001	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Max:	2197.0	Oct	Nov	Total (Acre-ft): *
	1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	103.7 EF	24.0 F	50.5 F	31.8 BI	21.0 BI	10.6 BI	
	2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	94.2 EF	23.8 F	48.4 F	31.5 BI	20.7 BI	10.3 BI	
	3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	87.5 EF	24.1 F	46.3 F	31.1 BI	20.3 BI	9.9 BI	
	4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	81.7 EF	24.4 F	44.5 F	30.8 BI	20.0 BI	9.6 BI	
	5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	76.0 EF	24.6 F	42.9 F	30.4 BI	19.6 BI	9.2 BI	
	6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	71.5 EF	25.3 F	41.6 F	30.1 BI	19.3 BI	8.9 BI	
	7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	3.3 BI	66.0 EF	26.2 F	40.3 F	29.7 BI	18.9 BI	8.5 BI	
	8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	354.9 BI	61.1 EF	27.1 F	39.8 BI	29.4 BI	18.6 BI	8.2 BI	
	9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1883.7 BI	56.4 EF	28.1 F	39.1 BI	29.0 BI	18.2 BI	7.8 BI	
	10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1647.9 BI	52.3 EF	29.1 F	39.1 BI	28.7 BI	17.9 BI	7.5 BI	
	11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1272.7 BI	48.5 EF	30.4 F	38.7 BI	28.3 BI	17.6 BI	7.1 BI	
	12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1165.4 BI	45.4 EF	31.9 F	38.4 BI	28.0 BI	17.2 BI	6.8 BI	
	13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1003.8 BI	43.6 EF	33.3 F	38.1 BI	27.6 BI	16.9 BI	6.4 BI	
	14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	813.6 BI	41.7 EF	42.5 F	37.7 BI	27.3 BI	16.5 BI	6.1 BI	
	15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	731.8 P	39.9 EF	62.4 F	37.4 BI	26.9 BI	16.2 BI	5.7 BI	
	16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	628.2 P	38.1 EF	67.7 F	37.0 BI	26.6 BI	15.8 BI	5.4 BI	
	17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	531.3 P	36.4 EF	67.5 F	36.7 BI	26.2 BI	15.5 BI	5.0 BI	
	18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	467.2 P	35.2 EF	65.8 F	36.3 BI	25.9 BI	15.1 BI	4.7 BI	
	19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	406.9 P	34.1 F	63.4 F	36.0 BI	25.5 BI	14.8 BI	4.3 BI	
	20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	342.7 P	32.8 F	60.3 F	35.6 BI	25.2 BI	14.4 BI	4.0 BI	
	21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	295.5 P	31.7 F	57.4 F	35.3 BI	24.8 BI	14.1 BI	3.6 BI	
	22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	261.6 P	30.5 F	55.5 F	34.9 BI	24.5 BI	13.7 BI	3.3 BI	
	23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	225.9 P	29.2 F	54.3 F	34.6 BI	24.2 BI	13.4 BI	3.0 BI	
	24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	198.2 P	27.7 F	53.9 F	34.2 BI	23.8 BI	13.0 BI	2.6 BI	
	25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	173.5 P	26.7 F	54.0 F	33.9 BI	23.5 BI	12.7 BI	2.3 BI	
	26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	150.2 P	26.3 F	55.1 F	33.5 BI	23.1 BI	12.3 BI	1.9 BI	
	27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	136.1 P	25.7 F	56.2 F	33.2 BI	22.8 BI	12.0 BI	1.6 BI	
	28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	127.2 P	24.9 F	56.5 F	32.8 BI	22.4 BI	11.6 BI	1.2 BI	
	29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	119.3 P	24.6 F	56.0 F	32.5 BI	22.1 BI	11.3 BI	0.9 BI	
	30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	111.7 EF	24.1 F	54.7 F	32.1 BI	21.7 BI	10.9 BI	0.5 BI	
	31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	24.1 F	52.5 F	52.5 F	32.1 BI	21.4 BI	10.9 BI	0.2 BI	
	Aggr	0.0	0.0	0.0	0.0	0.0	435.1	46.5	44.8	38.1	26.6	16.0	5.4	
	Min	0.0	0.0	0.0	0.0	0.0	0.0	24.1	23.8	32.0	21.2	10.8	0.0	
	Max	0.0	0.0	0.0	0.0	0.0	2197.0	108.2	67.8	51.4	32.0	21.2	10.8	
	Total	0.0	0.0	0.0	0.0	0.0	25889.6	2859.3	2752.9	*	*	*	*	



Date Processed: February 15, 2018 09:19
 Daily mean flows record grades: BI - Ice Conditions affect record
 EF - Estimated Data with fair confidence
 F - Fair Data
 G - Good Data
 P - Poor Data
 UN - Unspecified

Daily Mean by Year

Identifier: Ublutuoch River

Units: ft³/s
Filter: None

Year: 2002	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Max:	2000.0	Oct	Nov	Total (Acre-ft): *
	1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	413.5 EF	88.8 G	19.7 G	19.7 G	27.8 EG	20.3 BI	13.4 BI	6.8 BI
	2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	350.3 EF	147.0 G	18.3 G	18.3 G	26.9 EG	20.1 BI	13.2 BI	6.5 BI
	3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	296.4 EF	192.2 G	17.0 G	17.0 G	26.1 EG	19.8 BI	13.0 BI	6.3 BI
	4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	252.2 EF	208.6 G	15.9 G	15.9 G	25.6 EG	19.6 BI	12.7 BI	6.1 BI
	5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	216.6 EF	191.7 G	15.4 G	15.4 G	25.5 EG	19.4 BI	12.5 BI	5.9 BI
	6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	188.3 EF	166.4 G	16.3 G	16.3 G	25.4 EG	19.2 BI	12.3 BI	5.7 BI
	7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	166.0 EF	140.9 G	16.7 G	16.7 G	25.5 BI	19.0 BI	12.1 BI	5.4 BI
	8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	148.3 EF	123.1 G	17.0 G	17.0 G	25.4 BI	18.7 BI	11.9 BI	5.2 BI
	9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	134.3 EF	115.0 G	17.2 G	17.2 G	25.2 BI	18.5 BI	11.6 BI	5.0 BI
	10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	125.0 EF	107.9 G	17.4 G	17.4 G	24.9 BI	18.3 BI	11.4 BI	4.8 BI
	11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	118.1 EF	99.6 G	17.4 G	17.4 G	24.7 BI	18.1 BI	11.2 BI	4.5 BI
	12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	112.9 EF	91.0 G	16.7 G	16.7 G	24.5 BI	17.8 BI	11.0 BI	4.3 BI
	13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	105.5 G	81.9 G	16.3 G	16.3 G	24.3 BI	17.6 BI	10.8 BI	4.1 BI
	14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	99.0 G	73.6 G	15.4 G	15.4 G	24.1 BI	17.4 BI	10.5 BI	3.9 BI
	15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	93.5 G	66.6 G	18.8 G	18.8 G	23.8 BI	17.2 BI	10.3 BI	3.7 BI
	16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	88.3 G	60.6 G	21.6 G	21.6 G	23.6 BI	17.0 BI	10.1 BI	3.4 BI
	17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	84.3 G	55.3 G	26.3 G	26.3 G	23.4 BI	16.7 BI	9.9 BI	3.2 BI
	18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	80.3 G	50.7 G	27.9 G	27.9 G	23.2 BI	16.5 BI	9.6 BI	3.0 BI
	19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	16.7 BI	74.8 G	46.1 G	28.9 G	28.9 G	22.9 BI	16.3 BI	9.4 BI	2.8 BI
	20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	336.6 BI	70.1 G	42.1 G	31.6 EG	31.6 EG	22.7 BI	16.1 BI	9.2 BI	2.5 BI
	21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1038.9 BI	65.9 G	38.9 G	32.7 EG	32.7 EG	22.5 BI	15.9 BI	9.0 BI	2.3 BI
	22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1850.5 BI	63.4 G	36.1 G	33.3 EG	33.3 EG	22.3 BI	15.6 BI	8.8 BI	2.1 BI
	23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1701.1 BI	68.0 G	33.4 G	33.6 EG	33.6 EG	22.1 BI	15.4 BI	8.5 BI	1.9 BI
	24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1425.2 BI	79.1 G	31.5 G	33.7 EG	33.7 EG	21.8 BI	15.2 BI	8.3 BI	1.7 BI
	25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1167.9 BI	79.6 G	29.8 G	33.4 EG	33.4 EG	21.6 BI	15.0 BI	8.1 BI	1.4 BI
	26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	974.2 BI	77.6 G	27.8 G	33.0 EG	33.0 EG	21.4 BI	14.7 BI	7.9 BI	1.2 BI
	27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	826.6 EF	80.6 G	26.8 G	32.3 EG	32.3 EG	21.2 BI	14.5 BI	7.6 BI	1.0 BI
	28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	711.5 EF	85.4 G	25.5 G	31.6 EG	31.6 EG	21.0 BI	14.3 BI	7.4 BI	0.8 BI
	29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	618.6 EF	87.8 G	24.1 G	30.7 EG	30.7 EG	20.7 BI	14.1 BI	7.2 BI	0.6 BI
	30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	541.1 EF	88.4 G	22.8 G	29.7 EG	29.7 EG	20.5 BI	13.9 BI	7.0 BI	0.3 BI
	31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	474.4 EF	21.3 G	21.3 G	28.8 EG	28.8 EG	20.5 BI	13.6 BI	7.0 BI	0.1 BI
	Aggr	0.0	0.0	0.0	0.0	376.9	133.1	79.6	24.0	24.0	23.7	17.0	10.2	3.4
	Min	0.0	0.0	0.0	0.0	0.0	62.4	20.4	15.0	15.0	20.4	13.5	6.9	0.0
	Max	0.0	0.0	0.0	0.0	2000.0	444.0	210.8	33.7	33.7	28.3	20.4	13.5	6.9
	Total	0.0	0.0	0.0	0.0	23173.6	7920.8	4893.4	1476.6	1476.6	*	*	*	*

Date Processed: February 15, 2018 09:19 Daily mean flows record grades: BI - Ice Conditions affect record
EF - Estimated Data with fair confidence

- F - Fair Data
- G - Good Data
- P - Poor Data
- UN - Unspecified



Daily Mean by Year

Identifier: Ublutuoch River

Units: ft³/s
Filter: None

Year: 2003	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Max:	1597.5	Oct	Nov	Dec	Total (Acre-ft):
	1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	73.0 G	88.1 G	88.1 G	38.5 G	18.6 BI	1.1 BI	0.1 BI	36985.4
	2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	70.2 G	89.7 G	89.7 G	38.2 G	16.5 BI	1.1 BI	0.1 BI	
	3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	76.7 G	89.1 G	89.1 G	39.6 G	14.7 BI	1.0 BI	0.0 BI	
	4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.1 BI	127.5 G	84.0 G	84.0 G	46.9 G	13.1 BI	0.9 BI	0.0 BI	
	5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	215.4 BI	169.0 G	78.1 G	78.1 G	54.7 G	11.7 BI	0.9 BI	0.0 BI	
	6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1099.9 BI	199.1 G	71.1 G	71.1 G	61.5 G	10.4 BI	0.8 BI	0.0 BI	
	7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1566.4 BI	194.7 G	66.1 G	66.1 G	65.3 G	9.3 BI	0.8 BI	0.0 BI	
	8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1332.9 BI	185.8 G	62.8 G	62.8 G	68.0 G	8.3 BI	0.7 BI	0.0 BI	
	9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1075.2 BI	176.1 G	60.1 G	60.1 G	68.8 G	7.4 BI	0.7 BI	0.0 BI	
	10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	918.5 G	162.9 G	57.3 G	57.3 G	68.3 G	6.6 BI	0.6 BI	0.0 BI	
	11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	768.2 G	148.7 G	55.8 G	55.8 G	70.2 G	5.9 BI	0.6 BI	0.0 BI	
	12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	627.4 G	142.2 G	53.9 G	53.9 G	70.8 G	5.2 BI	0.6 BI	0.0 BI	
	13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	523.6 G	143.9 G	53.1 G	53.1 G	72.3 G	4.7 BI	0.5 BI	0.0 BI	
	14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	449.4 G	137.6 G	51.9 G	51.9 G	73.4 G	4.2 BI	0.5 BI	0.0 BI	
	15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	394.2 G	126.8 G	50.7 G	50.7 G	71.9 G	3.7 BI	0.4 BI	0.0 BI	
	16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	355.0 G	117.0 G	50.1 G	50.1 G	72.9 G	3.4 BI	0.4 BI	0.0 BI	
	17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	321.5 G	107.8 G	49.4 G	49.4 G	70.4 BI	3.1 BI	0.4 BI	0.0 BI	
	18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	284.4 G	98.3 G	48.6 G	48.6 G	65.3 BI	2.8 BI	0.4 BI	0.0 BI	
	19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	250.4 G	87.2 G	47.7 G	47.7 G	60.2 BI	2.6 BI	0.3 BI	0.0 BI	
	20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	222.5 G	79.5 F	48.0 G	48.0 G	53.7 BI	2.4 BI	0.3 BI	0.0 BI	
	21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	198.0 G	70.6 F	48.4 G	48.4 G	48.9 BI	2.2 BI	0.3 BI	0.0 BI	
	22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	175.7 G	64.0 F	47.7 G	47.7 G	44.5 BI	2.1 BI	0.3 BI	0.0 BI	
	23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	156.0 G	58.4 F	47.1 G	47.1 G	40.3 BI	1.9 BI	0.2 BI	0.0 BI	
	24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	139.1 G	56.7 F	46.8 G	46.8 G	36.6 BI	1.8 BI	0.2 BI	0.0 BI	
	25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	123.7 G	61.2 F	46.7 G	46.7 G	33.7 BI	1.7 BI	0.2 BI	0.0 BI	
	26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	110.6 G	71.2 F	45.7 G	45.7 G	30.9 BI	1.6 BI	0.2 BI	0.0 BI	
	27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	99.7 G	91.5 F	45.6 G	45.6 G	28.2 BI	1.5 BI	0.2 BI	0.0 BI	
	28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	90.9 G	104.5 F	44.7 G	44.7 G	25.7 BI	1.4 BI	0.1 BI	0.0 BI	
	29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	84.1 G	97.3 F	43.4 G	43.4 G	23.2 BI	1.3 BI	0.1 BI	0.0 BI	
	30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	78.1 G	91.5 F	41.6 G	41.6 G	20.8 BI	1.3 BI	0.1 BI	0.0 BI	
	31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	89.9 G	89.9 G	40.0 G	40.0 G	20.8 BI	1.2 BI	0.1 BI	0.0 BI	
	Aggr	0.0	0.0	0.0	0.0	0.0	388.7	112.3	56.6	56.6	52.1	5.6	0.5	0.0	0.0
	Min	0.0	0.0	0.0	0.0	0.0	0.0	56.2	39.2	39.2	19.6	1.2	0.1	0.0	0.0
	Max	0.0	0.0	0.0	0.0	0.0	1597.5	201.9	90.6	90.6	75.3	19.6	1.2	0.1	0.1
	Total	0.0	0.0	0.0	0.0	0.0	23129.1	6904.1	3477.6	3477.6	3101.4	342.9	29.8	0.5	0.5

Date Processed: February 15, 2018 09:19

Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Daily Mean by Year

Identifier: Ublutuoch River

Units: ft³/s
Filter: None

Year: 2004	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Max:	2403.7	Oct	Nov	Dec	Total (Acre-ft):
	1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	19.2 BI	136.5 G	23.0 G	23.0 G	20.6 G	15.7 BI	1.6 BI	0.0 BI	57008.9
	2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	305.8 BI	121.2 G	24.5 G	24.5 G	28.5 G	14.5 BI	1.5 BI	0.0 BI	
	3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1162.6 BI	109.8 G	25.6 G	25.6 G	36.9 G	13.4 BI	1.4 BI	0.0 BI	
	4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2026.9 BI	101.3 G	24.9 G	24.9 G	43.6 G	12.4 BI	1.3 BI	0.0 BI	
	5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2340.3 BI	95.6 G	24.7 G	24.7 G	47.7 G	11.4 BI	1.1 BI	0.0 BI	
	6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2306.6 G	95.3 G	22.9 G	22.9 G	49.1 G	10.6 BI	1.0 BI	0.0 BI	
	7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2189.5 G	98.8 G	20.7 G	20.7 G	48.5 G	9.8 BI	0.9 BI	0.0 BI	
	8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2137.2 G	103.5 G	19.2 G	19.2 G	47.2 G	9.1 BI	0.7 BI	0.0 BI	
	9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1840.1 G	103.8 G	18.4 G	18.4 G	46.3 G	8.4 BI	0.5 BI	0.0 BI	
	10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1481.1 G	100.6 G	17.8 G	17.8 G	44.6 G	7.8 BI	0.3 BI	0.0 BI	
	11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1199.4 G	99.6 G	17.4 G	17.4 G	42.5 G	7.3 BI	0.1 BI	0.0 BI	
	12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	989.1 G	99.3 G	17.2 G	17.2 G	41.1 G	6.8 BI	0.0 BI	0.0 BI	
	13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	853.7 G	92.8 G	20.1 G	20.1 G	39.7 G	6.4 BI	0.0 BI	0.0 BI	
	14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	753.7 G	84.6 G	24.6 G	24.6 G	37.7 G	6.0 BI	0.0 BI	0.0 BI	
	15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	657.3 G	76.1 G	26.6 G	26.6 G	35.4 G	5.6 BI	0.0 BI	0.0 BI	
	16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	573.6 G	69.0 G	26.4 G	26.4 G	33.2 G	5.3 BI	0.0 BI	0.0 BI	
	17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	500.5 G	62.1 G	26.4 G	26.4 G	31.7 G	5.0 BI	0.0 BI	0.0 BI	
	18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	434.6 G	55.8 G	25.8 G	25.8 G	29.9 G	4.7 BI	0.0 BI	0.0 BI	
	19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	385.4 G	50.4 G	24.3 G	24.3 G	27.6 G	4.4 BI	0.0 BI	0.0 BI	
	20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	348.1 G	47.0 G	22.8 G	22.8 G	25.3 G	4.1 BI	0.0 BI	0.0 BI	
	21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	310.7 G	43.2 G	21.5 G	21.5 G	23.8 G	3.9 BI	0.0 BI	0.0 BI	
	22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	286.3 G	39.6 G	20.4 G	20.4 G	22.3 G	3.6 BI	0.0 BI	0.0 BI	
	23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	263.6 G	36.5 G	19.5 G	19.5 G	21.4 G	3.3 BI	0.0 BI	0.0 BI	
	24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	242.8 G	33.6 G	18.4 G	18.4 G	22.1 G	3.1 BI	0.0 BI	0.0 BI	
	25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	230.9 G	30.7 G	17.3 G	17.3 G	22.4 G	2.9 BI	0.0 BI	0.0 BI	
	26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	222.8 G	28.1 G	16.3 G	16.3 G	21.9 BI	2.6 BI	0.0 BI	0.0 BI	
	27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	212.8 G	25.5 G	15.3 G	15.3 G	20.7 BI	2.4 BI	0.0 BI	0.0 BI	
	28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	195.5 G	24.0 G	14.2 G	14.2 G	19.5 BI	2.2 BI	0.0 BI	0.0 BI	
	29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	174.5 G	22.2 G	14.0 G	14.0 G	18.2 BI	2.1 BI	0.0 BI	0.0 BI	
	30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	154.6 G	20.7 G	14.0 G	14.0 G	17.0 BI	1.9 BI	0.0 BI	0.0 BI	
	31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	21.9 G	21.9 G	14.7 G	14.7 G	1.8 BI	1.8 BI	0.0 BI	0.0 BI	
	Aggr	0.0	0.0	0.0	0.0	0.0	826.6	68.7	20.6	20.6	32.2	6.4	0.3	0.0	
	Min	0.0	0.0	0.0	0.0	0.0	0.0	20.1	13.5	13.5	16.3	1.7	0.0	0.0	
	Max	0.0	0.0	0.0	0.0	0.0	2403.7	145.7	26.8	26.8	50.1	16.3	1.7	0.0	
	Total	0.0	0.0	0.0	0.0	0.0	49187.7	4222.6	1267.2	1267.2	1916.7	394.0	20.6	0.0	

Date Processed: February 15, 2018 09:19 Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Daily Mean by Year

Identifier: Ublutuoch River

Units: ft³/s
Filter: None

Year: 2005	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):
	1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	102.0 G	18.5 G	6.6 G	7.0 BI	0.1 BI	0.0 BI	33918.8
	2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	94.7 G	17.0 G	7.3 G	6.6 BI	0.1 BI	0.0 BI	
	3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	89.1 G	16.0 G	7.4 G	6.1 BI	0.1 BI	0.0 BI	
	4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	84.0 G	15.2 G	8.0 G	5.5 BI	0.1 BI	0.0 BI	
	5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	81.7 BI	82.8 G	14.3 G	7.9 G	5.0 BI	0.1 BI	0.0 BI	
	6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	398.4 BI	92.0 G	13.8 G	7.9 G	4.5 BI	0.1 BI	0.0 BI	
	7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	962.2 BI	99.4 G	13.9 G	8.2 G	4.0 BI	0.1 BI	0.0 BI	
	8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1444.6 BI	97.9 G	14.0 G	7.7 G	3.5 BI	0.0 BI	0.0 BI	
	9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1513.7 BI	96.0 G	16.3 G	7.7 G	3.0 BI	0.0 BI	0.0 BI	
	10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1405.9 BI	110.7 G	17.4 G	7.6 G	2.6 BI	0.0 BI	0.0 BI	
	11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1181.2 BI	138.3 G	18.1 G	7.2 G	2.3 BI	0.0 BI	0.0 BI	
	12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	993.8 BI	145.9 G	18.4 G	7.1 G	2.0 BI	0.0 BI	0.0 BI	
	13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	819.5 BI	141.5 G	18.4 G	6.8 G	1.7 BI	0.0 BI	0.0 BI	
	14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	715.0 BI	130.9 G	17.7 G	6.6 G	1.5 BI	0.0 BI	0.0 BI	
	15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	633.3 BI	116.1 G	16.7 G	6.4 G	1.3 BI	0.0 BI	0.0 BI	
	16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	561.2 BI	102.6 G	15.9 G	6.4 G	1.1 BI	0.0 BI	0.0 BI	
	17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	497.4 BI	90.8 G	15.0 G	6.1 G	1.0 BI	0.0 BI	0.0 BI	
	18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	428.7 BI	79.9 G	13.9 G	6.6 G	0.9 BI	0.0 BI	0.0 BI	
	19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	346.5 G	70.7 G	12.9 G	7.0 G	0.8 BI	0.0 BI	0.0 BI	
	20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	290.2 G	62.8 G	12.1 G	6.6 G	0.7 BI	0.0 BI	0.0 BI	
	21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	263.7 G	55.0 G	11.3 G	6.2 G	0.6 BI	0.0 BI	0.0 BI	
	22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	238.8 G	49.0 G	10.4 G	6.5 G	0.5 BI	0.0 BI	0.0 BI	
	23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	211.9 G	43.8 G	9.8 G	7.0 G	0.4 BI	0.0 BI	0.0 BI	
	24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	190.6 G	39.2 G	9.3 G	7.1 G	0.4 BI	0.0 BI	0.0 BI	
	25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	173.4 G	35.0 G	8.6 G	7.2 G	0.3 BI	0.0 BI	0.0 BI	
	26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	156.5 G	31.5 G	8.1 G	7.7 BI	0.3 BI	0.0 BI	0.0 BI	
	27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	139.5 G	28.8 G	7.8 G	7.8 BI	0.2 BI	0.0 BI	0.0 BI	
	28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	128.3 G	26.3 G	7.6 G	7.8 BI	0.2 BI	0.0 BI	0.0 BI	
	29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	120.7 G	23.7 G	7.4 G	7.7 BI	0.2 BI	0.0 BI	0.0 BI	
	30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	111.1 G	21.7 G	7.1 G	7.3 BI	0.2 BI	0.0 BI	0.0 BI	
	31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	20.0 G	20.0 G	6.9 G	7.3 BI	0.1 BI	0.0 BI	0.0 BI	
	Aggr	0.0	0.0	0.0	0.0	0.0	466.9	77.5	13.2	7.2	2.1	0.0	0.0	
	Min	0.0	0.0	0.0	0.0	0.0	0.0	19.2	6.6	6.1	0.1	0.0	0.0	
	Max	0.0	0.0	0.0	0.0	0.0	1521.5	147.0	19.2	8.3	7.2	0.1	0.0	
	Total	0.0	0.0	0.0	0.0	0.0	27784.2	4765.0	812.4	427.2	128.2	1.7	0.0	

Date Processed: February 15, 2018 09:19
 Daily mean flows record grades: BI - Ice Conditions affect record
 EF - Estimated Data with fair confidence
 F - Fair Data
 G - Good Data
 P - Poor Data
 UN - Unspecified



Daily Mean by Year

Identifier: Ublutuoch River

Units: ft³/s
Filter: None

Year: 2006	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):
	1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	13.4 BI	82.5 G	21.7 G	26.0 G	12.4 G	3.2 BI	0.0 BI	31114.1
	2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	143.8 BI	79.3 G	21.9 G	24.7 G	12.1 G	3.0 BI	0.0 BI	
	3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	504.3 BI	76.0 G	20.9 G	23.0 G	12.1 G	2.7 BI	0.0 BI	
	4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	712.6 BI	70.7 G	20.6 G	22.0 G	12.3 G	2.5 BI	0.0 BI	
	5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	864.9 BI	65.0 G	20.1 G	20.8 G	12.3 G	2.3 BI	0.0 BI	
	6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1185.0 EF	60.1 G	19.3 G	19.6 G	12.3 BI	2.1 BI	0.0 BI	
	7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1230.9 G	54.5 G	18.9 G	18.7 G	12.4 BI	1.9 BI	0.0 BI	
	8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1157.9 G	49.1 G	20.6 G	18.1 G	12.2 BI	1.8 BI	0.0 BI	
	9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	983.0 G	44.1 G	22.3 G	17.2 G	12.0 BI	1.6 BI	0.0 BI	
	10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	780.1 G	39.3 G	23.1 G	16.4 G	11.9 BI	1.5 BI	0.0 BI	
	11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	669.1 G	34.0 G	24.4 G	15.8 G	11.6 BI	1.4 BI	0.0 BI	
	12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	580.1 G	30.5 G	23.9 G	15.1 G	11.3 BI	1.2 BI	0.0 BI	
	13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	511.7 G	26.9 G	22.7 G	14.7 G	10.8 BI	1.1 BI	0.0 BI	
	14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	446.3 G	24.6 G	20.7 G	14.7 G	10.2 BI	1.0 BI	0.0 BI	
	15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	390.1 G	22.5 G	19.7 G	14.8 G	9.5 BI	0.9 BI	0.0 BI	
	16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	345.5 G	20.9 G	19.3 G	14.5 G	8.9 BI	0.8 BI	0.0 BI	
	17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	313.7 G	19.4 G	18.3 G	14.2 G	8.3 BI	0.7 BI	0.0 BI	
	18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	286.0 G	18.2 G	17.5 G	13.9 G	7.8 BI	0.6 BI	0.0 BI	
	19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	256.9 G	18.0 G	18.0 G	13.7 G	7.4 BI	0.6 BI	0.0 BI	
	20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	231.1 G	18.6 G	20.5 G	13.5 G	6.9 BI	0.5 BI	0.0 BI	
	21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	209.0 G	22.0 G	27.2 G	13.8 G	6.6 BI	0.4 BI	0.0 BI	
	22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	189.2 G	23.5 G	32.2 G	14.0 G	6.2 BI	0.4 BI	0.0 BI	
	23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	170.6 G	24.5 G	36.7 G	14.0 G	5.8 BI	0.3 BI	0.0 BI	
	24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	155.2 G	25.7 G	39.2 G	14.0 G	5.5 BI	0.3 BI	0.0 BI	
	25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	141.3 G	25.6 G	39.7 G	14.0 G	5.2 BI	0.2 BI	0.0 BI	
	26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	127.9 G	24.2 G	38.1 G	14.0 G	4.9 BI	0.2 BI	0.0 BI	
	27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	115.9 G	22.2 G	35.9 G	14.0 G	4.6 BI	0.2 BI	0.0 BI	
	28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	105.2 G	20.5 G	33.9 G	14.1 G	4.4 BI	0.1 BI	0.0 BI	
	29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	96.6 G	18.9 G	31.7 G	13.5 G	4.1 BI	0.1 BI	0.0 BI	
	30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	88.5 G	19.3 G	29.5 G	12.9 G	3.8 BI	0.1 BI	0.0 BI	
	31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	19.9 G	19.9 G	27.8 G	12.9 G	3.5 BI	0.1 BI	0.0 BI	
	Aggr	0.0	0.0	0.0	0.0	0.0	433.5	35.5	25.4	16.3	8.7	1.1	0.0	
	Min	0.0	0.0	0.0	0.0	0.0	0.0	17.7	17.1	12.7	3.4	0.0	0.0	
	Max	0.0	0.0	0.0	0.0	0.0	1247.8	86.2	40.2	27.1	12.7	3.4	0.0	
	Total	0.0	0.0	0.0	0.0	0.0	25796.6	2182.9	1560.1	972.8	534.4	67.2	0.1	

Date Processed: February 15, 2018 09:19 Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Daily Mean by Year

Identifier: Ublutuoch River

Units: ft³/s
Filter: None

Year: 2007	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):
	1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	62.3 G	2.6 G	0.8 G	0.1 BI	0.0 BI	0.0 BI	18068.7
	2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	56.5 G	2.4 G	0.7 G	0.1 BI	0.0 BI	0.0 BI	
	3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2.7 BI	50.4 G	2.2 G	0.8 G	0.1 BI	0.0 BI	0.0 BI	
	4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	351.6 BI	44.6 G	2.0 G	0.8 G	0.1 BI	0.0 BI	0.0 BI	
	5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1393.2 BI	39.1 G	1.9 G	0.8 G	0.1 BI	0.0 BI	0.0 BI	
	6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1118.7 BI	34.6 G	1.9 G	0.7 G	0.0 BI	0.0 BI	0.0 BI	
	7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	874.2 BI	29.9 G	1.9 G	0.7 G	0.0 BI	0.0 BI	0.0 BI	
	8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	652.8 BI	26.5 G	1.8 G	0.6 G	0.0 BI	0.0 BI	0.0 BI	
	9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	537.1 G	23.6 G	1.7 G	0.6 G	0.0 BI	0.0 BI	0.0 BI	
	10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	441.1 G	20.8 G	1.5 G	0.6 G	0.0 BI	0.0 BI	0.0 BI	
	11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	371.4 G	18.0 G	1.3 G	0.5 G	0.0 BI	0.0 BI	0.0 BI	
	12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	320.7 G	16.0 G	1.2 G	0.5 G	0.0 BI	0.0 BI	0.0 BI	
	13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	283.0 G	14.6 G	1.2 G	0.5 G	0.0 BI	0.0 BI	0.0 BI	
	14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	252.4 G	13.2 G	1.4 G	0.4 G	0.0 BI	0.0 BI	0.0 BI	
	15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	226.1 G	12.0 G	1.8 G	0.5 G	0.0 BI	0.0 BI	0.0 BI	
	16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	203.6 G	10.8 G	1.9 G	0.4 G	0.0 BI	0.0 BI	0.0 BI	
	17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	182.7 G	10.0 G	1.9 G	0.5 G	0.0 BI	0.0 BI	0.0 BI	
	18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	161.7 G	9.2 G	1.9 G	0.4 G	0.0 BI	0.0 BI	0.0 BI	
	19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	142.4 G	8.2 G	1.9 G	0.5 G	0.0 BI	0.0 BI	0.0 BI	
	20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	127.3 G	7.3 G	1.6 G	0.5 G	0.0 BI	0.0 BI	0.0 BI	
	21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	114.2 G	6.6 G	1.3 G	0.3 G	0.0 BI	0.0 BI	0.0 BI	
	22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	103.0 G	6.0 G	1.2 G	0.2 G	0.0 BI	0.0 BI	0.0 BI	
	23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	94.3 G	5.4 G	1.1 G	0.3 BI	0.0 BI	0.0 BI	0.0 BI	
	24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	87.4 G	5.0 G	1.0 G	0.3 BI	0.0 BI	0.0 BI	0.0 BI	
	25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	80.2 G	4.5 G	0.9 G	0.3 BI	0.0 BI	0.0 BI	0.0 BI	
	26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	77.5 G	4.2 G	0.9 G	0.2 BI	0.0 BI	0.0 BI	0.0 BI	
	27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	76.8 G	3.9 G	0.8 G	0.2 BI	0.0 BI	0.0 BI	0.0 BI	
	28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	76.2 G	3.6 G	0.8 G	0.2 BI	0.0 BI	0.0 BI	0.0 BI	
	29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	72.4 G	3.4 G	0.8 G	0.1 BI	0.0 BI	0.0 BI	0.0 BI	
	30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	67.6 G	3.1 G	0.7 G	0.1 BI	0.0 BI	0.0 BI	0.0 BI	
	31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2.9 G	2.9 G	0.8 G	0.1 BI	0.0 BI	0.0 BI	0.0 BI	
	Aggr	0.0	0.0	0.0	0.0	0.0	283.1	17.9	1.5	0.5	0.0	0.0	0.0	
	Min	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.6	0.1	0.0	0.0	0.0	
	Max	0.0	0.0	0.0	0.0	0.0	1524.5	64.3	2.7	0.9	0.1	0.0	0.0	
	Total	0.0	0.0	0.0	0.0	0.0	16844.3	1103.6	91.6	28.1	1.1	0.0	0.0	

Date Processed: February 15, 2018 09:19

Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Daily Mean by Year

Identifier: Ublutuoch River

Units: ft³/s
Filter: None

Year: 2008	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):
	1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	700.1 BI	38.7 G	7.2 G	4.2 G	2.6 BI	0.0 BI	0.0 BI	21048.7
	2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	668.5 BI	35.7 G	7.5 G	4.1 G	2.4 BI	0.0 BI	0.0 BI	
	3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	634.8 BI	32.8 G	7.6 G	4.0 G	2.2 BI	0.0 BI	0.0 BI	
	4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	553.9 BI	30.4 G	9.2 G	3.9 G	2.0 BI	0.0 BI	0.0 BI	
	5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	469.2 BI	28.4 G	10.5 G	3.7 G	1.8 BI	0.0 BI	0.0 BI	
	6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	383.1 BI	25.8 G	10.4 G	3.4 G	1.6 BI	0.0 BI	0.0 BI	
	7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	361.3 BI	22.8 G	10.0 G	3.3 G	1.4 BI	0.0 BI	0.0 BI	
	8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	349.2 BI	20.4 G	9.7 G	3.1 G	1.2 BI	0.0 BI	0.0 BI	
	9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	289.7 G	18.1 G	9.6 G	3.0 G	1.0 BI	0.0 BI	0.0 BI	
	10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	261.5 G	16.5 G	9.2 G	3.0 G	0.8 BI	0.0 BI	0.0 BI	
	11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	240.0 G	14.8 G	8.6 G	3.1 G	0.6 BI	0.0 BI	0.0 BI	
	12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	215.7 G	12.9 G	8.5 G	3.2 G	0.4 BI	0.0 BI	0.0 BI	
	13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	188.1 G	11.1 G	8.5 G	3.0 G	0.2 BI	0.0 BI	0.0 BI	
	14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	160.4 G	9.2 G	8.0 G	3.1 G	0.0 BI	0.0 BI	0.0 BI	
	15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	139.5 G	7.7 G	7.6 G	3.2 G	0.0 BI	0.0 BI	0.0 BI	
	16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	123.1 G	7.1 G	7.2 G	3.2 BI	0.0 BI	0.0 BI	0.0 BI	
	17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	111.6 G	8.0 G	6.7 G	3.2 BI	0.0 BI	0.0 BI	0.0 BI	
	18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	102.0 G	7.6 G	5.9 G	2.9 G	0.0 BI	0.0 BI	0.0 BI	
	19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	94.2 G	7.1 G	5.4 G	2.7 G	0.0 BI	0.0 BI	0.0 BI	
	20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	88.0 G	7.3 G	5.4 G	2.5 G	0.0 BI	0.0 BI	0.0 BI	
	21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	80.9 G	7.5 G	5.5 G	2.6 G	0.0 BI	0.0 BI	0.0 BI	
	22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	73.8 G	8.7 G	5.4 G	2.8 G	0.0 BI	0.0 BI	0.0 BI	
	23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	66.8 G	9.0 G	5.1 G	3.0 G	0.0 BI	0.0 BI	0.0 BI	
	24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	60.1 G	10.1 G	5.1 G	3.5 G	0.0 BI	0.0 BI	0.0 BI	
	25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	55.0 G	10.1 G	4.9 G	3.6 G	0.0 BI	0.0 BI	0.0 BI	
	26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	50.7 G	10.1 G	4.8 G	3.5 G	0.0 BI	0.0 BI	0.0 BI	
	27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	30.3 BI	47.8 G	9.3 G	4.9 G	3.9 G	0.0 BI	0.0 BI	0.0 BI	
	28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	559.0 BI	44.4 G	8.3 G	4.6 G	3.6 G	0.0 BI	0.0 BI	0.0 BI	
	29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	931.5 BI	41.5 G	7.6 G	4.6 G	3.3 BI	0.0 BI	0.0 BI	0.0 BI	
	30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	851.0 BI	39.8 G	7.4 G	4.6 G	2.8 BI	0.0 BI	0.0 BI	0.0 BI	
	31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	754.5 BI	7.1 G	7.1 G	4.4 G	2.8 BI	0.0 BI	0.0 BI	0.0 BI	
	Aggr	0.0	0.0	0.0	0.0	100.8	223.2	14.8	7.0	3.3	0.6	0.0	0.0	
	Min	0.0	0.0	0.0	0.0	0.0	39.2	6.7	4.2	2.5	0.0	0.0	0.0	
	Max	0.0	0.0	0.0	0.0	955.3	722.0	39.7	10.7	4.9	2.7	0.0	0.0	
	Total	0.0	0.0	0.0	0.0	6200.9	13278.5	907.9	430.0	195.2	36.2	0.0	0.0	

Date Processed: February 15, 2018 09:19 Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Daily Mean by Year

Identifier: Ublutuoch River

Units: ft³/s
Filter: None

Year: 2009	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Max:	1700.1	Oct	Nov	Dec	Total (Acre-ft):
	1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1494.2 BI	73.8 G	6.0 G	6.0 G	35.0 G	23.8 BI	6.9 BI	1.5 BI	47384.0
	2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1575.9 BI	68.5 G	5.9 G	5.9 G	38.4 G	23.8 BI	6.6 BI	1.4 BI	
	3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1403.0 BI	62.9 G	5.8 G	5.8 G	41.5 G	23.5 BI	6.3 BI	1.4 BI	
	4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1181.7 G	57.6 G	5.7 G	5.7 G	43.0 G	23.2 BI	6.0 BI	1.3 BI	
	5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	962.4 G	52.9 G	5.6 G	5.6 G	42.9 G	22.7 BI	5.7 BI	1.2 BI	
	6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	790.1 G	48.8 G	5.4 G	5.4 G	41.6 G	22.1 BI	5.4 BI	1.2 BI	
	7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	685.6 G	44.6 G	5.2 G	5.2 G	39.6 G	21.4 BI	5.2 BI	1.1 BI	
	8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	638.8 G	40.1 G	5.3 G	5.3 G	38.4 G	20.6 BI	4.9 BI	1.1 BI	
	9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	594.6 G	36.0 G	6.7 G	6.7 G	37.2 G	19.8 BI	4.7 BI	1.0 BI	
	10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	510.0 G	33.2 G	7.2 G	7.2 G	35.9 G	18.9 BI	4.4 BI	0.9 BI	
	11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	438.6 G	31.7 G	8.2 G	8.2 G	34.3 G	18.1 BI	4.2 BI	0.9 BI	
	12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	388.5 G	30.3 G	8.3 G	8.3 G	32.4 G	17.2 BI	4.0 BI	0.8 BI	
	13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	346.0 G	29.1 G	9.2 G	9.2 G	30.4 G	16.4 BI	3.8 BI	0.7 BI	
	14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	309.3 G	28.0 G	10.2 G	10.2 G	29.5 G	15.6 BI	3.6 BI	0.7 BI	
	15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	279.1 G	26.1 G	10.8 G	10.8 G	29.4 G	14.9 BI	3.4 BI	0.6 BI	
	16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	253.8 G	23.7 G	10.7 G	10.7 G	28.4 G	14.1 BI	3.2 BI	0.5 BI	
	17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	229.2 G	21.5 G	11.7 G	11.7 G	27.6 G	13.4 BI	3.0 BI	0.4 BI	
	18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	204.2 G	18.8 G	13.8 G	13.8 G	27.7 G	12.8 BI	2.9 BI	0.3 BI	
	19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	181.2 G	15.9 G	15.1 G	15.1 G	27.6 G	12.2 BI	2.7 BI	0.2 BI	
	20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	162.3 G	13.3 G	16.5 G	16.5 G	27.5 G	11.6 BI	2.6 BI	0.1 BI	
	21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	145.5 G	11.9 G	16.4 G	16.4 G	26.6 BI	11.1 BI	2.4 BI	0.0 BI	
	22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	132.7 G	10.3 G	16.2 G	16.2 G	25.7 BI	10.6 BI	2.3 BI	0.0 BI	
	23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	121.4 G	8.8 G	16.0 G	16.0 G	25.4 BI	10.2 BI	2.2 BI	0.0 BI	
	24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	111.5 G	7.7 G	15.5 G	15.5 G	25.0 BI	9.7 BI	2.1 BI	0.0 BI	
	25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	7.9	102.2 G	7.1 G	14.5 G	14.5 G	24.6 BI	9.3 BI	2.0 BI	0.0 BI	
	26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	309.4 BI	96.5 G	6.8 G	14.9 G	14.9 G	24.3 BI	8.9 BI	1.9 BI	0.0 BI	
	27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1003.3 BI	93.0 G	6.6 G	15.5 G	15.5 G	24.1 BI	8.5 BI	1.8 BI	0.0 BI	
	28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1583.5 BI	89.2 G	6.8 G	15.8 G	15.8 G	24.0 BI	8.2 BI	1.7 BI	0.0 BI	
	29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1658.3 BI	83.8 G	6.0 G	16.6 G	16.6 G	23.9 BI	7.8 BI	1.6 BI	0.0 BI	
	30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1501.9 BI	78.9 G	6.0 G	21.2 G	21.2 G	23.9 BI	7.5 BI	1.5 BI	0.0 BI	
	31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1410.4 BI	78.9 G	6.2 G	27.3 G	27.3 G	23.9 BI	7.2 BI	1.5 BI	0.0 BI	
	Aggr	0.0	0.0	0.0	0.0	241.1	456.1	27.1	11.7	11.7	31.2	15.0	3.6	0.6	
	Min	0.0	0.0	0.0	0.0	0.0	76.1	5.9	4.9	4.9	23.9	7.0	1.5	0.0	
	Max	0.0	0.0	0.0	0.0	1700.1	1600.3	76.1	31.9	31.9	43.8	23.9	7.0	1.5	
	Total	0.0	0.0	0.0	0.0	14826.0	27139.9	1668.2	720.7	720.7	1856.1	923.0	216.0	34.3	

Date Processed: February 15, 2018 09:19
 Daily mean flows record grades: BI - Ice Conditions affect record
 EF - Estimated Data with fair confidence
 F - Fair Data
 G - Good Data
 P - Poor Data
 UN - Unspecified



Daily Mean by Year

Identifier: Ublutuoch River

Units: ft^3/s
Filter: None

Year:	2010												Aggr:	60.8	Min:	0.0	Max:	3199.6	Total (Acre-ft):				44011.0
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec											
1	0.0	0.0	0.0	0.0	0.0	0.0	98.8	44.2	32.5	15.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	91.1	40.6	32.3	14.3	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	83.8	36.5	31.8	13.6	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	77.3	33.4	31.2	12.9	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.4	71.2	29.9	30.2	12.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	31.6	65.2	39.5	28.8	11.6	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	2284.0	59.2	67.4	27.7	11.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	3126.2	55.2	75.0	26.8	10.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	2722.6	51.2	72.9	26.3	9.8	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	1849.7	46.1	69.1	26.2	9.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	1296.0	42.0	66.6	26.1	8.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	1017.4	38.3	65.5	26.1	8.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	814.1	35.0	73.7	26.0	7.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	665.0	32.0	83.4	26.0	7.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	554.6	28.2	83.8	25.6	6.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	466.0	26.5	81.0	25.4	6.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	400.2	25.7	76.5	25.2	6.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	356.0	25.8	70.1	24.7	5.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	320.7	30.1	62.6	24.4	5.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	289.1	35.8	56.6	24.7	4.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	258.0	37.7	52.0	24.6	4.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	228.1	38.8	48.6	24.0	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	203.0	56.0	45.7	22.9	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	181.4	81.5	43.0	22.1	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	162.9	81.3	40.6	21.1	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	147.8	73.7	38.4	20.2	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	135.8	67.3	36.7	19.9	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	126.7	59.6	35.1	18.9	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	118.6	54.0	33.5	17.5	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	108.5	51.7	32.2	16.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	0.0	0.0	0.0	0.0	0.0	0.0	48.5	32.0	16.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aggr	0.0	0.0	0.0	0.0	0.0	595.5	53.8	53.7	25.2	7.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Min	0.0	0.0	0.0	0.0	0.0	0.0	25.3	28.5	15.3	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max	0.0	0.0	0.0	0.0	0.0	3199.6	103.1	85.2	32.8	15.3	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	0.0	0.0	0.0	0.0	35433.9	3309.2	3304.5	1497.7	438.5	27.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Date Processed: February 15, 2018 09:19
 Daily mean flows record grades: BI - Ice Conditions affect record
 EF - Estimated Data with fair confidence
 F - Fair Data
 G - Good Data
 P - Poor Data
 UN - Unspecified



Daily Mean by Year

Identifier: Ublutuoch River

Units: ft³/s
Filter: None

Year: 2011	Aggr:	57.8	Min:	0.0	Max:	1955.7	Total (Acre-ft):	41866.4				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1141.7 BI	77.1 F	14.1 F	6.8 F	16.0 BI	1.9 BI	0.0 BI
2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1669.8 BI	69.2 F	14.8 F	6.8 F	15.3 BI	1.8 BI	0.0 BI
3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1916.1 BI	62.9 F	15.0 F	6.9 F	14.5 BI	1.7 BI	0.0 BI
4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1872.1 BI	58.5 F	14.8 F	7.2 F	13.7 BI	1.6 BI	0.0 BI
5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1682.6 BI	54.1 F	14.5 F	7.4 F	12.9 BI	1.6 BI	0.0 BI
6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1415.7 BI	50.3 F	13.7 F	7.4 F	12.0 BI	1.5 BI	0.0 BI
7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1141.9 BI	46.6 F	13.0 F	7.3 F	11.2 BI	1.4 BI	0.0 BI
8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	977.1 BI	42.3 F	12.2 F	7.0 F	10.4 BI	1.3 BI	0.0 BI
9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	864.9 BI	39.1 F	11.7 F	7.0 F	9.6 BI	1.3 BI	0.0 BI
10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	751.4 BI	35.9 F	11.5 F	7.7 F	8.9 BI	1.2 BI	0.0 BI
11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	674.3 BI	32.7 F	11.1 F	9.0 F	8.2 BI	1.1 BI	0.0 BI
12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	611.4 BI	30.1 F	11.0 F	10.0 F	7.5 BI	1.1 BI	0.0 BI
13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	520.4 BI	28.8 F	10.9 F	11.0 F	6.9 BI	1.0 BI	0.0 BI
14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	453.3 G	28.0 F	10.8 F	11.5 F	6.3 BI	0.9 BI	0.0 BI
15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	407.7 G	27.1 F	10.6 F	11.8 F	5.8 BI	0.8 BI	0.0 BI
16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	363.5 G	26.3 F	10.4 F	11.8 F	5.3 BI	0.8 BI	0.0 BI
17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	325.1 G	25.5 F	10.1 F	12.0 F	4.9 BI	0.7 BI	0.0 BI
18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	285.7 G	25.1 F	9.5 F	12.6 F	4.5 BI	0.6 BI	0.0 BI
19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	252.4 G	24.7 F	8.9 F	13.4 F	4.2 BI	0.5 BI	0.0 BI
20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	217.3 G	24.2 F	8.8 F	13.6 G	3.9 BI	0.5 BI	0.0 BI
21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	188.9 F	23.9 F	8.7 F	14.8 G	3.6 BI	0.4 BI	0.0 BI
22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	167.6 F	23.6 F	8.3 F	15.3 G	3.4 BI	0.4 BI	0.0 BI
23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	152.6 F	23.0 F	8.1 F	15.8 G	3.2 BI	0.3 BI	0.0 BI
24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	140.0 F	22.0 F	7.9 F	17.1 G	3.0 BI	0.2 BI	0.0 BI
25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	130.1 F	21.1 F	7.6 F	17.8 G	2.8 BI	0.2 BI	0.0 BI
26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	120.2 F	19.8 F	7.5 F	18.1 G	2.6 BI	0.2 BI	0.0 BI
27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	110.1 F	18.1 F	7.4 F	18.6 G	2.5 BI	0.1 BI	0.0 BI
28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	101.1 F	16.8 F	7.3 F	18.1 G	2.3 BI	0.1 BI	0.0 BI
29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	92.7 F	16.0 F	7.2 F	17.0 G	2.2 BI	0.1 BI	0.0 BI
30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	5.3 BI	84.3 F	15.1 F	7.0 F	16.4 BI	2.1 BI	0.0 BI	0.0 BI
31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	332.7 BI	14.4 F	14.4 F	6.9 F	16.4 BI	2.0 BI	0.0 BI	0.0 BI
Aggr	0.0	0.0	0.0	0.0	10.9	627.7	33.0	10.4	11.9	6.8	0.8	0.0
Min	0.0	0.0	0.0	0.0	0.0	81.0	14.2	6.9	6.8	2.0	0.0	0.0
Max	0.0	0.0	0.0	0.0	709.6	1955.7	81.0	15.0	20.2	16.4	2.0	0.0
Total	0.0	0.0	0.0	0.0	670.5	37352.6	2028.0	637.6	708.1	419.5	50.1	0.0

Date Processed: February 15, 2018 09:19 Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Daily Mean by Year

Identifier: Ublutuoch River

Units: ft³/s
Filter: None

Year: 2012	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):
Day	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	26.6 BI	89.0 F	13.2 G	10.3 G	18.3 BI	6.7 BI	1.4 BI	36367.4
1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	91.2 BI	83.8 F	13.0 G	10.7 G	18.1 BI	6.8 BI	1.3 BI	
2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	164.5 BI	78.1 F	12.4 G	11.2 G	17.8 BI	6.8 BI	1.1 BI	
3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1381.1 BI	72.9 F	12.4 G	11.1 G	17.7 BI	6.9 BI	1.0 BI	
4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2102.3 BI	67.5 F	11.8 G	11.0 G	17.4 BI	6.8 BI	0.9 BI	
5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1867.8 BI	62.2 F	11.3 G	11.2 G	16.9 BI	6.8 BI	0.8 BI	
6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1597.5 BI	57.6 F	11.1 G	11.0 G	16.2 BI	6.7 BI	0.7 BI	
7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1332.2 BI	52.7 G	10.9 G	11.0 G	14.8 BI	6.6 BI	0.6 BI	
8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1078.1 BI	48.2 G	10.7 G	11.0 G	13.4 BI	6.5 BI	0.5 BI	
9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	873.8 BI	44.3 G	11.0 G	12.7 G	12.0 BI	6.3 BI	0.4 BI	
10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	727.7 G	40.9 G	10.8 G	13.6 G	10.6 BI	6.1 BI	0.3 BI	
11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	612.4 G	37.7 G	10.6 G	13.4 G	9.4 BI	5.9 BI	0.2 BI	
12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	526.7 G	33.9 G	10.1 G	12.6 G	8.2 BI	5.7 BI	0.1 BI	
13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	472.3 G	32.2 G	9.5 G	11.8 G	7.1 BI	5.5 BI	0.0 BI	
14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	421.0 F	30.6 G	9.4 G	11.2 G	6.2 BI	5.2 BI	0.0 BI	
15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	368.4 F	29.5 G	9.8 G	11.2 G	5.4 BI	5.0 BI	0.0 BI	
16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	320.7 F	28.0 G	9.8 G	11.8 G	4.8 BI	4.7 BI	0.0 BI	
17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	280.1 F	26.6 G	10.0 G	12.0 G	4.4 BI	4.4 BI	0.0 BI	
18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	251.1 F	25.3 G	9.7 G	12.0 G	4.2 BI	4.2 BI	0.0 BI	
19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	227.1 F	23.8 G	9.4 G	11.6 G	4.1 BI	3.9 BI	0.0 BI	
20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	198.4 F	22.5 G	9.6 G	11.1 G	4.1 BI	3.6 BI	0.0 BI	
21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	172.9 F	21.7 G	9.5 G	12.7 G	4.2 BI	3.4 BI	0.0 BI	
22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	154.1 F	20.2 G	9.3 G	12.9 G	4.4 BI	3.1 BI	0.0 BI	
23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	137.6 F	19.1 G	9.1 G	12.6 G	4.6 BI	2.9 BI	0.0 BI	
24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	126.2 F	18.3 G	9.1 G	12.7 G	4.9 BI	2.6 BI	0.0 BI	
25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	118.5 F	17.5 G	8.8 G	12.8 G	5.2 BI	2.4 BI	0.0 BI	
26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	111.5 F	16.4 G	8.7 G	13.5 G	5.5 BI	2.2 BI	0.0 BI	
27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	105.6 F	15.5 G	8.6 G	15.2 G	5.8 BI	2.0 BI	0.0 BI	
28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	100.5 F	14.9 G	8.7 G	16.5 G	6.1 BI	1.8 BI	0.0 BI	
29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.3 BI	94.9 F	14.1 G	9.7 G	17.9 G	6.3 BI	1.6 BI	0.0 BI	
30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	7.3 BI	13.9 G	13.9 G	10.3 G		6.5 BI		0.0 BI	
31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.2	534.8	37.4	10.3	12.4	9.2	4.8	0.3	
Aggr	0.0	0.0	0.0	0.0	0.0	14.4	13.2	8.2	10.3	4.1	1.5	0.0	
Min	0.0	0.0	0.0	0.0	0.0	2131.4	91.8	13.6	18.4	18.8	6.9	1.5	
Max	0.0	0.0	0.0	0.0	15.1	31820.8	2298.0	631.1	736.1	564.2	283.8	18.3	
Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Date Processed: February 15, 2018 09:19 Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Daily Mean by Year

Identifier: Ublutuoch River

Units: ft³/s
Filter: None

Year: 2013	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Max:	2440.7	2440.7	Oct	Nov	Dec	Total (Acre-ft):
	1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	153.2 G	41.7 G	0.0	20.2 G	21.8 BI	2.4 BI	0.5 BI	59392.6	
	2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.6 BI	140.0 G	42.1 G	0.0	21.7 G	20.5 BI	2.5 BI	0.4 BI		
	3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	74.5 BI	131.5 G	40.9 G	0.0	22.8 G	19.2 BI	2.6 BI	0.4 BI		
	4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	704.2 BI	127.0 G	39.0 G	0.0	23.7 G	18.0 BI	2.7 BI	0.3 BI		
	5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1453.6 BI	123.4 G	37.4 G	0.0	23.9 G	16.9 BI	2.8 BI	0.3 BI		
	6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1339.8 BI	119.6 G	35.2 G	0.0	24.5 G	15.8 BI	2.8 BI	0.2 BI		
	7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1799.2 BI	112.3 G	33.2 G	0.0	24.7 G	14.8 BI	2.8 BI	0.2 BI		
	8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2233.2 BI	102.5 G	31.3 G	0.0	25.4 G	13.8 BI	2.8 BI	0.2 BI		
	9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2416.9 BI	94.4 G	29.3 G	0.0	26.3 G	12.9 BI	2.8 BI	0.2 BI		
	10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2355.7 BI	87.0 G	28.2 G	0.0	26.3 G	12.0 BI	2.7 BI	0.1 BI		
	11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2064.1 BI	80.4 G	26.9 G	0.0	25.5 G	11.2 BI	2.7 BI	0.1 BI		
	12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1763.9 G	74.7 G	26.2 G	0.0	25.7 G	10.3 BI	2.6 BI	0.1 BI		
	13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1516.6 G	70.0 G	25.9 G	0.0	27.6 G	9.3 BI	2.5 BI	0.1 BI		
	14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1231.5 G	65.4 G	25.3 G	0.0	31.0 G	8.2 BI	2.4 BI	0.0 BI		
	15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	988.6 G	60.8 G	24.6 G	0.0	36.7 G	7.0 BI	2.3 BI	0.0 BI		
	16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	851.0 G	55.7 G	23.9 G	0.0	41.6 G	5.8 BI	2.2 BI	0.0 BI		
	17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	736.3 G	52.2 G	23.2 G	0.0	43.3 G	4.7 BI	2.1 BI	0.0 BI		
	18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	637.5 G	49.7 G	22.5 G	0.0	43.4 G	3.6 BI	2.0 BI	0.0 BI		
	19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	528.3 G	47.8 G	21.9 G	0.0	42.3 G	2.7 BI	1.9 BI	0.0 BI		
	20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	440.6 G	45.6 G	21.0 G	0.0	39.3 G	2.0 BI	1.7 BI	0.0 BI		
	21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	382.3 G	45.1 G	20.3 G	0.0	36.8 G	1.5 BI	1.6 BI	0.0 BI		
	22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	339.9 G	42.1 G	19.5 G	0.0	34.7 G	1.2 BI	1.5 BI	0.0 BI		
	23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	310.6 G	40.3 G	18.8 G	0.0	33.4 BI	1.0 BI	1.3 BI	0.0 BI		
	24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	281.4 G	40.1 G	18.7 G	0.0	32.2 BI	0.9 BI	1.2 BI	0.0 BI		
	25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	256.0 G	39.2 G	18.4 G	0.0	30.7 BI	1.0 BI	1.1 BI	0.0 BI		
	26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	232.6 G	37.5 G	18.3 G	0.0	29.2 BI	1.1 BI	1.0 BI	0.0 BI		
	27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	211.9 G	37.6 G	17.7 G	0.0	27.7 BI	1.3 BI	0.9 BI	0.0 BI		
	28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	195.2 G	41.1 G	16.9 G	0.0	26.2 BI	1.5 BI	0.8 BI	0.0 BI		
	29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	181.7 G	43.0 G	16.8 G	0.0	24.7 BI	1.8 BI	0.7 BI	0.0 BI		
	30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	167.3 G	41.8 G	17.8 G	0.0	23.2 BI	2.0 BI	0.6 BI	0.0 BI		
	31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	41.6 G	41.6 G	19.0 G	0.0	23.2 BI	2.2 BI	0.6 BI	0.0 BI		
	Aggr	0.0	0.0	0.0	0.0	0.0	856.5	72.3	25.9	0.0	29.8	7.9	2.0	0.1		
	Min	0.0	0.0	0.0	0.0	0.0	0.0	36.0	16.4	0.0	19.4	0.9	0.6	0.0		
	Max	0.0	0.0	0.0	0.0	0.0	2440.7	159.8	42.6	0.0	44.7	22.5	2.8	0.6		
	Total	0.0	0.0	0.0	0.0	0.0	50965.0	4447.7	1591.3	0.0	1775.3	488.2	118.8	6.3		

Date Processed: February 15, 2018 09:19



Daily mean flows record grades: BI - Ice Conditions affect record
 EF - Estimated Data with fair confidence
 F - Fair Data
 G - Good Data
 P - Poor Data
 UN - Unspecified

Daily Mean by Year

Identifier: Ublutuoch River

Units: ft³/s
Filter: None

Year:	2014												Aggr:	82.8	Min:	0.0	Max:	1269.9	Total (Acre-ft):				59970.5
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec											
1	0.0	0.0	0.0	0.0	0.0	413.8	177.1	41.8	23.4	34.5	4.8	3.4											
2	0.0	0.0	0.0	0.0	0.0	409.5	167.3	40.1	26.9	39.6	4.5	3.0											
3	0.0	0.0	0.0	0.0	0.0	543.7	163.8	39.2	30.2	45.3	4.4	2.5											
4	0.0	0.0	0.0	0.0	0.0	784.4	155.7	37.7	34.9	52.6	4.4	2.2											
5	0.0	0.0	0.0	0.0	0.0	949.9	144.9	36.3	39.5	58.9	4.5	1.8											
6	0.0	0.0	0.0	0.0	0.0	1057.3	133.4	36.6	44.6	63.7	4.6	1.5											
7	0.0	0.0	0.0	0.0	0.0	990.4	121.4	35.9	47.7	69.1	4.9	1.2											
8	0.0	0.0	0.0	0.0	0.0	851.1	109.9	35.0	49.7	71.1	5.2	0.9											
9	0.0	0.0	0.0	0.0	0.0	750.2	99.3	33.8	50.6	71.2	5.6	0.7											
10	0.0	0.0	0.0	0.0	0.0	638.0	90.3	30.8	48.8	70.5	6.0	0.6											
11	0.0	0.0	0.0	0.0	0.0	558.4	81.6	28.8	45.3	68.4	6.4	0.5											
12	0.0	0.0	0.0	0.0	0.0	506.2	73.9	26.8	43.2	65.1	6.7	0.4											
13	0.0	0.0	0.0	0.0	0.0	457.8	68.8	24.8	41.3	60.7	7.1	0.3											
14	0.0	0.0	0.0	0.0	0.0	410.5	64.0	24.2	39.7	57.7	7.3	0.2											
15	0.0	0.0	0.0	0.0	0.0	361.4	60.9	23.7	37.5	50.3	7.5	0.2											
16	0.0	0.0	0.0	0.0	0.0	326.1	59.2	22.8	35.1	44.8	7.7	0.2											
17	0.0	0.0	0.0	0.0	208.6	290.9	62.0	21.4	33.1	39.7	7.7	0.1											
18	0.0	0.0	0.0	0.0	1127.1	263.8	62.7	19.6	31.9	34.9	7.7	0.0											
19	0.0	0.0	0.0	0.0	1206.8	245.1	60.7	17.9	32.8	30.6	7.6	0.0											
20	0.0	0.0	0.0	0.0	1145.3	230.0	58.3	17.2	35.1	26.7	7.4	0.0											
21	0.0	0.0	0.0	0.0	1003.4	214.6	57.0	17.0	36.0	23.2	7.2	0.0											
22	0.0	0.0	0.0	0.0	925.0	201.4	56.4	16.7	36.3	20.0	7.0	0.0											
23	0.0	0.0	0.0	0.0	813.3	211.7	55.5	16.5	36.3	17.2	6.7	0.0											
24	0.0	0.0	0.0	0.0	796.8	245.8	54.9	16.5	37.1	14.8	6.3	0.0											
25	0.0	0.0	0.0	0.0	745.6	257.7	53.8	16.7	38.6	12.6	6.0	0.0											
26	0.0	0.0	0.0	0.0	639.2	239.8	53.4	16.6	39.4	10.8	5.6	0.0											
27	0.0	0.0	0.0	0.0	574.4	219.7	52.3	16.6	39.0	9.2	5.1	0.0											
28	0.0	0.0	0.0	0.0	533.2	206.4	51.2	17.0	36.5	7.9	4.7	0.0											
29	0.0	0.0	0.0	0.0	489.7	198.1	49.1	17.7	33.3	6.8	4.3	0.0											
30	0.0	0.0	0.0	0.0	470.3	188.9	46.3	19.1	32.4	5.9	3.8	0.0											
31	0.0	0.0	0.0	0.0	437.7	188.9	43.6	20.9	32.4	5.3	3.8	0.0											
Aggr	0.0	0.0	0.0	0.0	358.6	440.8	83.5	25.3	37.9	38.3	6.0	0.6											
Min	0.0	0.0	0.0	0.0	0.0	182.0	42.4	16.5	22.0	5.0	3.6	0.0											
Max	0.0	0.0	0.0	0.0	1269.9	1117.3	182.0	42.4	50.8	71.2	7.7	3.6											
Total	0.0	0.0	0.0	0.0	22049.3	26226.7	5134.2	1558.5	2254.2	2354.5	354.5	38.7											

Date Processed: February 15, 2018 09:19



Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified

Daily Mean by Year

Identifier: Ublutuoch River

Units: ft³/s
Filter: None

Year: 2015	Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (Acre-ft):
	1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	515.7 G	47.3 G	6.5 G	21.8 G	5.4 BI	0.7 BI	0.0 BI	42348.7
	2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	448.3 G	43.4 G	6.6 G	21.3 G	5.0 BI	0.6 BI	0.0 BI	
	3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	401.5 G	40.6 G	7.9 G	20.1 G	4.6 BI	0.6 BI	0.0 BI	
	4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	360.6 G	38.1 G	8.8 G	19.8 G	4.3 BI	0.5 BI	0.0 BI	
	5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	328.4 G	35.2 G	9.5 G	19.9 G	4.0 BI	0.5 BI	0.0 BI	
	6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	314.9 G	33.2 G	9.9 G	18.6 G	3.8 BI	0.4 BI	0.0 BI	
	7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	314.3 G	30.7 G	9.3 G	17.0 G	3.5 BI	0.4 BI	0.0 BI	
	8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	299.6 G	27.5 G	9.6 G	15.4 G	3.3 BI	0.4 BI	0.0 BI	
	9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	294.1 G	24.8 G	11.0 G	15.8 G	3.1 BI	0.3 BI	0.0 BI	
	10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	277.4 G	21.6 G	12.9 G	16.9 G	3.0 BI	0.3 BI	0.0 BI	
	11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	259.2 G	19.2 G	14.1 G	17.1 G	2.8 BI	0.3 BI	0.0 BI	
	12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	244.6 G	16.7 G	14.6 G	18.1 G	2.6 BI	0.3 BI	0.0 BI	
	13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	228.6 G	14.8 G	15.1 G	18.4 G	2.5 BI	0.3 BI	0.0 BI	
	14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	210.1 G	13.5 G	15.4 G	18.4 G	2.3 BI	0.3 BI	0.0 BI	
	15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	192.7 G	12.8 G	15.8 G	19.4 G	2.2 BI	0.2 BI	0.0 BI	
	16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	175.0 G	12.1 G	16.6 G	21.1 G	2.1 BI	0.2 BI	0.0 BI	
	17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	162.2 G	11.2 G	16.2 G	20.9 G	1.9 BI	0.2 BI	0.0 BI	
	18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	149.2 G	10.6 G	16.4 G	20.1 BI	1.8 BI	0.2 BI	0.0 BI	
	19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	136.3 G	10.3 G	16.1 G	18.8 BI	1.7 BI	0.2 BI	0.0 BI	
	20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	11.4 BI	126.5 G	9.9 G	15.2 G	16.7 BI	1.6 BI	0.1 BI	0.0 BI	
	21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	296.4 BI	116.9 G	9.5 G	13.9 G	15.0 BI	1.5 BI	0.1 BI	0.0 BI	
	22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	873.3 BI	105.9 G	9.4 G	13.1 G	13.7 BI	1.4 BI	0.0 BI	0.0 BI	
	23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2077.3 BI	95.4 G	9.1 G	13.1 G	12.1 BI	1.4 BI	0.0 BI	0.0 BI	
	24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	2223.2 BI	87.1 G	8.6 G	13.0 G	10.8 BI	1.3 BI	0.0 BI	0.0 BI	
	25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1904.0 BI	78.6 G	8.3 G	12.6 G	9.8 BI	1.2 BI	0.0 BI	0.0 BI	
	26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1596.2 BI	71.8 G	7.8 G	13.8 G	8.9 BI	1.1 BI	0.0 BI	0.0 BI	
	27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1322.4 BI	65.6 G	7.3 G	15.0 G	8.0 BI	1.0 BI	0.0 BI	0.0 BI	
	28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1067.1 G	60.4 G	7.2 G	16.0 G	7.2 BI	1.0 BI	0.0 BI	0.0 BI	
	29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	866.4 G	55.8 G	7.0 G	18.1 G	6.5 BI	0.9 BI	0.0 BI	0.0 BI	
	30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	737.1 G	51.1 G	6.7 G	20.6 G	5.9 BI	0.8 BI	0.0 BI	0.0 BI	
	31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	614.0 G	6.4 G	6.4 G	22.0 G	0.8 BI	0.8 BI	0.0 BI	0.0 BI	
	Aggr	0.0	0.0	0.0	0.0	438.4	207.6	18.1	13.5	15.8	2.4	0.2	0.0	
	Min	0.0	0.0	0.0	0.0	0.0	49.2	6.1	6.1	5.7	0.7	0.0	0.0	
	Max	0.0	0.0	0.0	0.0	2437.4	558.3	49.2	22.0	22.0	5.7	0.7	0.0	
	Total	0.0	0.0	0.0	0.0	26953.5	12352.9	1112.4	829.9	939.1	146.8	14.2	0.0	

Date Processed: February 15, 2018 09:19

Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Daily Mean by Year

Identifier: Ublutuoch River

Units: ft³/s
Filter: None

Year: 2016	Aggr:	50.1	Min:	0.0	Max:	1153.1	Total (Acre-ft):	36379.6				
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	333.4 BI	64.6 G	5.6 G	43.9 G	170.1 G	19.1 BI	8.9 BI
2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	314.1 BI	59.4 G	6.1 G	42.9 G	162.6 G	16.6 BI	8.3 BI
3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	309.9 BI	54.8 G	6.6 G	41.1 G	145.2 G	14.4 BI	7.5 BI
4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	299.3 BI	49.4 G	6.7 G	39.9 G	133.5 G	12.6 BI	6.8 BI
5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	288.5 BI	44.3 G	6.2 G	39.8 G	123.9 G	11.2 BI	6.1 BI
6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	285.2 G	40.5 G	5.7 G	40.0 G	117.9 G	10.0 BI	5.5 BI
7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	274.9 G	37.2 G	4.7 G	44.7 G	109.8 G	9.2 BI	4.9 BI
8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	240.0 G	33.8 G	4.0 G	59.7 G	105.0 G	8.6 BI	4.4 BI
9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	215.4 G	31.1 G	3.9 G	68.9 G	95.3 G	8.2 BI	3.9 BI
10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	215.3 G	28.9 G	4.4 G	73.2 G	90.7 G	7.9 BI	3.5 BI
11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	224.6 G	27.3 G	4.4 G	79.5 G	98.7 G	7.4 BI	3.1 BI
12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	218.7 G	26.0 G	4.4 G	79.5 G	97.9 G	7.1 BI	2.7 BI
13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	195.6 G	24.4 G	4.5 G	73.2 G	94.3 BI	6.9 BI	2.4 BI
14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	170.5 G	23.0 G	4.4 G	66.2 G	95.8 BI	6.9 BI	2.1 BI
15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	157.4 G	22.1 G	4.5 G	59.7 G	97.4 BI	6.9 BI	1.8 BI
16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	145.9 G	20.6 G	4.3 G	53.9 G	98.1 BI	7.1 BI	1.5 BI
17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	133.9 G	18.7 G	4.2 G	48.2 G	97.3 BI	7.3 BI	1.3 BI
18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	123.9 G	16.4 G	4.2 G	46.7 G	94.5 BI	7.6 BI	1.0 BI
19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	116.1 G	14.8 G	6.3 G	46.9 G	90.0 BI	8.0 BI	0.8 BI
20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	111.2 G	13.3 G	19.4 G	48.6 G	84.2 BI	8.4 BI	0.7 BI
21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	121.0 G	12.1 G	35.3 G	50.5 G	77.4 BI	8.9 BI	0.5 BI
22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	72.3 BI	135.0 G	10.7 G	45.3 G	51.6 G	70.1 BI	9.4 BI	0.4 BI
23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	362.4 BI	133.2 G	9.6 G	53.5 G	91.7 G	62.8 BI	9.8 BI	0.3 BI
24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	858.2 BI	126.9 G	8.5 G	55.2 G	211.7 G	55.8 BI	10.2 BI	0.2 BI
25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	891.8 BI	114.5 G	7.2 G	56.4 G	251.9 G	49.4 BI	10.5 BI	0.1 BI
26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	752.0 BI	101.8 G	6.0 G	57.1 G	241.8 G	43.6 BI	10.6 BI	0.1 BI
27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	707.8 BI	91.6 G	5.4 G	56.1 G	213.0 G	38.3 BI	10.6 BI	0.1 BI
28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	647.1 BI	83.2 G	6.2 G	53.0 G	184.6 G	33.5 BI	10.4 BI	0.0 BI
29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	558.8 BI	76.7 G	6.1 G	50.6 G	170.0 G	29.2 BI	10.0 BI	0.0 BI
30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	461.1 BI	70.5 G	5.8 G	48.1 G	168.3 G	25.4 BI	9.5 BI	0.0 BI
31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	385.4 BI	55.5 G	5.5 G	45.7 G	117.9 G	22.0 BI	9.7 BI	2.5 BI
Aggr	0.0	0.0	0.0	0.0	183.8	180.9	23.7	21.6	91.0	87.4	9.7	2.5
Min	0.0	0.0	0.0	0.0	0.0	67.2	5.0	3.6	39.5	20.5	6.9	0.0
Max	0.0	0.0	0.0	0.0	1153.1	351.2	67.2	57.7	254.7	171.1	20.5	9.2
Total	0.0	0.0	0.0	0.0	11299.7	10767.0	1455.1	1330.1	5417.7	5375.2	578.1	156.7

Date Processed: February 15, 2018 09:19
 Daily mean flows record grades: BI - Ice Conditions affect record
 EF - Estimated Data with fair confidence
 F - Fair Data
 G - Good Data
 P - Poor Data
 UN - Unspecified



Daily Mean by Year

Identifier: Ublutuoch River

Units: ft³/s
Filter: None

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Max:	1377.3	Oct	Nov	Dec	Total (Acre-ft):
Year: 2017														55861.9
Aggr:	77.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1321.5 BI	47.3 G	6.5 G	146.8 G	144.4 G	68.3 BI	1.1 BI		
2	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1192.3 BI	42.6 G	6.4 G	142.1 G	166.9 G	62.6 BI	0.9 BI		
3	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1007.4 BI	38.9 G	6.3 G	140.1 G	178.7 G	57.0 BI	0.5 BI		
4	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	936.7 BI	35.7 G	6.3 G	136.9 G	183.6 G	52.0 BI	0.2 BI		
5	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	858.9 BI	33.5 G	6.3 G	133.9 G	179.7 G	47.9 BI	0.0 BI		
6	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	775.9 BI	31.5 G	6.3 G	131.8 G	180.6 G	43.9 BI	0.0 BI		
7	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	686.2 G	30.1 G	6.3 G	129.2 G	187.4 G	40.8 BI	0.0 BI		
8	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	553.1 G	28.0 G	6.6 G	124.5 G	181.8 G	36.5 BI	0.0 BI		
9	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	449.5 G	25.7 G	7.0 G	120.1 G	176.4 G	32.4 BI	0.0 BI		
10	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	380.0 G	23.8 G	7.7 G	115.4 G	158.4 G	29.1 BI	0.0 BI		
11	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	325.0 G	21.8 G	9.1 G	110.4 G	163.1 G	26.3 BI	0.0 BI		
12	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	282.7 G	20.3 G	11.8 G	105.4 G	166.2 G	23.8 BI	0.0 BI		
13	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	248.4 G	18.1 G	15.4 G	100.4 G	161.7 G	22.3 BI	0.0 BI		
14	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	218.5 G	16.1 G	27.0 G	95.4 G	145.8 G	20.8 BI	0.0 BI		
15	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	194.6 G	14.4 G	53.6 G	90.4 G	143.5 G	18.5 BI	0.0 BI		
16	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	177.0 G	12.9 G	84.8 G	85.4 G	134.6 BI	17.3 BI	0.0 BI		
17	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	161.5 G	11.7 G	101.2 G	80.4 G	136.9 BI	14.8 BI	0.0 BI		
18	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	149.0 G	10.9 G	114.9 G	75.4 G	152.6 BI	13.0 BI	0.0 BI		
19	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	135.7 G	10.1 G	122.8 G	70.4 G	162.5 BI	11.9 BI	0.0 BI		
20	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	123.3 G	9.4 G	124.2 G	65.4 G	164.6 BI	9.9 BI	0.0 BI		
21	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	114.6 G	8.9 G	118.6 G	60.4 G	163.5 BI	8.1 BI	0.0 BI		
22	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	106.8 G	8.4 G	110.1 G	55.4 G	159.9 BI	7.6 BI	0.0 BI		
23	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	100.2 G	8.0 G	124.0 G	50.4 G	152.3 BI	6.4 BI	0.0 BI		
24	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	92.9 G	7.8 G	168.0 G	45.4 G	144.8 BI	5.5 BI	0.0 BI		
25	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	84.0 G	7.5 G	172.7 G	40.4 G	135.9 BI	4.9 BI	0.0 BI		
26	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	76.6 G	7.2 G	174.5 G	35.4 G	125.9 BI	4.1 BI	0.0 BI		
27	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	71.4 G	6.8 G	174.1 G	30.4 G	117.1 BI	3.4 BI	0.0 BI		
28	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	65.2 G	6.6 G	169.5 G	25.4 G	106.9 BI	2.6 BI	0.0 BI		
29	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	58.8 G	6.6 G	167.3 G	20.4 G	97.1 BI	1.8 BI	0.0 BI		
30	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	52.6 G	6.6 G	159.2 G	15.4 G	86.6 BI	1.3 BI	0.0 BI		
31	0.0 BI	0.0 BI	0.0 BI	0.0 BI	0.0 BI	1338.5 BI	6.6 G	151.8 G	141.9 G	77.5 BI	0.0 BI	0.0 BI		
Aggr	0.0	0.0	0.0	0.0	92.2	366.7	18.2	78.1	199.5	149.6	23.2	0.1		
Min	0.0	0.0	0.0	0.0	0.0	49.7	6.6	6.3	128.4	72.4	1.2	0.0		
Max	0.0	0.0	0.0	0.0	1377.3	1356.7	49.7	178.2	274.5	191.5	72.4	1.2		
Total	0.0	0.0	0.0	0.0	5670.3	21818.9	1117.9	4800.6	11873.4	9197.4	1378.2	5.3		

Date Processed: February 15, 2018 09:19 Daily mean flows record grades: BI - Ice Conditions affect record

EF - Estimated Data with fair confidence

F - Fair Data

G - Good Data

P - Poor Data

UN - Unspecified



Appendix E

Mean Monthly Air Temperatures

Fish Creek

Ikpikpuk River

Judy Creek

Otuk Creek

Prince Creek

Ublutuoch River

Table E1. Mean monthly temperatures (°C) – Fish Creek station.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
(°C)												
2003							9.2	4.5	0.3	-4.3	-18.2	-23.1
2004	-26.3	-33.9	-28.3	-17.9	-4.4	6.9	10.0	9.0	0.6	-7.6	-18.7	-24.9
2005	-24.7	-27.1	-23.3	-17.0	-4.5	3.2	6.0	7.3	1.3	-7.8	-24.2	-21.5
2006	-27.2	-23.0	-29.1	-20.1	-3.7	7.7	8.8	4.3	3.7	-4.7	-18.6	-20.0
2007	-27.8	-26.3	-29.5	-14.1	-7.8	4.7	8.9	9.0	4.5	-2.7	-10.0	-17.5
2008	-30.2	-28.7	-29.6	-13.8	-4.0	7.3	9.4	4.6	0.7	-8.0	-17.3	-19.7
2009	-28.4	-27.6	-30.2	-15.6	-2.8	4.7	9.7	6.7	1.1	-4.9	-20.4	-21.1
2010	-29.3	-25.3	-25.5	-12.4	-6.1	4.3	9.1	8.0	3.0	-5.7	-11.4	-27.1
2011	-26.0	-22.7	-23.9	-20.1	-5.4	3.5	9.0	7.0	2.4	-5.4	-21.7	-27.0
2012	-33.5	-26.1	-33.1	-15.1	-5.4	6.1	11.8	10.0	2.8	-3.8	-17.9	-27.7
2013	-27.2	-32.0	-24.2	-19.8	-5.7	7.2	10.7	7.1	-0.1	-5.3	-16.4	-21.4
2014	-23.4	-25.8	-23.0	-16.0	-1.6	3.9	7.6	5.5	1.3	-5.1	-14.1	-22.6
2015	-25.1	-21.8	-23.9	-13.7	-0.2	9.3	7.6	5.4	-0.6	-6.4	-17.1	-25.9
2016	-19.7	-20.6	-22.4	-11.3	-0.6	6.3	10.4	6.6	1.8	-3.4	-12.8	-22.5
2017	-21.1	-24.8	-23.4	-14.9	-2.6	4.6	11.7	6.8	2.4	-5.5	-10.7	-15.0

Table E2. Mean monthly temperatures (°C) – Ikpikuk River station. Months left blank indicate missing data due to sensor failure.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
(°C)												
2003										-4.8	-17.2	-25.6
2004	-27.7	-34.8	-28.0	-17.8	-2.9	10.3	12.8	10.2	0.4	-7.8	-18.9	-20.4
2005	-24.1	-27.3	-23.7	-16.9	-4.3	5.4	8.5	9.4	1.9	-7.9	-24.2	-23.5
2006	-27.7	-22.3	-29.6	-20.3	-3.7	7.4	10.6	5.8	4.3	-4.0	-18.2	-20.0
2007	-28.1	-26.5	-29.3	-13.9	-7.9	8.7	12.6	10.2	3.5	-9.4	-14.7	-22.8
2008	-30.1	-29.1	-30.3	-12.5	-2.5	9.9	11.7			-8.3	-18.1	-19.0
2009	-27.8	-26.7	-30.9	-14.8	-0.8	7.8	12.7	7.3	1.2	-6.0	-22.4	-21.8
2010	-29.3	-26.5	-27.1	-12.3	-5.4	6.7	11.1	9.6	4.5	-8.2	-11.4	-26.0
2011	-24.3	-20.1	-21.1	-20.1	-4.8	6.3	11.0	8.1	2.7	-6.3	-23.2	-26.2
2012	-33.0	-25.3	-34.3	-16.8	-5.0	8.3	13.3	10.1	2.2	-3.5	-18.7	-27.3
2013	-27.8	-33.0	-24.6	-19.6	-4.5	10.4	12.6	7.8	-0.4	-5.8	-16.1	-21.2
2014	-23.3	-24.3	-22.7	-14.3	-0.9	5.8	9.7	6.4	1.4	-6.1	-15.4	-23.3
2015	-25.0	-21.3	-24.3	-14.9	1.1	10.9	9.8	6.1	-0.8	-7.6	-17.5	-27.7
2016	-21.2	-24.0	-24.5	-12.5	1.0	8.2	12.7	7.4	1.5	-3.5	-14.9	-22.8
2017	-21.6	-24.8	-22.5	-17.1	-2.6	7.4	13.5	7.2	2.3	-6.0	-10.5	-15.0

Table E3. Mean monthly temperatures (°C) – Judy Creek station.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
(°C)												
2005									1.0	-7.7	-24.6	-21.9
2006	-27.5	-23.0	-29.6	-20.3	-3.5	8.0	9.1	4.4	3.8	-4.1	-19.0	-20.2
2007	-28.2	-26.8	-29.8	-14.0	-7.4	5.3	9.3	8.2	2.8	-7.3	-12.9	-22.1
2008	-30.7	-29.3	-30.3	-13.2	-3.2	7.8	9.8	4.7	0.6	-8.2	-17.7	-20.0
2009	-28.7	-27.8	-30.9	-15.6	-2.5	5.1	10.1	6.8	1.2	-5.2	-20.8	-21.3
2010	-29.6	-25.6	-25.7	-12.3	-6.0	3.8	9.6	8.5	3.5	-6.0	-11.3	-27.8
2011	-26.3	-22.7	-24.0	-20.4	-5.3	4.0	9.7	7.2	2.3	-5.7	-22.3	-27.3
2012	-34.0	-26.5	-33.8	-15.8	-5.3	6.6	12.0	10.0	2.9	-4.0	-18.3	-28.2
2013	-27.6	-32.5	-24.5	-20.1	-5.6	7.7	11.0	7.3	-0.1	-5.5	-16.5	-21.5
2014	-23.5	-25.8	-23.1	-15.9	-1.3	4.3	8.0	5.7	1.1	-5.5	-14.8	-23.1
2015	-25.9	-22.4	-24.3	-14.0	-0.1	9.6	7.8	5.4	-0.8	-6.9	-17.7	-26.5
2016	-20.4	-21.5	-22.8	-11.6	-0.5	6.4	10.5	6.6	1.6	-3.8	-13.4	-23.2
2017	-21.7	-25.3	-23.6	-15.4	-2.6	4.9	11.9	6.7	2.2	-5.9	-11.1	-15.2

Table E4. Mean monthly temperatures (°C) – Otuk Creek station. Months left blank indicate missing data due to sensor failure.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
(°C)												
2008										-12.5	-21.0	-18.0
2009	-25.6	-21.4	-27.8	-11.7	0.3	9.1	13.0	6.8	-0.9	-8.8	-24.7	-17.5
2010	-27.8	-25.6	-25.6	-11.8	-3.7	9.8	10.4	9.5	3.3	-12.0	-13.4	-25.0
2011	-19.9	-16.7	-16.4	-18.2	-1.0	8.2	11.0	6.9	0.9	-9.7	-24.6	-24.9
2012	-32.2	-22.4	-34.5	-12.9	-3.7	10.3	12.2	8.7	0.5	-6.1	-21.9	-27.5
2013	-26.6	-32.2	-19.6	-19.4	-5.4	10.8	11.7	5.9	-1.8	-5.3	-16.9	-20.0
2014	-18.8	-22.3	-19.5	-12.1	-0.1	6.7	9.3	7.3	0.4	-8.7	-14.6	-23.6
2015	-22.1	-17.4	-21.3		5.2	10.0	10.1	5.9	-2.9	-9.3	-16.4	-25.9
2016	-19.4	-19.2	-24.1	-13.2	1.1	5.1	8.7	8.0	0.0	-4.3	-18.2	-20.2
2017	-19.7	-21.3	-22.5	-13.6	-1.0	8.3	13.5	8.4	1.0	-7.7	-11.9	-14.5

Table E5. Mean monthly temperatures (°C) – Prince Creek station. Months left blank indicate missing data due to sensor failure.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
(°C)												
2009				-7.5	0.7	9.6	13.5	7.5	1.2	-6.4		
2010					2.0	9.2	11.7	9.6	4.2	-10.9	-12.2	-28.5
2011	-25.9	-21.9	-22.2	-20.2	-2.9	8.9	12.2	8.7	2.7	-7.1	-25.1	-27.3
2012	-34.2	-26.4	-35.0	-16.1	-3.5	5.4	14.1	11.8	0.5	-4.9	-21.4	-30.4
2013	-29.9	-34.8	-25.6	-26.8	3.7	11.1	13.1	8.3	-0.1	-6.9	-18.7	-23.5
2014	-24.6	-25.9	-23.4	-14.1	0.2	7.8	10.8	7.5	1.4	-7.0	-19.6	-25.1
2015	-25.6	-22.6	-24.4	-14.9	2.5	12.2	10.9	7.1	-0.8	-8.3	-20.3	-30.0
2016	-23.3	-27.8	-24.5	-12.7	2.6	9.5	13.8	8.6	1.4	-5.3	-17.3	-25.2
2017	-24.0	-24.8	-22.9	-17.1	-1.0	9.1	15.0	8.2	2.5	-7.8	-13.4	-16.6

Table E6. Mean monthly temperatures (°C) – Ublutuoch River station.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
(°C)												
2005						5.3	6.4	7.7	1.6	-7.4	-24.7	-21.5
2006	-27.2	-22.4	-29.2	-19.9	-3.1	8.4	9.5	4.7	4.0	-4.0	-18.9	-20.2
2007	-28.0	-26.7	-30.0	-13.7	-7.0	5.1	9.2	8.0	2.8	-7.7	-12.9	-22.4
2008	-31.0	-29.6	-30.8	-13.2	-3.3	7.7	9.8	4.6	0.5	-8.4	-17.8	-20.3
2009	-28.8	-27.9	-31.3	-15.6	-2.7	4.9	9.9	6.8	1.1	-5.5	-21.1	-21.3
2010	-29.7	-25.7	-25.6	-12.4	-6.1	3.8	9.7	8.6	3.3	-5.7	-11.3	-27.9
2011	-26.5	-22.6	-23.7	-20.3	-5.0	4.1	9.6	7.1	2.2	-5.7	-22.9	-27.7
2012	-34.1	-26.5	-34.5	-15.9	-5.2	6.5	11.8	9.2	2.9	-4.2	-18.5	-28.6
2013	-28.0	-32.6	-24.4	-19.9	-5.4	7.7	10.7	7.4	-0.1	-5.6	-16.5	-21.8
2014	-23.5	-25.9	-23.2	-15.5	-1.3	4.3	7.9	5.7	1.0	-5.6	-14.9	-23.5
2015	-26.2	-22.6	-24.5	-13.9	-0.1	9.6	7.7	5.3	-0.8	-6.6	-18.0	-27.1
2016	-20.5	-21.3	-23.0	-11.3	-0.5	3.4	7.3	6.3	1.1	-4.1	-13.3	-23.5
2017	-22.2	-25.5	-23.6	-15.3	-2.6	4.5	11.8	6.5	2.2	-6.1	-11.4	-15.3

Appendix F

Wind Roses

**Fish Creek
Ikpikpuk River
Otuk Creek**

Wind Roses, Cold Season

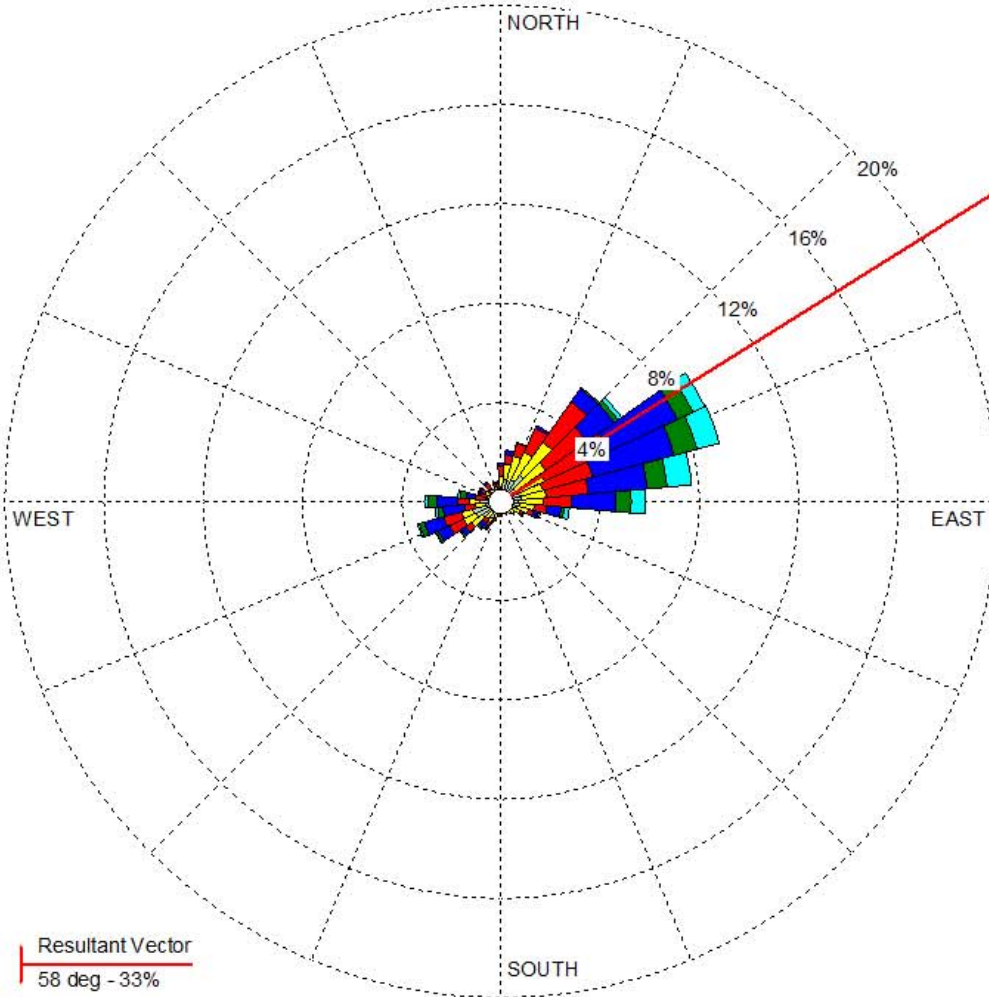
Fish Creek, Alaska

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Fish Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



Resultant Vector
58 deg - 33%

WIND SPEED (m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10

Calms: 5.65%

COMMENTS:

Total # of Hours: 5808
Data Availability: 92.98%
Missing Records: 408

DATA PERIOD:

**Start Date: 9/15/2004 - 00:00
End Date: 5/14/2005 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

5.65%

TOTAL COUNT:

5400 hrs.

AVG. WIND SPEED:

4.26 m/s

DATE:

8/21/2018

RECORD TYPE:

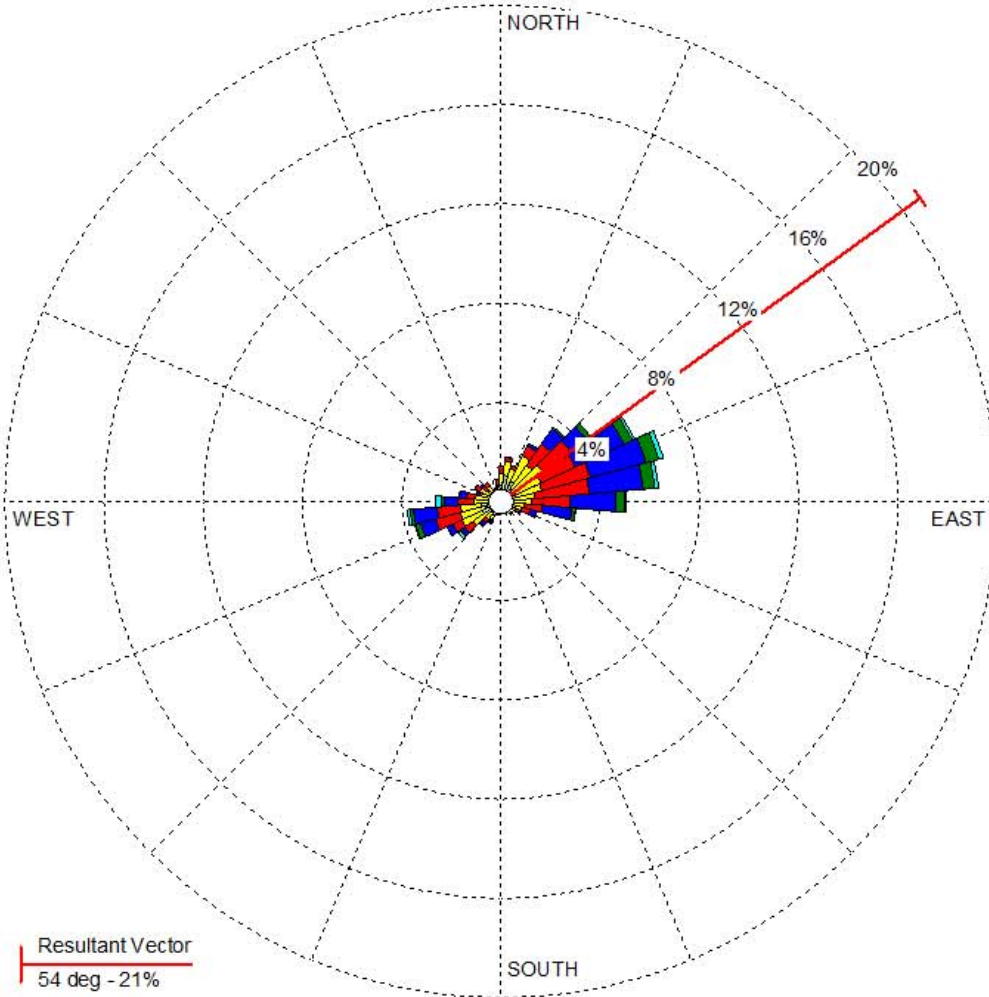
Winter 2004

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Fish Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10
- Calms: 8.13%

Resultant Vector
54 deg - 21%

COMMENTS:

Total # of Hours: 5808
Data Availability: 82.08%
Missing Records: 1044

DATA PERIOD:

**Start Date: 9/15/2005 - 00:00
End Date: 5/14/2006 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

8.13%

TOTAL COUNT:

4764 hrs.

AVG. WIND SPEED:

3.70 m/s

DATE:

8/21/2018

RECORD TYPE:

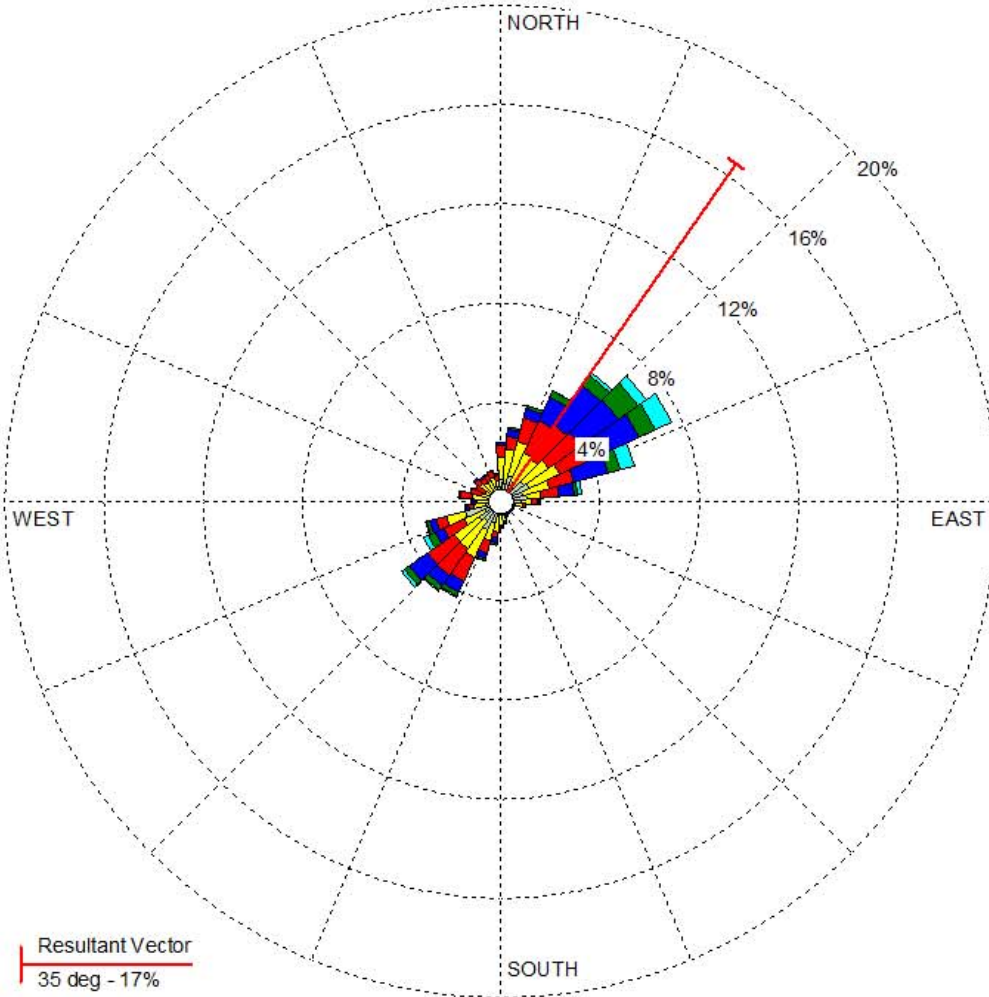
Winter 2005

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Fish Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



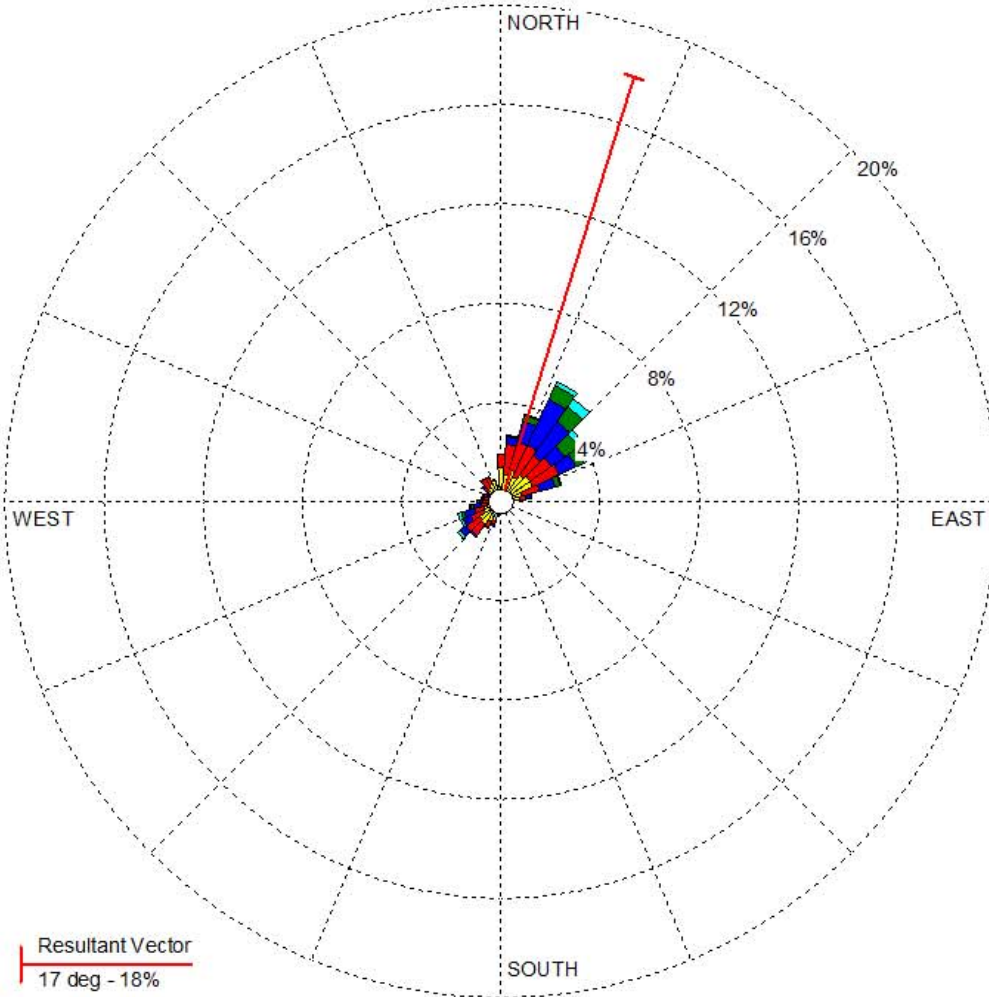
<p>COMMENTS:</p> <p>Total # of Hours: 5808 Data Availability: 100% Missing Records: 0</p>	<p>DATA PERIOD:</p> <p>Start Date: 9/15/2006 - 00:00 End Date: 5/14/2007 - 23:00</p>	<p>COMPANY NAME:</p> <p>Water and Environmental Research Center</p>		
	<p>CALM WINDS:</p> <p>9.92%</p>	<p>MODELER:</p> <p>Eric N. LaMesjerant</p>		
	<p>AVG. WIND SPEED:</p> <p>3.62 m/s</p>	<p>TOTAL COUNT:</p> <p>5808 hrs.</p>		

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Fish Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



**WIND SPEED
(m/s)**

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10

Calms: 4.25%

COMMENTS:

Total # of Hours: 5832
Data Availability: 57.75%
Missing Records: 2464

DATA PERIOD:

**Start Date: 9/15/2007 - 00:00
End Date: 5/14/2008 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

4.25%

TOTAL COUNT:

3368 hrs.

AVG. WIND SPEED:

4.03 m/s

DATE:

8/21/2018

RECORD TYPE:

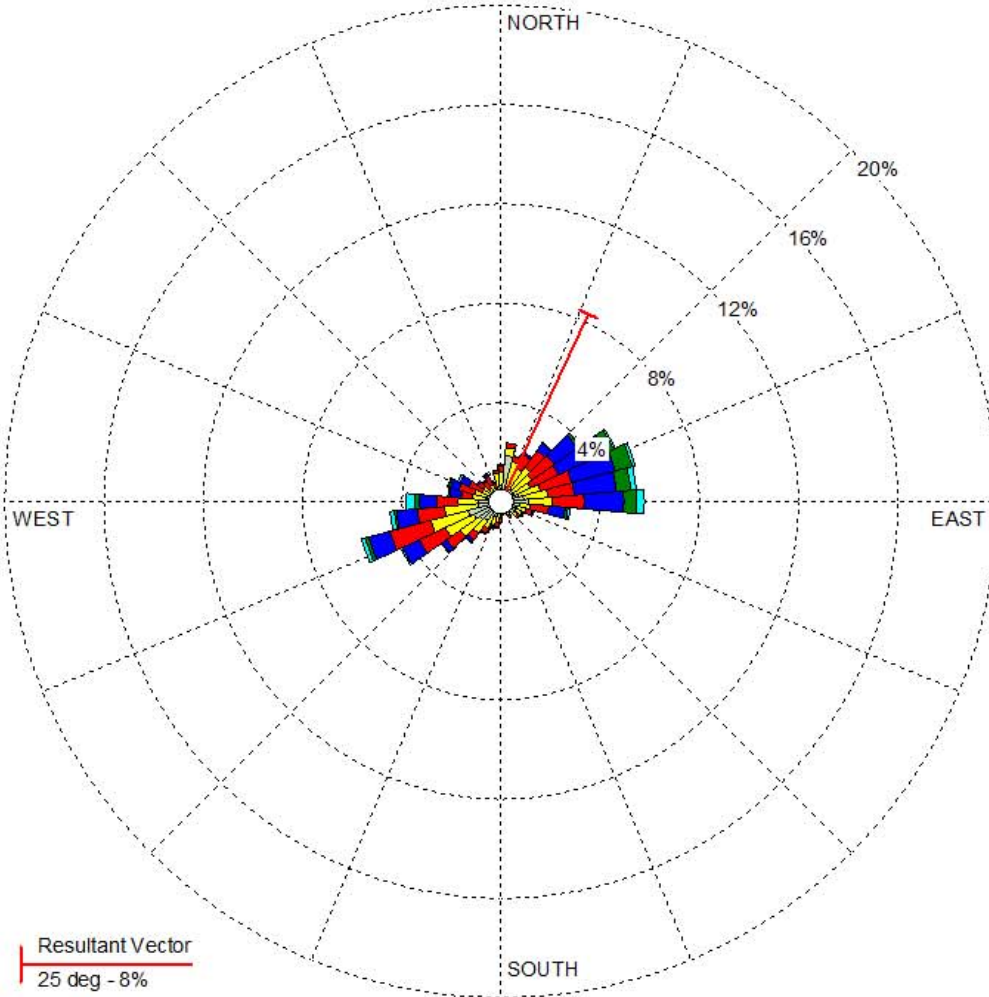
Winter 2007

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Fish Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 5.79%

COMMENTS:

Total # of Hours: 5808
Data Availability: 91.24%
Missing Records: 509

DATA PERIOD:

**Start Date: 9/15/2008 - 00:00
End Date: 5/14/2009 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

5.79%

TOTAL COUNT:

5299 hrs.

AVG. WIND SPEED:

3.67 m/s

DATE:

8/21/2018

RECORD TYPE:

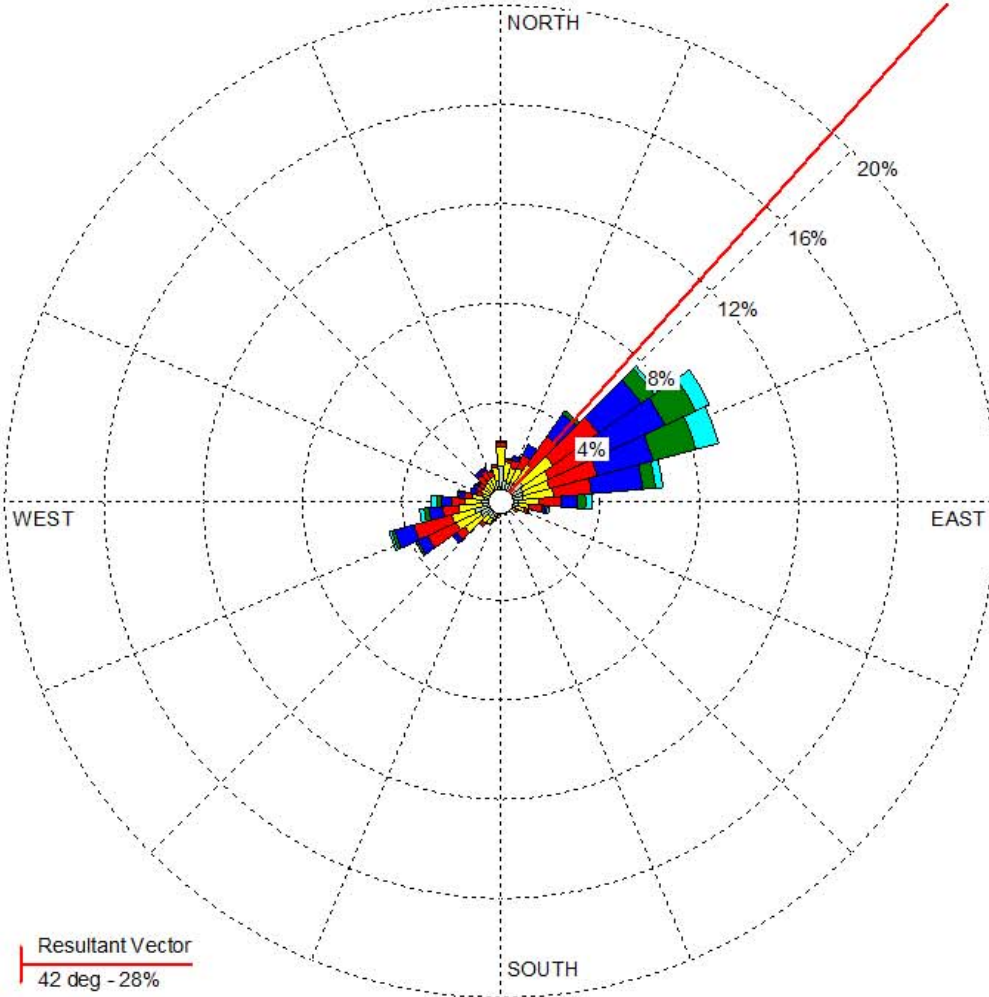
Winter 2008

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Fish Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10

Calms: 7.77%

Resultant Vector
42 deg - 28%

COMMENTS:

Total # of Hours: 5808
Data Availability: 95.87%
Missing Records: 240

DATA PERIOD:

**Start Date: 9/15/2009 - 00:00
End Date: 5/14/2010 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

7.77%

TOTAL COUNT:

5568 hrs.

AVG. WIND SPEED:

3.91 m/s

DATE:

8/21/2018

RECORD TYPE:

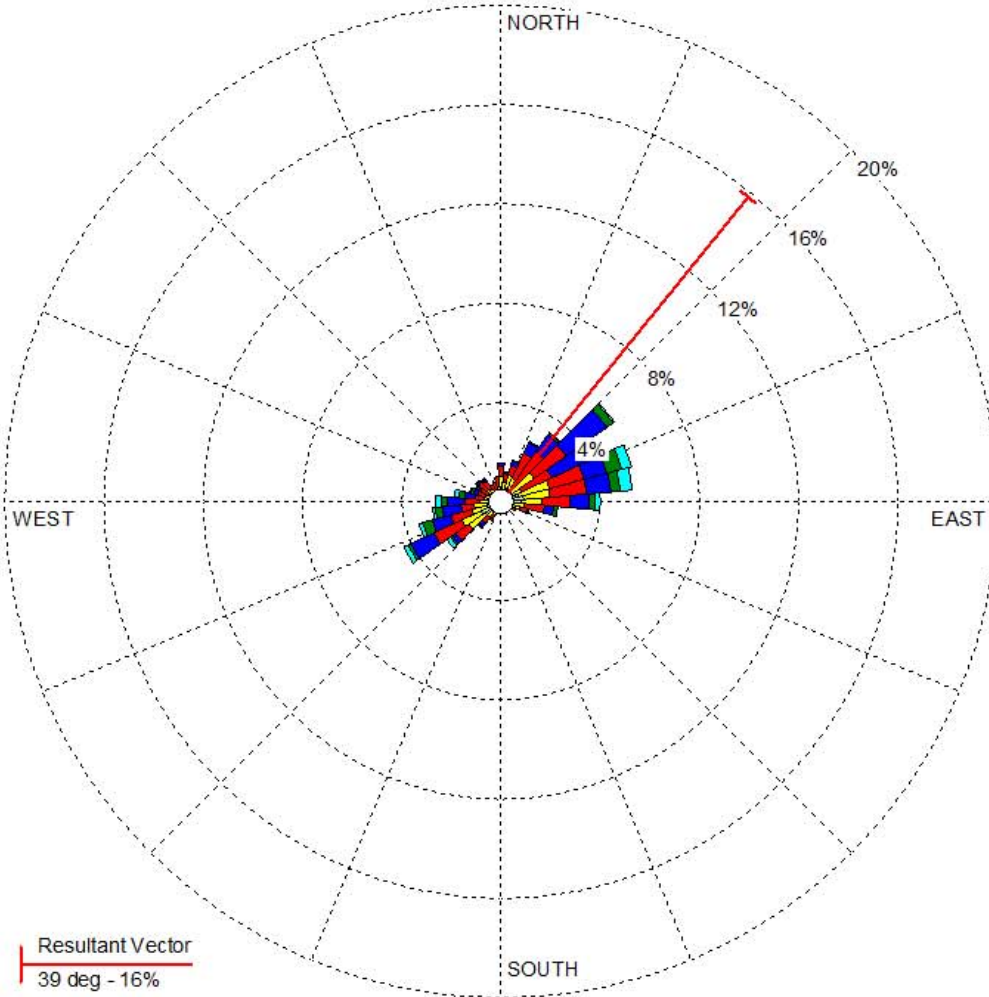
Winter 2009

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Fish Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 4.22%

Resultant Vector
39 deg - 16%

COMMENTS:

Total # of Hours: 5808
Data Availability: 74.36%
Missing Records: 1489

DATA PERIOD:

**Start Date: 9/15/2010 - 00:00
End Date: 5/14/2011 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

4.22%

TOTAL COUNT:

4319 hrs.

AVG. WIND SPEED:

4.34 m/s

DATE:

8/21/2018

RECORD TYPE:

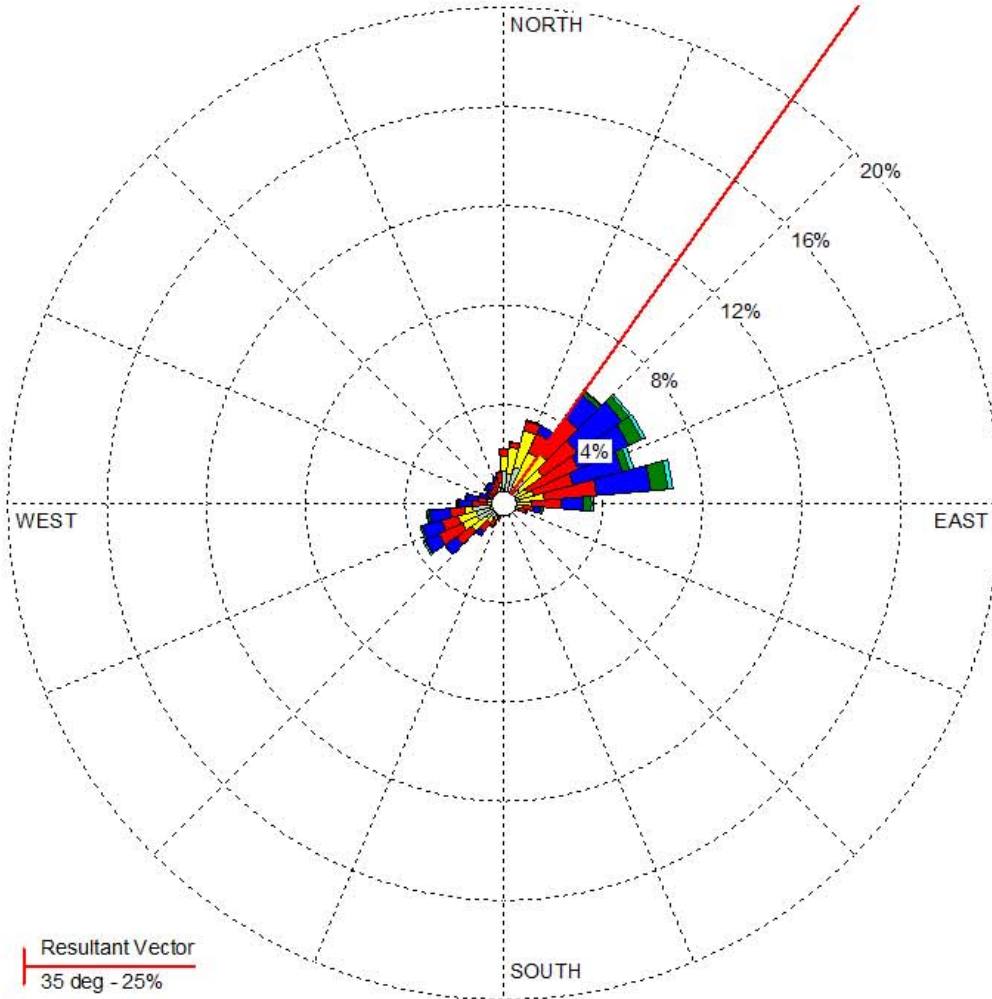
Winter 2010

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Fish Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10
- Calms: 7.39%

COMMENTS:

Total # of Hours: 5832
Data Availability: 85.68%
Missing Records: 835

DATA PERIOD:

**Start Date: 9/15/2011 - 00:00
End Date: 5/14/2012 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

7.39%

TOTAL COUNT:

4997 hrs.

AVG. WIND SPEED:

3.76 m/s

DATE:

8/21/2018

RECORD TYPE:

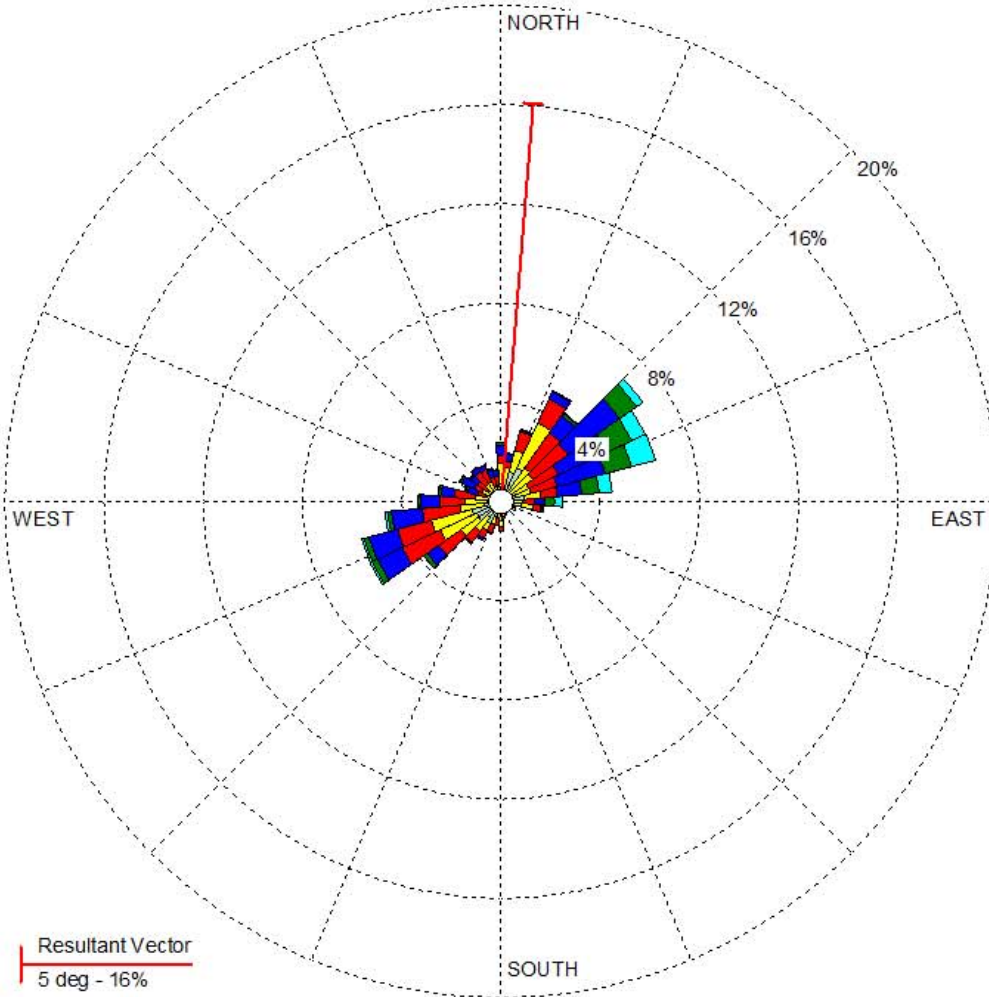
Winter 2011

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Fish Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 5.29%

Resultant Vector
5 deg - 16%

COMMENTS:

Total # of Hours: 5808
Data Availability: 98.71%
Missing Records: 75

DATA PERIOD:

**Start Date: 9/15/2012 - 00:00
End Date: 5/14/2013 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

5.29%

TOTAL COUNT:

5733 hrs.

AVG. WIND SPEED:

4.26 m/s

DATE:

8/21/2018

RECORD TYPE:

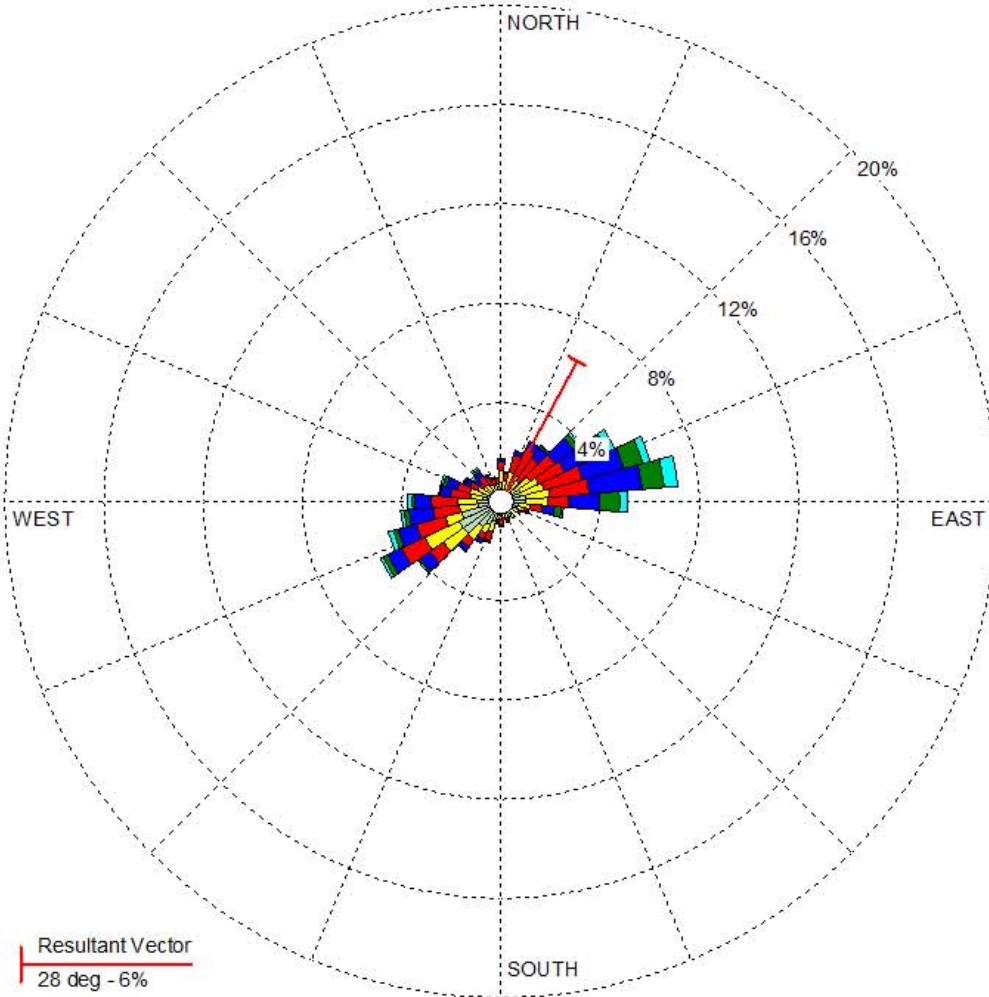
Winter 2011

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Fish Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



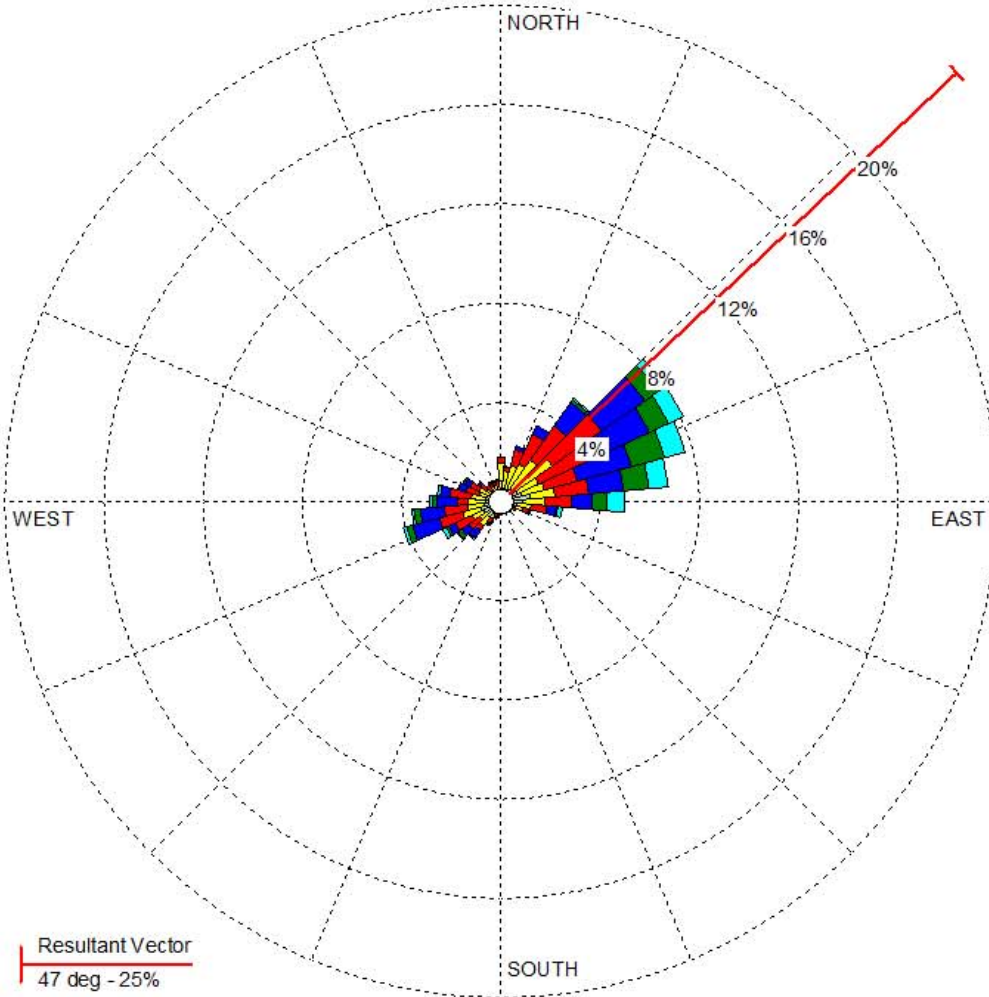
<p>COMMENTS:</p> <p>Total # of Hours: 5808 Data Availability: 100% Missing Records: 0</p>	<p>DATA PERIOD:</p> <p>Start Date: 9/15/2013 - 00:00 End Date: 5/14/2014 - 23:00</p>	<p>COMPANY NAME:</p> <p>Water and Environmental Research Center</p>	
	<p>CALM WINDS:</p> <p>10.54%</p>	<p>MODELER:</p> <p>Eric N. LaMesjerant</p>	
	<p>AVG. WIND SPEED:</p> <p>3.69 m/s</p>	<p>TOTAL COUNT:</p> <p>5808 hrs.</p>	

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Fish Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED (m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10

Calms: 7.06%

COMMENTS:

Total # of Hours: 5808
Data Availability: 94.63%
Missing Records: 312

DATA PERIOD:

**Start Date: 9/15/2014 - 00:00
End Date: 5/14/2015 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

7.06%

TOTAL COUNT:

5496 hrs.

AVG. WIND SPEED:

4.32 m/s

DATE:

8/21/2018

RECORD TYPE:

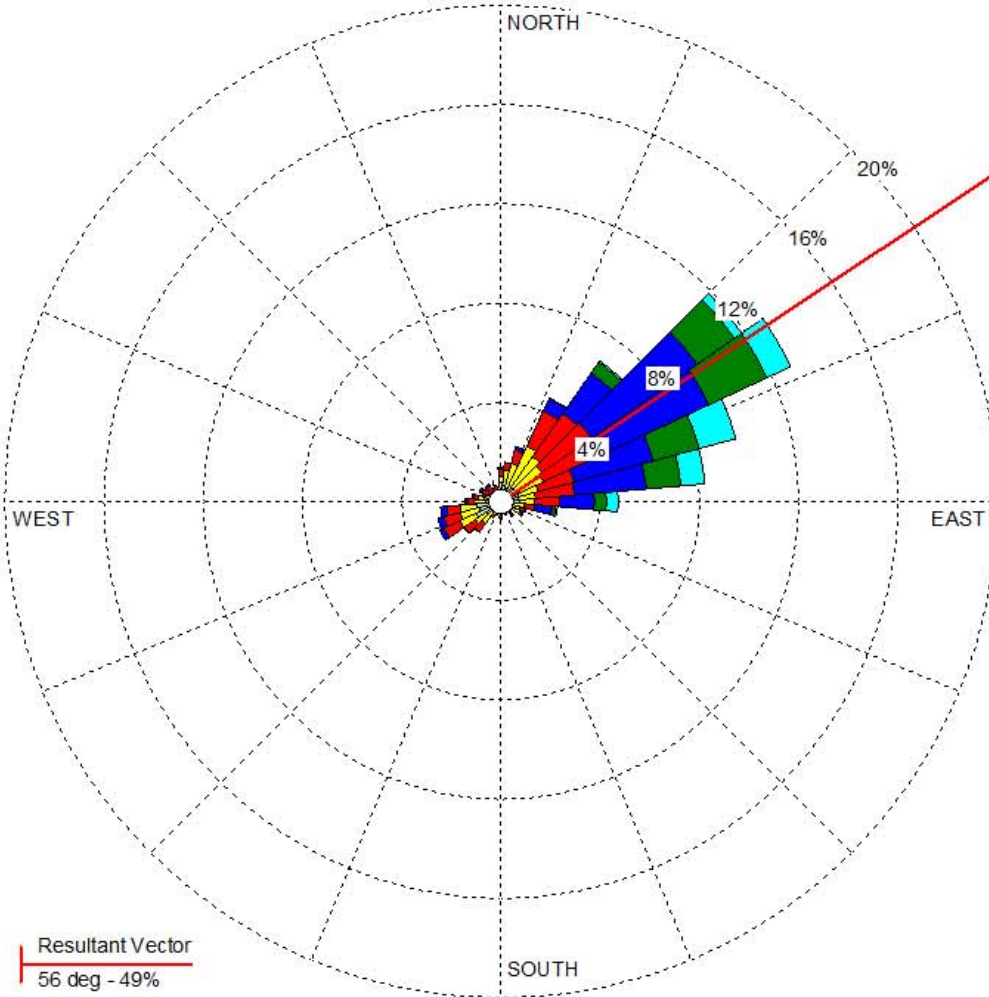
Winter 2014

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Fish Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



Resultant Vector
56 deg - 49%

WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 7.22%

COMMENTS:

Total # of Hours: 5832
Data Availability: 100%
Missing Records: 0

DATA PERIOD:

**Start Date: 9/15/2015 - 00:00
End Date: 5/14/2016 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

7.22%

TOTAL COUNT:

5832 hrs.

AVG. WIND SPEED:

4.69 m/s

DATE:

8/21/2018

RECORD TYPE:

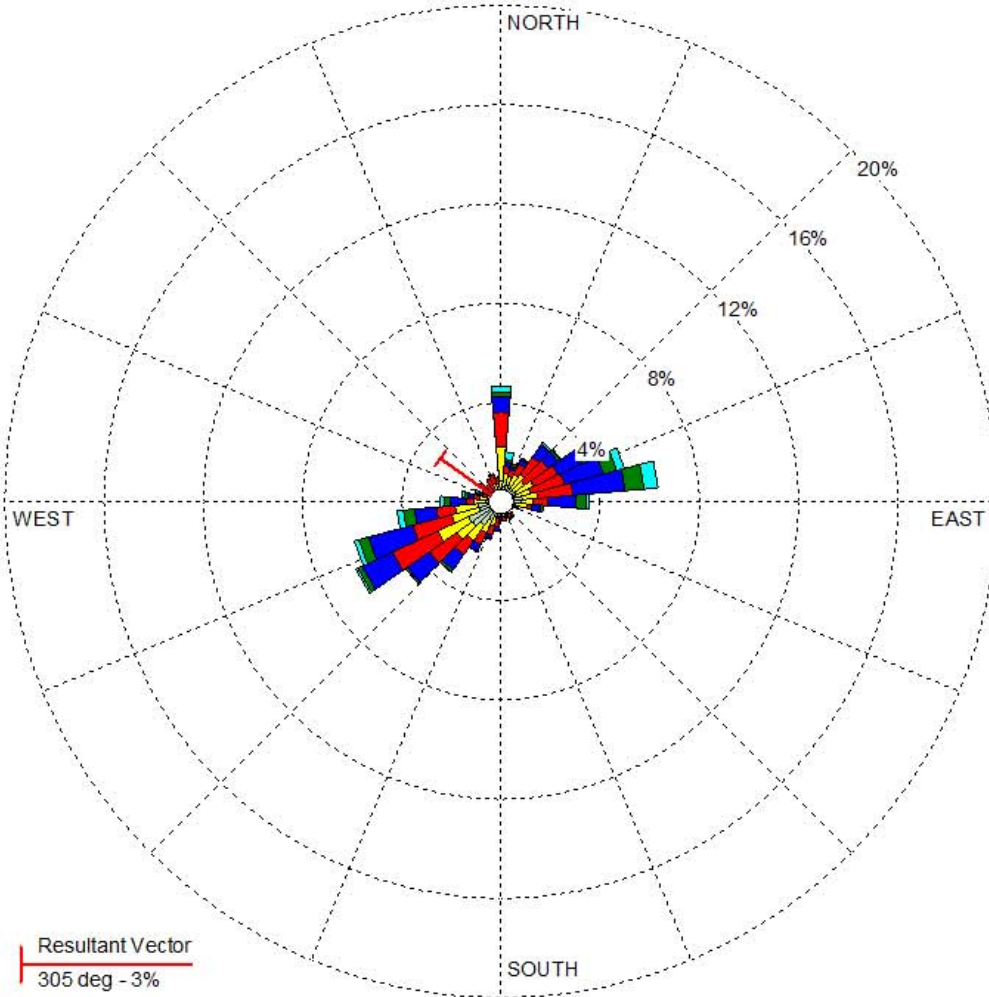
Winter 2015

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Fish Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 9.28%

COMMENTS:

Total # of Hours: 5808
Data Availability: 92.82%
Missing Records: 417

DATA PERIOD:

**Start Date: 9/15/2016 - 00:00
End Date: 5/14/2017 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

9.28%

TOTAL COUNT:

5391 hrs.

AVG. WIND SPEED:

3.92 m/s

DATE:

8/21/2018

RECORD TYPE:

Winter 2016

Wind Roses, Warm Season

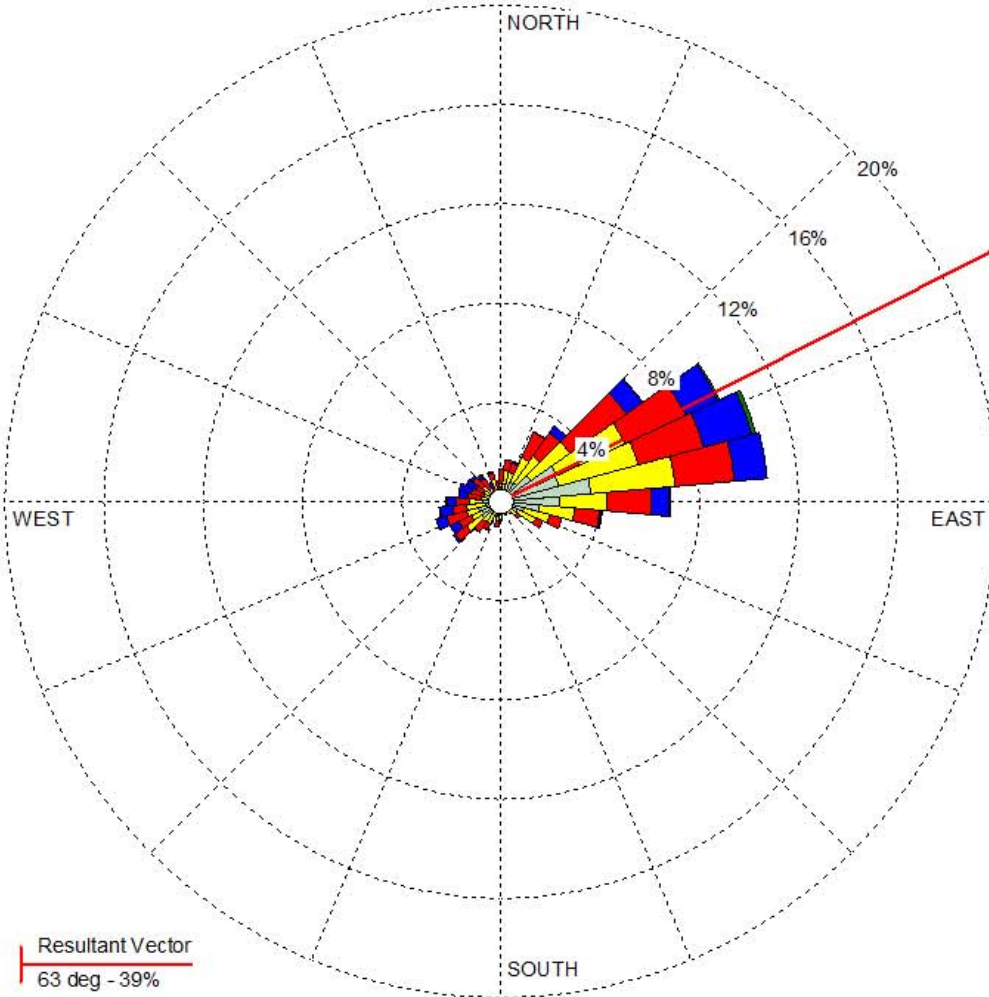
Fish Creek, Alaska

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Fish Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 1.69%

Resultant Vector
63 deg - 39%

COMMENTS:

Total # of Hours: 2952
Data Availability: 97.80%
Missing Records: 65

DATA PERIOD:

**Start Date: 5/15/2004 - 00:00
End Date: 9/14/2004 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

1.69%

TOTAL COUNT:

2887 hrs.

AVG. WIND SPEED:

3.19 m/s

DATE:

8/21/2018

RECORD TYPE:

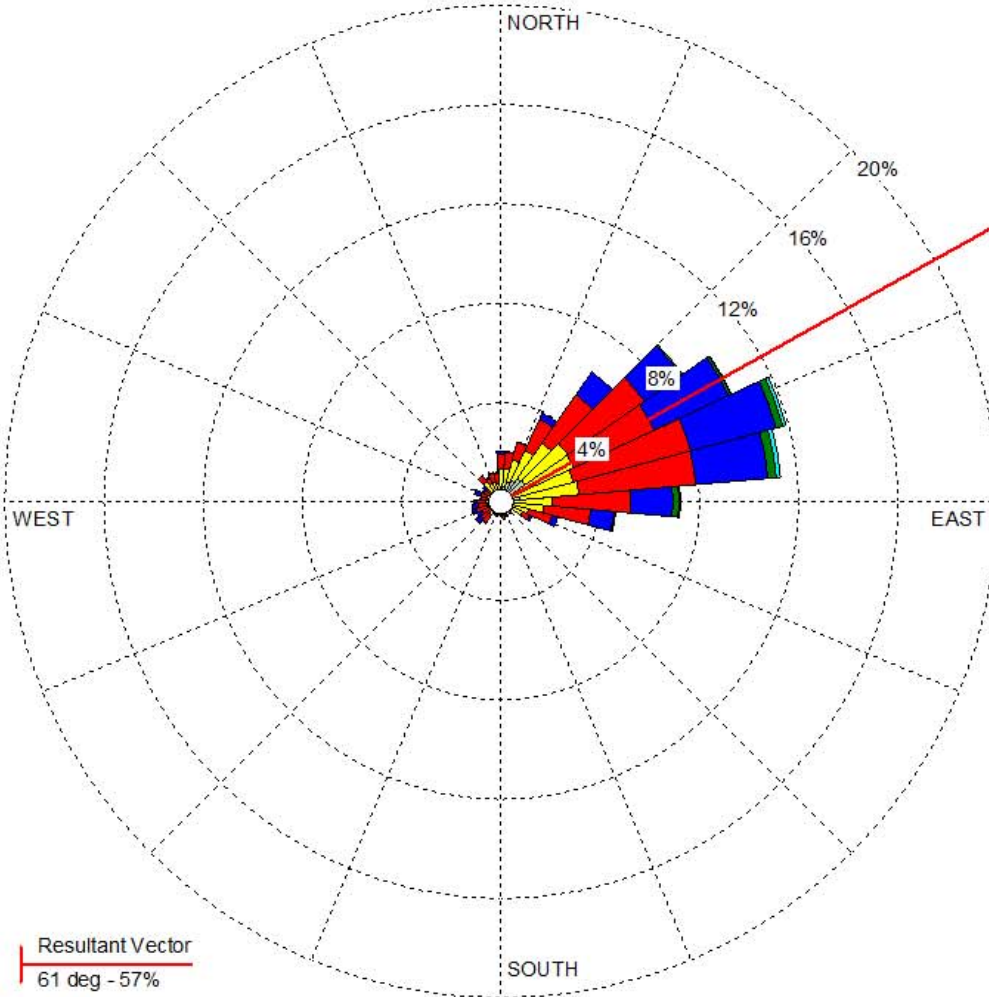
Summer 2004

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Fish Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10
- Calms: 1.25%

Resultant Vector
61 deg - 57%

COMMENTS:

Total # of Hours: 2952
Data Availability: 96.65%
Missing Records: 99

DATA PERIOD:

**Start Date: 5/15/2005 - 00:00
End Date: 9/14/2005 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

1.25%

TOTAL COUNT:

2853 hrs.

AVG. WIND SPEED:

4.04 m/s

DATE:

8/21/2018

RECORD TYPE:

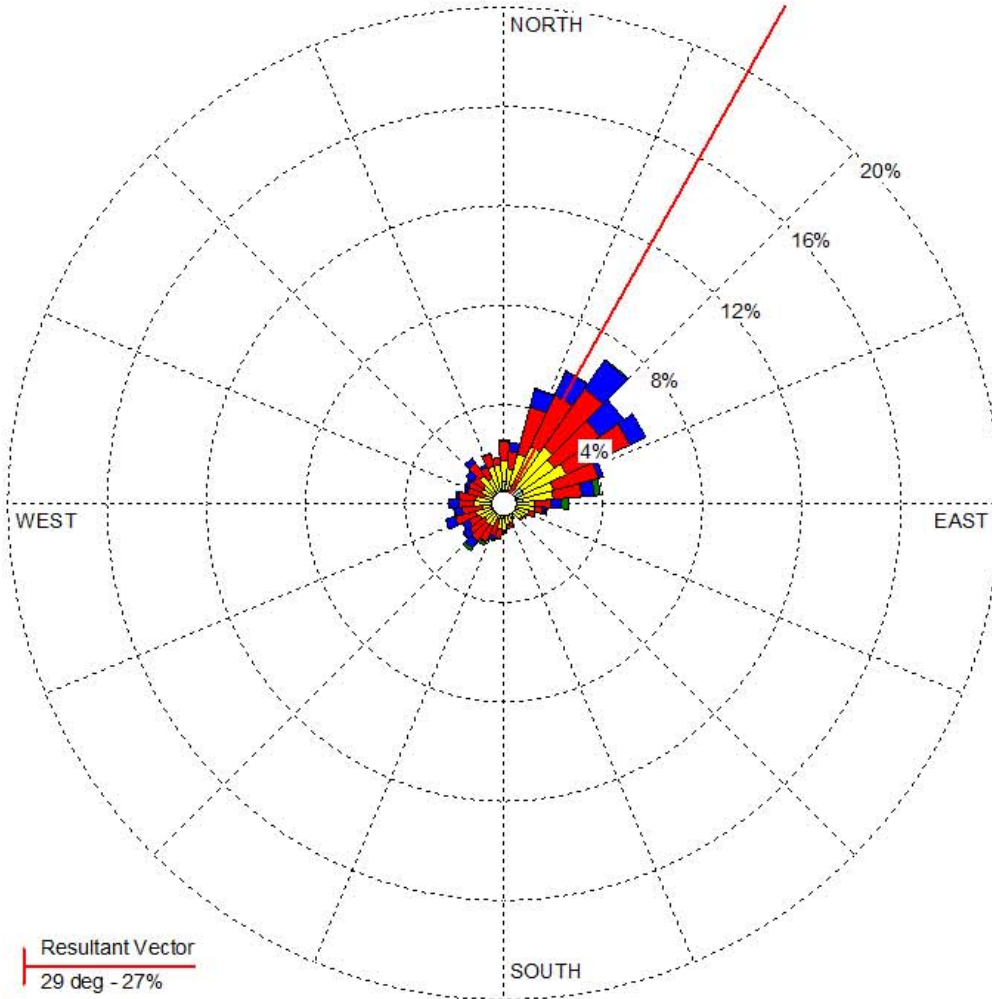
Summer 2005

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Fish Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 1.86%

Resultant Vector
29 deg - 27%

COMMENTS:

Total # of Hours: 2952
Data Availability: 90.07%
Missing Records: 293

DATA PERIOD:

**Start Date: 5/15/2006 - 00:00
End Date: 9/14/2006 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

1.86%

TOTAL COUNT:

2659 hrs.

AVG. WIND SPEED:

3.51 m/s

DATE:

8/21/2018

RECORD TYPE:

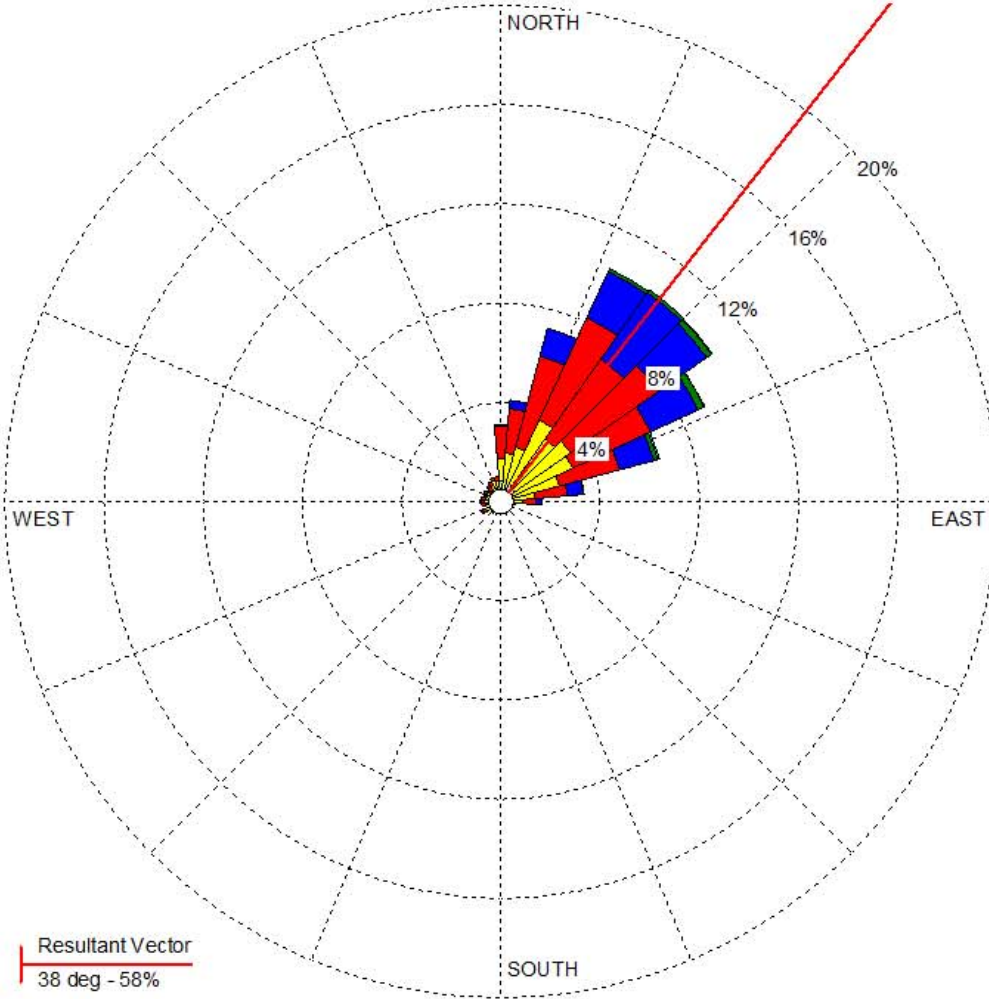
Summer 2006

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Fish Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



Resultant Vector
38 deg - 58%

**WIND SPEED
(m/s)**

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10
- Calms: 0.91%

COMMENTS:

Total # of Hours: 2952
Data Availability: 81.91%
Missing Records: 534

DATA PERIOD:

**Start Date: 5/15/2007 - 00:00
End Date: 9/14/2007 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

0.91%

TOTAL COUNT:

2418 hrs.

AVG. WIND SPEED:

3.98 m/s

DATE:

8/21/2018

RECORD TYPE:

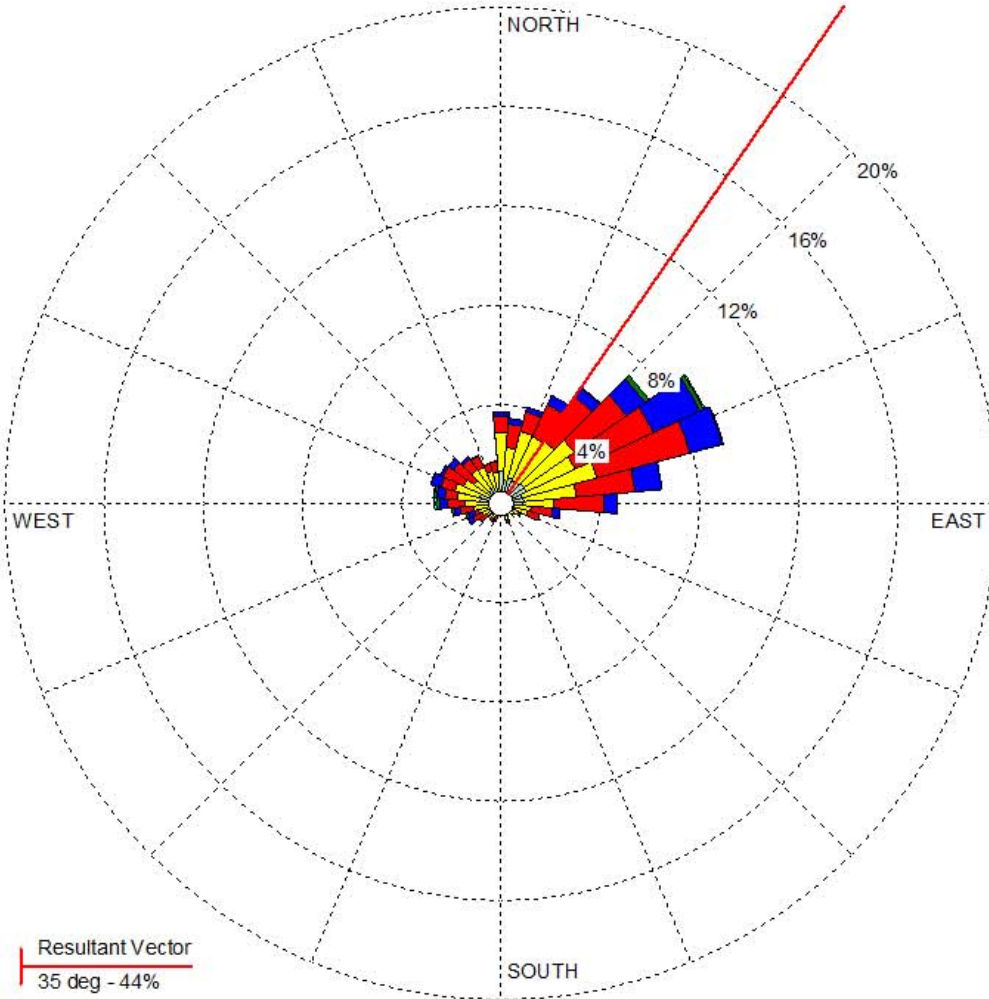
Summer 2007

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Fish Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



COMMENTS:

Total # of Hours: 2952
Data Availability: 99.25%
Missing Records: 22

DATA PERIOD:

**Start Date: 5/15/2008 - 00:00
End Date: 9/14/2008 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

2.54%

TOTAL COUNT:

2930 hrs.

AVG. WIND SPEED:

3.39 m/s

DATE:

8/21/2018

RECORD TYPE:

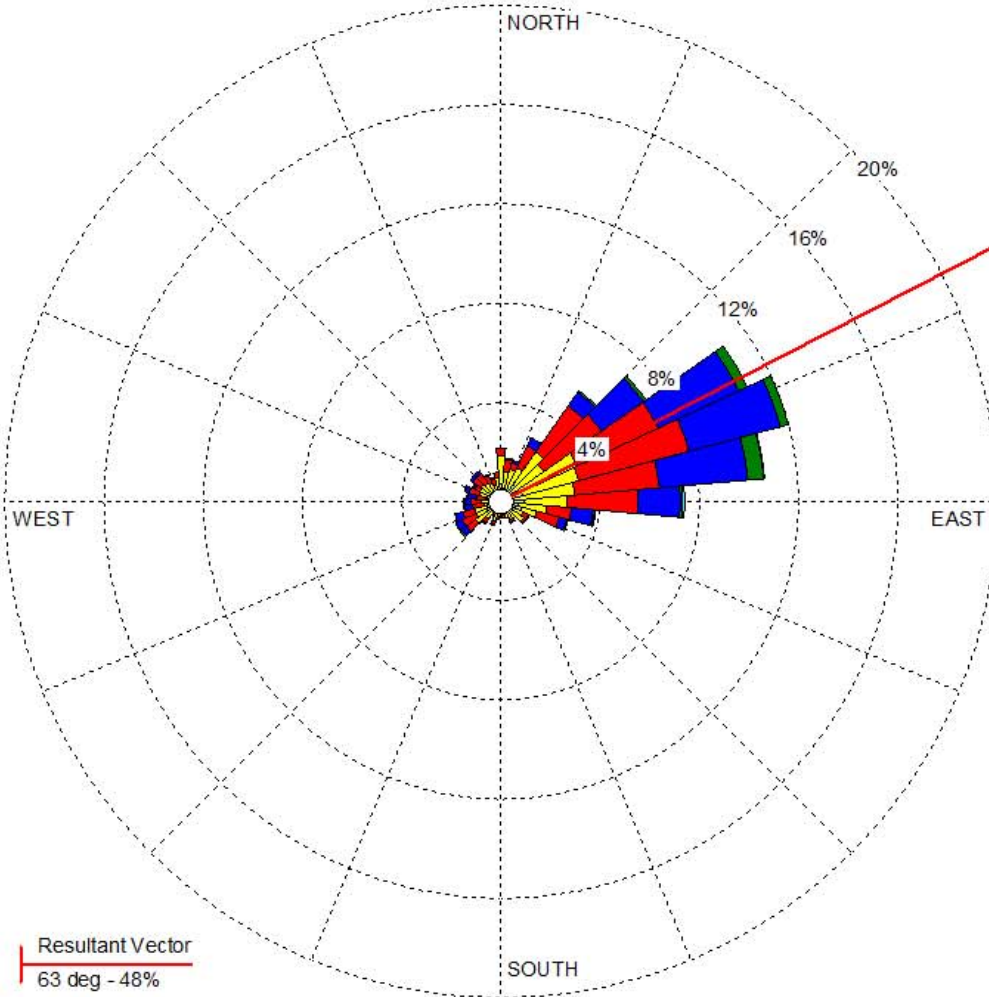
Summer 2008

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Fish Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10

Calms: 1.63%

COMMENTS:

Total # of Hours: 2952
Data Availability: 99.86%
Missing Records: 4

DATA PERIOD:

**Start Date: 5/15/2009 - 00:00
End Date: 9/14/2009 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

1.63%

TOTAL COUNT:

2948 hrs.

AVG. WIND SPEED:

3.97 m/s

DATE:

8/21/2018

RECORD TYPE:

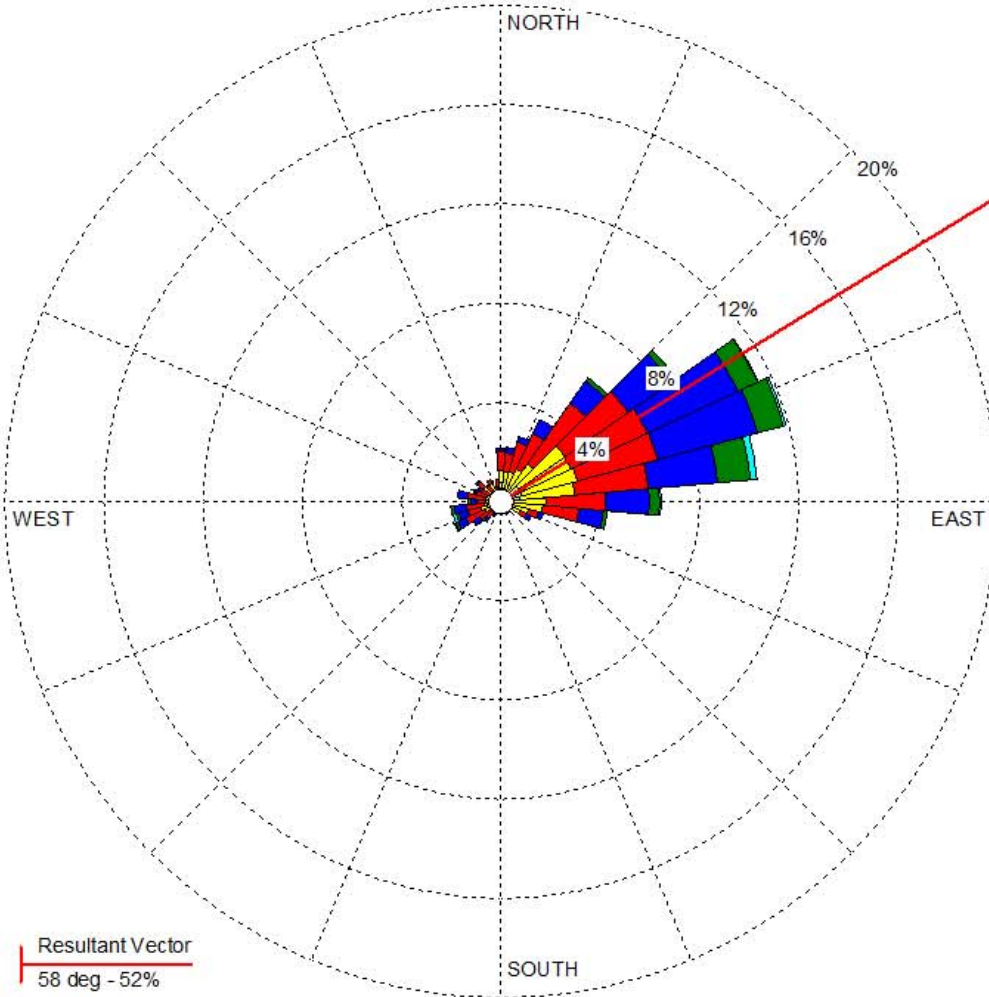
Summer 2009

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Fish Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 0.85%

Resultant Vector
58 deg - 52%

COMMENTS:

Total # of Hours: 2952
Data Availability: 96.61%
Missing Records: 100

DATA PERIOD:

**Start Date: 5/15/2010 - 00:00
End Date: 9/14/2010 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

0.85%

TOTAL COUNT:

2852 hrs.

AVG. WIND SPEED:

4.51 m/s

DATE:

8/21/2018

RECORD TYPE:

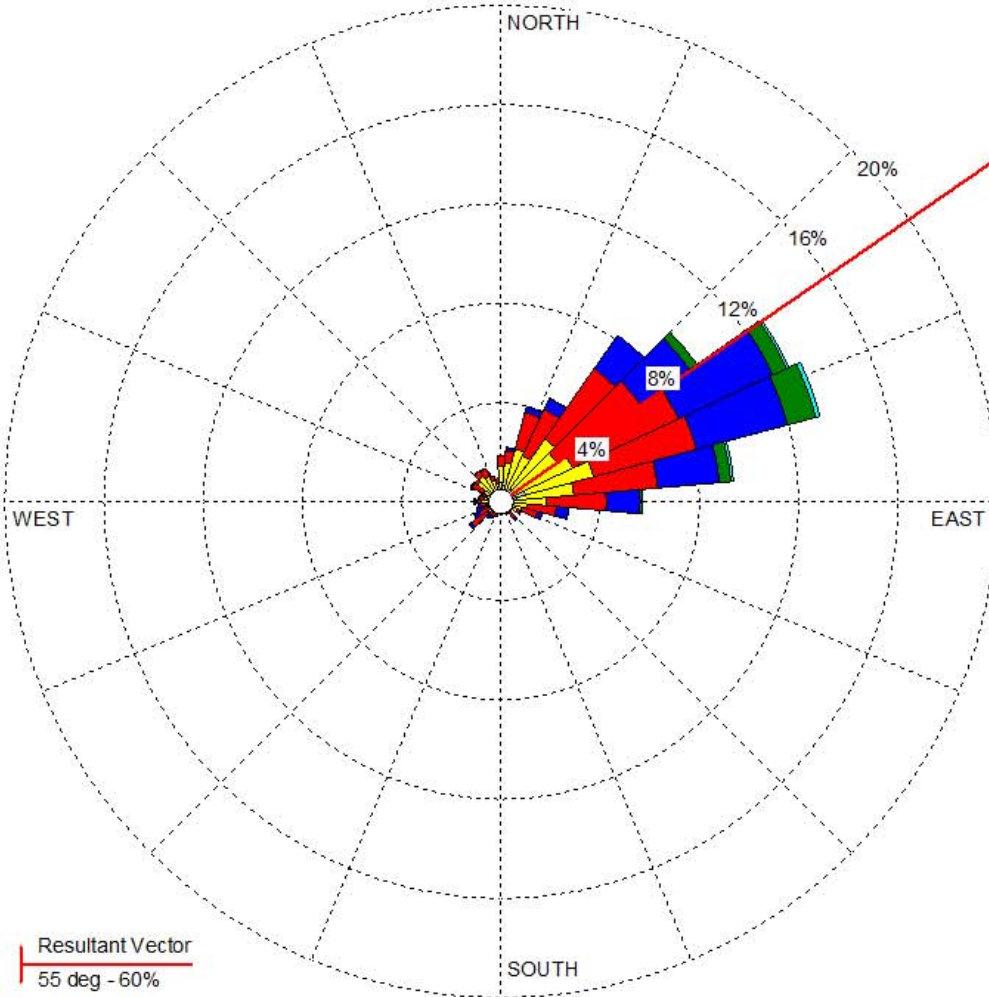
Summer 2010

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Fish Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 1.46%

COMMENTS:

Total # of Hours: 2952
Data Availability: 99.93%
Missing Records: 2

DATA PERIOD:

**Start Date: 5/15/2011 - 00:00
End Date: 9/14/2011 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

1.46%

TOTAL COUNT:

2950 hrs.

AVG. WIND SPEED:

4.17 m/s

DATE:

8/21/2018

RECORD TYPE:

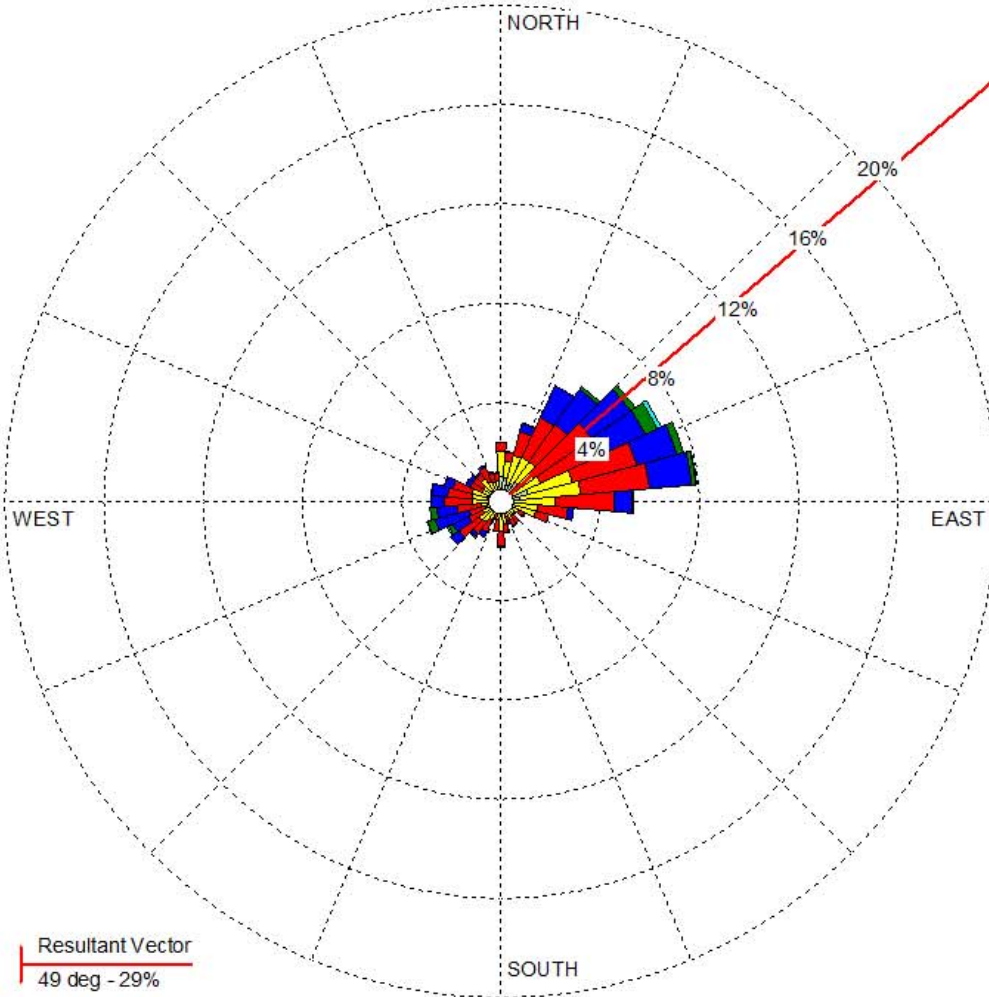
Summer 2011

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Fish Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



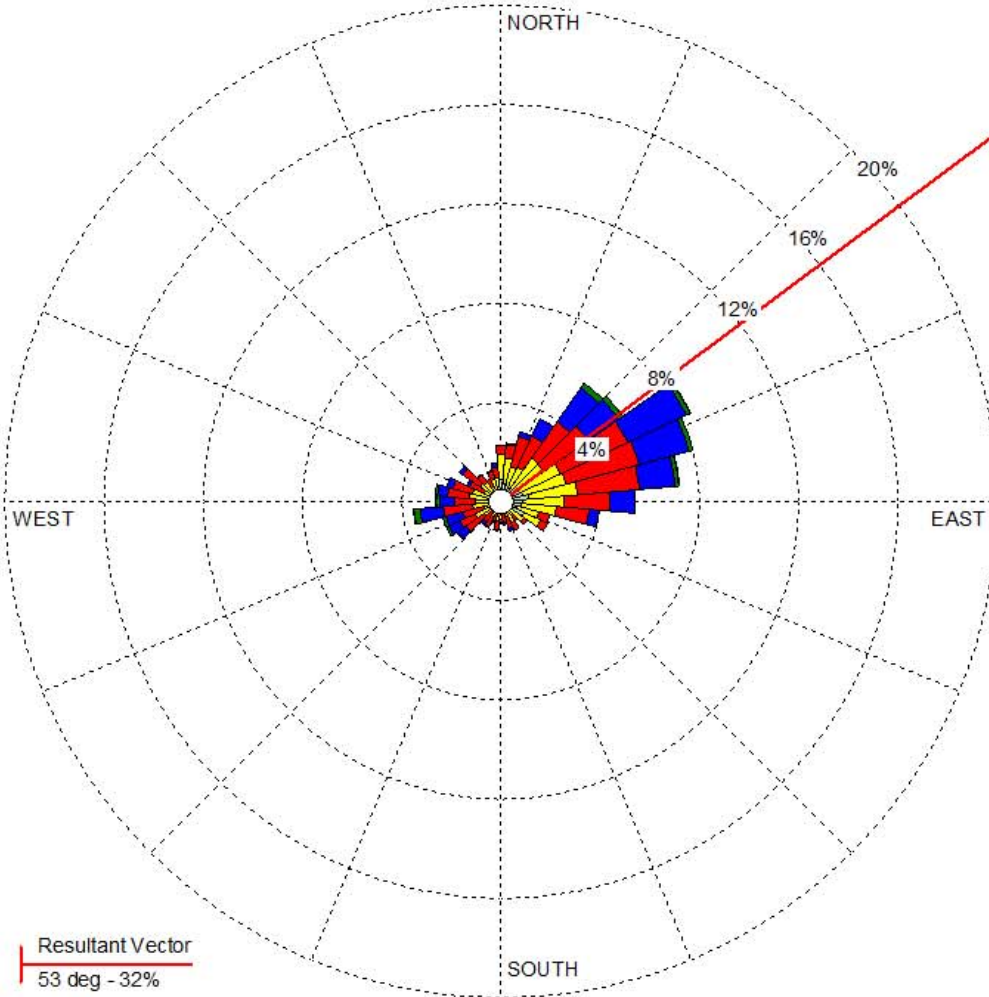
<p>COMMENTS:</p> <p>Total # of Hours: 2952 Data Availability: 100% Missing Records: 0</p>	<p>DATA PERIOD:</p> <p>Start Date: 5/15/2012 - 00:00 End Date: 9/14/2012 - 23:00</p>	<p>COMPANY NAME:</p> <p>Water and Environmental Research Center</p>		
	<p>CALM WINDS:</p> <p>0.98%</p>	<p>MODELER:</p> <p>Eric N. LaMesjerant</p>		
	<p>AVG. WIND SPEED:</p> <p>4.01 m/s</p>	<p>TOTAL COUNT:</p> <p>2952 hrs.</p>		

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Fish Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



Resultant Vector
53 deg - 32%

WIND SPEED
(m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10
- Calms: 1.69%

COMMENTS:

Total # of Hours: 2952
Data Availability: 100%
Missing Records: 0

DATA PERIOD:

**Start Date: 5/15/2013 - 00:00
End Date: 9/14/2013 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

1.69%

TOTAL COUNT:

2952 hrs.

AVG. WIND SPEED:

3.84 m/s

DATE:

8/21/2018

RECORD TYPE:

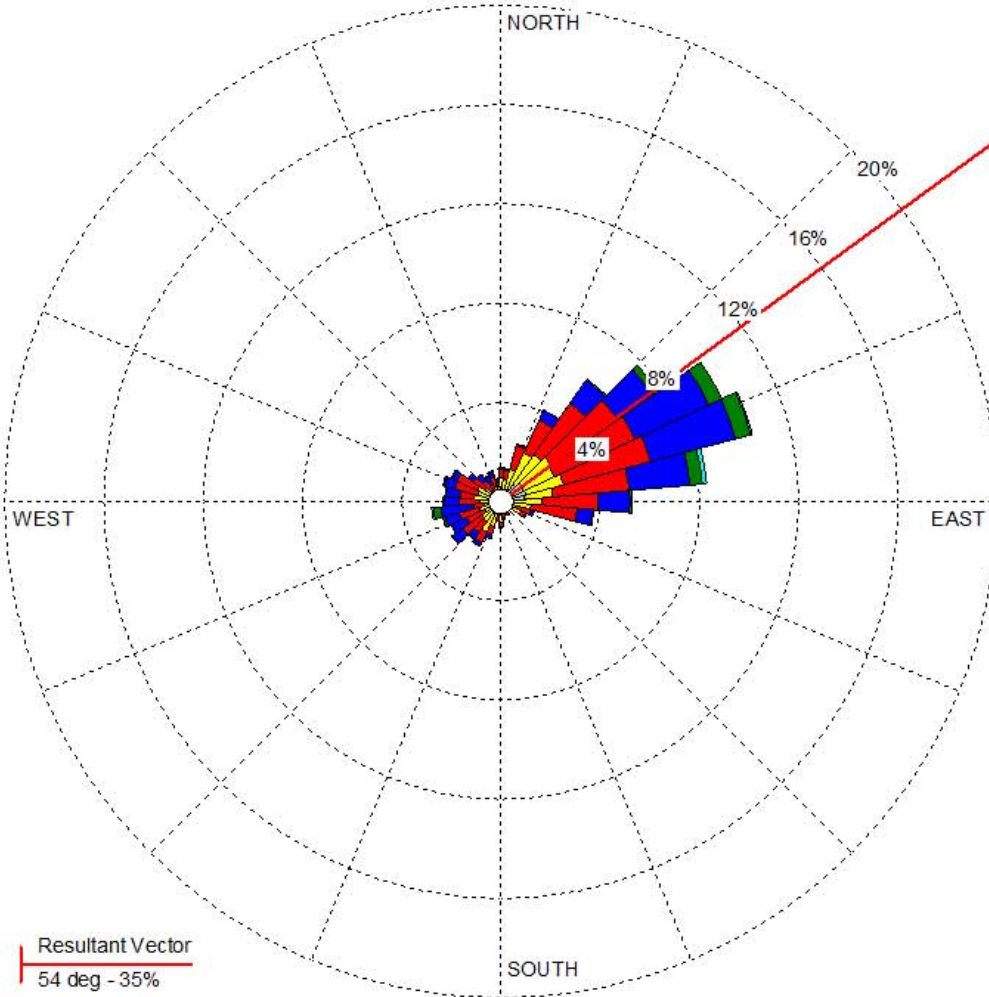
Summer 2013

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Fish Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



Resultant Vector
54 deg - 35%

WIND SPEED
(m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10
- Calms: 0.91%

COMMENTS:

Total # of Hours: 2952
Data Availability: 100%
Missing Records: 0

DATA PERIOD:

**Start Date: 5/15/2014 - 00:00
End Date: 9/14/2014 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

0.91%

TOTAL COUNT:

2952 hrs.

AVG. WIND SPEED:

4.30 m/s

DATE:

8/21/2018

RECORD TYPE:

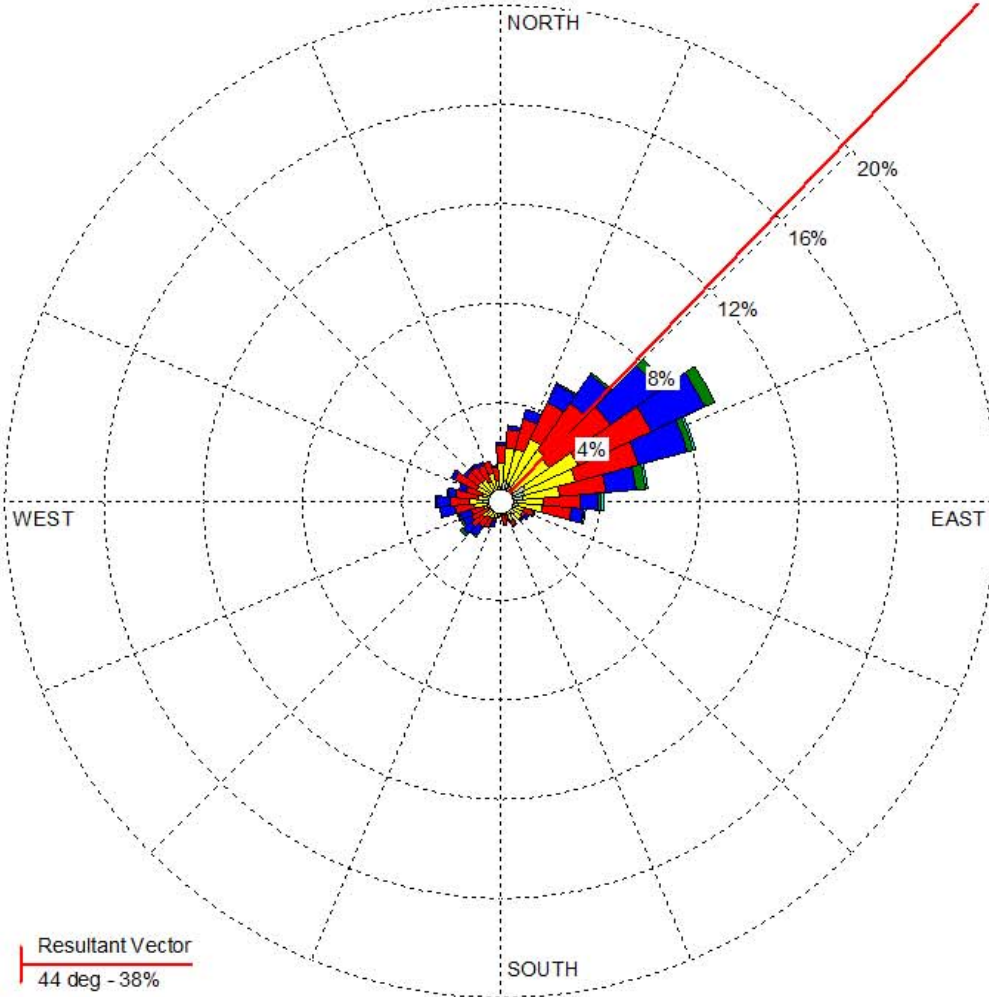
Summer 2014

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Fish Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 1.63%

Resultant Vector
44 deg - 38%

COMMENTS:

Total # of Hours: 2952
Data Availability: 99.97%
Missing Records: 1

DATA PERIOD:

**Start Date: 5/15/2015 - 00:00
End Date: 9/14/2015 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

1.63%

TOTAL COUNT:

2951 hrs.

AVG. WIND SPEED:

3.90 m/s

DATE:

8/21/2018

RECORD TYPE:

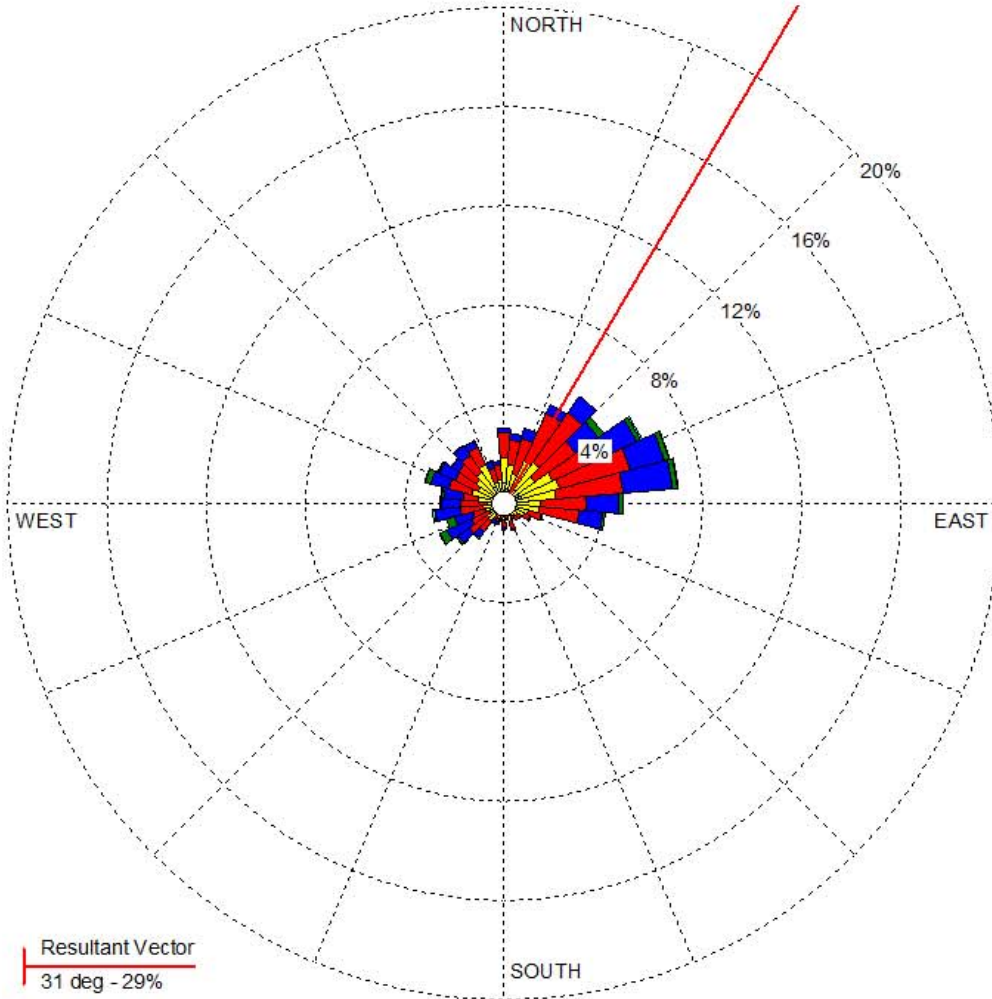
Summer 2015

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Fish Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



Resultant Vector
31 deg - 29%

WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 1.15%

COMMENTS:

Total # of Hours: 2952
Data Availability: 100%
Missing Records: 0

DATA PERIOD:

**Start Date: 5/15/2016 - 00:00
End Date: 9/14/2016 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

1.15%

TOTAL COUNT:

2952 hrs.

AVG. WIND SPEED:

4.16 m/s

DATE:

8/21/2018

RECORD TYPE:

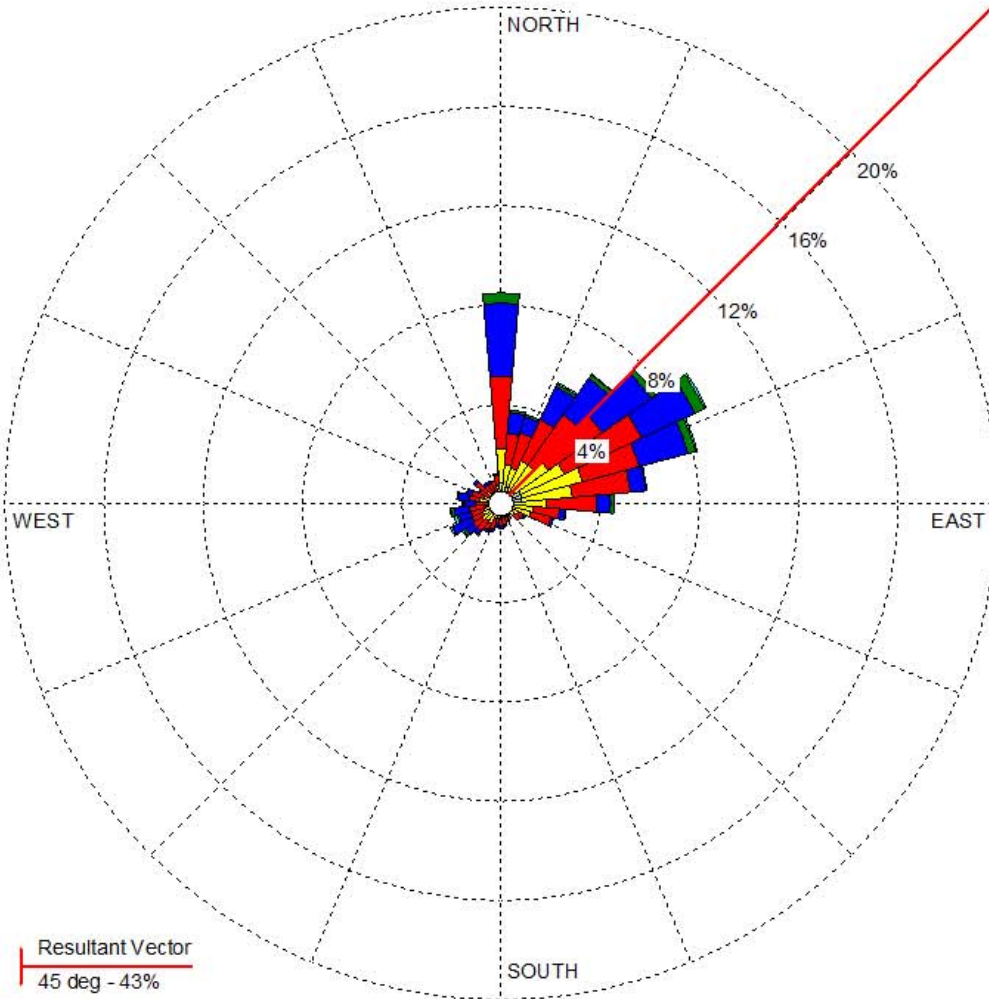
Summer 2016

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Fish Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



Resultant Vector
45 deg - 43%

WIND SPEED
(m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10

Calms: 1.12%

COMMENTS:

Total # of Hours: 2952
Data Availability: 99.86%
Missing Records: 4

DATA PERIOD:

**Start Date: 5/15/2017 - 00:00
End Date: 9/14/2017 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

1.12%

TOTAL COUNT:

2948 hrs.

AVG. WIND SPEED:

4.25 m/s

DATE:

8/21/2018

RECORD TYPE:

Summer 2017

Wind Roses, Cold Season

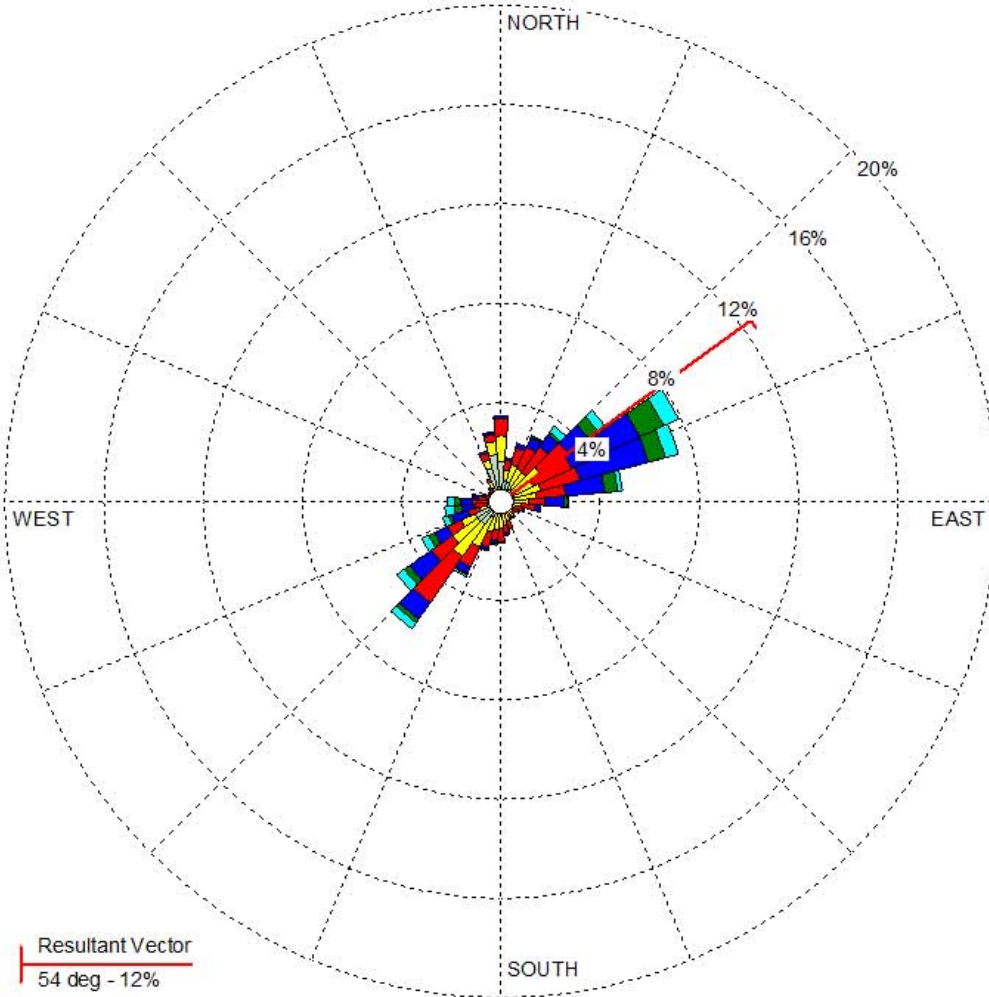
Ikpikpuk River, Alaska

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Ikpikuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



Resultant Vector
54 deg - 12%

WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 4.25%

COMMENTS:

Total # of Hours: 5808
Data Availability: 95.51%
Missing Records: 261

DATA PERIOD:

**Start Date: 9/15/2004 - 00:00
End Date: 5/14/2005 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

4.25%

TOTAL COUNT:

5547 hrs.

AVG. WIND SPEED:

4.23 m/s

DATE:

8/21/2018

RECORD TYPE:

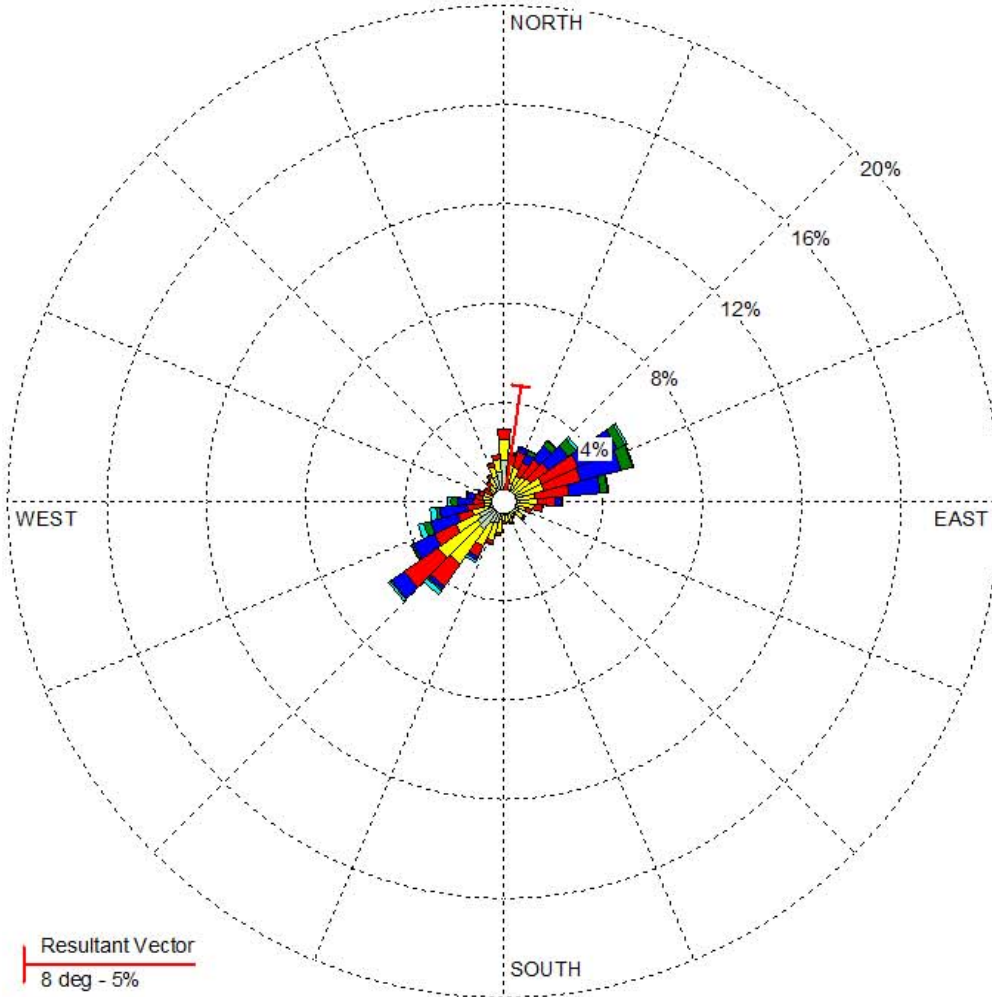
Winter 2004

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Ikpikpak Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 4.42%

COMMENTS:

Total # of Hours: 5808
Data Availability: 86.29%
Missing Records: 796

DATA PERIOD:

**Start Date: 9/15/2005 - 00:00
End Date: 5/14/2006 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

4.42%

TOTAL COUNT:

5012 hrs.

AVG. WIND SPEED:

3.60 m/s

DATE:

8/21/2018

RECORD TYPE:

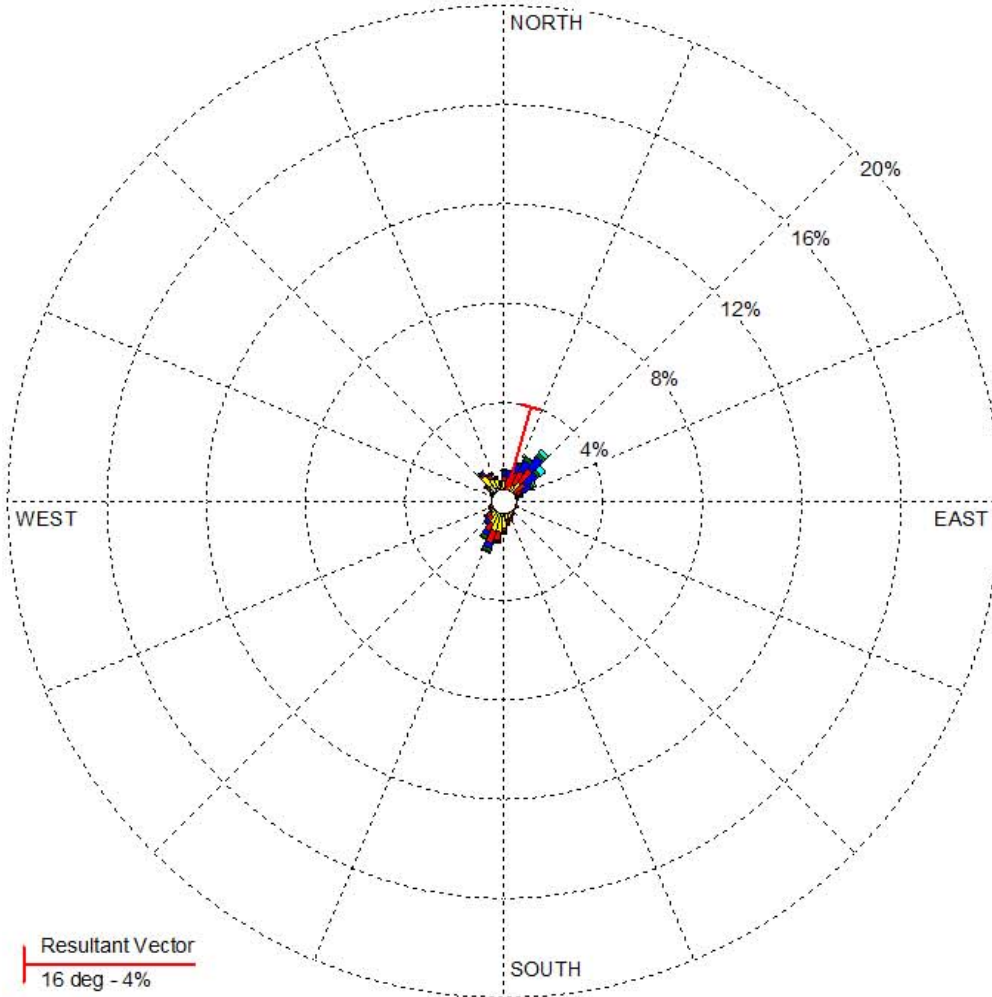
Winter 2005

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Ikpikuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 2.32%

Resultant Vector
16 deg - 4%

COMMENTS:

Total # of Hours: 5808
Data Availability: 39.91%
Missing Records: 3490

DATA PERIOD:

**Start Date: 9/15/2006 - 00:00
End Date: 5/14/2007 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

2.32%

TOTAL COUNT:

2318 hrs.

AVG. WIND SPEED:

3.35 m/s

DATE:

8/21/2018

RECORD TYPE:

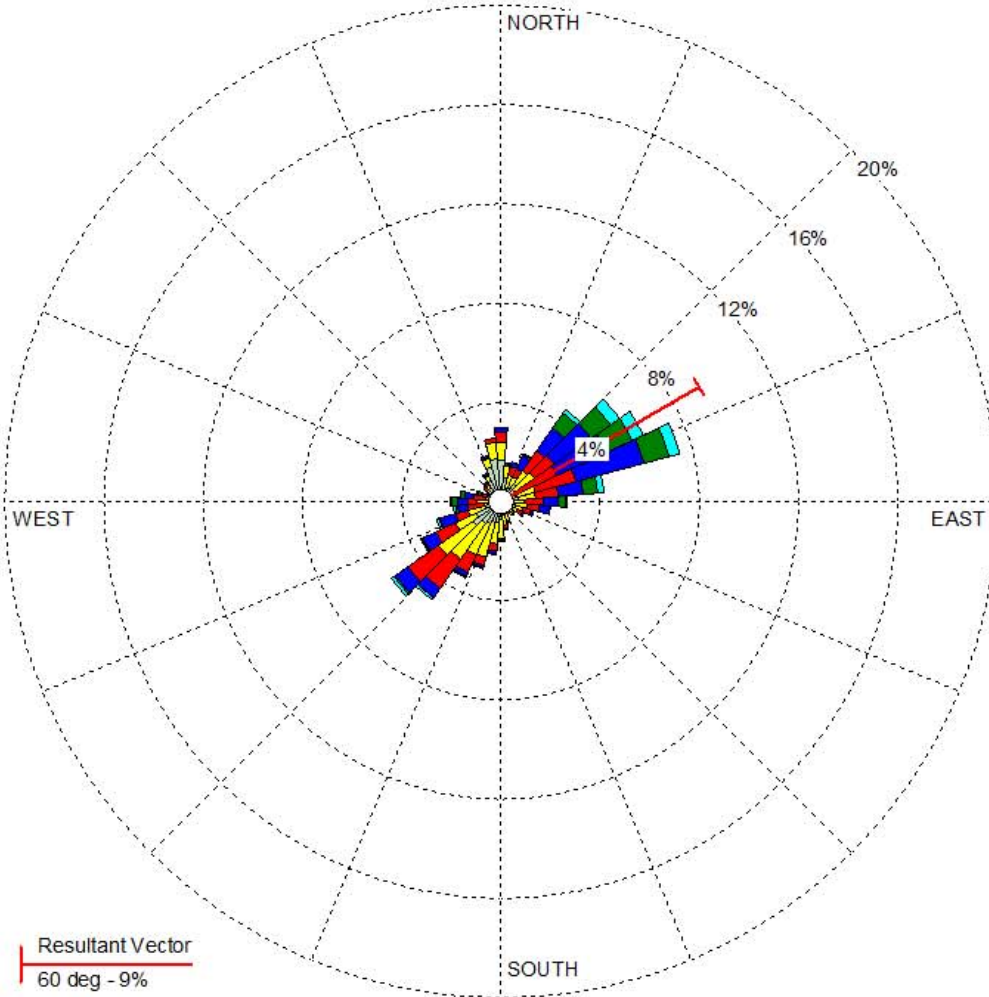
Winter 2006

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Ikpikuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10
- Calms: 7.63%

Resultant Vector
60 deg - 9%

COMMENTS:

Total # of Hours: 5832
Data Availability: 97.07%
Missing Records: 171

DATA PERIOD:

**Start Date: 9/15/2007 - 00:00
End Date: 5/14/2008 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

7.63%

TOTAL COUNT:

5661 hrs.

AVG. WIND SPEED:

3.86 m/s

DATE:

8/21/2018

RECORD TYPE:

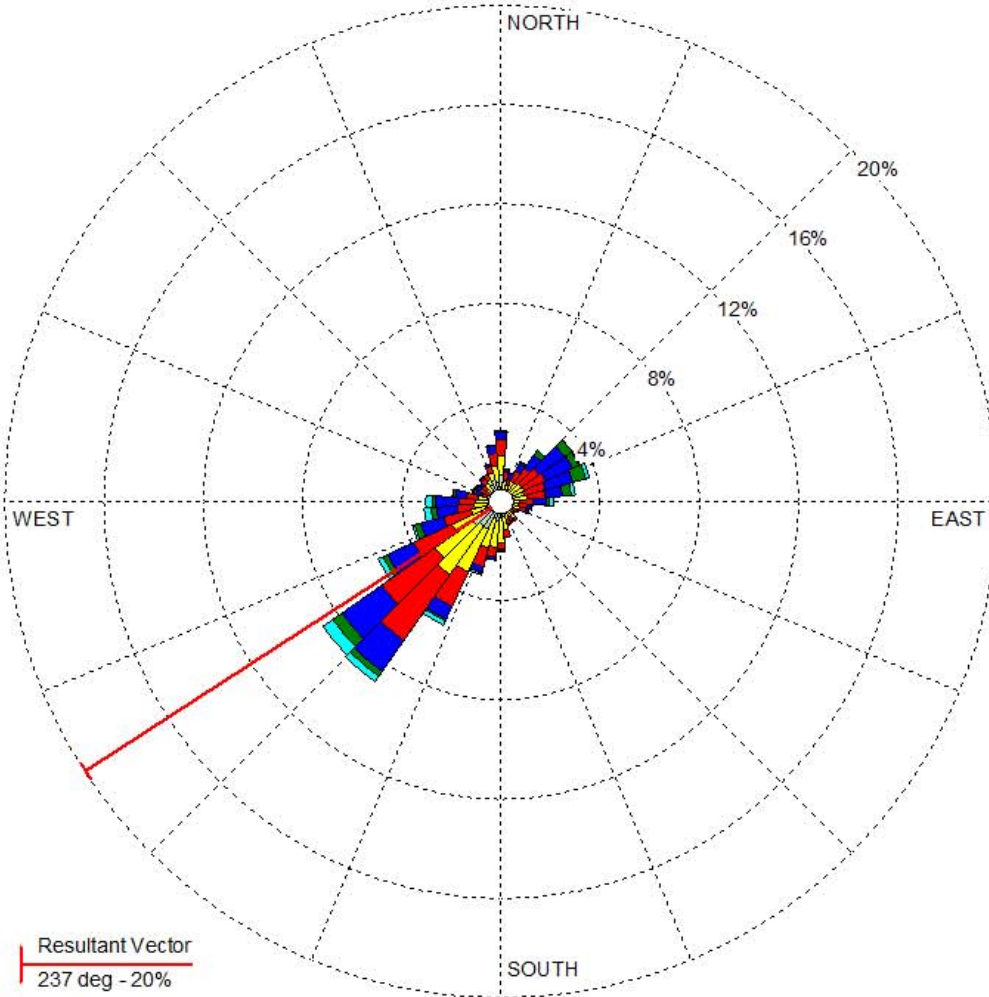
Winter 2007

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Ikpikpak Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



Resultant Vector
237 deg - 20%

WIND SPEED
(m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10
- Calms: 6.15%

COMMENTS:

Total # of Hours: 5808
Data Availability: 97.68%
Missing Records: 135

DATA PERIOD:

**Start Date: 9/15/2008 - 00:00
End Date: 5/14/2009 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

6.15%

TOTAL COUNT:

5673 hrs.

AVG. WIND SPEED:

4.03 m/s

DATE:

8/21/2018

RECORD TYPE:

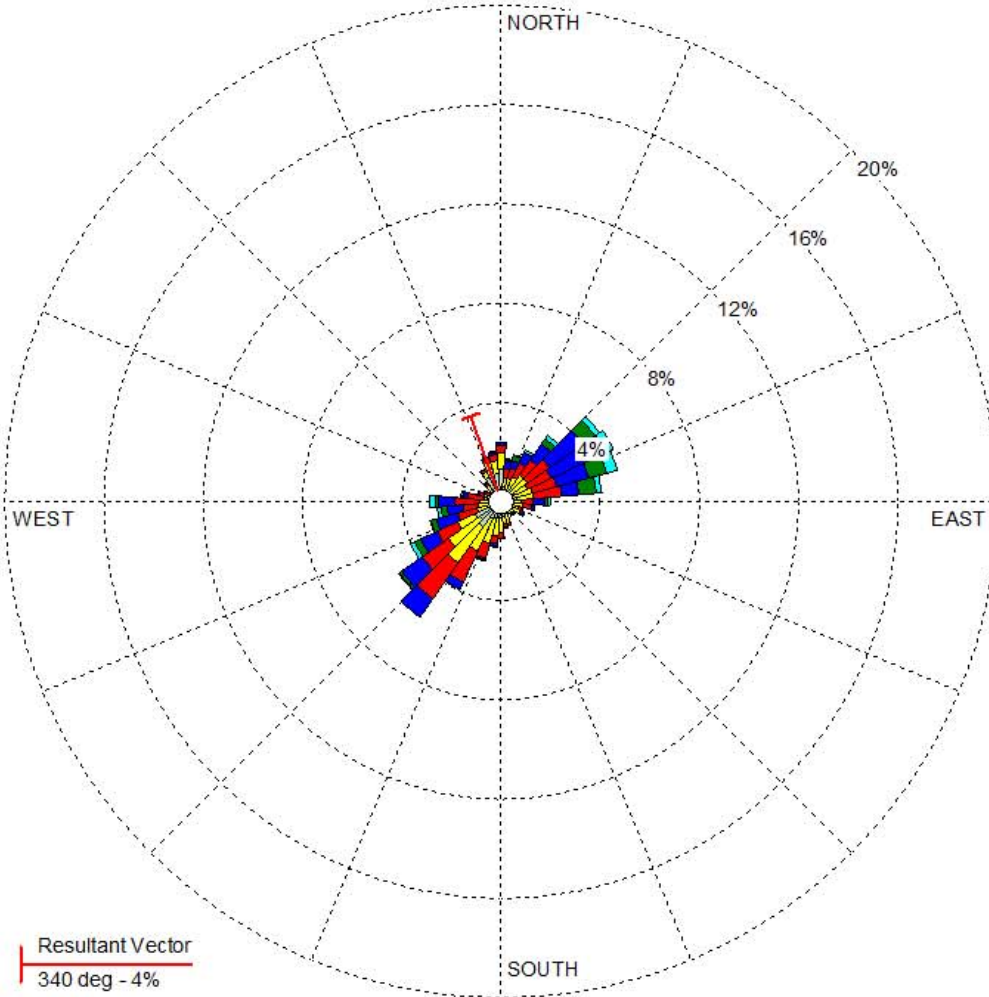
Winter 2008

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Ikpikuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



COMMENTS:

Total # of Hours: 5808
Data Availability: 89.70%
Missing Records: 598

DATA PERIOD:

**Start Date: 9/15/2009 - 00:00
End Date: 5/14/2010 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

6.46%

TOTAL COUNT:

5210 hrs.

AVG. WIND SPEED:

3.84 m/s

DATE:

8/21/2018

RECORD TYPE:

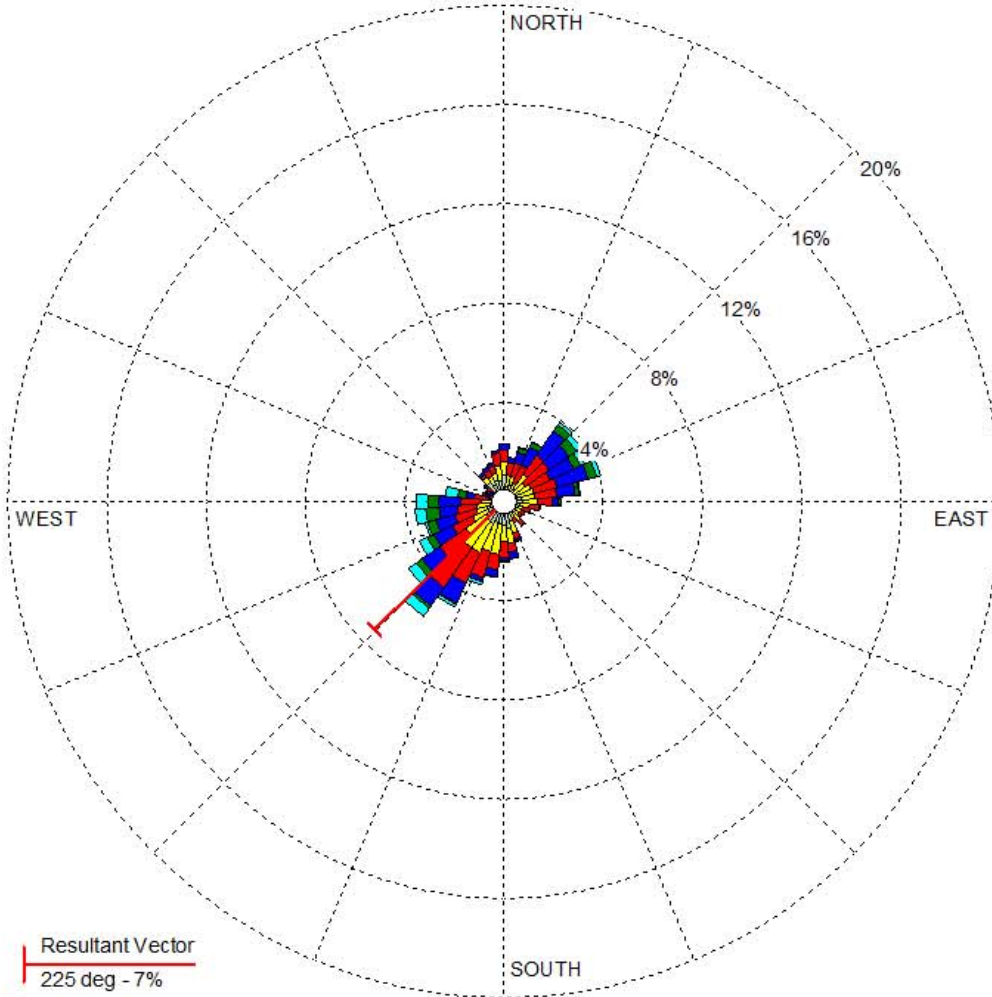
Winter 2009

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Ikpikuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



Resultant Vector
225 deg - 7%

WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 8.40%

COMMENTS:

Total # of Hours: 5808
Data Availability: 98.88%
Missing Records: 65

DATA PERIOD:

**Start Date: 9/15/2010 - 00:00
End Date: 5/14/2011 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

8.40%

TOTAL COUNT:

5743 hrs.

AVG. WIND SPEED:

4.00 m/s

DATE:

8/21/2018

RECORD TYPE:

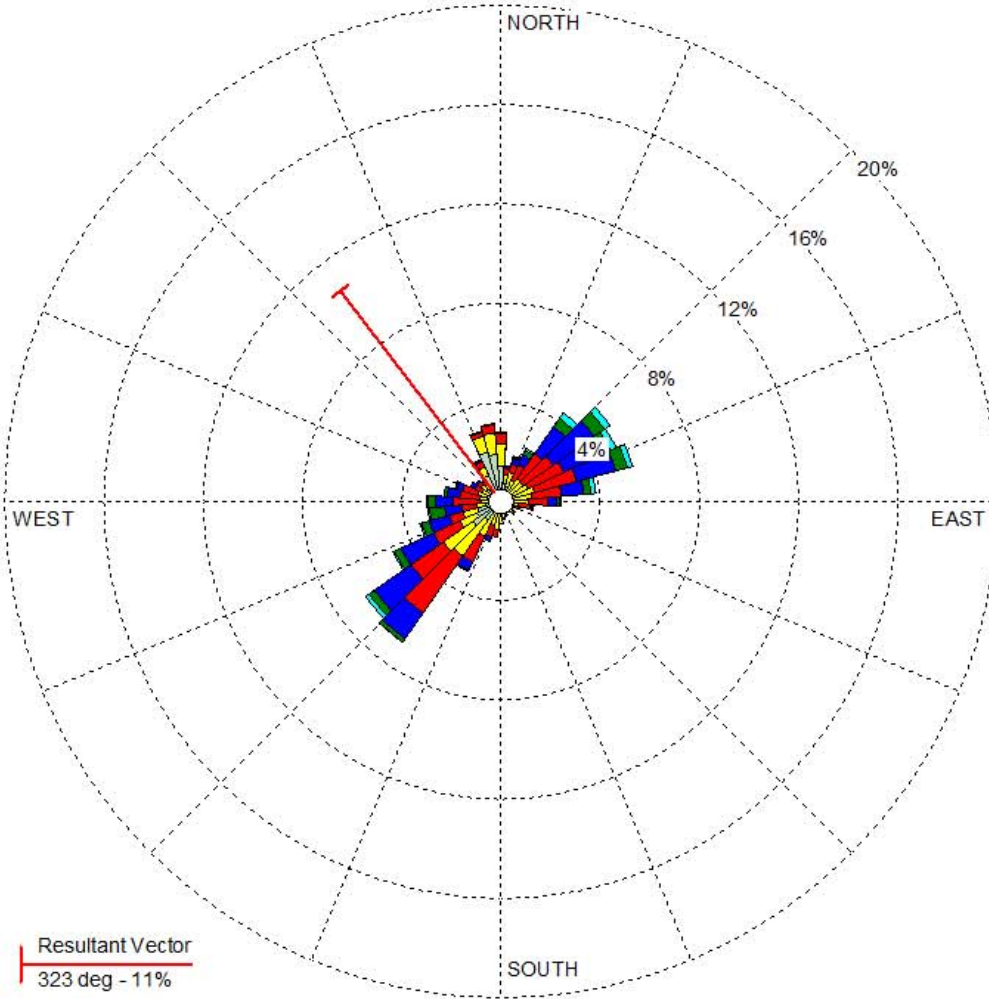
Winter 2010

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Ikpikuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



Resultant Vector
323 deg - 11%

WIND SPEED (m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10

Calms: 4.54%

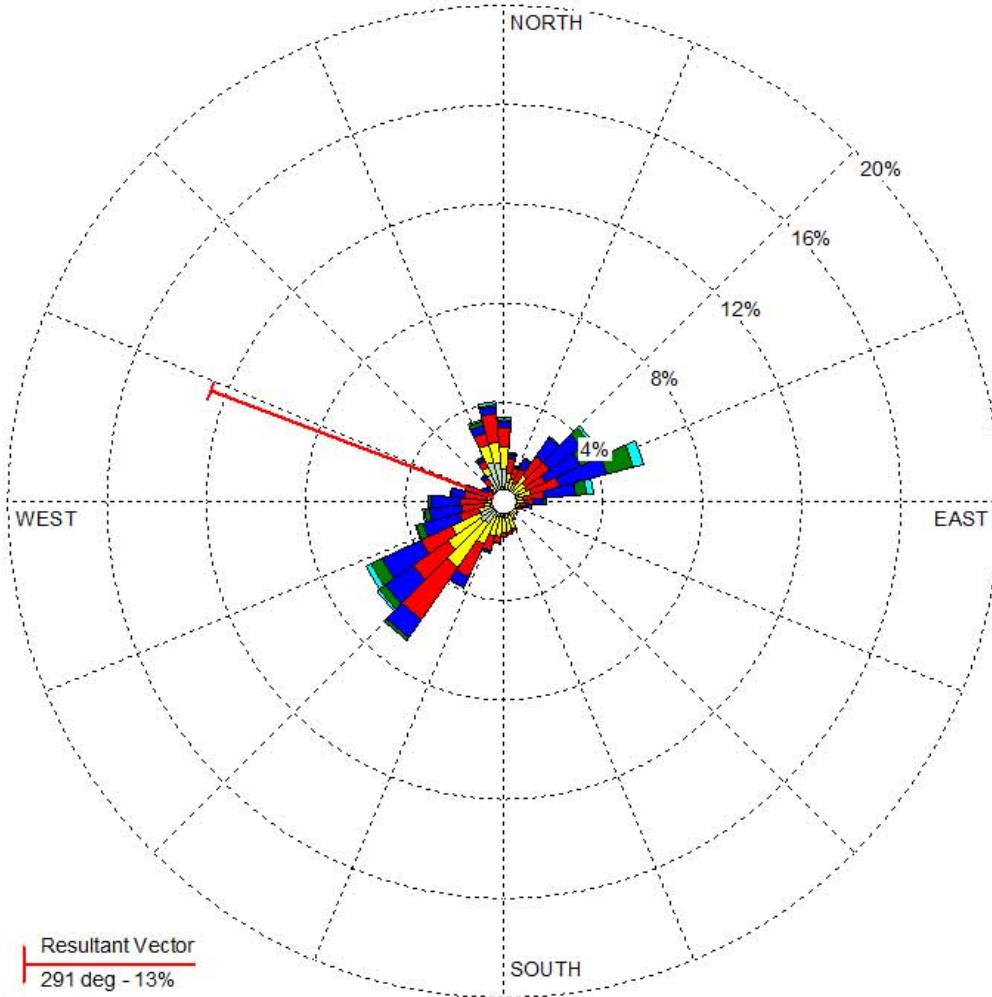
<p>COMMENTS:</p> <p>Total # of Hours: 5832 Data Availability: 96.18% Missing Records: 223</p>	<p>DATA PERIOD:</p> <p>Start Date: 9/15/2011 - 00:00 End Date: 5/14/2012 - 23:00</p>	<p>COMPANY NAME:</p> <p>Water and Environmental Research Center</p>		
	<p>CALM WINDS:</p> <p>4.54%</p>	<p>MODELER:</p> <p>Eric N. LaMesjerant</p>		
	<p>AVG. WIND SPEED:</p> <p>4.01 m/s</p>	<p>TOTAL COUNT:</p> <p>5609 hrs.</p>		

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Ikpikpak Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



Resultant Vector
291 deg - 13%

WIND SPEED (m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10

Calms: 6.15%

COMMENTS:

Total # of Hours: 5808
Data Availability: 100%
Missing Records: 0

DATA PERIOD:

**Start Date: 9/15/2012 - 00:00
End Date: 5/14/2013 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

6.15%

TOTAL COUNT:

5808 hrs.

AVG. WIND SPEED:

4.05 m/s

DATE:

8/21/2018

RECORD TYPE:

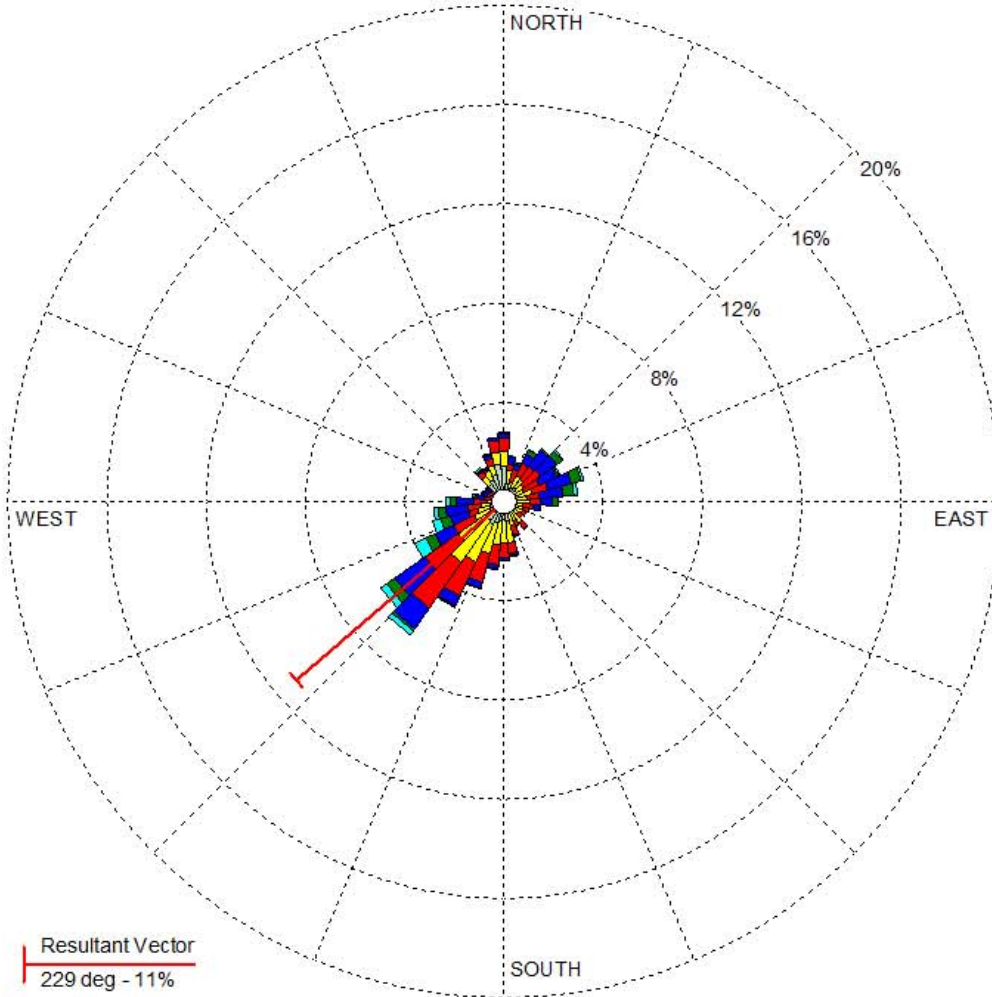
Winter 2012

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Ikpikuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 5.89%

Resultant Vector
229 deg - 11%

COMMENTS:

Total # of Hours: 5808
Data Availability: 91.96%
Missing Records: 467

DATA PERIOD:

**Start Date: 9/15/2013 - 00:00
End Date: 5/14/2014 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

5.89%

TOTAL COUNT:

5341 hrs.

AVG. WIND SPEED:

3.85 m/s

DATE:

8/21/2018

RECORD TYPE:

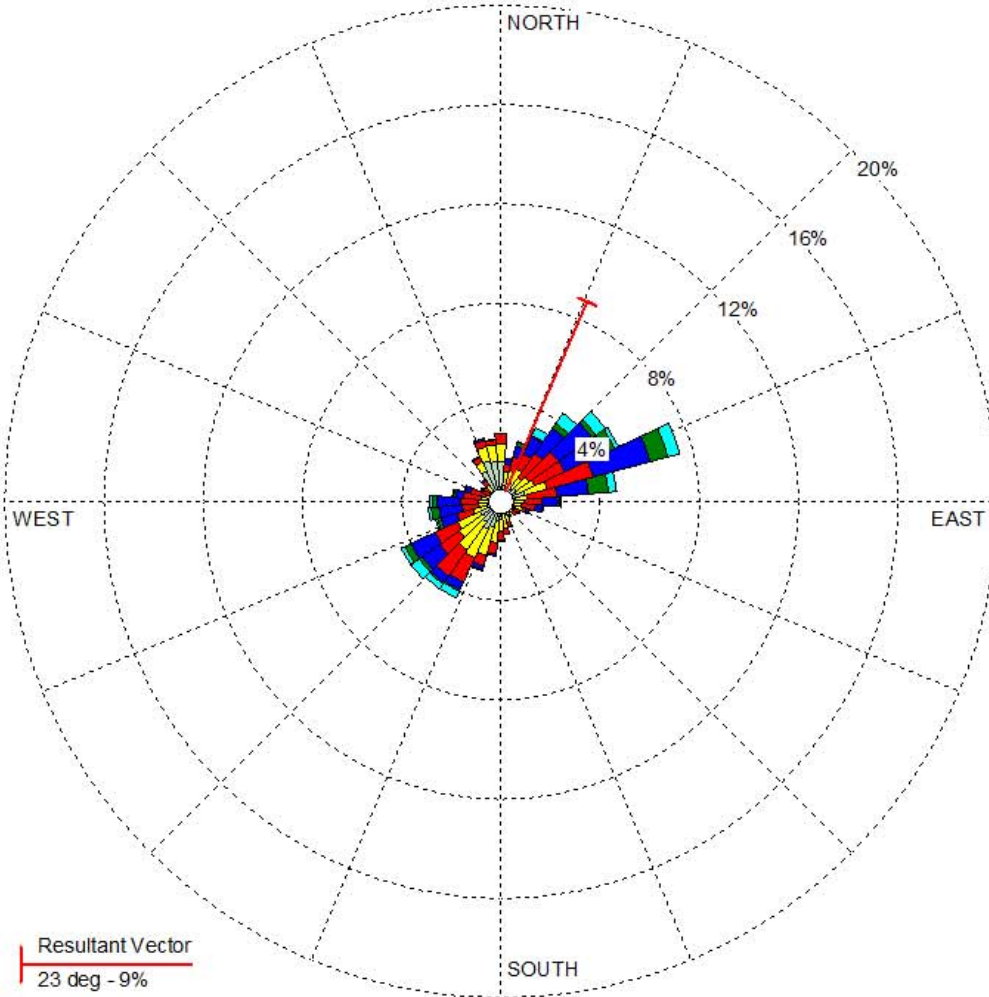
Winter 2013

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Ikpikuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



COMMENTS:

Total # of Hours: 5808
Data Availability: 100%
Missing Records: 0

DATA PERIOD:

**Start Date: 9/15/2014 - 00:00
End Date: 5/14/2015 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

5.75%

TOTAL COUNT:

5808 hrs.

AVG. WIND SPEED:

4.05 m/s

DATE:

8/21/2018

RECORD TYPE:

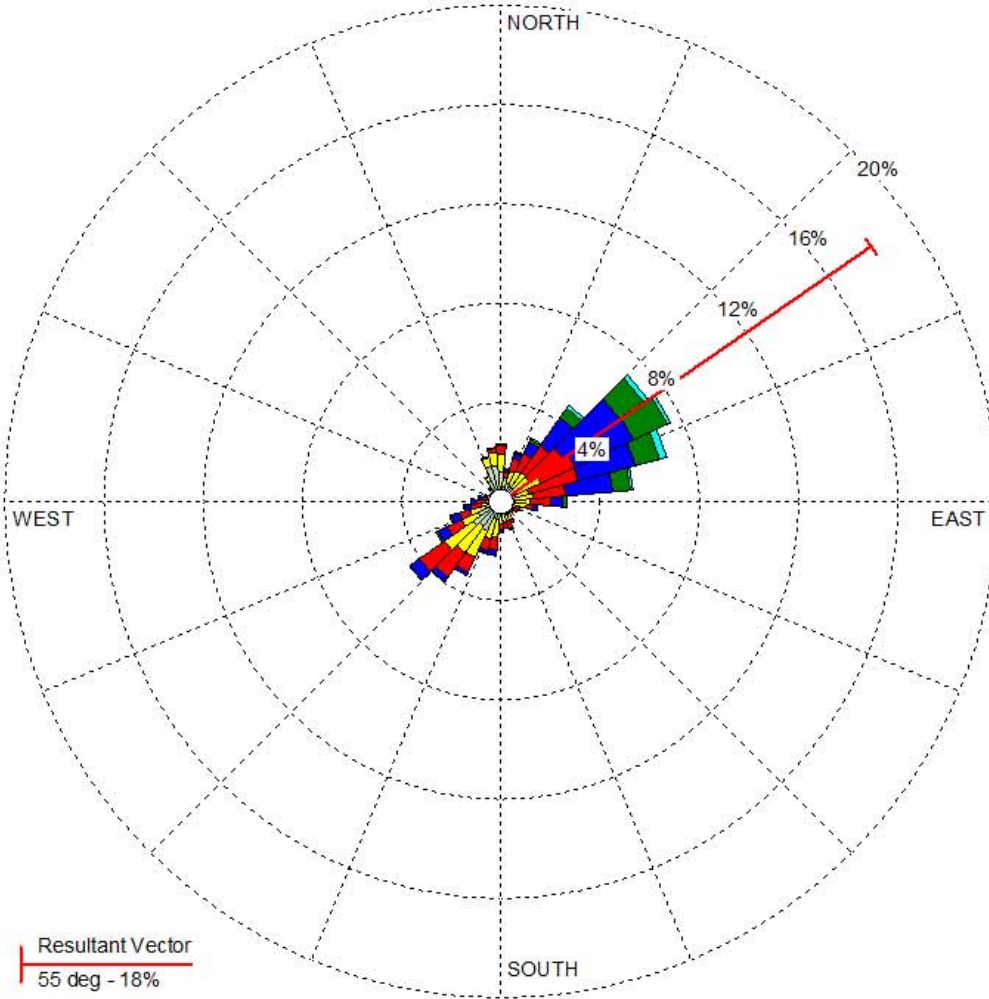
Winter 2014

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Ikpikuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED (m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10

Calms: 5.69%

COMMENTS:

Total # of Hours: 5832
Data Availability: 89.99%
Missing Records: 584

DATA PERIOD:

**Start Date: 9/15/2015 - 00:00
End Date: 5/14/2016 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

5.69%

TOTAL COUNT:

5248 hrs.

AVG. WIND SPEED:

3.83 m/s

DATE:

8/21/2018

RECORD TYPE:

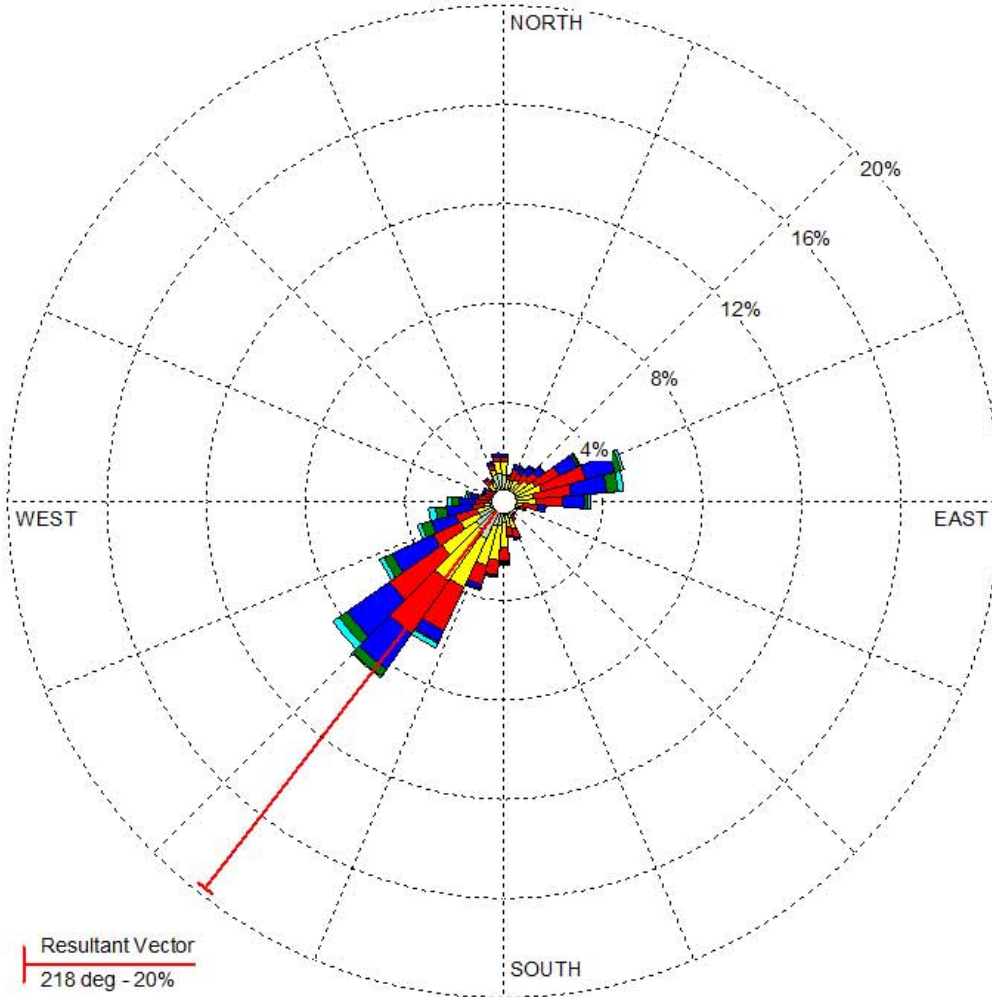
Winter 2015

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Ikpikuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 6.25%

COMMENTS:

Total # of Hours: 5808
Data Availability: 98.67%
Missing Records: 77

DATA PERIOD:

**Start Date: 9/15/2016 - 00:00
End Date: 5/14/2017 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

6.25%

TOTAL COUNT:

5731 hrs.

AVG. WIND SPEED:

3.84 m/s

DATE:

8/21/2018

RECORD TYPE:

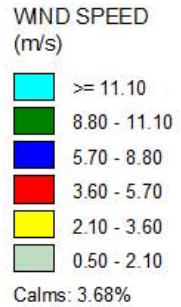
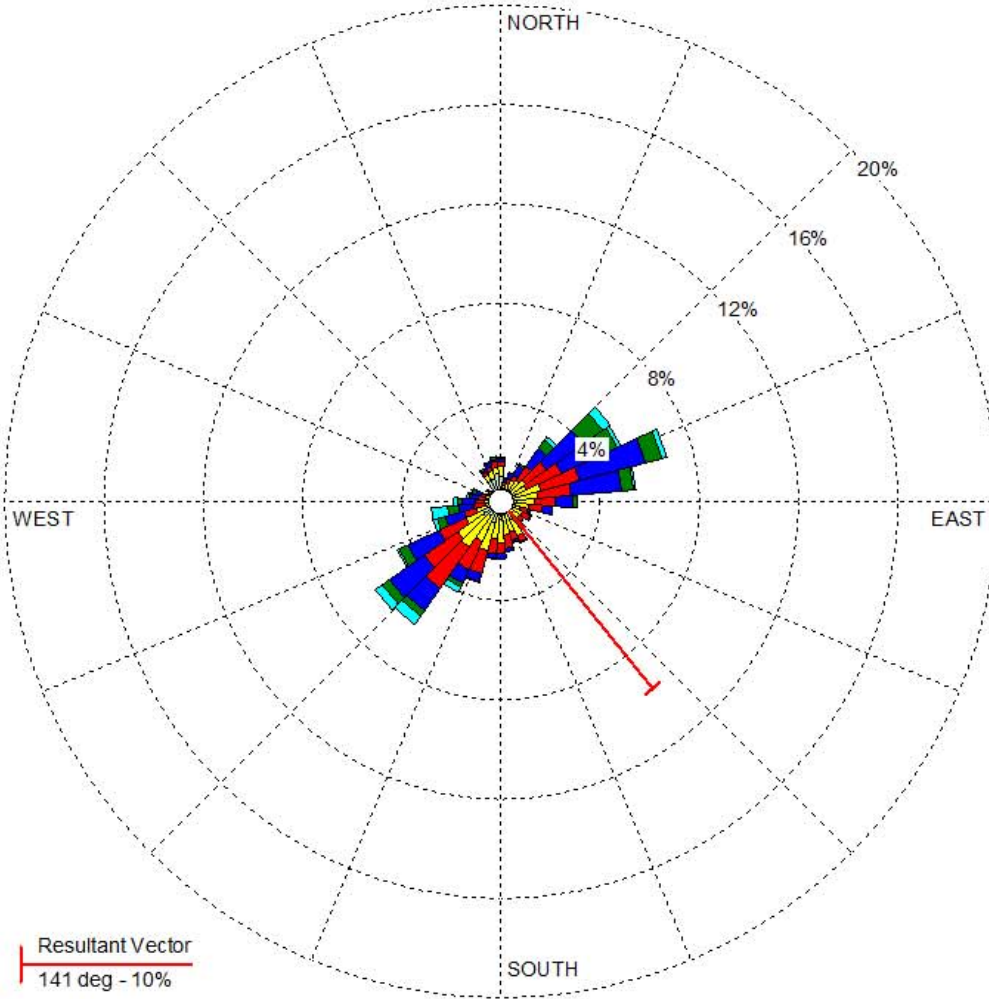
Winter 2016

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Ikpikuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



COMMENTS:

Total # of Hours: 5808
Data Availability: 97.64%
Missing Records: 137

DATA PERIOD:

**Start Date: 9/15/2017 - 00:00
End Date: 5/14/2018 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

3.68%

TOTAL COUNT:

5671 hrs.

AVG. WIND SPEED:

4.44 m/s

DATE:

8/21/2018

RECORD TYPE:

Winter 2017

Wind Roses, Warm Season

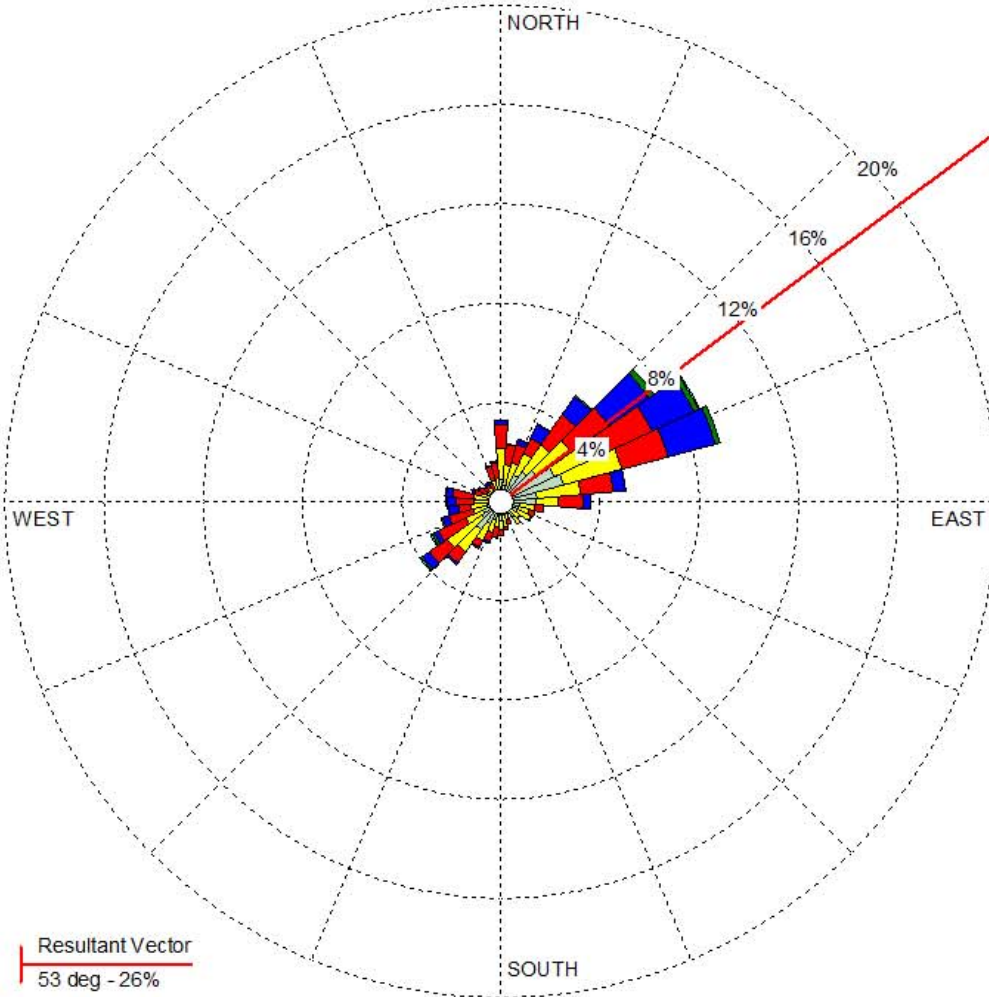
Ikpikpuk River, Alaska

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Ikpikuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



Resultant Vector
53 deg - 26%

WIND SPEED (m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10

Calms: 2.37%

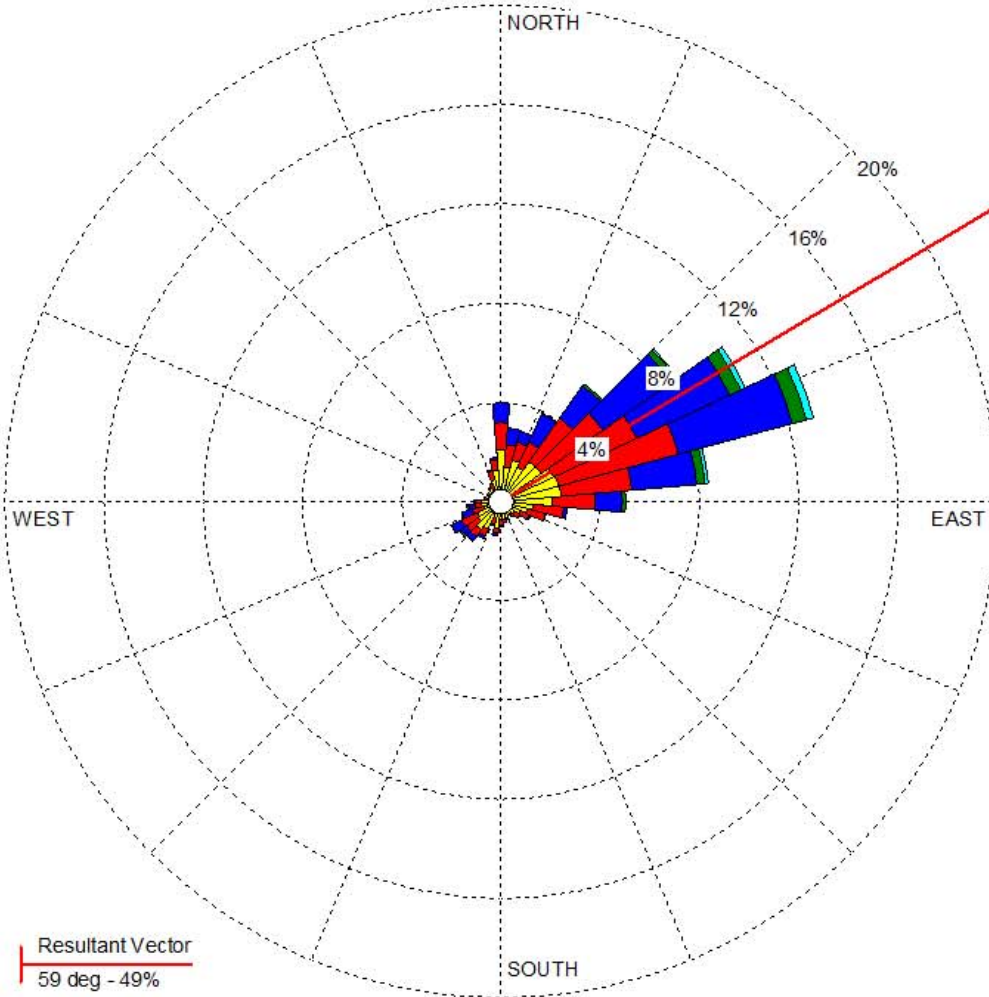
<p>COMMENTS:</p> <p>Total # of Hours: 2952 Data Availability: 96.95% Missing Records: 90</p>	<p>DATA PERIOD:</p> <p>Start Date: 5/15/2004 - 00:00 End Date: 9/14/2004 - 23:00</p>	<p>COMPANY NAME:</p> <p>Water and Environmental Research Center</p>		
	<p>CALM WINDS:</p> <p>2.37%</p>	<p>MODELER:</p> <p>Eric N. LaMesjerant</p>		
	<p>AVG. WIND SPEED:</p> <p>3.21 m/s</p>	<p>TOTAL COUNT:</p> <p>2862 hrs.</p>		

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Ikpikpak Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 1.56%

COMMENTS:

Total # of Hours: 2952
Data Availability: 99.53%
Missing Records: 14

DATA PERIOD:

**Start Date: 5/15/2005 - 00:00
End Date: 9/14/2005 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

1.56%

TOTAL COUNT:

2938 hrs.

AVG. WIND SPEED:

4.24 m/s

DATE:

8/21/2018

RECORD TYPE:

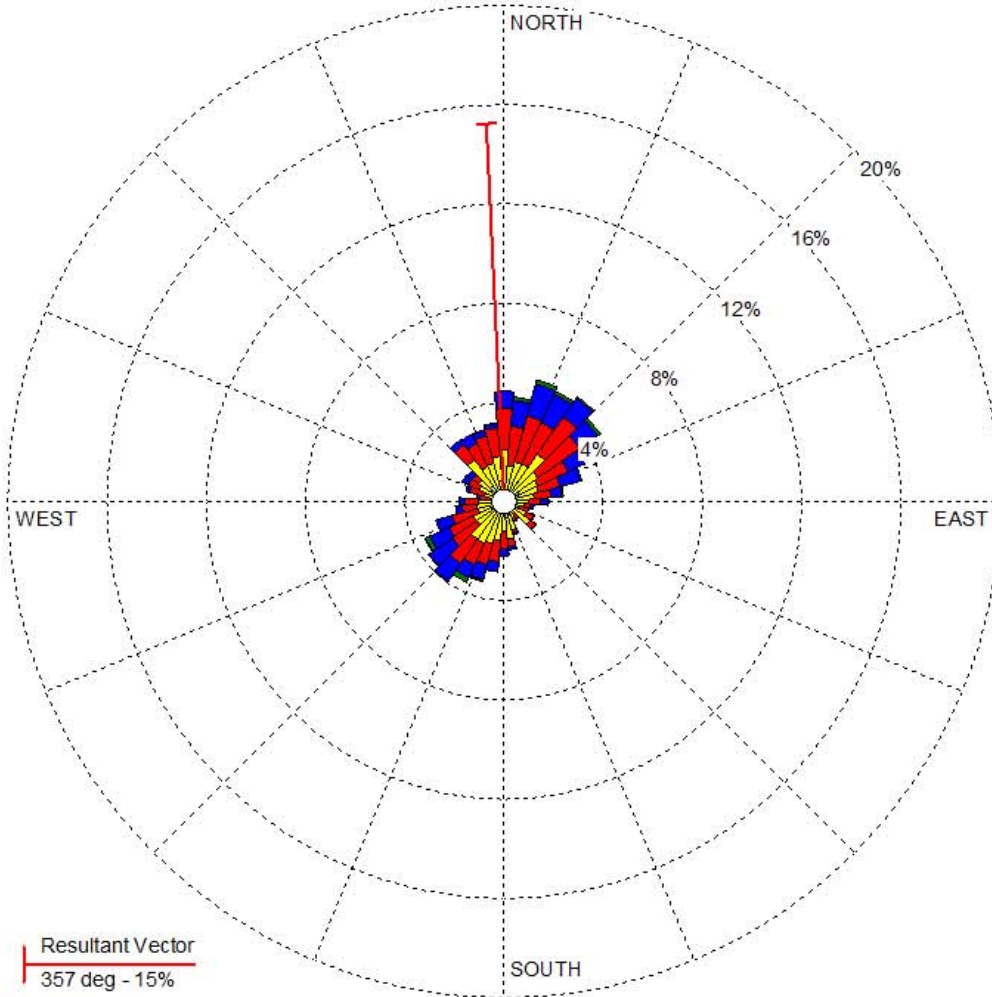
Summer 2005

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Ikpikuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10
- Calms: 1.19%

Resultant Vector
357 deg - 15%

COMMENTS:

Total # of Hours: 2952
Data Availability: 99.63%
Missing Records: 11

DATA PERIOD:

**Start Date: 5/15/2006 - 00:00
End Date: 9/14/2006 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

1.19%

TOTAL COUNT:

2941 hrs.

AVG. WIND SPEED:

3.81 m/s

DATE:

8/21/2018

RECORD TYPE:

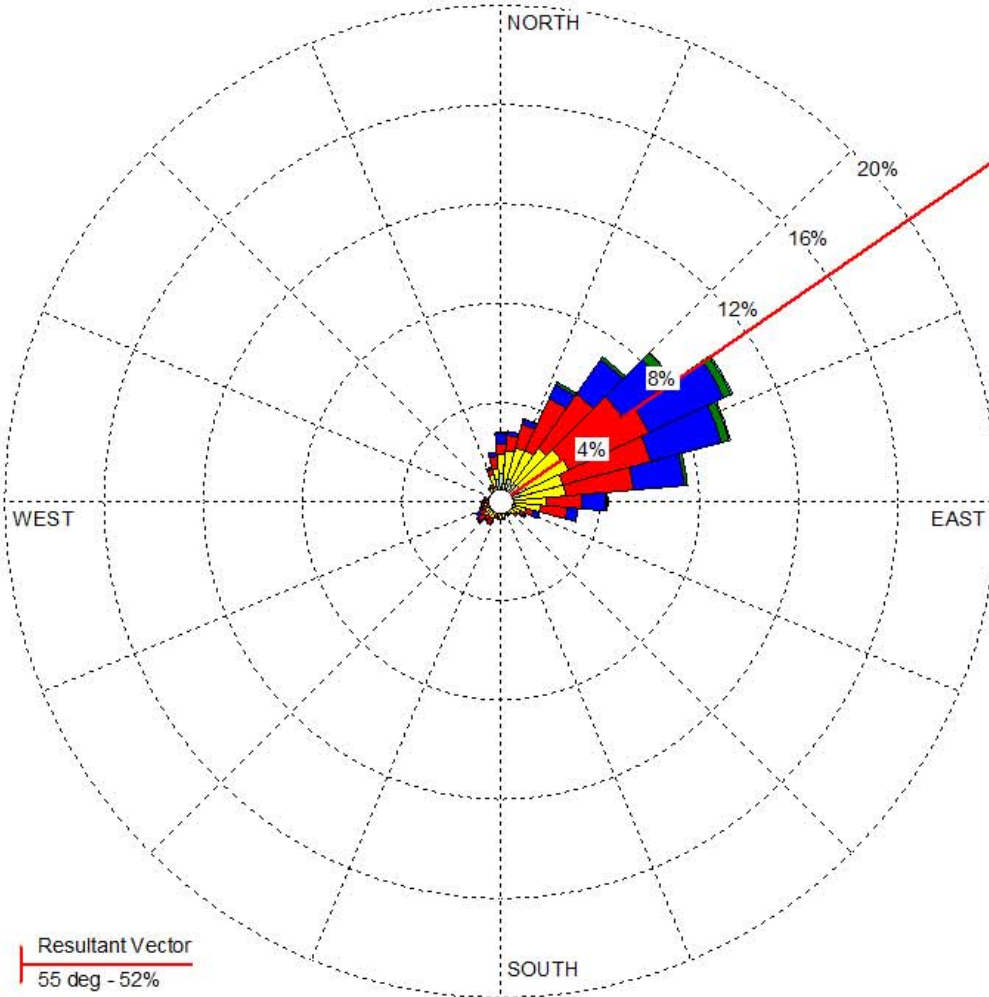
Summer 2006

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Ikpikuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10
- Calms: 2.27%

Resultant Vector
55 deg - 52%

COMMENTS:

Total # of Hours: 2952
Data Availability: 89.13%
Missing Records: 321

DATA PERIOD:

**Start Date: 5/15/2007 - 00:00
End Date: 9/14/2007 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

2.27%

TOTAL COUNT:

2631 hrs.

AVG. WIND SPEED:

3.78 m/s

DATE:

8/21/2018

RECORD TYPE:

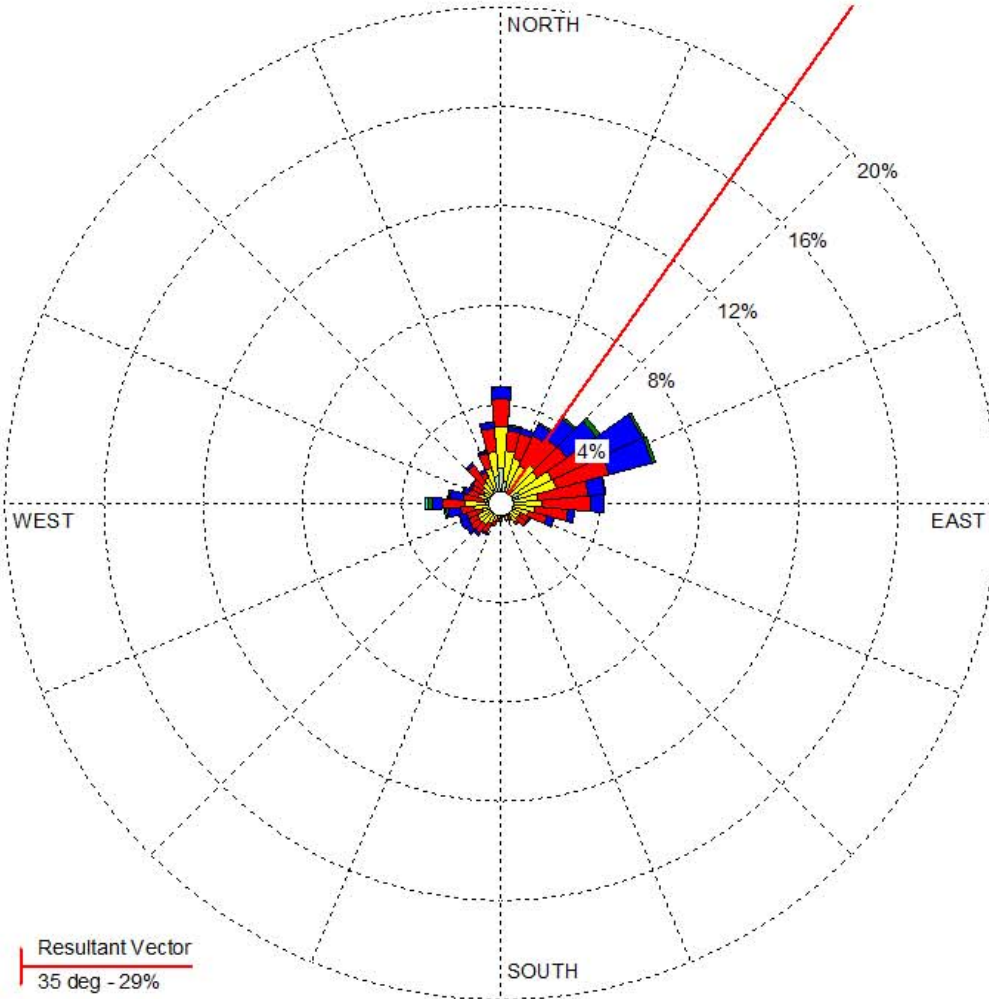
Summer 2007

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Ikpikuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



**WIND SPEED
(m/s)**

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10

Calms: 1.32%

COMMENTS:

Total # of Hours: 2952
Data Availability: 88.99%
Missing Records: 325

DATA PERIOD:

**Start Date: 5/15/2008 - 00:00
End Date: 9/14/2008 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

1.32%

TOTAL COUNT:

2627 hrs.

AVG. WIND SPEED:

3.67 m/s

DATE:

8/21/2018

RECORD TYPE:

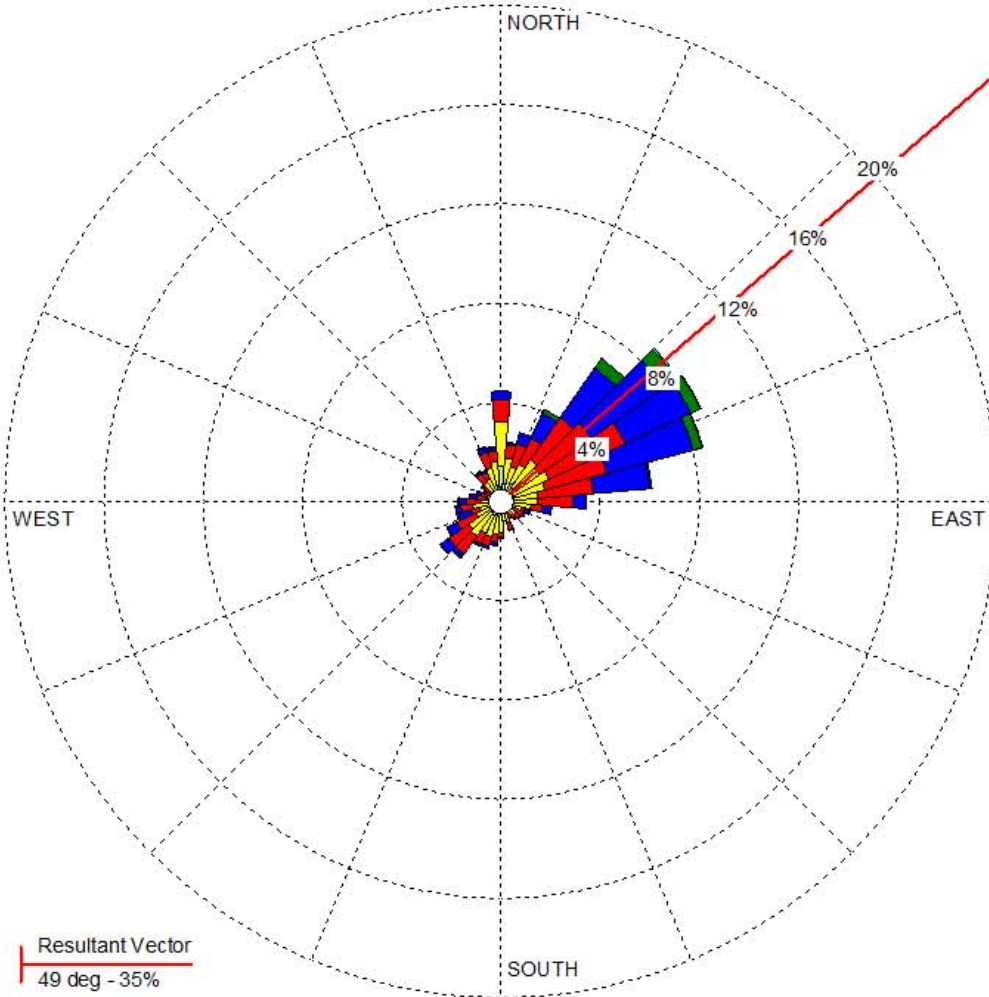
Summer 2008

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Ikpikuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



Resultant Vector
49 deg - 35%

WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 1.96%

COMMENTS:

Total # of Hours: 2952
Data Availability: 100%
Missing Records: 0

DATA PERIOD:

**Start Date: 5/15/2009 - 00:00
End Date: 9/14/2009 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

1.96%

TOTAL COUNT:

2952 hrs.

AVG. WIND SPEED:

4.08 m/s

DATE:

8/21/2018

RECORD TYPE:

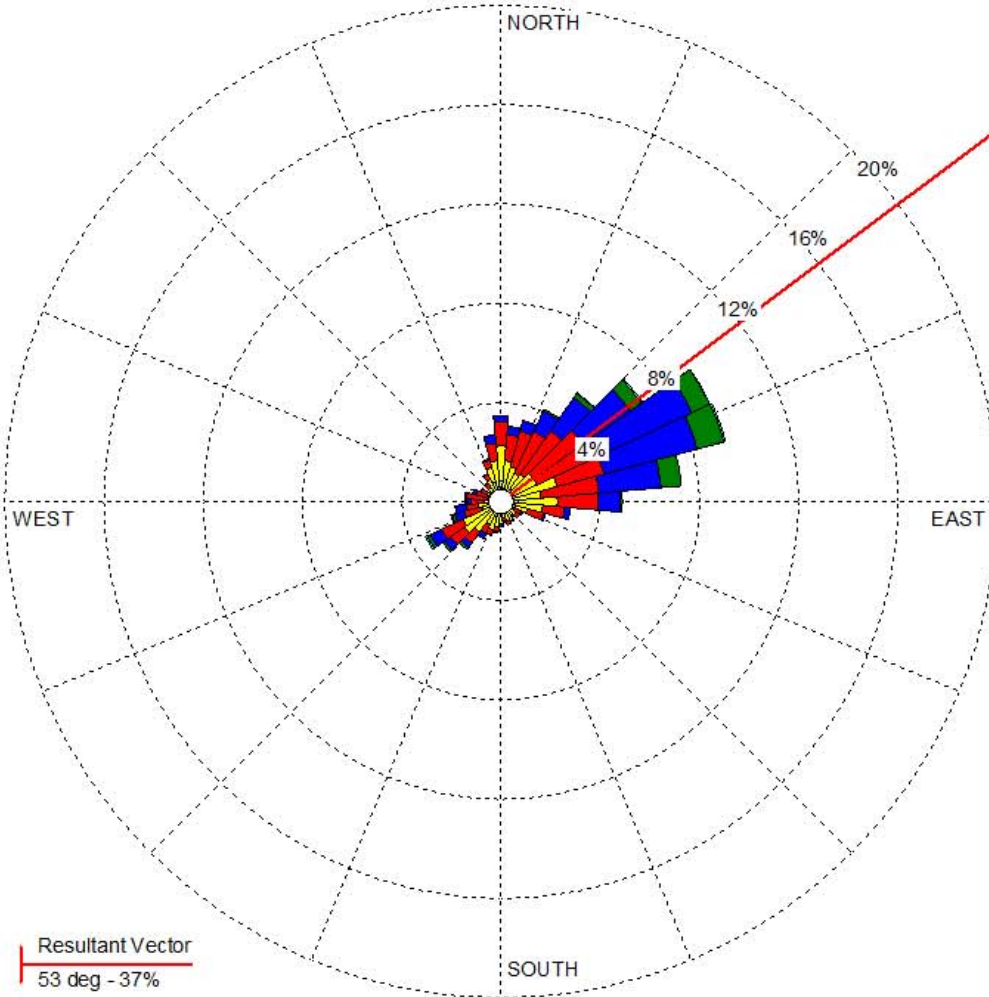
Summer 2009

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Ikpikuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 1.66%

COMMENTS:

Total # of Hours: 2952
Data Availability: 99.12%
Missing Records: 26

DATA PERIOD:

**Start Date: 5/15/2010 - 00:00
End Date: 9/14/2010 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

1.66%

TOTAL COUNT:

2926 hrs.

AVG. WIND SPEED:

4.23 m/s

DATE:

8/21/2018

RECORD TYPE:

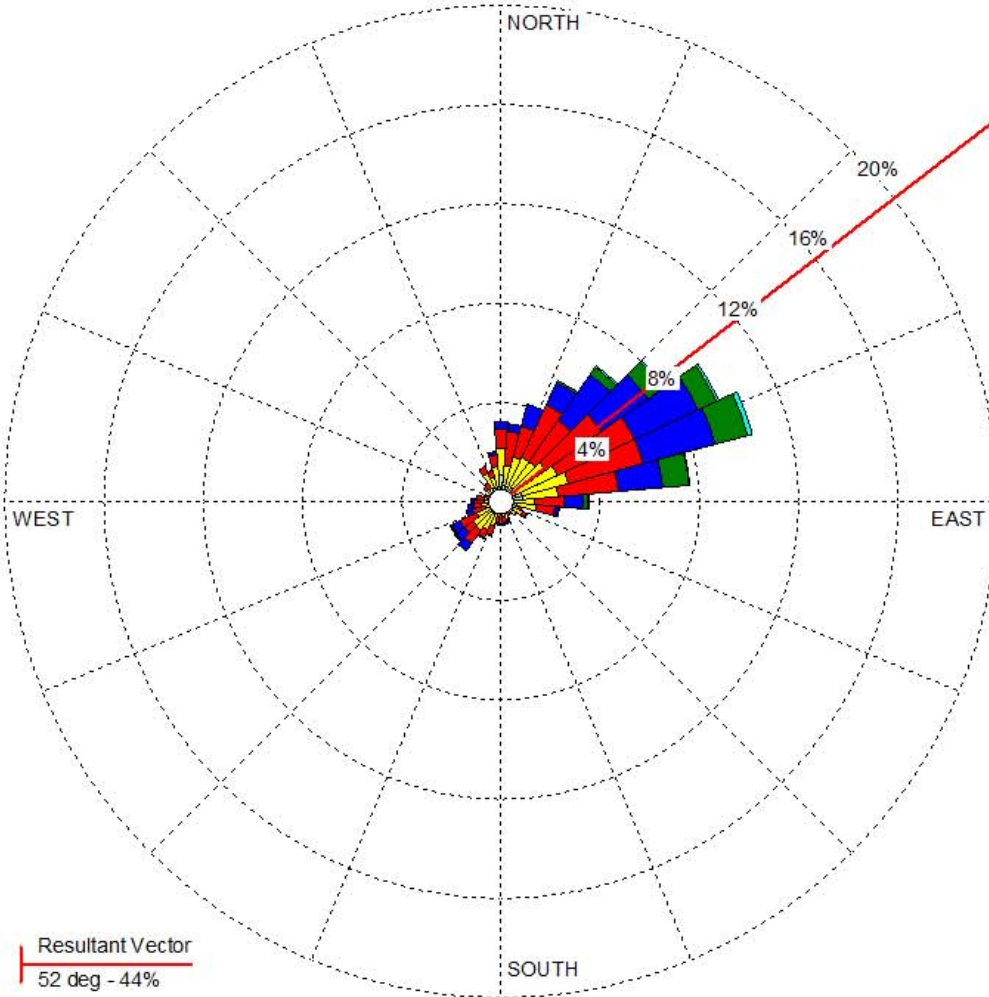
Summer 2010

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Ikpikuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10
- Calms: 1.73%

Resultant Vector
52 deg - 44%

COMMENTS:

Total # of Hours: 2952
Data Availability: 96.82%
Missing Records: 94

DATA PERIOD:

**Start Date: 5/15/2011 - 00:00
End Date: 9/14/2011 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

1.73%

TOTAL COUNT:

2858 hrs.

AVG. WIND SPEED:

4.15 m/s

DATE:

8/21/2018

RECORD TYPE:

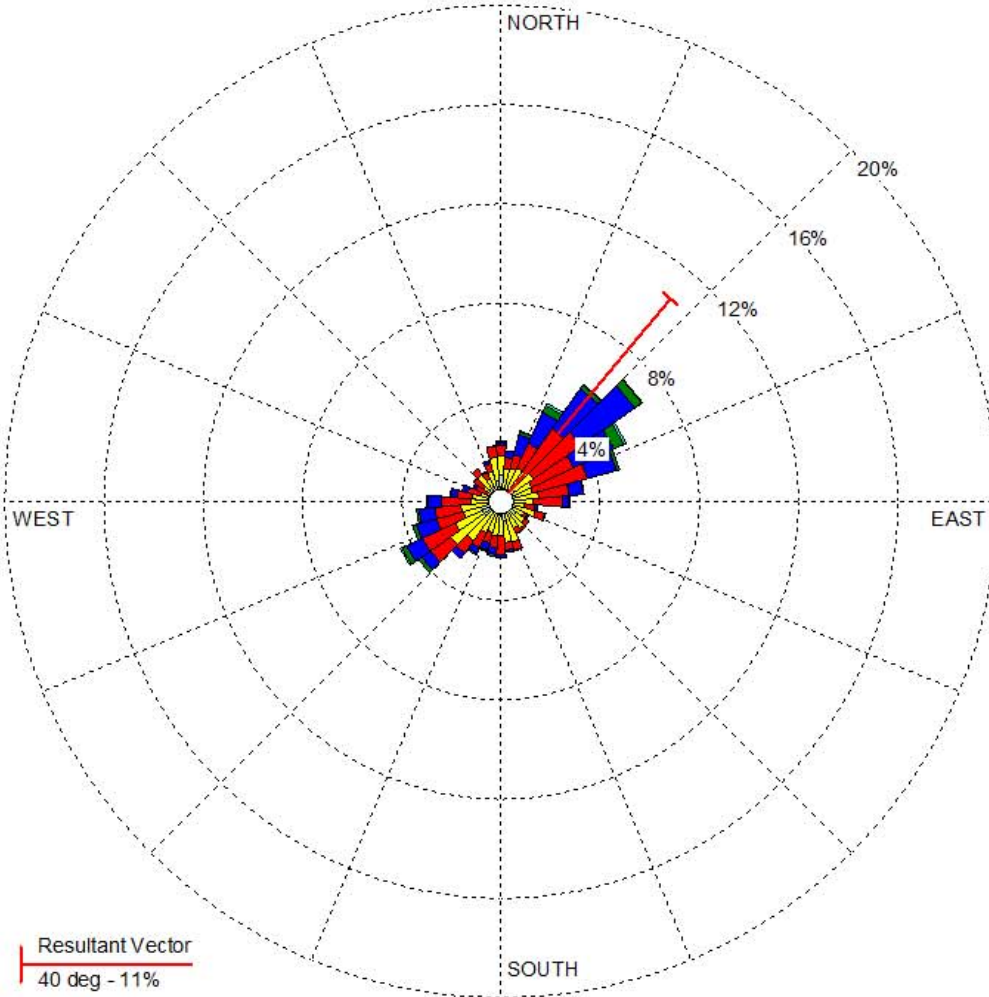
Summer 2011

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Ikpikuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



**WIND SPEED
(m/s)**

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10

Calms: 2.03%

COMMENTS:

Total # of Hours: 2952
Data Availability: 99.93%
Missing Records: 2

DATA PERIOD:

**Start Date: 5/15/2012 - 00:00
End Date: 9/14/2012 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

2.03%

TOTAL COUNT:

2950 hrs.

AVG. WIND SPEED:

3.79 m/s

DATE:

8/21/2018

RECORD TYPE:

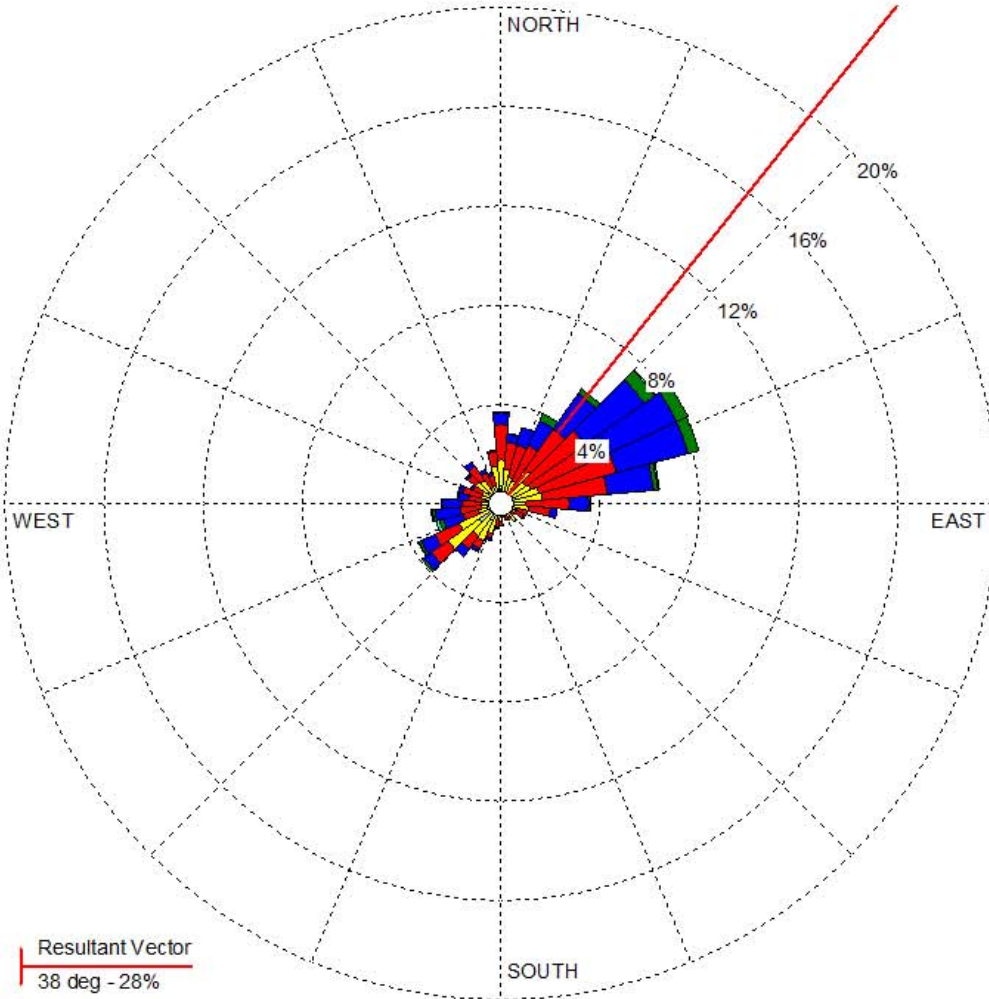
Summer 2012

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Ikpikpak Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 0.85%

Resultant Vector
38 deg - 28%

COMMENTS:

Total # of Hours: 2952
Data Availability: 99.97%
Missing Records: 1

DATA PERIOD:

**Start Date: 5/15/2014 - 00:00
End Date: 9/14/2014 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

0.85%

TOTAL COUNT:

2951 hrs.

AVG. WIND SPEED:

4.31 m/s

DATE:

8/21/2018

RECORD TYPE:

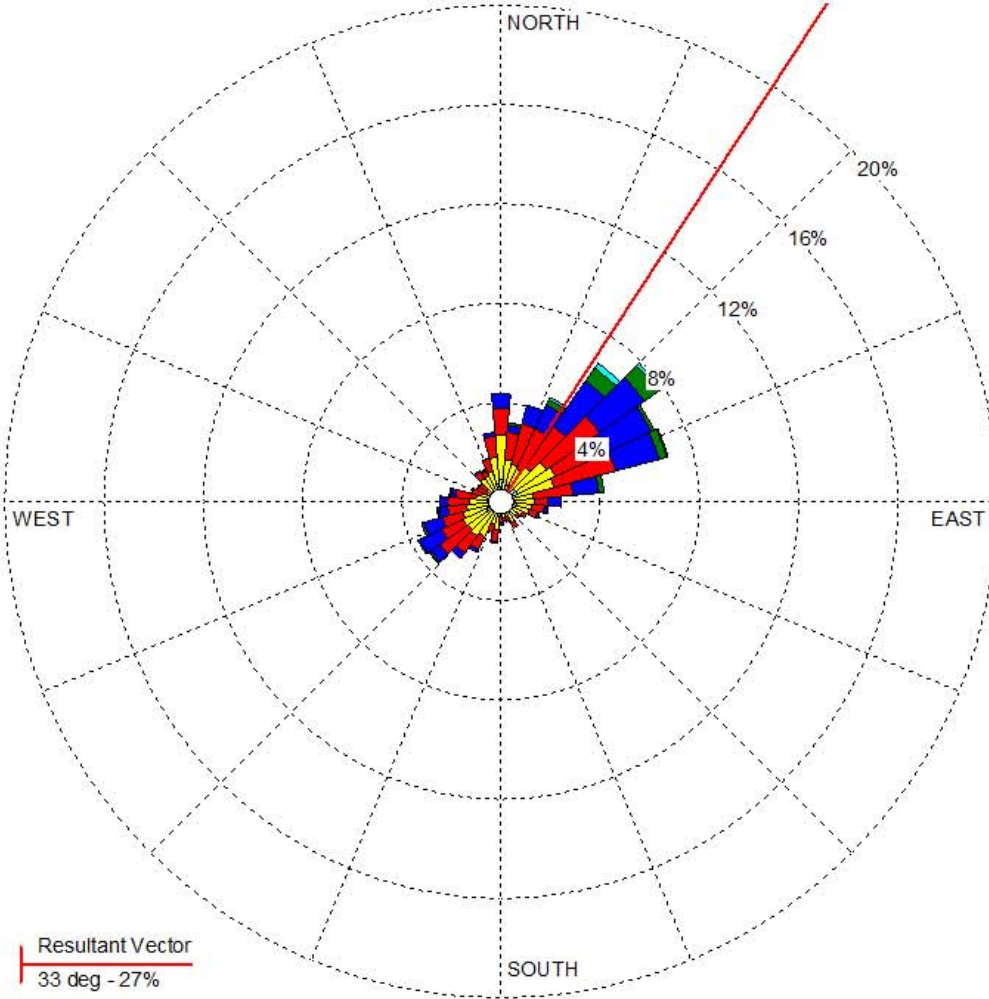
Summer 2014

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Ikpikpak Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



Resultant Vector
33 deg - 27%

WIND SPEED (m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10

Calms: 1.39%

COMMENTS:

Total # of Hours: 2952
Data Availability: 99.56%
Missing Records: 13

DATA PERIOD:

**Start Date: 5/15/2015 - 00:00
End Date: 9/14/2015 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

1.39%

TOTAL COUNT:

2939 hrs.

AVG. WIND SPEED:

3.98 m/s

DATE:

8/21/2018

RECORD TYPE:

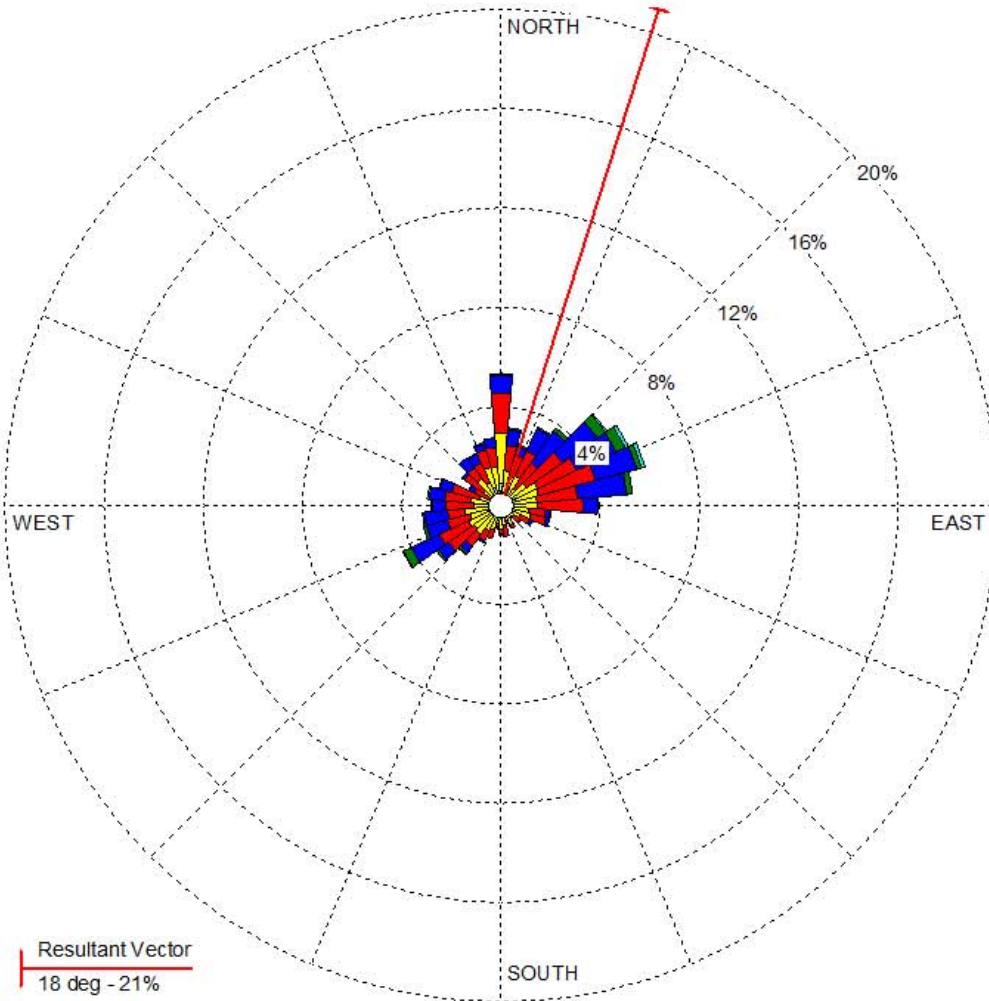
Summer 2015

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Ikpikpak Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 1.42%

COMMENTS:

Total # of Hours: 2952
Data Availability: 99.63%
Missing Records: 11

DATA PERIOD:

**Start Date: 5/15/2016 - 00:00
End Date: 9/14/2016 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

1.42%

TOTAL COUNT:

2941 hrs.

AVG. WIND SPEED:

4.15 m/s

DATE:

8/21/2018

RECORD TYPE:

Summer 2016

Wind Roses, Cold Season

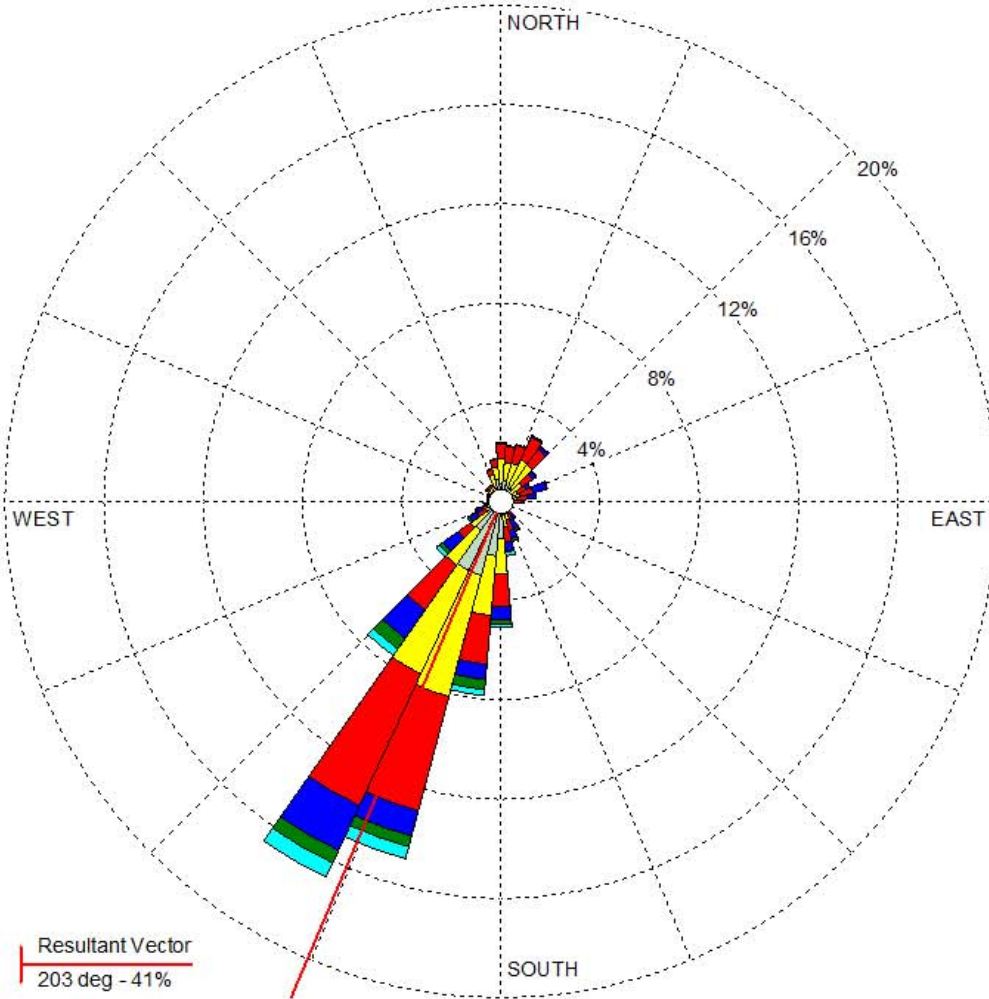
Otuk Creek, Alaska

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Otuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



Resultant Vector
203 deg - 41%

WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 5.97%

COMMENTS:

Total # of Hours: 5423
Data Availability: 99.98%
Missing Records: 1
Partial record winter, station was setup after start of winter season.

DATA PERIOD:

**Start Date: 10/1/2008 - 00:00
End Date: 5/14/2009 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

5.97%

TOTAL COUNT:

5422 hrs.

AVG. WIND SPEED:

3.57 m/s

DATE:

8/21/2018

RECORD TYPE:

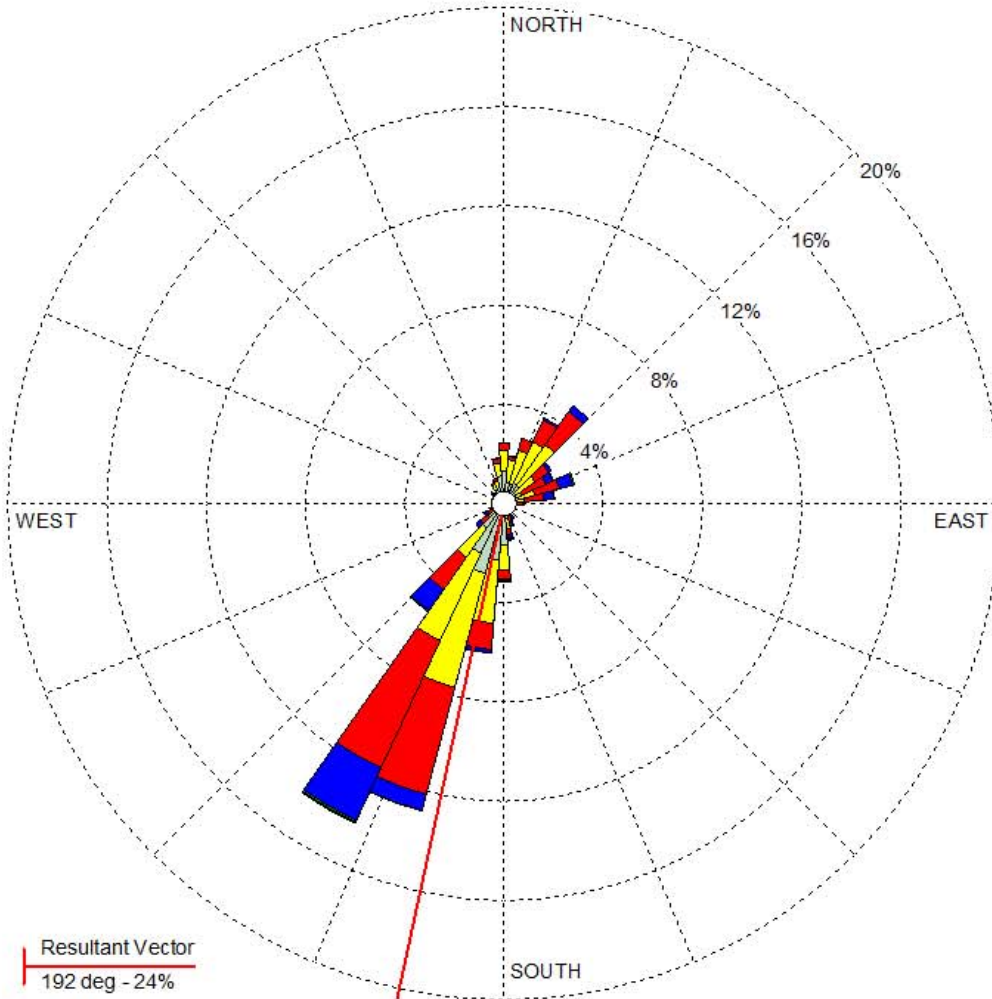
Winter 2008

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Otuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



Resultant Vector
192 deg - 24%

WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 16.86%

COMMENTS:

Total # of Hours: 5808
Data Availability: 100%
Missing Records: 0

DATA PERIOD:

**Start Date: 9/15/2009 - 00:00
End Date: 5/14/2010 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

16.86%

TOTAL COUNT:

5808 hrs.

AVG. WIND SPEED:

2.65 m/s

DATE:

8/21/2018

RECORD TYPE:

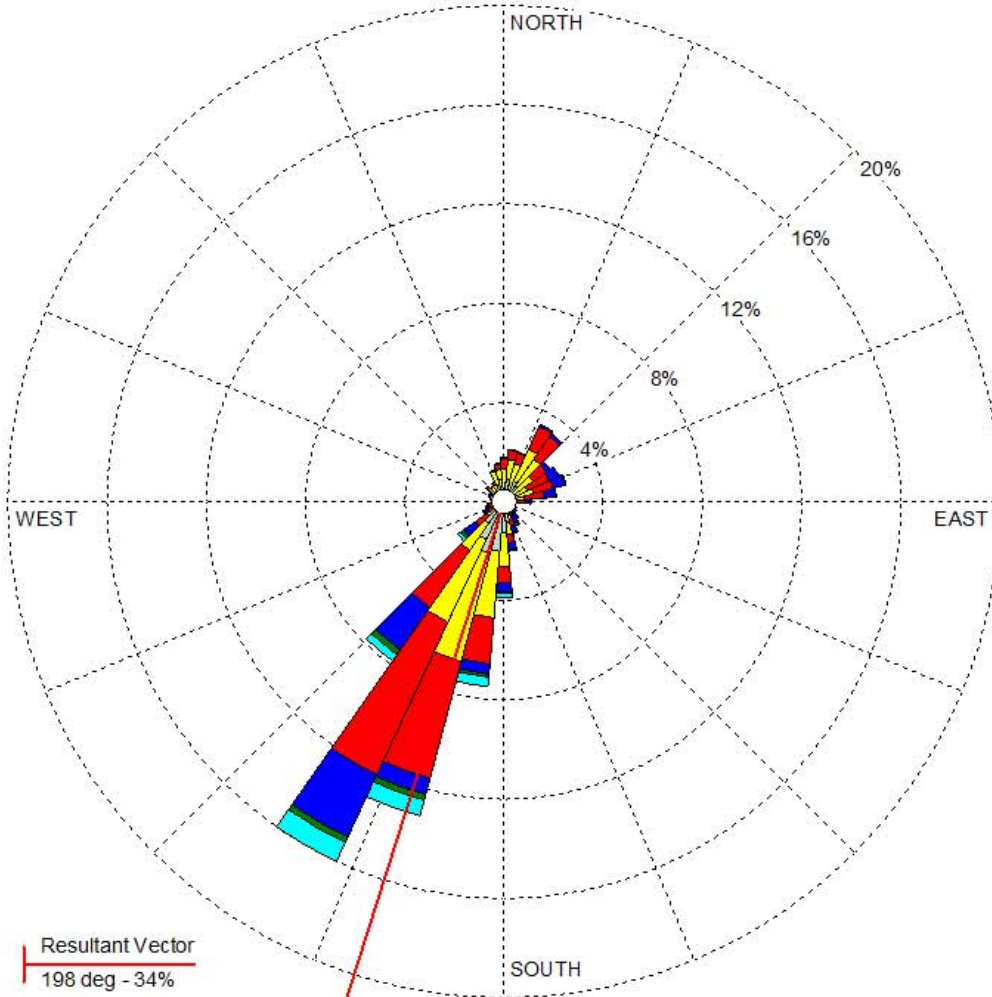
Winter 2009

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Otuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



Resultant Vector
198 deg - 34%

WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 8.94%

COMMENTS:

Total # of Hours: 5808
Data Availability: 100%
Missing Records: 0

DATA PERIOD:

**Start Date: 9/15/2010 - 00:00
End Date: 5/14/2011 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

8.94%

TOTAL COUNT:

5808 hrs.

AVG. WIND SPEED:

3.54 m/s

DATE:

8/21/2018

RECORD TYPE:

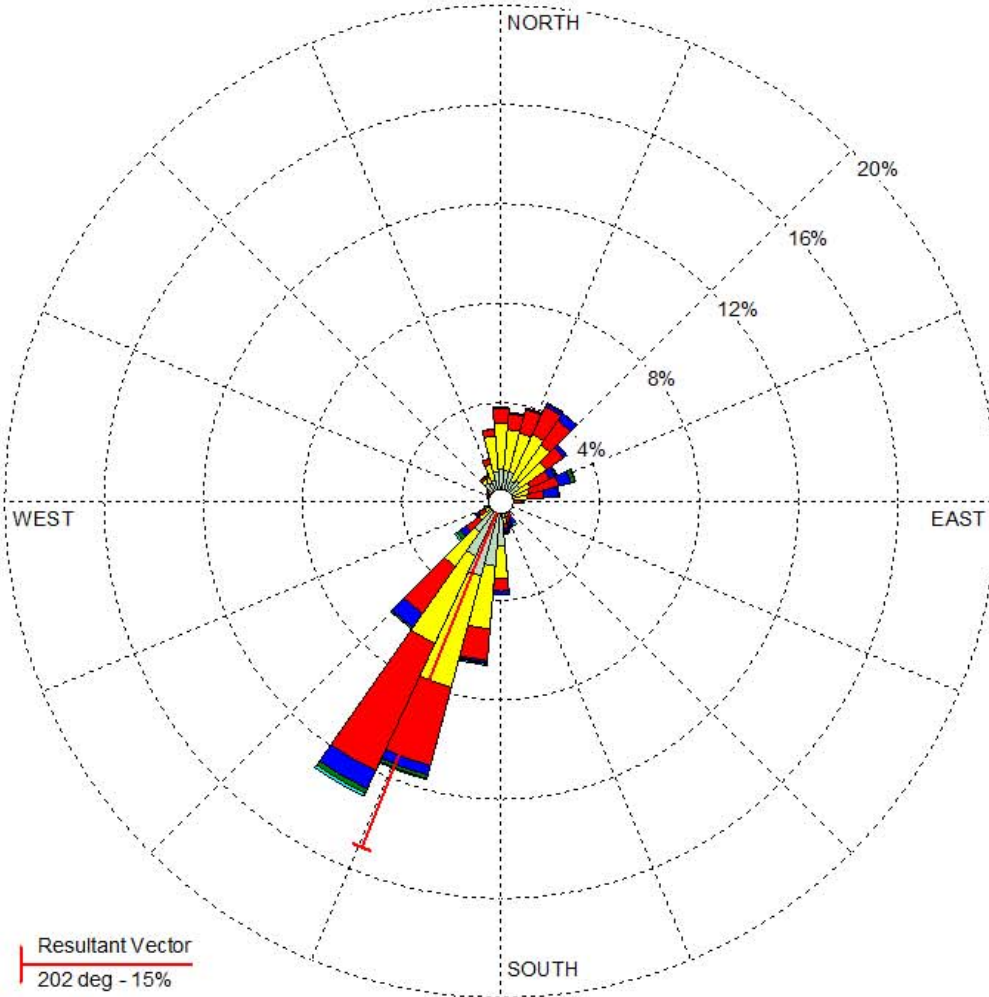
Winter 2010

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Otuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



Resultant Vector
202 deg - 15%

WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 6.34%

COMMENTS:

Total # of Hours: 5832
Data Availability: 100%
Missing Records: 0

DATA PERIOD:

**Start Date: 9/15/2011 - 00:00
End Date: 5/14/2012 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

6.34%

TOTAL COUNT:

5832 hrs.

AVG. WIND SPEED:

3.00 m/s

DATE:

8/21/2018

RECORD TYPE:

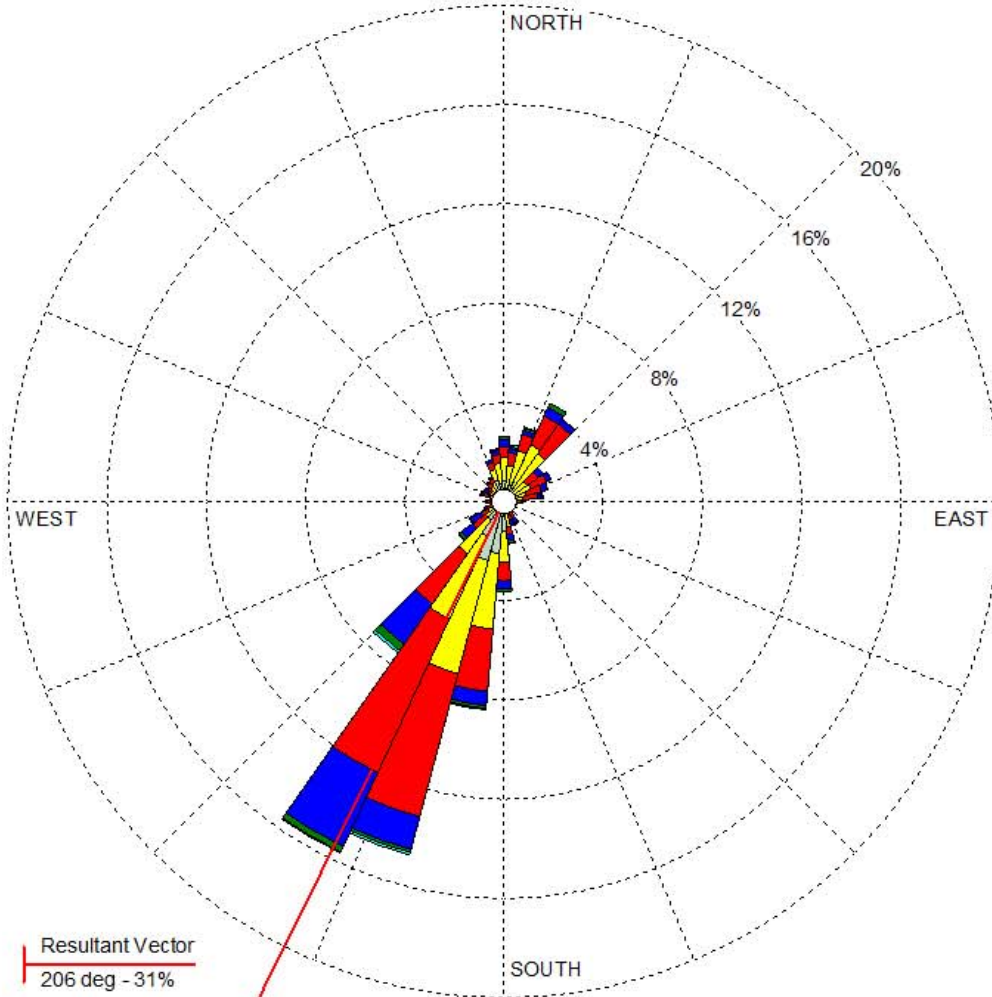
Winter 2011

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Otuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



**WIND SPEED
(m/s)**

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10

Calms: 4.49%

COMMENTS:

Total # of Hours: 5808
Data Availability: 100%
Missing Records: 0

DATA PERIOD:

**Start Date: 9/15/2012 - 00:00
End Date: 5/14/2013 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

4.49%

TOTAL COUNT:

5808 hrs.

AVG. WIND SPEED:

3.59 m/s

DATE:

8/21/2018

RECORD TYPE:

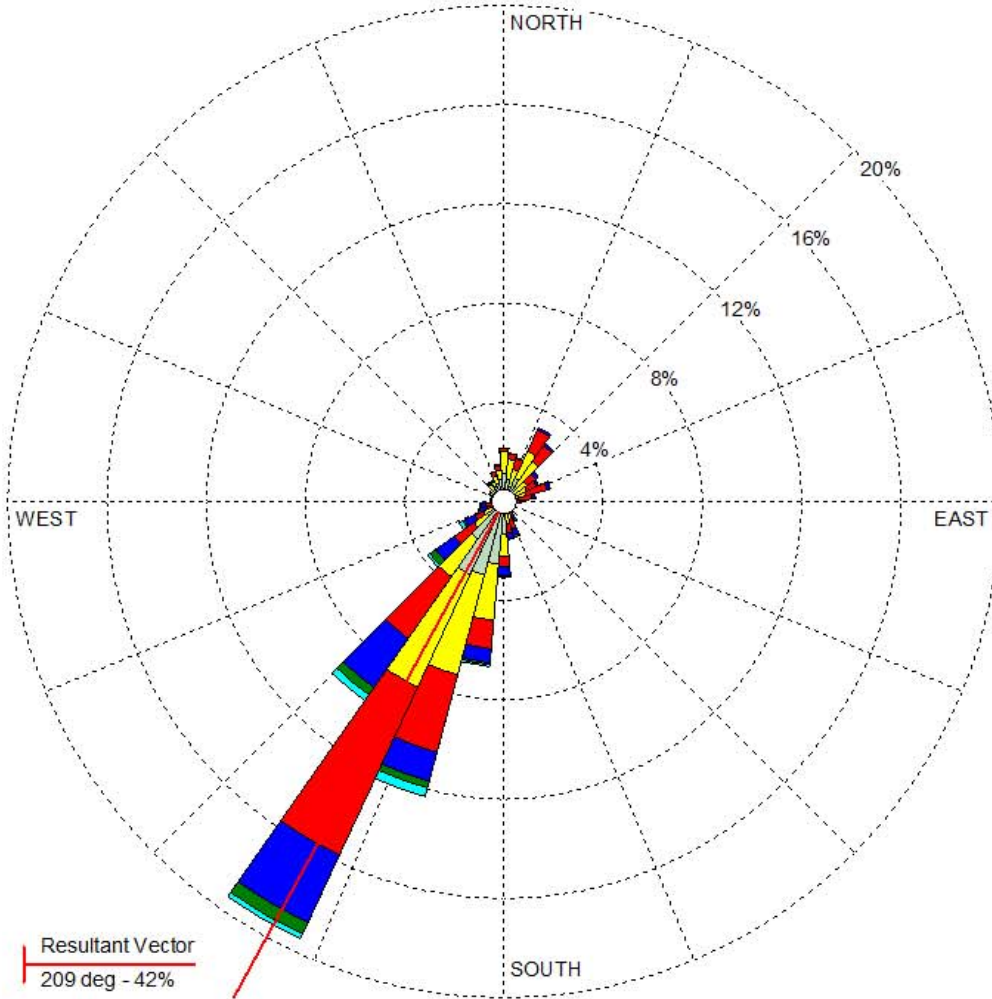
Winter 2012

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Otuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 8.26%

COMMENTS:

Total # of Hours: 5808
Data Availability: 100%
Missing Records: 0

DATA PERIOD:

**Start Date: 9/15/2013 - 00:00
End Date: 5/14/2014 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

8.26%

TOTAL COUNT:

5808 hrs.

AVG. WIND SPEED:

3.31 m/s

DATE:

8/21/2018

RECORD TYPE:

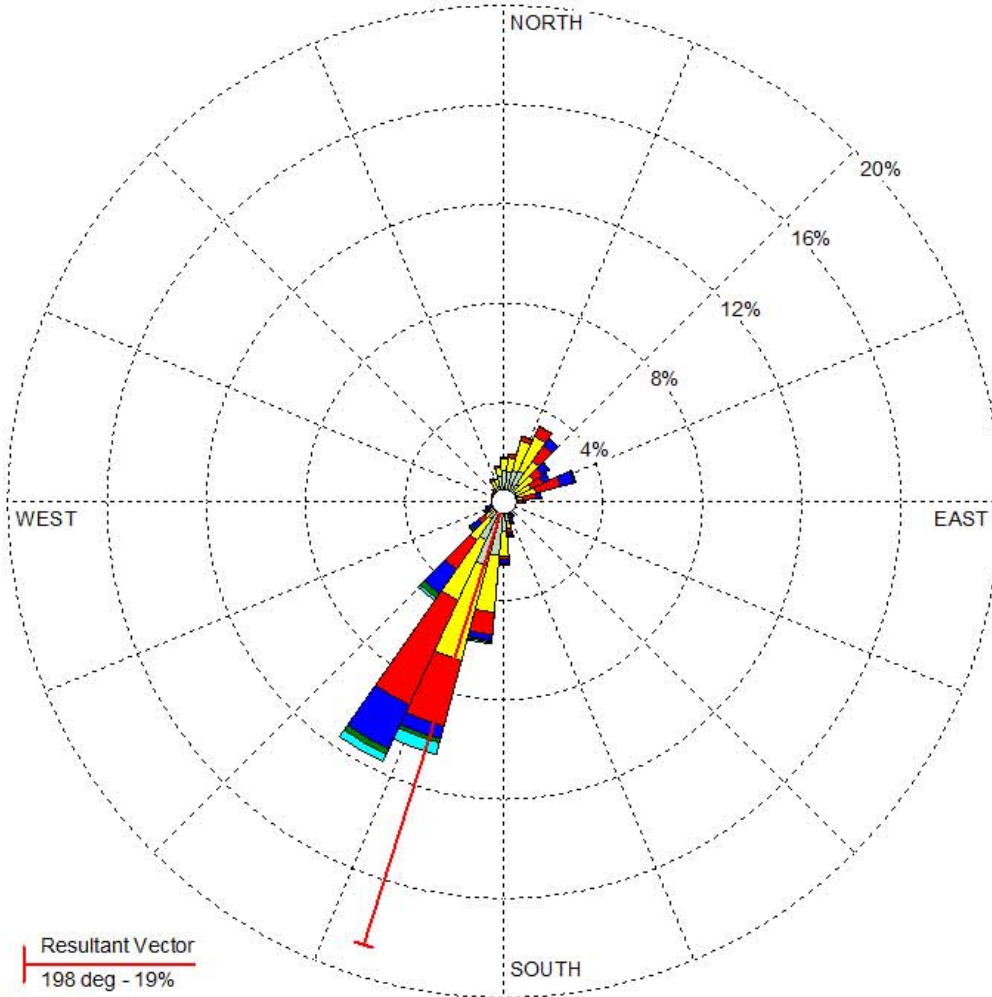
Winter 2013

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Otuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



Resultant Vector
198 deg - 19%

WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 6.78%

COMMENTS:

Total # of Hours: 5808
Data Availability: 79.67%
Missing Records: 1181

DATA PERIOD:

**Start Date: 9/15/2014 - 00:00
End Date: 5/14/2015 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

6.78%

TOTAL COUNT:

4627 hrs.

AVG. WIND SPEED:

3.06 m/s

DATE:

8/21/2018

RECORD TYPE:

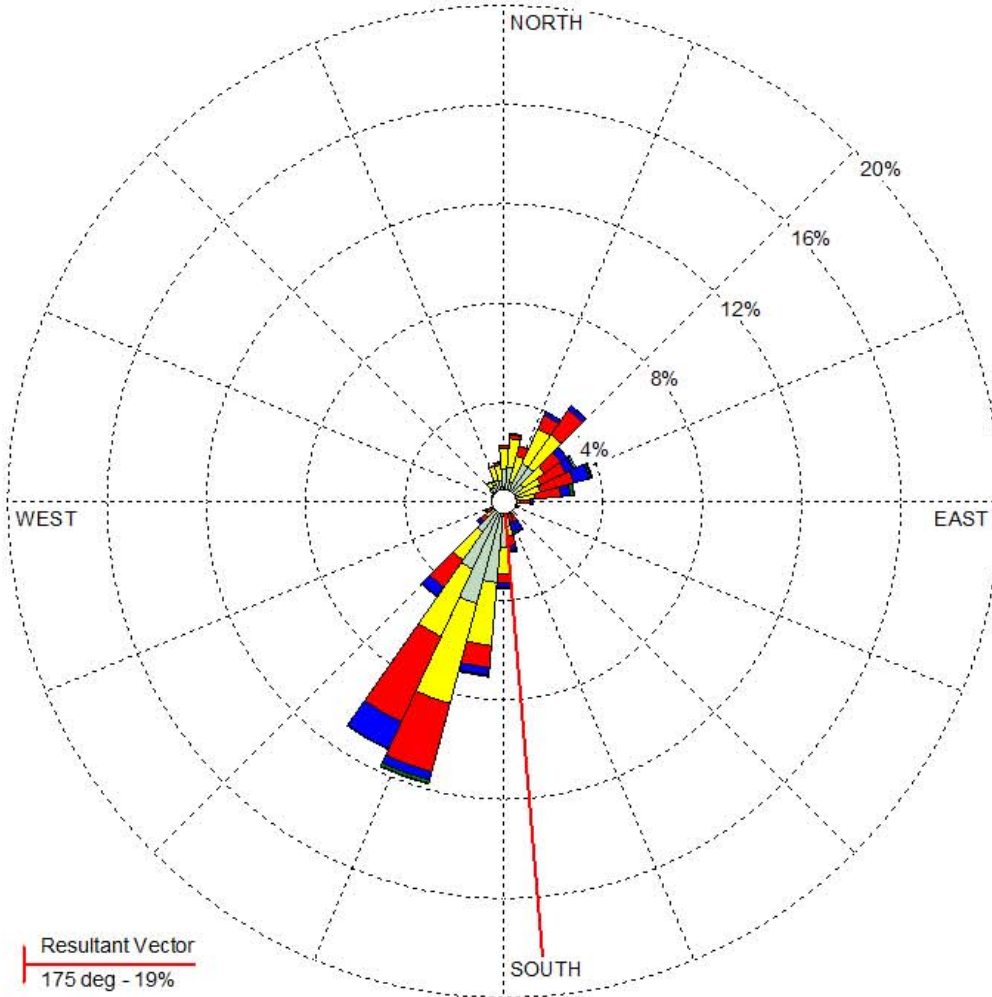
Winter 2014

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Otuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



Resultant Vector
175 deg - 19%

WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 14.25%

COMMENTS:

Total # of Hours: 5832
Data Availability: 100%
Missing Records: 0

DATA PERIOD:

**Start Date: 9/15/2015 - 00:00
End Date: 5/14/2016 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

14.25%

TOTAL COUNT:

5832 hrs.

AVG. WIND SPEED:

2.51 m/s

DATE:

8/21/2018

RECORD TYPE:

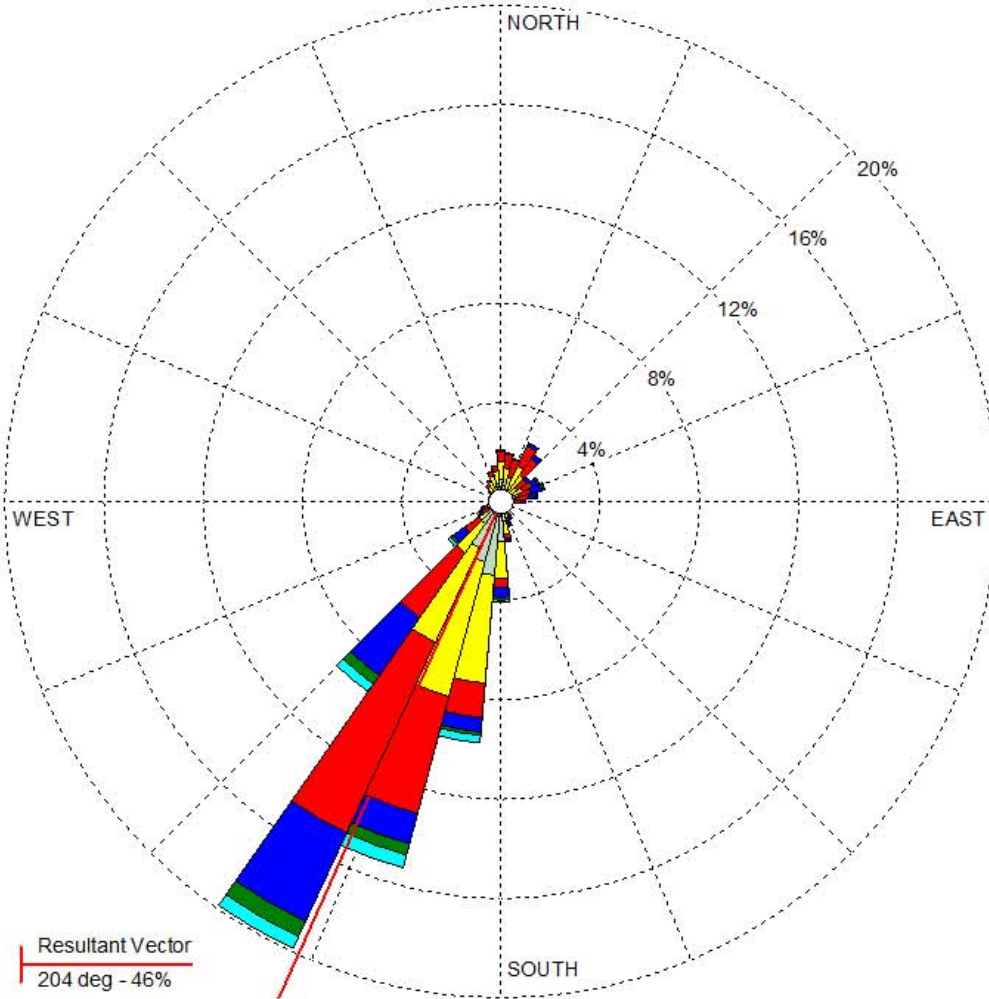
Winter 2015

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Otuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



**WIND SPEED
(m/s)**

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10

Calms: 5.75%

COMMENTS:

Total # of Hours: 5808
Data Availability: 99.55%
Missing Records: 26

DATA PERIOD:

**Start Date: 9/15/2016 - 00:00
End Date: 5/14/2017 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

5.75%

TOTAL COUNT:

5782 hrs.

AVG. WIND SPEED:

3.61 m/s

DATE:

8/21/2018

RECORD TYPE:

Winter 2016

Wind Roses, Warm Season

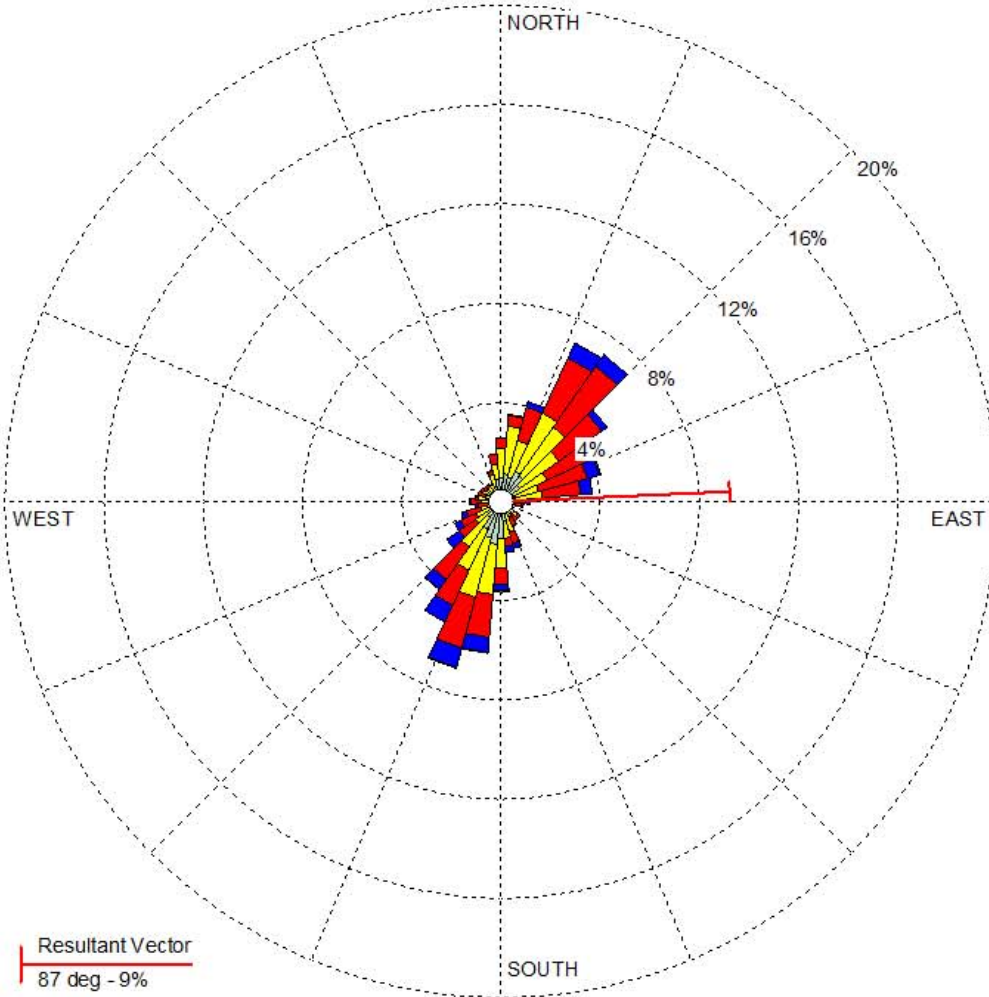
Otuk Creek, Alaska

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Otuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10
- Calms: 4.00%

Resultant Vector
87 deg - 9%

COMMENTS:

Total # of Hours: 2952
Data Availability: 99.97%
Missing Records: 1

DATA PERIOD:

**Start Date: 5/15/2009 - 00:00
End Date: 9/14/2009 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

4.00%

TOTAL COUNT:

2951 hrs.

AVG. WIND SPEED:

3.13 m/s

DATE:

8/21/2018

RECORD TYPE:

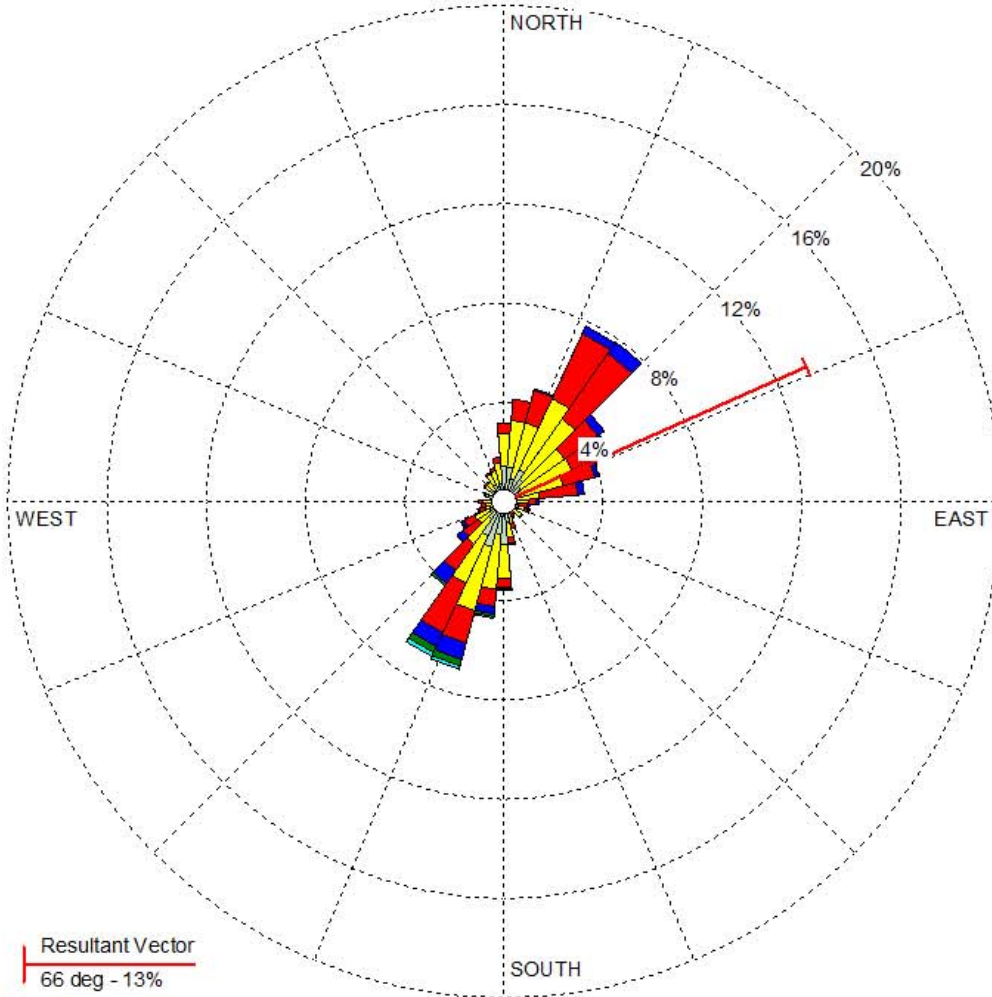
Summer 2009

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Otuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10
- Calms: 4.00%

COMMENTS:

Total # of Hours: 2952
Data Availability: 100%
Missing Records: 0

DATA PERIOD:

**Start Date: 5/15/2010 - 00:00
End Date: 9/14/2010 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

4.00%

TOTAL COUNT:

2952 hrs.

AVG. WIND SPEED:

2.96 m/s

DATE:

8/21/2018

RECORD TYPE:

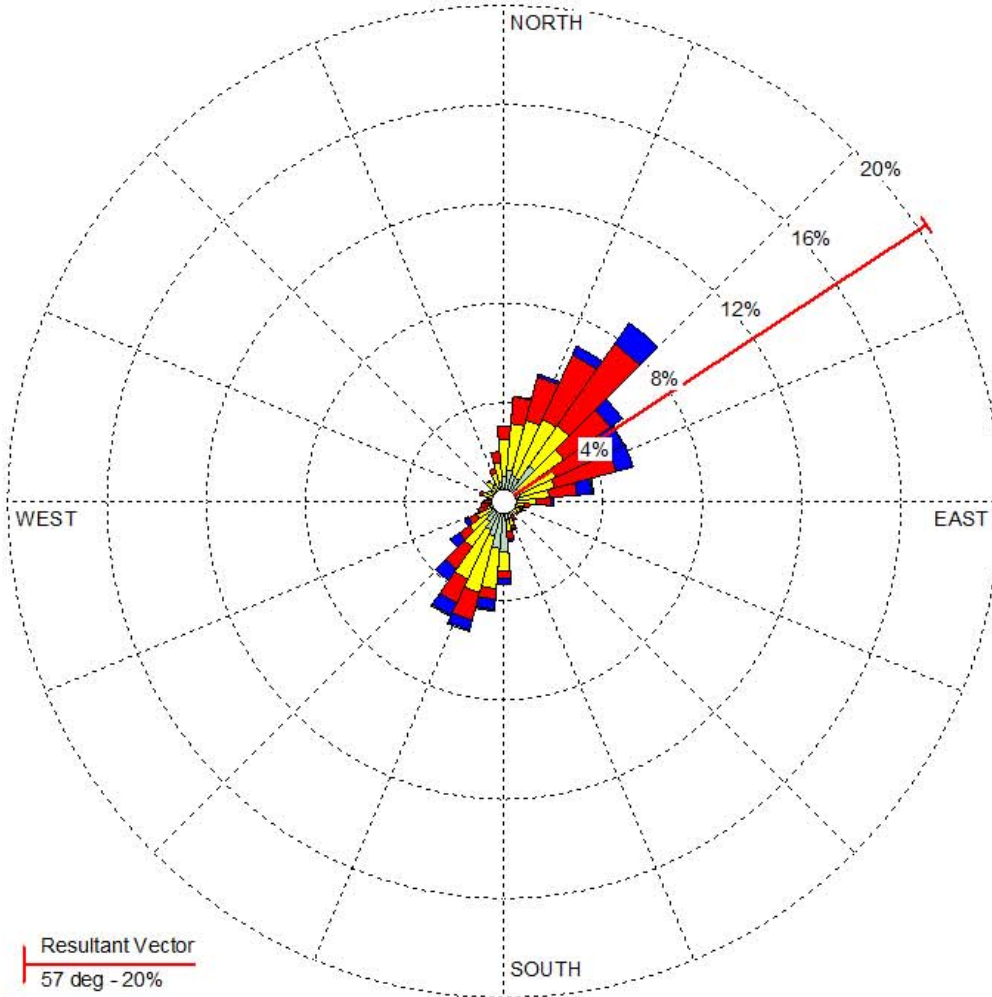
Summer 2010

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Otuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



**WIND SPEED
(m/s)**

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10

Calms: 3.96%

COMMENTS:

Total # of Hours: 2952
Data Availability: 100%
Missing Records: 0

DATA PERIOD:

**Start Date: 5/15/2011 - 00:00
End Date: 9/14/2011 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

3.96%

TOTAL COUNT:

2952 hrs.

AVG. WIND SPEED:

3.04 m/s

DATE:

8/21/2018

RECORD TYPE:

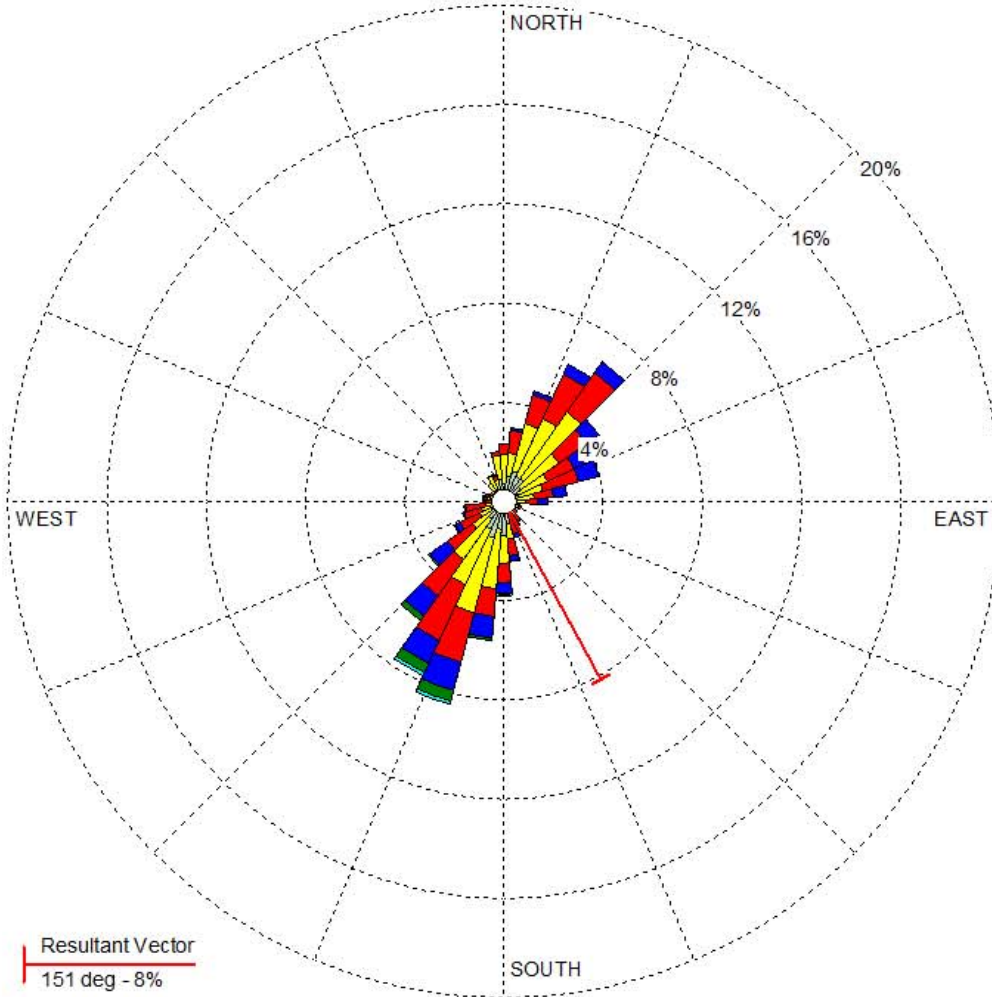
Summer 2011

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Otuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



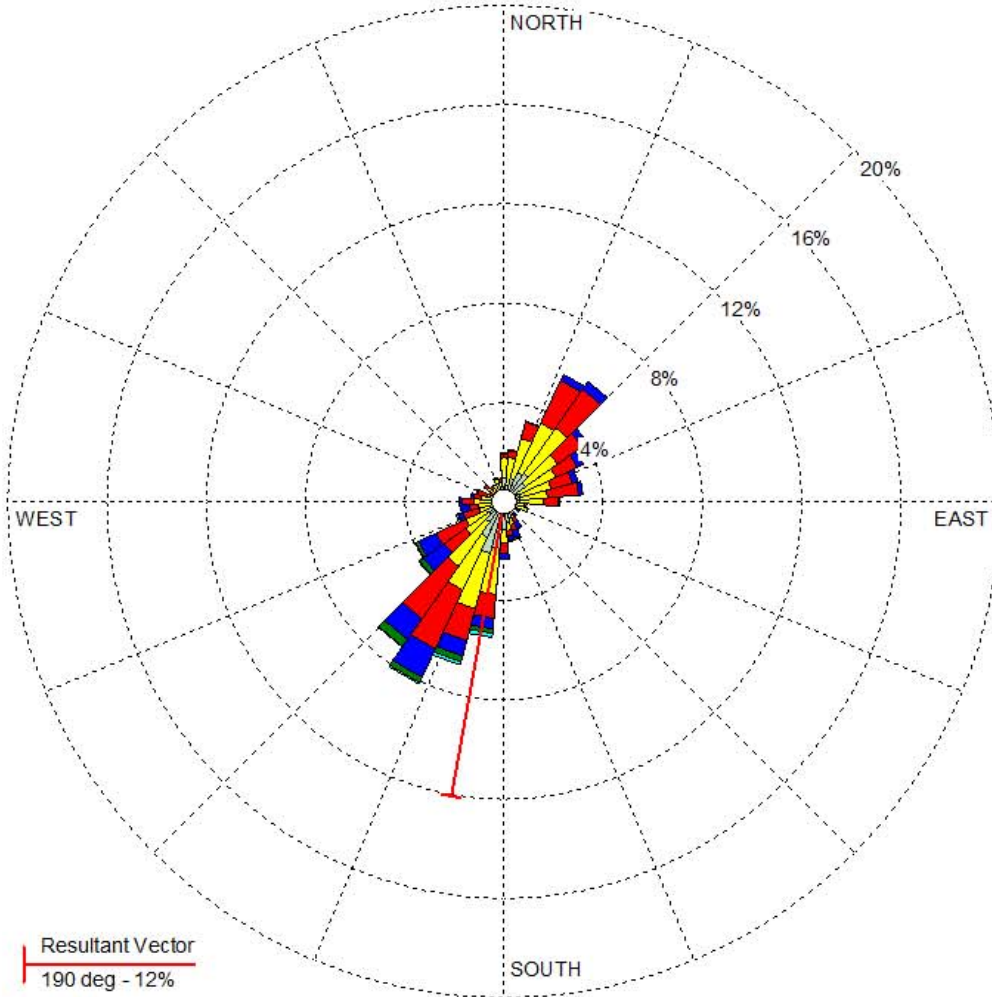
<p>COMMENTS:</p> <p>Total # of Hours: 2952 Data Availability: 99.97% Missing Records: 1</p>	<p>DATA PERIOD:</p> <p>Start Date: 5/15/2012 - 00:00 End Date: 9/14/2012 - 23:00</p>	<p>COMPANY NAME:</p> <p>Water and Environmental Research Center</p>		
	<p>CALM WINDS:</p> <p>2.47%</p>	<p>MODELER:</p> <p>Eric N. LaMesjerant</p>		
	<p>AVG. WIND SPEED:</p> <p>3.39 m/s</p>	<p>TOTAL COUNT:</p> <p>2951 hrs.</p>		

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Otuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10
- Calms: 5.18%

Resultant Vector
190 deg - 12%

COMMENTS:

Total # of Hours: 2952
Data Availability: 100%
Missing Records: 0

DATA PERIOD:

**Start Date: 5/15/2013 - 00:00
End Date: 9/14/2013 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

5.18%

TOTAL COUNT:

2952 hrs.

AVG. WIND SPEED:

3.14 m/s

DATE:

8/21/2018

RECORD TYPE:

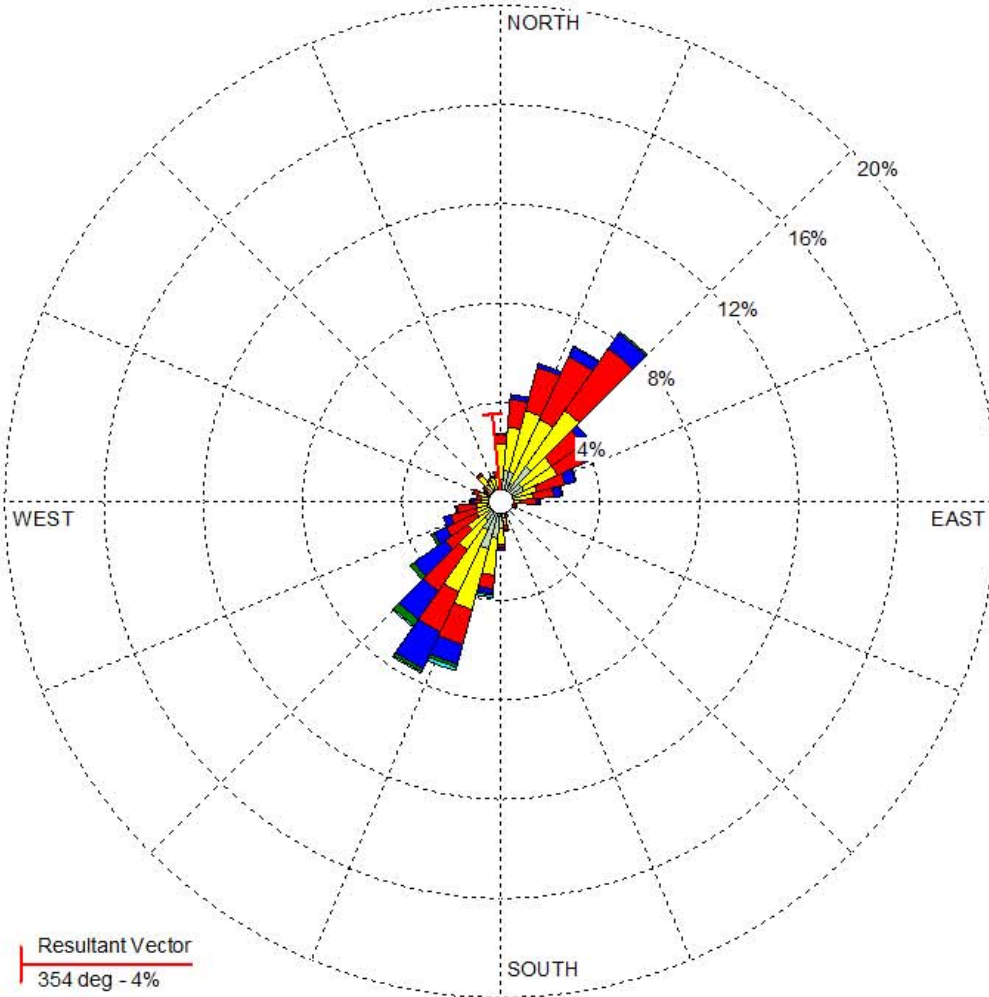
Summer 2013

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Otuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10
- Calms: 3.42%

Resultant Vector
354 deg - 4%

COMMENTS:

Total # of Hours: 2952
Data Availability: 100%
Missing Records: 0

DATA PERIOD:

**Start Date: 5/15/2014 - 00:00
End Date: 9/14/2014 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

3.42%

TOTAL COUNT:

2952 hrs.

AVG. WIND SPEED:

3.30 m/s

DATE:

8/21/2018

RECORD TYPE:

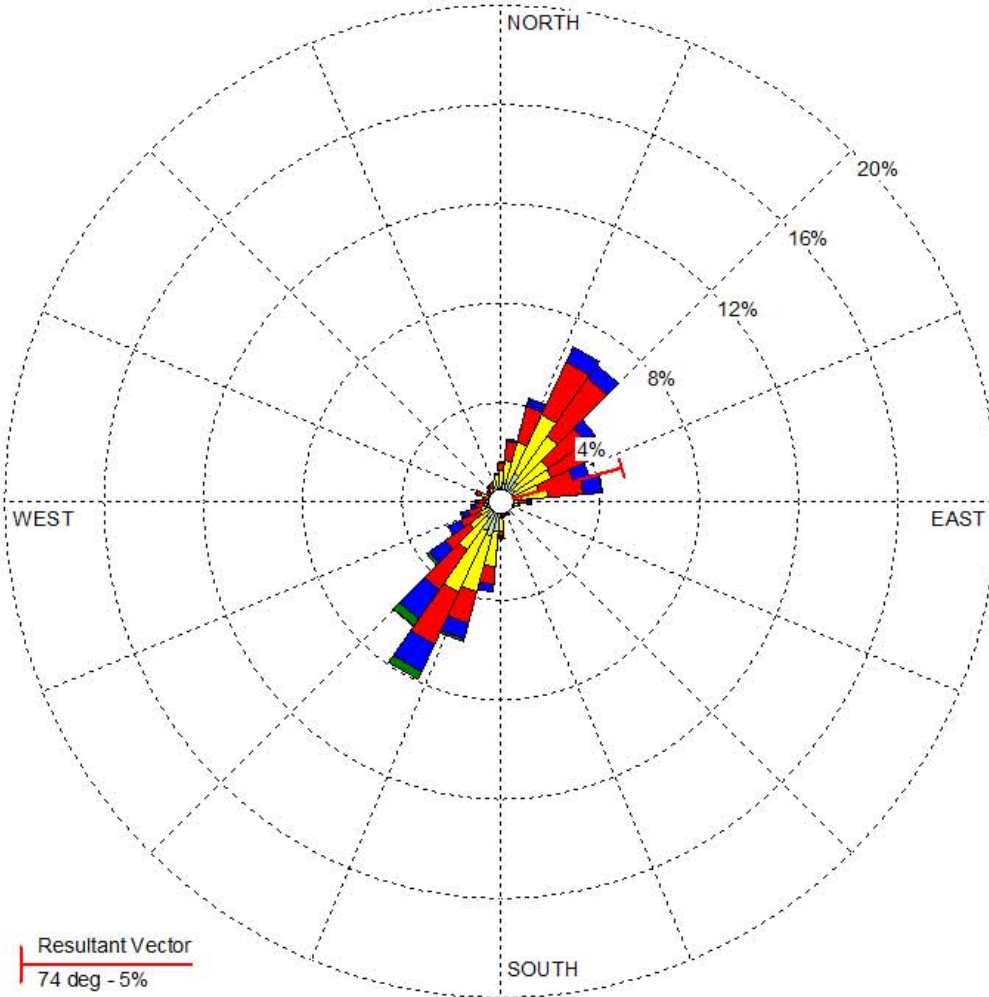
Summer 2014

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Otuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10
- Calms: 3.56%

Resultant Vector
74 deg - 5%

COMMENTS:

Total # of Hours: 2952
Data Availability: 89.06%
Missing Records: 323

DATA PERIOD:

**Start Date: 5/15/2015 - 00:00
End Date: 9/14/2015 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

3.56%

TOTAL COUNT:

2629 hrs.

AVG. WIND SPEED:

3.39 m/s

DATE:

8/21/2018

RECORD TYPE:

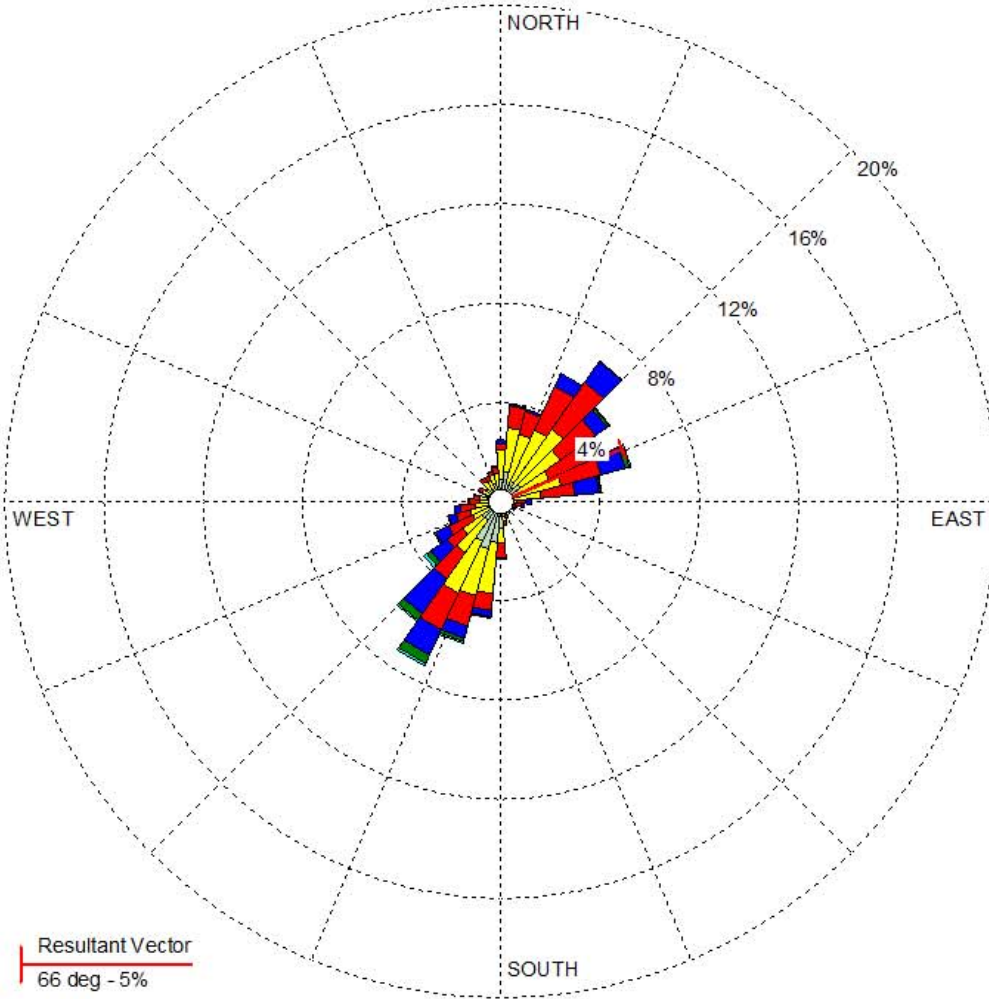
Summer 2015

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Otuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



Resultant Vector
66 deg - 5%

WIND SPEED
(m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10
- Calms: 4.00%

COMMENTS:

Total # of Hours: 2952
Data Availability: 99.76%
Missing Records: 7

DATA PERIOD:

**Start Date: 5/15/2016 - 00:00
End Date: 9/14/2016 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

4.00%

TOTAL COUNT:

2945 hrs.

AVG. WIND SPEED:

3.35 m/s

DATE:

8/21/2018

RECORD TYPE:

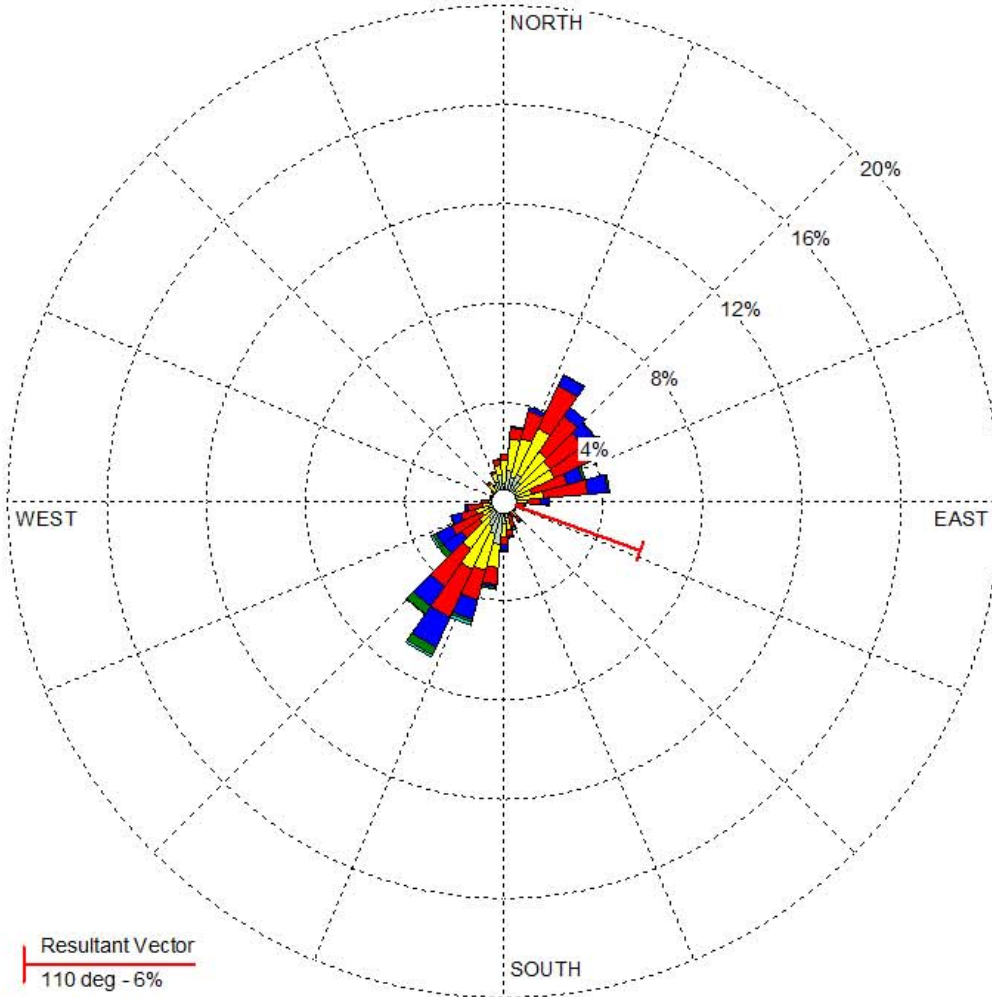
Summer 2016

WIND ROSE PLOT:

**NPR-A Arctic Water Hydrology
Otuk Creek Meteorological Station**

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10
- Calms: 4.23%

COMMENTS:

Total # of Hours: 2952
Data Availability: 90.72%
Missing Records: 274

DATA PERIOD:

**Start Date: 5/15/2017 - 00:00
End Date: 9/14/2017 - 23:00**

COMPANY NAME:

Water and Environmental Research Center

MODELER:

Eric N. LaMesjerant



CALM WINDS:

4.23%

TOTAL COUNT:

2678 hrs.

AVG. WIND SPEED:

3.38 m/s

DATE:

8/21/2018

RECORD TYPE:

Summer 2017

